# Planning for Internal Migration

A review of issues and policies in developing countries

ISP-RD-4

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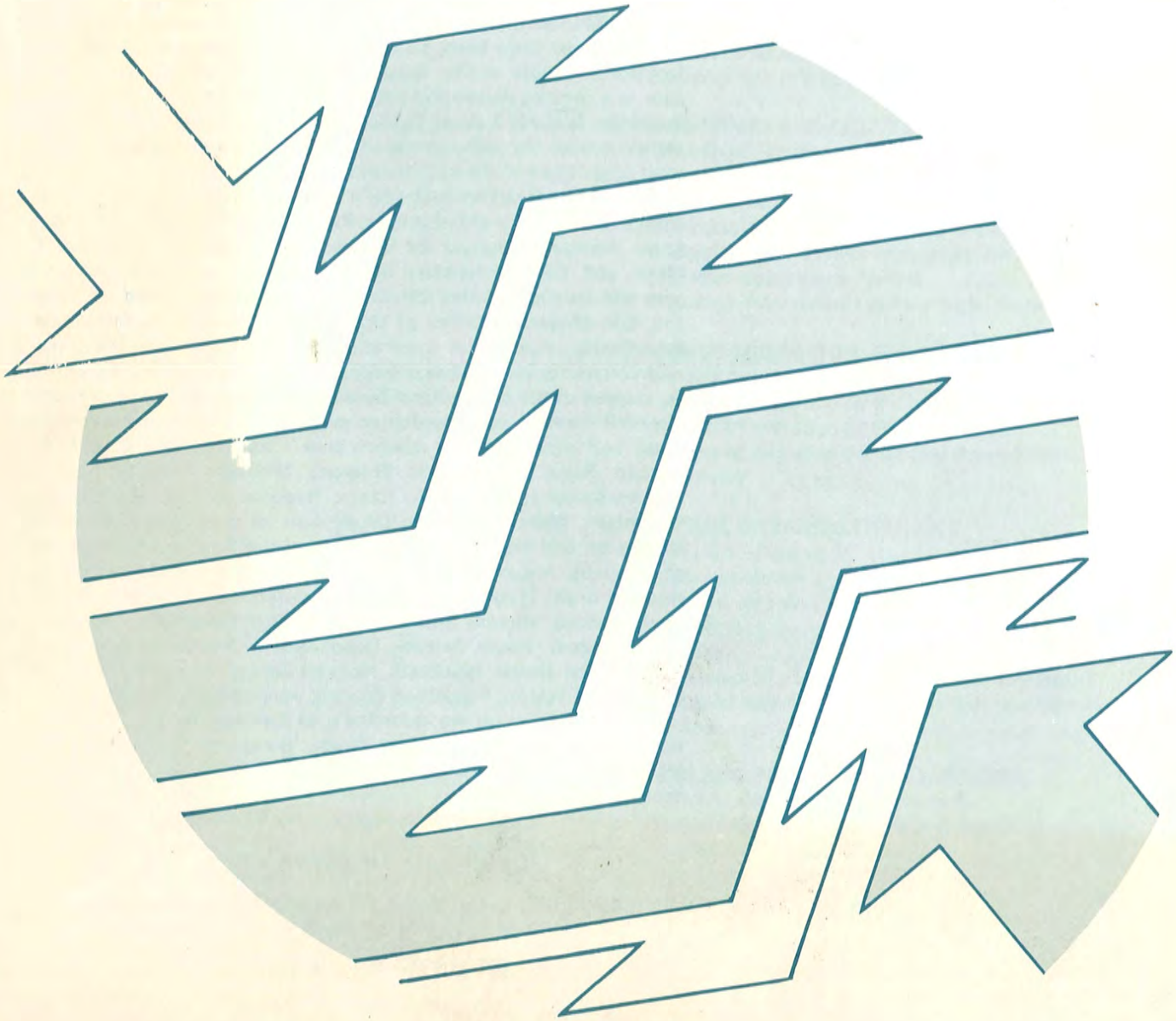

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The report was prepared while the author was a member of the Socioeconomic Analysis Staff, ISPC. The original draft was completed in April 1976 when the author left the staff of ISPC; literature on internal migration published since that date has been reviewed and noted in this report as the author has had time in her new assignment, but it has not been covered exhaustively. Numerous other staff members of ISPC contributed to the preparation of the report. **Eduardo E. Arriaga, Roger Even Bove,** and **Timothy M. Markell** reviewed and commented on various drafts. **Robert D. Bush** rendered invaluable assistance in a detailed review and editing of the entire manuscript. **Dolores E. Adams, Helen F. Ireland, Deborah Serfass,** and **Linda Christoff** typed and proofread the many drafts of the report. **Carol Van Horn** supervised preparation of the manuscript for printing.

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# Planning for Internal Migration

A review of issues and policies in developing countries

by Sally Findley

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# Chapter 1
# Introduction

At the commencement of the first United Nations Development Decade (1960's), conventional development theory held that given the condition of "surplus" agricultural labor, development could be achieved only by shifting this surplus labor out of agriculture and into industry, where labor could be used more productively.[1] Less developed countries (LDC's) intensified their efforts to stimulate industrial development in their major metropolitan areas, which offered the most promising locations for industrial development. It was hoped that this industrial development would, in turn, provide the much needed economic stimuli for the rest of the economy. Thus, development strategies called for massive migration of the underemployed from the farms to the cities, where they were to be put to work fueling industrial expansion.

By the beginning of the 1970's, it had become clear that this strategy was not working as planned. While output had indeed grown, development benefits were not "trickling down." More importantly, not only were there continued unemployment, underemployment, and low productivity in rural areas, but high rates of unemployment and underemployment were also being experienced in the cities.[2] Migrants came to the city, but the hoped-for jobs were not to be had. Instead of reaping the benefits of rapid industrial growth, many nations have been faced with abject poverty in urban areas as well as in rural areas.[3]

Because heavy urban inmigration is associated with a host of urban and rural problems, there is growing interest among developing countries in devising programs for changing or controlling migratory flows. A recent survey by the United Nations shows that 50 percent of the less developed countries label the growth of their metropolitan areas as excessive, and almost as many, 46 percent, have formulated policies to divert migration from their metropolitan areas.[4] Clearly, many governments are either interested in or pursuing policies influencing migration.

This paper responds to the need of policymakers to understand the issues and policies relating to internal migration. It summarizes the results of available research on internal migration and related factors as a basis for investigating the policy tools with which LDC policymakers can influence migration, particularly rural-urban migration. Rather than simply listing the types of policies which can or have been used to influence migration, however, the approach adopted is based on the knowledge that a judicious choice of migration policies can take place only from a broad perspective which relates migration phenomena to development efforts. Therefore, prior to discussing specific migration policies, the paper addresses the following issues:

> What are the issues and factors involved in planning for internal migration?
>
> What are the informational requirements of planning for internal migration?
>
> What are the determinants and contexts of rural-urban migration? What potential policy mechanisms for influencing migration are suggested by these factors?
>
> What are the impacts of rural-urban migration? Which ones are consistent with development efforts of individuals, cities, rural communities, regions, and nations?
>
> What are the relationships between population growth and rural-urban migration?
>
> What options are available to LDC policymakers who wish to increase the consistency between migration patterns, population distribution, and regional and national development goals?
>
> What are some of the problems and constraints to implementing an internal migration and population distribution strategy?

This elaboration of the issues incorporates a planning approach to the identification of migration policies: identification of the

problems and their future magnitudes; discussion of alternative means to effect a situation more consistent with long-range development goals; and identification of relevant constraints to selecting and implementing given plan alternatives.

Chapter II discusses the informational requirements of planning for internal migration. The most basic requirement is, of course, an estimate of the numbers of migrants, both actual and expected. These numbers then need to be supplemented by details on characteristics of the migrants.

Chapter III continues the investigation by looking at the determinants and contexts of internal migration and providing a theoretical structure for the investigation of migration phenomena. An attempt is made to synthesize the various migration theories into a framework that can be used throughout the study.

There is fairly strong evidence that the principal factor motivating migrants is economic. People move in search of jobs and higher pay. Yet even in the face of high rates of urban unemployment, migration to the cities has continued. The chapter reviews the relevant literature to determine why this is so despite the seemingly unfavorable conditions.

One possible explanation may be deduced from an analysis of the types of migrants. Many studies have shown that migrants tend to be younger and better educated than nonmigrants, yet there are inconsistencies in these findings. How does one account for the reports of the migrants who are "down and out?" Are there two different kinds of migrant? Is migration bimodal--at one extreme the risk-takers. at the other the poor, the persons who have no choice but to move? This possibility is examined in a discussion of the theories bearing on migration and of the results of empirical studies in many LDC's.

A description of characteristics and motivations of migrants enables the identification of potential policy mechanisms. It can also form the basis for inferring the consequences of migration under programs which have not been fully implemented or analyzed.

Chapter IV follows from the assumption that policymakers can begin to plan for migration only when they have a sense of why they should be interested in doing so. And for this it is important to understand what the consequences of migration patterns have been. Only from such an analysis is it possible to identify those impacts which are consistent with development objectives and those which are not, i.e., impacts which the policymaker may wish to alter through implementation of programs changing migration patterns. Through a review of the economic, social, demographic, and physical impacts that have been experienced in many countries, it is possible to make some generalizations about past and expected types of rural-urban migration impacts. In this review of impacts, the following questions are addressed:

> Does urban inmigration result in improved social and economic status for migrants?
>
> Does rural outmigration enhance the development prospects of the people left behind?
>
> Does rural-urban migration facilitate industrialization and development in the cities receiving migrants?
>
> Does rural-urban migration result in an improved allocation of manpower relative to other productive resources?
>
> Is migration producing a population distribution conducive to regional development goals?
>
> Do the composite impacts of migration -- for the individuals, cities, rural communities, and regions -- facilitate overall national development?

This review of migration impacts is designed to provide not only the basis for estimating the likely consequences of continuing present rural-urban migration trends, but also to give a structure that can be used to evaluate past or potential impacts of changes in migration patterns.

Chapter V addresses the complex relationships between population growth and migration. It investigates the proposition that migration is often a response to rapid rates of population growth. In addition, the discussion focuses on the demographic impacts of migration, exploring, for example, the extent to which migration results in changes in fertility among women migrants or among families left behind in rural areas.

Chapter VI discusses migration policies and shows which ones have produced observed distributions of migrants and migrant impacts. It also shows the types of policies that can be used to influence migration intentionally. The discussion relies in part on actual analysis of policy outcomes, but includes some deductive reasoning to infer responses to programs affecting the determinants of migration.

Because migration flows produce changes in the distribution of rural and urban population, the discussion of migration policies is presented according to the following general rural and urban development strategies:

Rural centered development
- Commercial, capital intensive agricultural development
- Integrated rural development
- Land settlement and colonization

Urban centered development
- Market town development
- Regional development of intermediate-size cities
- Concentrated, metropolitan development

For each strategy a broad range of economic, social, and physical policies normally included in implementing the strategy is discussed, highlighting the intended purpose, implementation mechanisms, and actual or expected impacts on migration of each policy. The outcome of this analysis is a matrix showing the major types of programs related to each of the development strategies listed.

Chapter VII summarizes the findings of the previous chapters and highlights some of the difficulties associated with formulating and implementing an internal migration strategy. Presumably, LDC policymakers can apply the approach of this study to identify policies that can influence migration, but two decisions must accompany this effort, namely selection of the strategy, and determination of the goals for it. The chapter also provides insights into the various choices implicit in the strategies discussed in the preceeding chapter. Availability of requisite economic, technical, administrative, and political resources may severely restrict strategy selection, forcing a compromise between the desired and the feasible strategy alternatives. The most difficult part of implementing a migration and population distribution strategy, however, may be coordinating the multitude of policies that affect migration. The chapter concludes with a discussion of some research priorities that may enhance efforts to define and implement migration policies.

Because this study attempts to provide a broad perspective on the issues involved in planning for internal migration in developing countries, the scope of analysis is fairly comprehensive, Therefore, it includes analyses from throughout the developing world. And because migration is a multifaceted phenomenon, the study is multidisciplinary, covering research from the fields of anthropology, demography, economics, geography, public administration, regional planning, sociology, and other related disciplines.

In many respects, the study is an extensive review of migration literature. While there have been other reviews of this literature, their focus has generally been narrower, almost exclusively focusing on migration determinants.[5] More importantly, there has not been a systematic effort to document the range of policies affecting migration flows in developing countries. Not only does the present paper provide such a policy review, it attempts to do so in a way that shows why policies have migration consequences and how policymakers may reinforce or alter migration patterns and consequences.

## *FOOTNOTES*

1. Myrdal (1968:1144-1202).
2. Ibid
3. Morawetz (1974:499-502). See also Owens and Shaw (1972:107-108).
4. United Nations (1974:11).
5. There have been a number of recent reviews of migration theory and evidence. Perhaps the most comprehensive review in terms of coverage of economic and social theories and evidence is R. Paul Shaw, *Migration Theory and Fact,* Regional Science Research Institute, 1975. The most rigorous review of economic theories of rural-urban migration is found in the just released ILO publication, *Internal Migration in Developing Countries,* by Michael P. Todaro, International Labour Office, 1976. Both of these appeared after most of the research for this report had been completed and their contents provide an excellent supplement to the policy review and focus given here. Another review providing a broad perspective on migration problems is United Nations, *The Determinants and Consequences of Population Trends,* Second Edition, 1973. (See Chapter 6, Population Distribution, Internal Migration and Urbanization). One of the more comprehensive bibliographies is Robert Berrier and Thomas Wolf, *Internal Migration: A Selected Bibliography,* Migration and Development Study Group, Center for International Studies, Massachusetts Institute of Technology, Cambridge, Mass., Dec. 1975. This bibliography gives a full subject and country index and includes numerous non-English entries. Finally, for a different perspective on migration, namely the

FOOTNOTES (*continued*)

differences between permanent and temporary migrants, see Joan Nelson's "Sojourners versus New Urbanites: Causes and Consequences of Temporary versus Permanent Cityward Migration in Developing Countries," *Economic Development and Cultural Change*, Vol. 24, No. 4, July 1976.

# Chapter 2
# The Prerequisites of Planning for Internal Migration

Planning for internal migration can start only when policymakers become concerned about its implications and consequences. This chapter presents the basic issues that are involved in understanding and preparing internal migration policies. It is these issues around which the paper is constructed, and subsequent chapters will attempt to provide some of the information needed to confront them.

## *DETERMINING MIGRATORY FLOWS AND LEVELS*

The basic informational requirements for estimating past, present, and future migration levels, in order of importance, are:

> What are the migration origins and destinations (regional, state, rural-urban sectors) of most interest to the policymaker?
>
> How many migrants moved during what time period from specific origins to specific destinations?
>
> Who migrates?
>
> What are the significant economic, social, cultural, and physical differences between the origins and destinations?
>
> Under what circumstances are the decisions to move made?
>
> If none of the above relevant factors changes, how many migrants can be expected in the future?
>
> If there are changes in any of the significant differences between origin and destination or between migrants and nonmigrants, how does this affect future migration?

The policymaker must first define the type of migration that is to be estimated. Generally, migrants are classified according to their origins and destinations. An initial distinction is whether the migrant has crossed a national border. If so, it is international migration; if not, it is internal migration. This study addresses only internal migration, leaving the important related subject of international migration to other studies. A second distinction is the nature of the various origins and destinations within the country. Migrants may move between different regions, states, or urban and rural locations. In this study, the most commonly used classification is the urban or rural character of the origin and destination. By this typology, migrants may move from rural to rural, from rural to urban, from urban to urban, and from urban to rural locations. A majority of the research covered here focuses on rural-urban migration, probably because the problems of rural stagnation and urban explosion are so widespread among LDC's.

One characteristic which may affect migration estimates is the permanency of migration. For example, the policymaker may be concerned with all migrants going between certain origins and destinations, or he may be concerned only with the "permanent" migrants who take up a new place of residence after moving. In such a case, "seasonal" migrants who move temporarily are not included in the estimates. Estimates of permanent migrants may be further subdivided if one includes only persons who have moved before, e.g., for stepwise or cyclical migration. Separate estimates are generally made for seasonal and permanent migrants, because this distinction is more relevant to planning decisions than the differences between stepwise and permanent migrants. This study focuses heavily on permanent migrants, although some discussions do include seasonal migrants.[1]

Another element in the typing of migration is delineation of the time period within which migrants are estimated. This may be in months, years, or even decades, with subdivisions of the time period if needed. Unless estimates are made relative to a specific time interval it is difficult to connect the estimated numbers of migrants with relevant causes or impacts.

Choosing which type of migration to estimate very largely depends upon the geographical scope of the area involved and on the level of detail required for planning purposes. If, for example, the policymaker is affiliated with the government of the capital city, detailed estimates of migrants going to or from the city are probably required. On the other hand, a planner for a rural development project may need to know about seasonal migration into and out of the project area. It is important to note that estimates must balance the need for detail against availability of data. Information, even rough "guesstimates", may not be available for some types of migration, and the policymaker may not be in a position to launch a survey. Thus, there is often a compromise between the desire for detailed estimates and the need to have estimates in hand at an early date or at low cost.

After the policymaker has decided on the type of migration to be estimated, the next step is identification of who migrates. Without knowledge of specific migrant characteristics, preparation of migration policies is severely handicapped, if not impossible. The characteristics most relevant to defining the migrant population are age, sex, marital status, educational attainment, occupation, employment status, and income prior to moving. Information on who the migrants are also provides a baseline against which policies can be evaluated.

Often an important part of estimating past, present, and future migration is the identification of significant differences between the origin and destination. Differences that have been most useful in predicting migration are economic, social, cultural, and physical, in that order of importance. Examples of factors which differ for origin and destination areas are income levels and distribution, employment opportunities for different occupations, educational opportunities, and levels of living. Identification of these types of differences may both amplify understanding as to why certain persons move and suggest potential mechanisms for migration policies.

Finally, information about the nature of the decisions to move may provide additional details useful for policy design. For instance, when the differences between origin and destination fail to indicate why a person moved, information about the migration decision may show that the move was primarily motivated by a desire to be with kin who had previously moved. Another consideration is whether the decision was fully informed, or whether additional information might have directed the move to another destination. Information about migration decisions may be particularly useful to programs channelling migrants to new or different destinations.

Using the above information, planners can analyze past and present migration in the following levels of detail, each level introducing an additional dimension of the estimates:

- all migrants;
- internal migrants;
- origin and destination of internal migration;
- origin and destination of internal migration by time period;
- permanent versus seasonal migration, by time period;
- migrants by demographic, social, and economic characteristics;
- migrants by characteristics of origin or destination;
- migrants by type of decision for moving.

Ideally, analysts would like to have information regarding each of the above categories. In actuality, there is always a compromise between the detail desired and the detail available.

Projections of future migration are usually based on the estimates of past and present migration and assumptions concerning future levels. One assumption is that migration will continue as in the past. Thus, analysis of a set of estimates for different time periods may show a trend which can be used to project future migration. In addition, the analyst can fit the observed trend to a straight line or a curve. Trend analysis is the most simple method for projecting migration and is often used. But there are drawbacks to

trend analysis, namely that it does not allow for interactive feedback from changes in factors affecting migration.* While these projections require more information about migrant and origin-destination characteristics, they do allow the planner to simulate the effect of changes in these factors on migration, a technique of real value in testing policy instruments and outcomes.

## *IMPACTS OF MIGRATION*

The purpose of assessing the impacts of migration is the determination of whether its consequences are consistent with national, regional, origin, and destination development goals. If the consequences, or impacts, are inconsistent with these goals, policy changes may improve the congruence between migration consequences and development. At the regional or national level, the following issues are relevant:

> Is migration resulting in improved social and economic status for the persons involved?
>
> Is the evolving distribution of population conducive to the regional development and urbanization goals of the nation?
>
> Is migration resulting in an improved allocation of manpower relative to other productive resources?
>
> Is migration resulting in changes to regional production levels?

At local levels, migration may affect the population structure, economic situation, social fabric, and land use pattern of both the origin and destination. Comprehensive analysis of all short-term and long-term impacts of migration is impossible, hence the planner must be guided by assumptions about where the greatest impacts lie. As will be shown in chapter IV below, these impacts may be observed among the migrants and at the origins and destinations. Relevant impacts include changes in the number and distribution of population, in the income and employment levels, and in the level of living.

One of the main problems in assessing the impact of migration is that of distinguishing between migration-related and other events. Also, problems arise in defining the time frame and assessing impacts, especially in distinguishing between events associated with migration and those not related. A commonly used approach attempts to separate out effects which are directly related to migrant-caused changes to the age-sex distribution, but even this approach is not without its pitfalls. Another means of assessing impacts is that of comparing the values of social and economic indicators before and after migration, but this technique does not make clear the distinction between migrant-related and other changes. Researchers continually search for solutions to this dilemma, but as yet the perfect control situation does not exist.

## *CAUSES AND CONTEXTS OF MIGRATION*

The causes and contexts of migration include:

> economic factors -- such as income, employment, land-tenure characteristics;
>
> demographic factors -- age, sex, marital status;
>
> life-style factors -- educational level and opportunities, transportation and communication services, social services, amenities, migration opportunities;
>
> origin and destination characteristics -- social, economic, land-use structure.

The interplay of factors affecting the migration decision is often complex, but identification of the key elements precipitating the event may show which factors to incorporate into policies influencing migration patterns.

Potential policy variables may be chosen from significant differences between the migrants and nonmigrants of the origin and between the origin and destination characteristics.

---

*A detailed discussion of methods for estimating migration is beyond the scope of this paper. The interested reader is referred to United Nations, *Manual VI: Methods of Measuring Internal Migration*, Population Studies No. 47, United Nations, New York: 1970, and "Methodology of Projections of Urban and Rural Population and Other Socio-Economic Characteristics of the Population", in U.S. Bureau of the Census, *Methods and Materials of Demography*, by Henry S. Shryock, Jacob S. Siegel, and Associates, Volume 2, Appendix A, U.S. Government Printing Office, Washington, D.C., 1971.

## POLICIES INFLUENCING INTERNAL MIGRATION

Migration policies are generally classified as direct policies explicitly designed to alter migration behavior or indirect policies whose impact on migration is secondary to the basic goals of the policy. For the purposes of policy analysis, a more practical approach catalogues policies by the expected degree to which the policy affects migration. The policy types discussed here are those which:

- prohibit migration;
- discourage rural outmigration or urban inmigration;
- encourage rural outmigration or urban inmigration;
- channel migration to specific urban, intraurban, and rural areas;
- compel migration.

Policies prohibiting, compelling, or channelling migration require stronger measures than do policies simply encouraging or discouraging migration. The actual selection of migration policies may ultimately depend not only on the degree to which the government wishes to specify its population distribution goals but also on the resources available for policy implementation.

## SELECTION OF A MIGRATION STRATEGY

The selection of a set of policies depends on the government's overall migration and urbanization strategy. Questions relevant to the determination of a strategy are:

- What alternative population distributions might be more supportive to development goals?
- What changes in migration behavior are required to achieve these alternatives?
- What specific policies are most relevant to obtaining the desired changes?
- What economic, physical, human, social, and political resources are necessary to policy implementation?
- Are the resources necessary for implementation available?

Aside from the definition of a "desired" population distribution, a careful and thorough analysis of the issues presented in this chapter will yield most of the information required to make the appropriate selection of a migration strategy. In most cases, however, the persons or agencies responsible for designing a migration strategy will not find it possible to assemble all of the relevant information within time, budget, or personnel constraints. The suggested minimum elements include:

- Estimation of origin- or destination-specific migration;
- Prediction of migration trends that may occur if nothing else changes;
- Identification of key migrant characteristics: Age, sex, education level, real income before and after moving;
- Identification of key place characteristics for major sending and receiving areas: income level and degree of inequality, level of unemployment and underemployment, level of living;
- Estimate of desired shifts in migration patterns: Change in numbers, origins, or destinations.

Planners and policymakers may find that examining the experiences of other communities in selecting and implementing a policy strategy is helpful in coping with an information shortage. This paper provides a selection of these experiences.

## FOOTNOTES

1. For an excellent analysis of the distinctions between seasonal and permanent migrants see J. Nelson (1976).
2. Commonly used comparative figures are those prepared by the United Nations Population Division. A recent series of estimates is given in Chapter IV, below.
3. See Pittenger (1976:29-67) for a discussion of trend analysis and curve fitting.
4. For examples of regression analysis, see Carvajal and Geithman (1974:105-122), Levy and Wadycki (1974). An excellent review of econometric modelling of migration is given in Todaro (1976a).
5. For examples of simultaneous equation analyses, see Annable (1972:399-412), Greenwood (1975:797-810), and Todaro (1976a:47-60).

# Chapter 3
# Determinants and Contexts of Internal Migration

This chapter discusses the determinants and contexts of internal migration, focusing first on the economic variables affecting migration and then on demographic, lifecycle, educational, and lifestyle factors. To put the subject in perspective, the discussion begins with the theroretical assumptions underlying the many studies* in this area.

## *ALTERNATIVE VIEWS OF THE MIGRATION PROCESS*

There are two basic models of the migration process. In the first, migration is assumed to be a purposeful and rational search for a better place to live and work. In the second, migration is viewed as a "passive" response to conditions which push the migrant into moving, perhaps without a rational weighing of alternatives. The two models, or views, often blend together in practice, and research designs should incorporate aspects of both the "active" and "passive" models of migration. For the purpose of this paper, however, the distinction is important, because it coincides with many of the differences between mobile and less mobile migrants discussed in the next chapter.

### *Migrants as Active, Rational Seekers*

Ravenstein's "Laws of Migration" are the earliest descriptions of migrants as persons rationally motivated by a desire to improve their economic standing. According to Ravenstein, the migrants move from areas of poverty to areas of opportunity. The choice of destination is regulated by distance, with migrants further from the urban center moving in a series of short steps to larger and larger cities. At each stage migrants who move on to larger towns are replaced by others from smaller towns. The only exception Ravenstein postulates is long-distance migration to great centers of industry and commerce.[1]

Ravenstein's basic laws have been discussed and amplified by many migration analysts. Among them, Everett Lee has introduced a broad theory for considering the social factors influencing migration.[2] He hypothesizes that each origin and destination has a set of positive and negative factors attracting and repelling migrants. The greater the differences among these factors, the higher the probability of migration. Increased diversity and specialization among the people in these areas also increases the volume of migration. On the other hand, intervening obstacles limit migration to those people capable of surmounting these difficulties. Combining all factors, Lee concludes that migrants responding to plus factors at the destination tend to be positively selective (i.e., more mobile by virtue of age, education, or experience) and that migrants responding primarily to minus factors in the origin tend to be negatively selective. Thus, migration selectivity tends to be bimodal. Lee's comprehensive theory is reflected in a broad range of studies, particularly those dealing with migrant selectivity and push-pull factors.

Todaro has been a leader in highlighting specific economic motives for migration. He quantifies economic motives in terms of perceived rural-urban income differentials, assuming that migrants seek to maximize future earnings.[3] Todaro's formulation helps explain high rates of inmigration to areas of high unemployment. Migrants who have a long time horizon balance the expected period of unemployment against the higher incomes they expect to receive when they do find a highly paid modern-sector job. If the perceived income differential is large, young migrants may easily justify lengthy periods of unemployment. In essence, this is a cost-benefit model of migration.

*There are several reviews of the literature on the causes of migration, although their approach differs from that taken here. For an excellent country-and region-specific review see Pamela Brigg's, "Some Economic Interpretations of Case Studies of Urban Migration in Developing Countries", (IBRD, 1973). R. Paul Shaw, *Migration Theory and Fact: A review and Bibliography of Current Literature,* Regional Science Research Institute, Philadelphia, Pa., 1975, gives an excellent summary of economic and noneconomic factors. Michael P. Todaro, *Internal Migration in Developing Countries,* International Labour Office, Geneva, 1976, gives a rigorous review of economic factors. The last two works appeared after this report reached final draft stage.

Migration and the accompanying period of unemployment or underemployment may also be viewed as an investment eventually returning a higher income and level of living to the migrant. This human investment theory of migration is best exemplified in the work of Sjaastad.[4] According to him, potential migrants weigh the costs against the expected returns of migration, e.g., income losses and social or economic moving costs versus higher status and income, improved level of living, and better education for children. If the expected returns are greater than the perceived costs, the individual or family moves, choosing a destination which will maximize the returns on the migration investment. This human investment approach better explains why younger persons dominate migrant flows. Because they often lack occupational experience and have little or no current income, their opportunity cost of moving is lower. Additionally, the young reap returns over a longer time period.

As with any investment, migration involves risk. Even if the costs and returns of migration are assessed at similar levels by two individuals, only those with risk-taking ability detach themselves from the origin. This element of risk has been considered by several theorists, including Kuznets, Thomas, et al.,[5] Lee,[6] and Mabogunje.[7]

The view of migrants as dynamic risk-takers, rationally seeking better opportunities seems to explain the mobile migrants. But many migrants are significantly less mobile and less selective. To understand why these less-mobile migrants move, an alternative theory is offered.

*Migration as a Passive Response*

Rather than a carefully planned and decisive act, migration may be a spontaneous, unplanned response to a series of circumstances. This alternative approach to migration is contextual. Instead of looking at individual decision-making and motivations, the analyst links migration with family, group, and community relations. The recent INTERMET/IDRC study found that:

> People who move to the city usually do not have well defined preconceived notions of what they want or hope to become. The decision to move is the result of a number of influences, some of them even accidental or random.[8]

One way of conceptualizing this passive migration is as a demographic phenomenon, with an occurrence rate governed by the age and sex characteristics of the population. Although migration is more subject to the individual's control than death (and birth in many LDC's), there are enough environmental and situational factors pertaining to migration that a cohort-migration model is realistic. Among others, Sloboda and Carroll suggest that age-specific migration rates can be expressed in the same manner as mortality and fertility rates.[9]

This cohort approach is similar to the lifecycle theory that migration occurs at certain stages in the individual's life. For example, young persons who enter the labor force or get married generally leave the parental home, often combining geographic movement with the change in households. According to Mitchell's analysis of Rhodesian migration, movement occurs at certain ages or stages when various social and economic pressures intensify.[10] He finds that migration is more likely to occur when individuals first enter the labor force, marry, have children, build a rural home, wish to accumulate capital for rural enterprises, do not find employment in urban areas, and retire. In Mitchell's model men often migrate while their families remain in the home villages, providing additional pressure for cyclical migration. Even without this assumption several researchers support the lifecycle view of migration.[11]

The lifecycle theory is closely related to the environmental, deterministic view of migration. The deterministic theory views migration as a response to the social and economic environment. While similar to the push-pull theory of migration, the emphasis in the deterministic theory is on the push. Furthermore, social and emotional pressures such as intrafamilial tensions or widespread violence are included as factors pushing migrants away.[12] In this sense, migration becomes "frustration mobility," reflecting a reaction to dissatisfaction and unhappiness (what Taylor terms "dislocated") rather than a forward looking attempt to improve one's life.[13]

Margulis' discussion of Argentine migration emphasizes the social, contextual aspect of the process, where migration behavior is well-known, and in certain instances almost inevitable.[14] Several researchers characterize migration as a "fact of life", the acceptance of which may be more important than "objective" factors in influencing migration.[15]

When migration becomes the only acceptable solution to perceived problems, it is what Taylor calls resultant migration.[16] He characterizes such moves as short-run and impulsive. These passive migrants merely follow the path of more active, "aspiring" migrants. Similar to Taylor's resultant migrants are those who, according to Hirschman, lack any viable options to stay.[17] The

existence of an easy, "costless" exit option lowers the tendency to confront problems directly, and increases the likelihood of migration.

Akin Mabogunje's systems approach to migration is one of the most comprehensive theories of the social and environmental contexts of migration. He postulates that migration is controlled by a system of interacting elements, including rural control systems, rural adjustment mechanisms, urban control systems, urban adjustment mechanisms, positive and negative feedback channels, migration channels, and finally, specific stimuli to migrate. Mabogunje suggests that the concept of elasticity is useful in understanding migration. This elasticity is reflected by the length of time a stimulus from the environment must be felt by an individual before he migrates. The potential migrant is a somewhat passive receiver of these stimuli. In fact, Mabogunje suggests that the family, rather than the individual, is the rural control system receiving stimuli and regulating the migration flow.[18]

Mabogunje's urban and rural adjustments[19] are detailed elaborations on Stouffer's theory of intervening opportunity factors.[20] Stouffer shows that migration is directly related to the presence of opportunities at the destination and inversely related to the number of opportunities and obstacles between the origin and potential destination. These intervening opportunities and obstacles increase with the distance between origin and destination. Active and passive migrants are differentially affected by the intervening factors. The active migrants, who are greater risk-takers, tend to overcome obstacles. The passive migrants are more likely to alter their destinations in response to the intervening obstacles or opportunities because they are moving away from their home rather than to a specific place.[21]

Viewing migration as a response to frustration or as the only remaining alternative in a hopeless situation helps explain the less selective and less mobile migrants discussed in the following chapter. Instead of actively seeking the best alternatives, the passive migrants respond to a complex set of social and environmental factors which ultimately direct them to a new home.

This presentation shows the two extremes of migration theory. In the discussion below the two theories are merged and focused on the economic, demographic, and social factors underlying migration. The reader should bear in mind that the mix of factors leading to migration varies between the active risk-takers and passive respondents.

## *ECONOMIC FACTORS INFLUENCING MIGRATION*

No matter which theory is used to explain migration, the predominance of economic motives is generally recognized. Migrants everywhere move from low to high income regions, and survey after survey finds that economic factors are most frequently cited as reasons for moving.[22] These economic motives fall into two general classes, the search for employment and the search for higher incomes.

### *Employment and Income Factors*

Agricultural unemployment and underemployment are major factors pushing migrants toward areas with greater job opportunities.[23] The indirect causes of this migration are those factors which reduce the ratio of jobs to labor force in rural areas. As summarized by Eicher, et al., in a study of African rural unemployment, these factors are:[24]

- rapid rates of population growth,
- factor-price distortions,
- rising labor productivity associated with capital-intensive production technologies,
- depression of rural incomes relative to urban incomes,*
- "tied aid" which has fostered adoption of inappropriate Western technologies,
- ecological constraints.

Barraclough's analysis of rural unemployment in Latin America is in general agreement, but introduces another key factor determining rural unemployment: political restrictions limiting the amount of land available for agriculture.[25] In Latin America much of the land is in large estates, or latifundia, where labor utilization rates are extremely low. He found that in 1950 about 60 percent of Brazil's farm lands were in latifundia using approximately .019 workers per hectare, while the remaining farms averaged .106 workers per hectare.

The concentration of farm workers on small plots of land is even more pronounced in the minifundia. Small holdings become even more fragmented as the land is passed down to each successive generation. In Brazilian minifundia there are 1.18 workers per hectare, almost 22 times the average for all Brazilian farms.[26] Farm size and fragmentation are significant problems in Africa, Asia, and Latin America.[27] On each continent there are situations where not enough land is available to provide jobs for the existing agricultural labor force and migration ensues.[28]

*This is more a result than a cause of the reduced ratio of jobs to labor force in rural areas.

A high ratio of workers to land does not necessarily cause unemployment. Unemployment results only when the farm production techniques cannot accommodate all workers and when there are no alternative sources of nonagricultural employment. For example, Boswell has shown that in Puerto Rico a high man/land ratio with a lack of nonagricultural employment correlates with rural outmigration.[29] Studies in Thailand[30] and Mexico[31] also support this theory.

The lack of nonagricultural jobs also means there are limited opportunites for off-season work. Because rural incomes are so low, many migrants must seek seasonal work in cities or other rural areas. These "target workers" return home after earning enough to sustain themselves until the next harvest. Evidence of this seasonal migration is found in Guatemala, Korea, Indonesia, Thailand, and several African countries, among others.[32] Often, the duration of such seasonal migration is gradually lengthened over time, as in Mitchell's analysis of Rhodesian migrants and Nelson's study of Turkish families moving to Ankara.[33]

Low incomes are an additional major push for rural migrants. If rural incomes are inadequate, families may move to higher income areas. Studies of rural-urban migrants in Korea, Thailand, Argentina, Brazil, Egypt, and other countries of Africa show that poverty has pushed many into moving.[34] Munro's study in Turkey shows that outmigration occurs not only when agricultural incomes are low but also when rural nonagricultural incomes are low.[35]

Migrants move from relatively low to high income areas. Just as unemployment and low income foster migration, jobs and high income attract migrants. The larger the perceived income differential, the more likely migration will occur. The propensity to migrate is highest in the low income areas,* and surveys show that migrants tend to choose high income areas as their destination.[36]

Theoretically, the effect of the rural-urban wage differential is modified by the probability of obtaining a job. Thus, high rates of urban unemployment and underemployment should deter migration. Not surprisingly, Annable has shown that high rates of urban underemployment in the urban traditional or informal sector have a negative impact on rural-urban migration in LDC's.[37] But if the rural-urban wage differential is large, as it is in many LDC's, it will more than compensate for any income losses suffered by an immigrant while waiting for a modern sector job. Thus, Todaro shows that the larger the income differential expected, the more willing migrants are to tolerate high urban unemployment levels.[38] Todaro has recently carried the analysis one step further by proving that given conditions of high rural unemployment and sizable rural-urban wage gaps, the creation of modern sector jobs will actually induce more migrants than new jobs, thereby raising urban unemployment rates.[39] Empirical studies in Brazil, Ghana, Sierra Leone, Thailand, Venezuela, and elsewhere have supported this theory, showing that a high rate of modern sector job creation stimulates inmigration.[40]

Fields has recently provided the basis for modifying this model of job creation, migration, and unemployment. While the details of his econometric analysis are beyond the scope of this paper, he finds that the probability of getting a job -- and hence of moving to the city -- is modified if modern sector jobs are offered preferentially to educated workers, in which case the chances for uneducated workers are lower and more uneducated persons will choose to stay in lesser-paying jobs. Less migration will also result if rural residents can undertake job-search activities without moving. But if there are opportunities in the informal sector that enable persons to work while looking for a modern sector job, then migration is reasonable. In this case, however, the migrant is not counted as unemployed, but as underemployed. Thus, if, as is often the case, any of these factors apply, preferential jobs for educated workers, ability to job hunt without moving or while working in the informal sector, the migration and unemployment response will not be as strong as that predicted by Todaro's most recent model.[41]

Migration may also be stimulated if the rural-urban income differential grows due to rural incomes declining relative to urban incomes. Even if modern sector jobs are not being created in the urban areas, the income gap may be enough to stimulate migration by the poorest. As Hardoy explains in his analysis of Latin American migration potentials, high levels of urban unemployment do not deter inmigration of the rural poor and unemployed.[42] Migration ceases only when the supply price of rural labor equals the value of possible urban employment, as Knight has found in Ghana.[43] Studies in many countries show that rural migrants have little to lose

*A high propensity to migrate does not mean that movement occurs unless intervening obstacles are surmounted and migration opportunities exist. Thus, while Brunn and Thomas (1971) show migrants leaving low income areas in Honduras, these areas demonstrate "incipient urbanization" and are associated with greater awareness and mobility.

and much to gain by migrating when the rural-urban income differential is large.[44]

The desire for income security also affects migration. The willingness to experience urban unemployment and perhaps a reduced level of living in return for a chance to get a more secure urban job is evidence of this desire to improve long-term economic security. Dorner has shown that income security depends on initial and continuing access to alternatives for making a living.[45] His study of Latin America portrays landowners as controlling most of the economic, social, and political power in rural communities. Nonlandowners have unreliable initial access to income sources; and because of land tenure insecurities there are no guarantees for continued access to income. If rural people believe their future security will be improved by moving to a city or to another rural area, they will do so according to this theory.

Dorner's theory of income security is similar to Todaro's concept of maximizing earnings. Both are difficult to verify through migrant surveys, which to date have addressed security only indirectly by focusing on its prerequisites. Among the factors which affect economic security are land tenure, [46] unfavorable climate and flooding,[47] seller-controlled markets,[48] and displacement from jobs or land by introduction of tractors and other forms of agricultural mechanization,[49] all of which have been given as reasons for migration.

The desire to increase income security is also seen in the search for nonagricultural jobs, especially those in the governmental or modern sectors which are viewed as offering higher pay, more benefits, (e.g., social security), and greater opportunities for mobility. If migration occurs in response to nonagricultural job opportunities, migrants move from more agricultural areas to locations where the nonagricultural labor force is more predominant. Several studies have documented this shift.[50] In particular, Munro's analysis of Turkish migration shows that outmigration rates are highest in areas where there are few cash crop or nonagricultural job opportunities.[51]

### *The Evidence of Return Migration*

If migrants are shown to move in response to economic opportunity, do they return home if these economic opportunities fail to materialize? Studies in India, Taiwan, Thailand, Mexico, and Africa suggest that the less educated, unemployed migrants do return home or move on, as studies of stepwise-migration indicate.[52] In contrast, other studies suggest that even urban poverty is considered preferable to rural life.[53] In response to the question, "Would you return home if offered a job in your home community?", 71 to 82 percent of the migrants interviewed in Bandung, Caracas, Istanbul, Kuala Lumpur, and Manila said "no". This was in spite of underemployment rates ranging from 9.7 to 31.8 percent, and averaging 29 percent among those interviewed. Additional questions in the survey show that noneconomic factors are important to migrant evaluations. Unfortunately, studying the behavior of dissatisfied, unemployed migrants poses problems. These indivuduals have three options: staying, moving elsewhere, or returning home. Surveys at the destination exclude migrants who have already left. Without a research design which incorporates all three options, it is difficult to draw any conclusions concerning the feedback effects of inadequate economic opportunity on further migration. The Michigan State University African Rural Employment Program research in Sierra Leone should be very valuable in that its research design incorporates analysis of migration, including staying and return decisions.[54]

## *DEMOGRAPHIC FACTORS INFLUENCING MIGRATION*

Studies throughout the world find that young persons 15 to 29 years old predominate among migrants.[55] Dale Adams' 1969 study in Colombia found that 40 percent of the rural populace over age 15 had migrated.[56] In Cedral, Mexico, Browning finds that young men are generally counseled to leave, while older men are urged to stay.[57] This is based on the assumption that the young can easily leave, because they are unburdened with large families or obligations. More importantly, they are just entering the job market and can make the best investment of their time and energy in urban areas where opportunities are greater and salaries higher, a rationale consistent with Sjaastad's investment theory.

In addition to being age selective, migration tends to be sex selective, with males predominating over females.[58] This male domination is especially true for pioneering, long distance migration.[59] On the other hand, women may surpass men, in well established streams, as Elizaga has found in Santiago, Chile.[60] Most of these young women are relatively uneducated and untrained, seeking work as maids, waitresses, and domestic servants. Often they leave to lessen the financial burden on their families. Women are also common among older migrants, perhaps in response to widowhood.[61] Recent surveys indicate an increase in migration of young families, which means that male and female migration may become more balanced.[62]

This age and sex selectivity reflects the

lifecycle factors influencing migration. At certain stages in an individual's life there is a high likelihood of changing households and communities at the same time. Examples of such points in the lifecycle are when youth first leave the parental home in search of employment,[63] upon marriage or divorce,[64] and upon retirement.[65]

### *EDUCATION FACTORS INFLUENCING MIGRATION*

Another factor motivating migrants is education. Numerous studies have shown that migrants are better educated than those who remain at the origin.[66] An analysis of Thai migration shows that educational selectivity is greater for young, rural-urban migrants than for urban-urban migrants.[67] Migrants who go long distances or to the big cities tend to have more education prior to moving than other migrants, as shown in Argentina, Mexico, and Thailand.[68] These findings are consistent with Lee's theory of migrant selectivity.

There are several theories which attempt to explain the relationship between education and migration. One theory views migration as a means by which the educated maximize returns on their knowledge and skills. Herrick points out that those with formal education, especially at the secondary level or higher, can obtain jobs in government or commerce.[69] These "good" jobs are located primarily in major urban centers, hence aspiring graduates must move to these cities. Herrick's comment refers to Latin America, but similar findings in Ghana, Kenya, Turkey, and Thailand support his conclusion.[70]

Education is also viewed as a vehicle by which the students' aspirations are changed. As Jolly and Colclough point out in their analysis of African manpower plans, when nations achieve independence the development of an indigenous skilled labor force is given high priority.[71] Educational curricula are designed to channel people into needed administrative and technical positions. Education is viewed as a stepping stone to the white-collar elite. Many school-leavers migrate to towns in search of these "good" jobs, rejecting the drudgery of agriculture, as shown by studies in Brazil, Colombia, Nigeria, Sri Lanka, Taiwan, and elsewhere.[72] Roussel's study of migrants in Ivory Coast shows that 60 percent of all students who complete primary school leave the village.[73]

Because education is perceived as the major means of attaining occupational and economic mobility, many families migrate in search of a better education for their children. This is particularly true of rural-urban migrants, as shown in Argentina, Brazil, Ghana, Indonesia, Malaysia, Peru and the Philippines.

Education can instill an awareness of and desire for the amenities of urban life, thereby stimulating migration. Imoagene[75] finds that these psycho-social factors are very important in explaining Nigerian migration, although Essang and Mabawonku[76] in Western Nigeria and Caldwell[77] in Ghana discount the importance of the "bright lights" theory of migration. In compromise, Mitchell suggests that economic factors are <u>necessary</u> conditions for migration while social and lifestyle factors are <u>sufficient</u> conditions regulating migration incidence.[78] More research on the interrelations between education value change, and migration are needed to further substantiate this conclusion, but in broad terms this view of migration fits with many studies reviewed here.

Desire for an urban lifestyle may also be introduced by media, visits by prior migrants, and visits to town. The media have been shown to be important in changing values in Nigeria and in Colombia, among other places.[79] Visits by or to prior migrants have perhaps had the greatest influence upon potential migrants. When migrants visit, the demonstration effect of their urbane dress, manners, and gifts helps persuade many young people of the benefits of urban life. Studies in Argentina, Ghana, Indonesia, Nigeria, Peru, and the Philippines show that many migrants visit home frequently.[80] According to the Hannas' analysis of migration in Africa, a sojourn in the city is still viewed as prestigious. Their suggestion is supported by Gugler's and Imoagene's comments on the social motives for migration.[81] Visits are clearly a strong influence on changing potential migrants' values.

### *MIGRATION OPPORTUNITY FACTORS*

Among persons with similar economic and educational backgrounds, migration opportunity factors differentiate the migrants from the nonmigrants. These factors strongly influence the actual incidence and pattern of migration. Examples are awareness of migration opportunities, ability to take risks, resources to afford the move and ensuing adjustments, and some triggering event. Each factor is discussed below.

One of the more important factors governing migration incidence is an awareness of outside opportunities. Wilkie's study of migrants from a small community in Argentina shows that the local "middle" class had the greatest awareness of other cities and opportunities:

> While middle-class migrants scatter across the land-scape because they are

aware of more places and more opportunities, the lower class migrants concentrate in fewer places because they are not aware of other options.[82]

The Rengerts' analysis of migration to big Mexican cities finds that individuals whose families have migrated or who have themselves visited cities migrate longer distances, generally to the larger cities.[83] Studies in Thailand[84] and Ghana[85] also show that the destination is governed by the migrants' knowledge. If only one or two destinations are known, then that is where migrants go. But if vehicles passing through town or visits from kin expand the awareness of migration possibilities, a wider range of destinations is likely. If this finding is substantiated elsewhere information programs may well prove effective in diversifying migration destinations.

In the studies focusing on how migrants choose a destination, communication from kin or friends is viewed as the most important mechanism by which they learn of potential destinations. When institutional or media sources of information are limited or unreliable, as Grunig finds among Colombian peasants, personal contacts assume a major influence.[86] For example, Flinn finds in a Bogota shantytown that 58 percent of the shantytown migrants had friends or relatives in Bogota.[87] Caldwell claims that personal contact with friends or relatives was the most important source of information among migrants surveyed in Accra.[88] The INTERMET/IDRC study found that friends, relatives, and hometown people were the primary sources of assistance in finding urban homesites.[89]

The presence of kin or friends in town is a major opportunity factor. Beyond providing information about potential destinations, they help migrants establish themselves in the city. As will be shown in the section on individual impacts in Chapter IV, assistance from friends or kin can substantially reduce the cost of migration. People with neither the resources to move nor kin to assist them may find it nearly impossible to move, as Grunig's analysis of frustrated Colombian peasants shows.[90] Additionally, Nelson shows that the presence of relatives and friends at the destination diminishes the psychic cost of moving by reducing uncertainty.[91] Finally, support and information from kin can reduce the risk of migration. This allows migration over longer distances, as Rengert and Rengert, Greenwood, and Levy and Wadycki have shown.[92]

Because migration involves an element of risk, anything which improves individual risk-taking ability constitutes a migration opportunity. Higher income, more education, and nonagriculutral employment experience all reduce the risk of moving. Persons from higher income families can better afford the costs of moving and unemployment associated with migration. Studies in Argentina, Nigeria, and Taiwan show that migrants tend to come from better-off families.[93] Higher income families also tend to have better educated children. Both Speare and Rengert and Rengert point out that education is probably more important than wealth in improving the migrants' ability to take risks.[94] Grunig suggests that education may orient persons increasingly towards an information-seeking, problem-solving approach which enables them to take entrepreneurial risks, such as migration.[95] Individual risk-taking ability may also be increased by acquiring nonagricultural employment experience. Flinn's study in Bogota shows that migrants from nonfarm occupations have higher mobility levels than those from farm occupations, suggesting that they are better able to handle the risks of migration.[96] Studies in Costa Rica, Mexico, and Taiwan show that migrants are selected from more skilled occupations.[97] In Taiwan, for example, 21 percent of migrants surveyed come from white-collar occupations, while only 9 percent of the nonmigrants work in white-collar positions.

Intervening obstacles are another risk factor which may frustrate the migrants' achievement of success or satisfaction. Such obstacles include moving cost, distance of the move, family responsibilities, and inflexible tenure systems. The cost of moving is a significant obstacle to migration. Many studies show a direct relation between monetary and psychic costs* and distance between the origin and destination. Studies in Brazil, Colombia, Guatemala, Korea, Sierra Leone, Turkey, and the United States show that migration is inversely related to distance.[98] Sloboda and Carroll suggest that distance is an obstacle because home visits are more difficult, but this point is not raised by others.[99] Family responsibilities are another obstacle to moving, because of the additional moving costs. Most studies show that young, male migrants move most readily, while families are often limited to nearby places or cities where kin can help.[100] The inability to sell old land or obtain new land elsewhere is suggested by Mabogunje as another constraint on rural outmigration.[101]

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* Psychic costs are the social and emotional costs of breaking away from a family and community.

Stouffer's model of intervening opportunities views migrants as stopping either when the obstacles (e.g., costs, distance, limited information) or the opportunities (e.g., jobs, friends, housing) encountered are great enough.[102] To test this theory, Levy and Wadycki hypothesized that migration is limited by distance, but within that distance the destination offering the best economic opportunities is chosen.[103] For Venezuela, they show that within a specified radius consideration of population concentration, wages, and unemployment significantly improves the explanation of migration destinations, and conclude that distance is a proxy for intervening costs and opportunities of migration. Others simply use the population of the destination as a proxy for opportunity, showing that migrants tend to go to more urbanized areas, either in one or a series of moves.[104] At each stage the less selective migrants drop out of the migration stream because they cannot surmount the obstacles encountered in pursuit of greater opportunity.

Migration seems to occur in response to a specific triggering event or opportunity, yet little research has been done in this area. One class of triggering events is secondary to the underlying conditions stimulating migration. Even when the decision has been rationally made the actual timing may reflect a spontaneous event, such as a visit to friends, or an argument with a parent, as both Gugler and Taylor suggest.[105] If the triggering event does not occur or is not perceived, the potential migrant may not leave, becoming the "frustrated entrepreneur" described by Grunig.[106] A second type of triggering event is called primary because the event itself is critical to the migration decision. Primary events are generally sudden changes in the social, economic, or environmental conditions, as shown by a recent United Nations survey of internal migration.[107] Examples are drought, flood, famine, and war. While the movements which result from these sudden changes may occur precipitously and in great volume, secondary triggering events seem to be most important in determining overall migration incidence. More research may show that the often overlooked triggering events are in fact central to determining who migrates and when.

## *MIGRATION DETERMINANTS AND CONTEXTS: SUMMARY*

Rural-urban migration continues to be the dominant net migration flow in nearly all countries and is the focus of most of the research discussed here.[108] Economic factors are viewed as the most powerful set of influences on migration. Both more selective and less selective migrants leave rural communities because the income and employment opportunities are inadequate. At one end of the scale, the more mobile migrants actively seek destinations which offer the greatest long-term potential for socioeconomic mobility. At the other end of the scale, the poorer, less mobile migrants move to communities where they have friends or kin, in the vague hope that things will be better. Table 1 illustrates some of the distinctions between mobile and less mobile migrants. The most active migrants tend to be young, better educated males who move in search of the more pretigious lifestyle which accompanies urban and especially white-collar occupations. These youth dominate among those moving long distances to the larger metropolitan areas. In contrast, the "passive" or less active migrants tend to be pushed by poverty and often must leave to sustain themselves. Their awareness of opportunities for employment in other places may be limited to what they have heard from friends, hence they often follow kin or friends. As Greenwood points out, this follow-on migration is more a function of past interregional differentials (i.e., those motivating prior migrants) than current realities.[108] If the situation at the destination has changed significantly, e.g., if unemployment has risen or incomes have fallen, migration may appear irrational and is characterized as situationally determined in the context of limited information. Economic factors may explain why some areas lose migrants while others gain, but noneconomic social and psychological variables are also important for selecting the migrants from the nonmigrants, and for distinguishing mobile migrants from less mobile migrants.

## *FOOTNOTES*

1. Ravenstein (1885:167-227)
2. Lee (1969:285-296)
3. Todaro (1971:387-414) Annable (1972: 399-412) has expanded this conceptualization, introducing an element of simultaneity of interaction between unemployment levels, the rural-urban wage differential, and rural-urban migration.
4. Sjaastad (1962:80-93) Schultz's work in Colombia (1969) has provided additional insights into the human investment approach to migration.
5. Kuznets, Thomas, et al., as cited in Briggs (1973:4)
6. Lee, op.cit.
7. Mabogunje (1972:30-39)
8. INTERMET/IDRC, (op.cit.:5)
9. Sloboda and Carroll (1974:94-98) Their discussion focuses on the migration of labor out of the agricultural sector, rather than on all geographic mobility. See United Nations, *The Dynamics of Rural-to-Urban Population Transfers by Age and*

Table 1. CHARACTERISTICS OF MOBILE AND LESS MOBILE MIGRANTS

| Characteristics | Mobile migrants | Less mobile migrants |
|---|---|---|
| Demographic | Move early in working life<br>Likely to be male<br>Often single, delaying marriage | Include older migrants<br>Tend to have higher dependent-to-earner ratio<br>Higher likelihood of being female |
| Social | Better educated than most rural cohorts<br>Families with higher social status<br>May have longer time horizon and plan for the future<br>Open to change and innovation | Little or no education<br>Tend to come from lower social status<br>Family or emotional problems may compel move<br>Short time horizon |
| Economic | Pull of economic opportunity major factor in moving<br>Strong desire for occupational mobility<br>More sensitive to urban wage levels than to rural wages<br>May have savings or assistance from family to help with migration costs | Push of poverty and unemployment major factor in moving<br>Low rural wages more important to move than urban wages<br>Work experience only in agriculture<br>Little or no savings to invest in migration<br>May move originally to work for a specific sum of money |
| Decision making | Decision making seems rational<br>Aspiring type, with ambitions to advance<br>Intend permanent migration<br>Greater awareness of towns and urban life | Decision may be triggered by seemingly unrelated event<br>Decision to move often a result of situation compelling migration<br>May go at first only temporarily |
| Basis for selection of destination | Presence of kin important<br>Wage levels and perceived chance for modern sector job important<br>Long distance migration to seek best opportunities<br>Often stepwise or urban-urban migration<br>Educational opportunities may inflence move | Presence of kin very important<br>Jobs and large labor market major criteria after kin<br>More likely to be short distance and rural-urban migrant |

*FOOTNOTES (continued)*

*Sex*, Population Division Working Paper 48, May 1973, for a discussion of the possible formulation of model "migration" tables.

10. Mitchell (1969:175-179)
11. Other analysts with a lifestyle view of migration are:

| | |
|---|---|
| Lee | (1969:282-297) |
| INTERMET/IDRC | (1973:5) |
| Theroux | (1973:6-8) |
| Jimenez | (1973:16) |

12. Rengert and Rengert (1973:32) take this view of migration to smaller cities in Mexico. Gugler (1969) also shows the importance of normative and emotional factors in Africa; Schultz (1969) sees violence as an important push in Colombia.
13. Taylor (1969:123)
14. Margulis (1966)
15. Among those Latin American researchers who find a strong, traditional, well-socialized pattern of migration are:

| | |
|---|---|
| Wilkie (1973) | cited in Theroux (1973:12 13) |
| Margulis (1967) | |
| Critto (1968) | |
| Butterworth (1970) | |

16. Taylor (op.cit.:125-132)
17. Hirschmann (1970:23-43)
18. Mabogunje (1970:2-5)
19. Ibid. (7-9)
20. Stouffer (1940:845-867) with modifications noted in (1960:1-26). Lee (op.cit.) also elaborates the theory of intervening variables.
21. Thomas (1968) and Rengert and Rengert (1973) are proponents of this theory.
22. Examples of surveys finding strong economic motivations are:

| Country | Citation |
|---|---|
| South Korea | INTERMET/IDRC (1973:109) |
| Ghana | Caldwell (1969:117) |
| Chile, Latin America | Herrick (1971:72) |
| India | Greenwood (1971:143) |
| Thailand | Prachuabmoh (1972:56) |
| Mexico | Butterworth (1970:37-38) |
| Nigeria | Essang and Mabawonku (1974:28) |
| Taiwan | Speare (1971:117-130) |
| Venezuela | MacDonald and MacDonald (1968) |

23. Studies finding that rural unemployment and underemployment push migrants out are:

| Country | Citation |
|---|---|
| Colombia | Flinn (1966:106) |
| Latin America | Barraclough (1970:105) |
| Puerto Rico | Boswell (undated) |
| Nigeria, Africa | Byerlee (1972:6-107) |

23. (cont.)

| Country | Citation |
|---|---|
| Turkey | Gurer, in Weitz (1972:121-123) Munro (1974:646) |
| South Korea | INTERMET/IDRC (1973:109) |
| Great Britain | Hart (1973:271-285) |
| Peru | Rojas (1967), cited in Theroux (1973:8) |
| Chile | Conning (1971), cited in Theroux (1973:8) |

24. Eicher, et al. (1970:1-7) Their analysis included additional factors relating to the "pull" of migrants to cities. These will be discussed later in the chapter.
25. Barraclough (1970:103-108)
26. Barraclough (1973:94) See also, Peter Dorner's *Land Reform and Economic Development* (Penguin, 1972) The interested reader is referred to both these books for a more detailed analysis of the linkages between land tenure, rural unemployment, and outmigration.
27. Fragmentation as a cause for rural outmigration is discussed by:

| Country | Citation |
|---|---|
| Africa | Hanna and Hanna (1971:140) |
| Nigeria | Akinbode (1971) |
| Ghana | Caldwell (op.cit.) |
| Thailand | Lefferts (1973:3-4) Prachuabmoh (1972:46-47) |
| Philippines | Lewis (1971) |

28. Lack of land as a cause for migration is shown by:

| Country | Citation |
|---|---|
| Colombia | Schultz (1969:55) |
| Peru | Castillo, et al. (undated:7) |
| Brazil | Wilkening (1968:147) |
| Puerto Rico | Boswell (undated) |
| Mexico | Browning and Feindt, cited in Brigg (1973:24) |
| Nigeria | Essang and Mabawonku (1973:21) |
| Upper Volta | DeWilde (1971:371) |
| Ghana | Hanna and Hanna (1971:39-40) |
| Sierra Leone | Levi (1973:315) and Riddell (1970:406) |
| Latin America | Shaw (1974:130) and Hardoy (1973:184) |
| Colombia | Schultz (1969:43-46) |
| Thailand | Prachuabmoh, et al. (1974:46) and Lefferts (1973:1-4) |

29. Boswell (undated paper)
30. Lefferts (1973:3-4)
31. Anson (1972)
32. Examples of seasonal migrants are given by:

| Country | Citation |
|---|---|
| Guatemala | Schmid (1967) |
| Korea | Sloboda and Carroll (1974:92) |

*FOOTNOTES (continued)*

32. (cont.)

| Country | Citation |
|---|---|
| Indonesia | Bruner (1961:508-521) |
| Thailand | ILO, cited in Brigg (1973:33-34) |
| Brazil | Wilkening, et al. (1968: 34) |
| Rhodesia | Mitchell (op.cit.:176-180) |
| Ghana | Caldwell (1969:117-118, 139) |
| Uganda | Gutkind (1969:389-400) |
| Upper Volta | Skinner (1965) |
| Taiwan | Speare (1974:319) |

33. Mitchell, op.cit. See Nelson (1976:722 733) for a discussion of the long run trend toward permanence and of the distinctions between temporary and permanent migrants.
34. Poverty as a push to migrants has been shown by studies of:

| Country | Citation |
|---|---|
| Korea | INTERMET/IDRC (1973:109) |
| Africa | Eicher, et al. (1970:9-11) |
| Nigeria | Essang and Mabawonku (1974:28) |
| Thailand | Prachuabmoh (1972:56) |
| Argentina | Critto (1968), cited in Theroux, (1973:8) |
| Brazil | Vanes, et al. (1968:23) |
| Egypt | Abu-Lughod (1969:376-388) |

35. Munro (1974:646)
36. Just a few of the migration analyses showing higher income as a migration motivation are:

Econometric Analyses of Origin and Destination Incomes

| Country | Citation |
|---|---|
| India | Greenwood (1971:138-9) |
| Colombia | Schultz (1969:55) |
| Ghana | Beals, Levy, and Moses (1967:480-486) and Knight (1972) |
| Turkey | Munro (1974:646) |
| Brazil | Sahota (1968:233) |
| Costa Rica | Carvajal and Geithman (1974:118) |
| Puerto Rico | Boswell (undated) |
| United States | Sjaastad (1962) and Hathaway (1960) |
| Africa | Todaro (1971:387-414) |
| Kenya | Rempel and Todaro (1972: 214-231) |
| Taiwan | Speare (1974:318) |
| Venezuela | Levy and Wadycki (1974: 204) |
| Great Britain | Hart (1973:280) |
| "Low Income Countries" | Annable (1972:399-412) |

36. (cont.)

Surveys Showing Movement From Low to High Income Areas

| Country | Citation |
|---|---|
| Venezuela | Garcia and Blumberg (1973) |
| Argentina | Margulis and Rojas, both cited in Theroux (1973:8) |
| Mexico | Butterworth (1971) and Rengert and Rengert (1973:32) |
| Chile | Elizaga (1966:352-377) |
| Colombia | Flinn (1966:106) |
| India | Brigg (1973:30) |
| Indonesia | Heeren (1955), cited in Brigg, (op.cit.:32) |
| Ghana | Caldwell (1969:88-89) |
| Sierra Leone | Makannah (1973:11) |
| Nigeria | Makanjoula (1971) |
| Thailand | Goldstein, et al. (1974) |
| Jamaica | Harris and Steer (1968: 398-406) |

37. Annable (1972:399-412)
38. Todaro (1971:387-414)
39. Todaro (1976:221)
40. The following studies showed that migrants moved in response to creation of modern sector, nonagricultural employment opportunities:

Actual Survey of Migrants and Would-be-Migrants

| Country | Citation |
|---|---|
| Venezuela | Garcia and Blumberg (op.cit.) |
| Argentina | Wilkie (1971:107) |
| Brazil | Wilkening (1968:14) |
| Mexico | Browning (1971:302) |
| Thailand | ILO, cited in Brigg (1973:33) |
| Philippines, Malaysia | INTERMET/IDRC (1973:115) |
| Colombia | Adams (1969:530) |

Econometric Analysis of Migration Flows

| | |
|---|---|
| Costa Rica | Carvajal and Geithman (1974:109 & 118) |
| Puerto Rico | Boswell (op.cit.) |
| Brazil | Sahota (1968:232) |
| Sierra Leone | Levi (1973:325) |
| Nigeria | Essang and Mabawonku (1974:16) |
| Ghana | Knight (1972:223-224) |
| Venezuela | Levy and Wadycki (1974: 204-207) |
| India | Greenwood (1971:145-146) |
| Colombia | Schultz (1969:55) |

41. Hardoy (1973:167-192)
42. Knight (1972:221)

*FOOTNOTES (continued)*

43. The following studies show that migrants move to cities seeking to find jobs:

| Country | Citation |
|---|---|
| Argentina | Margulis (1968), cited in Theroux (op.cit.:8) |
| Mexico | Butterworth (1970) and Rengert and Rengert (1973) |
| Peru | Gonzmart (undated) |
| Taiwan | Speare (1974:318-319) |
| Ghana | Caldwell (op.cit.:117) |
| Egypt | Abu-Lughod (1969:376-388) |
| Thailand | Lefferts (op.cit.:3-4) |
| Latin America- | Hardoy (1973:169-192) |
| Nigeria | Essang and Mabawonku (1974:16) |

44. Dorner (1964:248-251)
45. Land tenure factors causing income insecurity are cited by:

| Country | Citation |
|---|---|
| Latin America- | Barraclough (1970:107-117 and Dorner (op.cit.) |
| Thailand | ILO, cited in Brigg (1973:32-33) |
| Turkey | Gurer, in Weitz (1973: 121-123) |
| Africa | Byerlee and Eicher (1972: 37-39) |

46. Brigg (1973:32-33) and Udo (1972:88)
47. Latin America -- Dorner (op.cit) and Alexander (1972)
Nigeria -- Udo (1972:88-95)
48. Gurer, in Weitz (1973:121-123) discusses this for Turkey. Griffin (1973:239-274) gives several country examples of the impacts of the "green revolution" on rural employment.
49. Studies showing high rates of migration out of areas with a largely agricultural work force are:

| Country | Citation |
|---|---|
| Puerto Rico | Boswell (op.cit) |
| Turkey | Munro (1974:646) |
| Peru | Castillo, et al. (undated: 6-9) |
| Taiwan | Speare (1974:318) |
| India | Padki (1969:27-35) |

50. Munro (1974:646)
51. Return migration is shown to be a fairly large stream in:

| | |
|---|---|
| Thailand | ILO, cited in Brigg (1973:34) and Goldstein (1973:7) |
| Taiwan | Speare (1974:314-316) |
| Mexico | Browning (1971:284) |
| Ghana | Caldwell (op.cit.:240) |

52. INTERMET/IDRC (1973:108 and 75). Zachariah's analysis of Indian return migrants are the older "success" stories, not the failures (1966:381).
53. A recently released report gives details on this research, but was not available in time for consideration here. See Byerlee, Tommy, and Fatoo (1976).
54. The following show that migration is selective for youth:

| Country | Citation |
|---|---|
| Colombia | Schultz (1969:55) and Adams (1969:529) |
| Costa Rica | Carvajal and Geithman (1974:109) |
| India | Zachariah (1966:382-383) |
| Chile | Elizaga (1966:355) |
| Nigeria | Essang and Mabawonku (1973:16) |
| United States | Hathaway (1960:378-391) |
| Thailand | Goldstein et al., (1974: 11-14) |
| Ghana | Caldwell (op.cit.:85-86) |

55. Adams (op.cit.:529)
56. Browning (1970:20)
57. Male selectivity of migrants is shown by:

| Country | Citation |
|---|---|
| Colombia | Schultz (1969:55) |
| India | Zachariah (1966:378) |
| Egypt | Abu-Lughod (1969:376-388) |
| Ghana | Caldwell (1969:85) |
| Taiwan | Speare (1974:312) |
| Mexico | Butterworth (1970) |
| Turkey, Malaysia, Indonesia, Venezuela | INTERMET/IDRC (1973:94-95) |

58. United Nations (1973:181-182)
59. Female migrants predominating are shown by:

| Country | Citation |
|---|---|
| Chile | Elizaga (1966:35) |
| Argentina | Margulis (1966), cited in Theroux (1973:7) |
| Costa Rica | Carvajal and Geithman (1974:107) |
| Philippines | INTERMET/IDRC (1973:94) |

60. Older migrants tend to be female, as shown by:

| Country | Citation |
|---|---|
| Ecuador, Panama, and Chile | United Nations (1973:181-182) |
| India | Zachariah (1966:383) |
| Chile | Elizaga (1966:355) |
| Thailand | Goldstein, et al. (1974:13) |

61. The INTERMET/IDRC study found that 15 percent of migrants to Manila came as family units, but the study claims also that there is only a short delay between the first family member's arrival and the reuniting of the nuclear family (1973: 80, 97). Friedmann also expects family migration to increase with the breakdown of the extended family system. (1973:79).

62. Evidence supporting the lifecycle influence upon migration is given by:

| Country | Citation |
|---|---|
| Rhodesia | Mitchell (1969:175-179) |
| General | Lee (1969:282-297) |
| Costa Rica | Carvajal and Geithman (1974:111-112) |
| India | Zachariah (1966:387) |
| Argentina | Critto (1968), cited in Theroux (1973:6) |
| Korea | Sloboda and Carroll (1974:73) |
| Sub-Sahara Africa | Gugler (1967:146-151) |
| Indonesia, Malaysia, Philippines, Turkey, and Venezuela | INTERMET/IDRC (1973:80-82) |

63. Movement at time of marriage is discussed by:

| Country | Citation |
|---|---|
| India | Bose, cited in U.N. (1973:179) |
| Thailand | Goldstein, et al., (1974: 14-17) |
| Costa Rica | Carvajal and Geithman (1974:112) |
| Korea | Sloboda and Carroll (1974:77) |

64. Movement for retirement is cited by:

| Country | Citation |
|---|---|
| Ghana | Caldwell (1969:147) |
| Kenya | Ominde (1967), cited in Byerlee (1972:4) |
| Rhodesia | Mitchell (op.cit.) |
| India | United Nations (1973:179) |

65. Some of the many studies showing the educational selectivity of migrants are:

| Country | Citation |
|---|---|
| Colombia | Adams (1969:529) |
| Mexico, Ghana | Browning (1971:294, 291) |
| Costa Rica | Carvajal and Geithman (1974:112-113) |
| Jamaica | Harris and Steer (1968) |
| Turkey | Munro (1974:646) |
| Nigeria | Adaralegbe (1971) |

66. Goldstein, et al., (1974:17-20)

67. Studies showing that the better educated migrants go to big cities are:

| Country | Citation |
|---|---|
| Mexico | Rengert and Rengert (1973: 29) |
| Argentina | Wilkie (1971:106-107) |
| Thailand | Goldstein, et al., (1970: 40) |
| Taiwan | Speare (1974:313) |

68. Herrick (1971:75)

69. Migration is viewed as an aid to utilizing one's training in:

| Country | Citation |
|---|---|
| Ghana | Beals, Levy, and Moses (1967:480-486) |
| Kenya | Elkan (1971:205-207) |
| Turkey | Munro (1974:643) |
| Thailand | Goldstein, et al., (1974:18) |

70. Jolly and Colclough (1972:209-212)

71. The following studies show the rejection of agriculture as a result of education:

| Country | Citation |
|---|---|
| Nigeria | Makanjoula (1971) and Akinbode (1971) |
| Sri Lanka | Emmerij (1973:34) |
| Africa | Byerlee (1972:15) |
| Brazil | Wilkening (1968:13-15) and Leeds and Leeds (1970: 246-253) |
| Colombia | Adams (1969:529) |
| Taiwan | Speare (1974:316) |
| Latin America | Orrego de Figuroa (1974: 5-6) |

72. Roussel (op.cit.:244)

73. Desire for secondary school opportunities or better education motivates migrants in:

| Country | Citation |
|---|---|
| Brazil | Wilkening (1968:13-15) |
| Argentina | Wilkie (1971:106) |
| Peru | Gonzmart (1966:1) |
| Ivory Coast | Roussel (1970:41) |
| Ghana | Beals, Levy and Moses (1967:484-6) |
| Philippines, Indonesia, Malaysia | INTERMET/IDRC (1973:113-114) |
| Thailand | Prachuabmoh and Tirasawat (1974:48) |

74. Imoagene (1967)

75. Essang and Mabawonku (1974:7)

76. Caldwell (op.cit.)

77. Mitchell (op.cit.)

78. The impact of media on value change has been widely studied, but with reference to migration it has specifically been mentioned for Nigeria by Akinbode (1971) and for Colombia by Grunig (1971).

FOOTNOTES (continued)

79. The attitude change resulting from home visits is discussed by:

| Country | Citation |
|---|---|
| Nigeria | Adepoju (1972:9) |
| Ghana | Caldwell (1969:138) |
| Brazil | Wilkening (1968:12) |
| Argentina | Wilkie (1971:94-107) |
| Peru, Venezuela, Philippines, Indonesia | INTERMET/IDRC (1973:140-145) |

80. Hanna and Hanna (1971:44); Gugler (1969: 142-143); and Imoagene (1967)
81. Wilkie (1971:110)
82. Rengert and Rengert (1973:31-32)
83. Prachuabmoh and Tirasawat (1974:64); Lefferts (1973:3-7)
84. Caldwell (1969:207)
85. Grunig (1971:582)
86. Flinn (1968:86)
87. Caldwell (1969:120-121)
88. INTERMET/IDRC (1973:100)
89. Grunig (1971:582-585)
90. Nelson (1959:43-74)
91. Rengert and Rengert (1973); Greenwood (1970); and Levy and Wadycki (1973)
92. Migrants coming from higher income families are shown by:

| Country | Citation |
|---|---|
| Taiwan | Speare (1974:317-318) |
| Nigeria | Essang and Mabawonku (1974:24) |
| Argentina | Wilkie (1971:107) |

93. Education's effect on increasing migration risk-taking ability is shown by:

| Country | Citation |
|---|---|
| Taiwan | Speare (1974:318) |
| Mexico | Rengert and Rengert (1973:31-32) and Browning (1971:294-5) |
| Argentina | Wilkie (1971:110) |
| Honduras | Brunn and Thomas (1971: 66) |
| Costa Rica | Carvajal and Geithman (1974:108-109) |
| Colombia | Grunig (1971:595) |
| Nigeria | Mabongunje (1972:80) |
| Ghana | Beals, Levy, and Moses (1967:480-6) |

94. Grunig (op.cit.)
95. Flinn (1968:86-87)
96. Migrants selected from non-agricultural occupations are shown by:

| Country | Citation |
|---|---|
| Mexico | Rengert and Rengert (1973:22-27) |
| Taiwan | Speare (1974:317) |
| Costa Rica | Carvajal and Geithman (1974:108) |

97. Distance inversely correlated with migration is shown by:

| Country | Citation |
|---|---|
| Brazil | Sahota (1968:242) |
| Turkey | Munro (1974:646) |
| United States | Alonso (1971), cited in Sloboda and Carroll (1974:81) |
| Colombia | Schultz (1969:55) |
| Guatemala | Thomas (1968) |
| Sierra Leone | Levi (1974:317) |
| Korea | Sloboda and Carroll (1974: 79) |
| Kenya | Rempel and Todaro (1972: 216) |
| Thailand | Goldstein, et al. (1974: 39) |

98. Sloboda and Carroll (op.cit.)
99. Family and marital status as constraints on mobility are shown by findings that married persons tend not to go to primate cities.

| Country | Citation |
|---|---|
| Mexico | Rengert and Rengert (1973: 24) |
| Thailand | Prachuabmoh and Tirasawat (1974:16) |
| India | Zachariah (1966:383) |

100. Mabogunje (1972:609)
101. Stouffer (1940:845-867) and (1960:1-26)
102. Levy and Wadycki (1974:207-208). In a later study (1975) Wadycki also shows that this is true for interregional migration in the United States.
103. Example of urban-urban migration of selective migrants towards larger urban concentrations are given by:

| Country | Citation |
|---|---|
| Costa Rica | Carvajal and Geithman (op.cit.:108) |
| Taiwan | Speare (1974:317) |
| Thailand | Prachuabmoh and Tirasawat (op.cit.) |
| Mexico | Rengert and Rengert (op. cit.:22-27) |
| Peru | Weller (1974:539) |

104. Gugler stresses the irrational or emotional factors which trigger migration (1969:155). See also Taylor (1969:125-133)
105. Grunig (1971:595)
106. United Nations (1973:162-167)
107. Ibid. 178. See also the INTERMET/IDRC study (1973:37, 47, 53, 57, 67) which shows that rural-metropolitan migration dominates the migration streams to Bandung, Seoul, Caracas, Lima, and Istanbul.
108. Greenwood (1970)

# Chapter 4
# Impacts of Migration

The most widely observed and reported result of migration has been its contribution to the growth of urban areas, but there are many less obvious effects on a nation's development progress. In this paper, broad coverage has been sought to include the effects of migration on the migrants themselves, urban areas, rural areas, regions, and nations. The types of impacts discussed are economic, social, demographic, and spatial. These impacts may vary according to the type of migrant, the volume of migration, and the nature of the places involved.

Historically the study of migration impacts focused first on the migrants themselves and then on their origins and destinations. The impacts of urban inmigration on the individual migrants have received the most attention, perhaps because individual changes are more easily linked to the act of migration. Based on studies of individual migrants, researchers have drawn conclusions concerning the impacts of migration on the destination and origin, and on broader regional and national levels. Assumptions have been made about whether observed changes are actually due to migration, and as the effects have become more removed from the migration itself the assumptions have become more tenuous. Hence, a study of the impacts on the point of origin is more difficult than a study of the destination, and studies concerning regional or national levels present even greater problems. Nevertheless, assumptions about "reasonable" impacts must be made if an understanding of the consequences of migration is to be reached.

This chapter begins with a discussion of findings concerning impacts on individual, urban-directed migrants, moves to an analysis of impacts on urban destinations, and then to an examination of effects of outmigration on the rural origins.* The last section describes the results of studies assessing the overall impacts of migration on regional and national development.

* There are few studies on the impacts of rural-directed migration, except those prepared in the context of special projects which will be discussed in the chapter on policies affecting migration. Otherwise, impacts specific to rural inmigration will not be discussed here.

## *IMPACTS OF URBAN INMIGRATION ON MIGRANTS*

The various impacts of urban inmigration on the migrants themselves are the most well researched of the impacts considered here. Two major types are discussed: economic and social. Numerous studies indicate that the economic experiences of the migrants are central to assessing the overall impact of migration on the families concerned, hence the discussion focuses heavily on the economic changes for other social, cultural, and demographic factors.

The literature reviewed below uses two methods for assessing the impacts of migration on individual migrants. The first is subjective analysis. Without relying on income or level of living figures, researchers ask the migrants to assess their experiences by indicating their degree of satisfaction with their new lives. In contrast are the more quantitative surveys of migrant impact which compare certain socioeconomic indicators. In some studies this approach is taken one step further by comparing migrants with nonmigrants at either the origin or the destination.

### *Satisfaction with New Life*

Many studies show that migrants are satisfied with their new lives, primarily because life is "better" in the city than it was in their home communities. A 1973 series of surveys conducted by the International Association for Metropolitan Research and Development (INTERMET) and the International Development Research Center (IDRC) in 1973 gives the following distribution for satisfied migrants.

Table 2. DEGREE OF SATISFACTION AMONG MIGRANTS

| City | Percent satisfied with life relative to former life | Percent satisfied with life for children | Percent not willing to return home |
|---|---|---|---|
| Bandung | 87.3 | 86.8 | 70.7 |
| Caracas | 69.3 | 9.8[2] | 78.0 |
| Istanbul | 79.4 | 88.9 | 81.9 |
| Kuala Lumpur | 95.4 | 75.4 | 80.6 |
| Manila | 69.1 | 60.9 | 72.1 |
| Seoul | 34.1[1] | 16.7 | (NA) |

NA Not available

[1]Migrants in Seoul had the highest level of underemployment and most erratic earnings with 53 percent reporting non-regular employment.

[2]Caracas migrants report great dissatisfaction over high crime rates in their neighborhood.

Source: INTERMET/IDRC, *Town Drift: Social and Policy Implications of Rural-Urban Migration in Eight Developing Countries*, Report prepared for conference in Istanbul, November 24 - December 1, 1973, Tables 5.1 and 5.3, pp. 108 and 114.

The two main criteria used by migrants to measure improvement appear to be employment and income status and educational opportunities for children, although improvements in housing, water and electricity services, and nutrition may also influence their satisfaction. The level of living and real income for the migrant families may not be significantly higher than it was at their place of origin, but hopes for their children's futures are higher, and for this reason many families continue to be committed to city life.[2] In contrast, some studies reveal dissatisfaction among migrants, expressed openly or as an outmigration.[3] While the majority of the studies reviewed here find that most migrants are satisfied, the surveys which reveal dissatisfied migrants raise several questions. For example, they raise the issue of whether dissatisfaction among migrants is increasing. This in turn leads to the question of to what extent the change in satisfaction is due to a change in the places absorbing migrants or to changes in migrants themselves.

Because the findings concerning dissatisfied migrants differ from those for satisfied migrants, they will be discussed separately. But the categories of satisfied and dissatisfied are not applicable to the range of studies cited in this paper, therefore the alternative categories of "mobile" and "less mobile" have been adopted. "Mobile" migrants are employable by virtue of their age, education, experience, contacts, risk-taking ability, perseverence, or other qualities. They are able to find jobs and gradually improve their level of living above that experienced prior to migration, in some cases above that of the city's natives. In short, they are upwardly mobile. By contrast, "less mobile" migrants are those who lack the characteristics which make them employable and achieve little or no improvement in their level of living. In fact, some may be downwardly mobile, simply going from a difficult to a worse life. Both broad migrant types are found in the literature and it is hoped that this distinction better illuminates why migration results in satisfaction with life for some and not for others.

*Economic Impacts on the Migrant Family*

The majority of studies of impacts on the migrants focus on the economic consequences of migration. Studies in Chile, Colombia, India, Indonesia, Mexico, Nigeria, and other countries show that many migrants claim to have improved their real income and employment status as a result of migration, although usually not as much as they had expected.[4] Migrants who are as well off or better than natives at the destination are often positively selected* relative to the population at the origin.[5] They may be better educated and at a higher economic level than the native population, after accounting for differences in age and sex.[6] Additional migrant characteristics associated with upward economic mobility are youthfulness of the migrants[7] and a greater propensity to take risk.[8]

* A positively selected person is defined here as one who possesses a higher degree of certain characteristics than the average for the population. Generally, these characteristics include educational level, income, occupation, and social status.

*Economic impacts on more mobile migrants* -- Many studies describe economic mobility as a shift from unemployed to employed status, though some use the criteria of higher real income. Economic mobility seems highest among those who are better educated and better off economically. In a well-known study of Chilean migrants to Santiago, Herrick found that migrants had achieved employment rates and occupation levels comparable to natives of Santiago, when differences for age and education were taken into account. Before moving to Santiago, 35 percent of the migrants were unemployed or unpaid family workers, but only 3 percent were unemployed shortly after arriving. Herrick also found that the level of economic activity among migrant women increased from 19 percent at the origin to 31 percent in Santiago.[9]

Economic mobility is also reflected in income gains. A recent analysis of Costa Rican migrants found that migrants had significantly higher incomes after they moved and that recent migrants experienced greater gains than prior migrants, largely, it was felt, due to their youth, better education, and search for higher status jobs.[10] In a survey of migrants in street occupations in Djakarta, all migrants had improved their daily earnings, with an average increase of 160 percent, and the more mobile migrants -- for example the pedicab drivers -- had increased their earnings by an average of 233 percent. Even after accounting for differences in cost of living, these migrants were better off than they had been as rural poor.[11] Not only does migration increase the amount of income earned, but it increases the chances that an individual can raise his income substantially. Although urban inmigrants may still be very poor, they are often better off than their rural kin.

Measuring economic mobility as a change in the employment rate or income level does not show changes in underemployment. Although definitions vary, a commonly used one is that of the International Labour Organization in which underemployment is defined as the difference between the amount of work performed by employed persons and the amount of work they would normally be able and willing to perform. It is measured as the number of persons involuntarily working part-time or full-time with very low earnings or productivity.[12] Using the former criterion, the 28 percent of all migrants to Manila, 32 percent to Bandung, and 53 percent to Seoul found in the INTERMET/IDRC study were underemployed or unemployed.[13] The study also notes that only 34 percent of migrants to Seoul were satisfied with their life, and that high levels of underemployment may therefore correlate with dissatisfaction. More detailed analysis of underemployment characteristics may add a needed dimension to the explanation of impacts as perceived by the migrants.

Despite relatively high levels of underemployment, many migrants experience upward occupational mobility, or improvement in job status, often surpassing the levels of the natives at the destination. Herrick found that migrants attained a larger share of white-collar jobs than natives of Santiago. His and other studies show that the migrants who have an educational level equal to or better than that of the natives actually do better than natives with whom they compete for jobs, particularly the longer they stay in the city.[14] Browning's study of migrants to Monterrey, Mexico, attributes a similar higher level of achieved status to the risk-taking ability of the positively selected migrants.[15] His empirical study supports Akin Mabogunje's theory that migrants are more prone to take risks and adopt innovations than natives of the same socioeconomic status.[16]

Some studies link migrant occupational mobility to intracity mobility, on the theory that certain locations within the city inhibit advancement. Movement from these places both expresses and enchances migrant mobility. For example, Vaughan and Feindt's 1973 study of recent migrants to Monterrey, Mexico, found that blue-collar migrants who moved from an initial central city location to a residence further from the center experienced considerably more upward occupational mobility than those who remained in the central city. Workers who initially moved to a suburban location and then moved further out towards the metropolitan area periphery experienced less increase in status than those who shifted from the city center, but more than those who stayed in their original suburban location.[17] Similar correlations between movement away from the city center and occupational mobility have been found elsewhere.[18] Unfortunately these studies do not distinguish between the influence of location and the influence of other, perhaps more influential, variables such as the presence of contacts and distribution of employment. Without such distinctions, the link between residential and occupational mobility can be interpreted as only complementary, not causal.

Studies providing information on occupational mobility have also contained data on the occupational distribution of migrants before and after migration. The majority of migrants, 50 to 75 percent, work in the cities as unskilled or semi-skilled laborers, often as transportation workers. The next largest group of migrants, including many of the women, are sales and service workers,

comprising 25 to 35 percent of the migrant labor force. This group includes migrants who are lucky enough to have friends to vouch for them so they can set themselves up as vendors. Approximately 15 to 25 percent of migrants join the "elite" of professional, managerial, or clerical workers.[19] The more mobile and more educated migrants are the ones found in these latter categories. As Boserup shows, with the exception of migrants to large Latin American cities, very few of these white-collar workers are women.[20] The bulk of the migrant labor force is concentrated in the lower levels of the occupational hierarchy where improvement in income and status is restricted by heavy competition and low levels of skill.[21] This description of migrant occupational patterns seems to hold true for studies in Africa, Asia, and Latin America, although there may be sex-related differences.[22]

As predicted by Lee's theory, some studies in Latin America show that as migration continues over time selectivity declines and more of the migrants are found in less skilled occupations.[23] But there are few studies which compare this with changes in the urban natives' occupational distribution. This is a topic which merits further investigation.

*Economic impacts on less mobile migrants* -- For some persons, migration is not an escape from poverty. While precise figures are difficult to find on the percent of migrants who make little or no real economic gains, the available figures suggest that about one-fourth of all migrants make no economic gains.[24] These are primarily found among the unskilled workers and include the migrants who remain unemployed at least 4 months to 1 year after moving.

Study of this group of migrants is hampered by the fact that many of the less mobile migrants include persons who decide to return to their origin or move on to try their luck elsewhere. A few studies have been made of the very poor, less mobile migrants or of groups of migrants and natives.[25] One of these, a 1974 study of Barrio Maligamgam, in Manila, found that 20 percent of the residents of this squatter community were migrants. Although there is no indication of levels of living prior to migration, both migrants and natives in the survey showed very low levels of living. Average education among these squatters was 5 years, or 3 years below the average for natives of Manila. The income and level of living were substantially below the national "minimum" established by the Filipino nutrition research council. Within this barrio, 12 percent of the household heads were unemployed and 41 percent of the women worked as scavengers, laundresses, and vendors. Yet most of the residents were committed to city life, especially to their children's education, and had evolved a number of income-conserving, survival techniques which enabled them to remain in the city.[26]

One of the most striking characteristics of the economic situation of the less mobile migrants is the instability of their income. A recent ILO report on urban development in Jakarta notes that only one-quarter of the male migrants succeeded in getting a job paid on a monthly basis. Eighty-six percent of those with no schooling worked on a daily basis. To compensate for income instability and low wages many migrants try to make more money by working longer hours. In Jakarta, 69 percent of the male migrants worked more than 45 hours per week while only 59 percent of the natives did so.[27] Other studies show that in Manila, in Popayan, Colombia, and in Mexico City less mobile, less educated migrants tend to have less stable incomes and are forced to take any available earning opportunities, often by creating self-employed jobs like scavenging or hauling.[28] There are, however, relatively few studies that examine in detail the economic experience of the poorest migrants. Additional work in this field would certainly improve our understanding of how less mobile migrants survive in the city.

The general lack of economic improvement within this group supports the suggestion made by Taira that the very poor are more or less trapped in their poverty. He hypothesizes that the longer they live this marginal life, the more difficult they find advancement in either the traditional or modern urban sectors.[29] Recent studies provide contradictory evidence: some show that the poor migrants are "on the fringe" and so isolated that advancement is difficult.[30] Others show that the poor migrants are not "marginal"; they may not be fully integrated into the "mainstream" of economic progress, but they are not isolated from all possibility for advancement.[31] In Barrio Maligamgam, the almost zero margin for risk limits mobility and opportunitites to change. Hackenberg, Friedmann and Sullivan, and others also find a low risk-taking capability among the very poor, migrants and natives alike.[32]

Recognition of the differences in economic impacts between mobile and less mobile migrants prompts the questions: What share of migrants are less mobile? Will this share increase? Jorge Hardoy of Argentina suggests that there will be a greater proportion of very poor migrants in Latin America as the rural-urban income disparities widen.[33] Browning has suggested that selectivity may decline over time for large cities, and found evidence from Monterrey to support this.[34]

Hardoy's theory is supported also by Carvajal and Geithman's 1974 analysis of the income distribution of recent versus settled migrants in Costa Rica. They found that the lowest 10 percent of employed recent migrants earned only 0.2 percent of all recent migrant income, while those in the lowest decile of settled migrants and nonmigrants earned 0.5 and 0.7 percent of the respective total incomes.[35] Is the observed increase in the proportion of less selective migrants evidence supporting the theory of declining selectivity or is it merely an indication that migrants start out in low paying jobs?[36] Only additional research can deal with this question. Related questions needing additional study are: Do certain types of cities receive a larger share of poorer migrants? If these migrants do not improve their lives, and at least their childrens', do they move on or stay where they are? Do less mobile migrants who intended to permanently settle in the city become less committed to city life and become the "sojourner" migrants described by Nelson?[37] What differentiates the mobile from the nonmobile migrants, both before and after arrival, and are these differences changing over time? Each of these questions may be of considerable interest to policymakers and planners who must provide for the migrants.

*Economic impacts on women migrants* -- The discussion of less selective migrants also introduces the issue of the economic effects on women migrants. A cross-national survey shows that women's educational levels are generally below those for men from the same community, which means that most migrant women are less selective.[38] Does this mean that women who migrate can expect a marginal, subsistence level of living, especially if they are single heads of households?

Very few studies of the economic consequences of migration on the migrant focus specifically on women.[39] Boserup's analysis is one important exception. In a comprehensive analysis of women's role in development, she shows that rural women are active in agriculture and trade activities in Southeast Asia and Africa, but work only as unpaid household workers in the Arab and Latin American countries. When they move into town, Latin American and Southeast Asian women are economically active. In contrast, migrant women in the Near East, Africa, and India do not enter the paid urban labor force. These data show that for most women, the possible exception being the Near East, moving from rural to urban areas often implies a change in employment status.

When real incomes are not as high as anticipated, the need to buy food, housing, and other previously "free" goods pushes many women into the labor force. Because women are generally less educated and saddled with additional responsibilities for housework and child care, they are often limited to part-time or self-employed work as vendors or casual laborers.[40] Particularly for women who previously had not worked in the fields, this is quite a change. Moreover, their income does not guarantee their economic independence or even the family's mobility, especially if real family income still lags behind the level prevailing at the origin.[41]

Whether she is economically active or not, the migrant woman moving from a rural, subsistence economy to the city must perform more functions outside the home. While before she may have contributed to raising, harvesting, and preparing food for consumption, the migrant woman must now purchase food and goods within the market economy of the city.[42] These economic changes are linked to social changes, which are considered below.

### *Social Impacts on the Migrants*

The social and economic changes which a migrant experiences are interdependent. There is no clear line dividing social from economic factors, but social consequences are defined here as changes in the network, pattern, and attitude toward social relationships. These may include changes in the roles within the family and in relations with other individuals and their neighborhood. For rural-urban migrants, the most dramatic social changes are those involved in shifting from a rural to urban lifestyle. Urban-urban migrants may also experience changes, though these may relate more to resettlement. Most of the studies reviewed here focus on the social changes which accompany the economic fluctuations experienced by migrant families, but a few studies start with the premise that social factors influence the employment and income experience. The following discussion begins with an analysis of the social factors affecting opportunities for economic change and proceeds to a comparison of the social changes experienced by more and less mobile migrants.

*Importance of kin and friends* -- There is no doubt that kin provide substantial assistance to migrants. The persons with whom the migrant stays upon arrival at destination have a tremendous impact on his chances of quickly finding a job and a suitable place to live. Often, the attraction of staying with kin is so strong that the migrant will remain with them or friends in peripheral shanty towns, even though this may limit his employment opportunities by restricting the number of accessible employment locations.[43] Recent

evidence shows that migrants turn to kin less frequently for shelter because more are moving in family groups, although migrant families still rely on kin for assistance in getting established.[44]

Friends and kin in the city facilitate migrant adjustment to the city in many ways. They make loans of cash or kind to tide the family over until it finds its own source of income;[45] help it find a place to live, either temporarily or permanently;[46] help it become involved in the city's social life, easing the transition from rural to urban customs; and perhaps most importantly, help the migrants find jobs.[47] As Little has shown, clubs and kin networks are a prominent feature of urban Africa and, in a slightly different form, Latin America. The contacts developed among club members are very important for subsequent economic mobility.[48] The many studies discussing kin assistance show that the presence and aid of kin is critical to migrant satisfaction with new life. Those without kin or friends to help them are at a severe disadvantage in finding jobs and building adequate lives for themselves.

Although the migrants may rely heavily upon kin or friends in entering the new community, once settled they acquire new friendships. These new friends become a source of satisfaction to many migrants. The INTERMET studies in Korea, Venezuela, Indonesia, and the Philippines, Flinn's studies of migrant satisfaction in a shantytown in Colombia, the Leeds and Leeds study of a Brazilian favela, Little's analysis of women in urban communities and Lomnitz's analysis of migrant networks in Mexico City all find that the migrant's new lifestyle revolves around the new social contacts and friendships made in the city.[49] Because migrants can no longer rely on the relatives left in the village for daily help or guidance, the reliance on friends and neighbors in the city is especially strong.[50]

*Role changes for female migrants* -- The few studies that have focused on women migrants show that the separation from kin may have the greatest impact on young women. Ester Boserup's analysis of women in development is the most comprehensive analysis of the role changes women experience.[51] Not only do women lose the social companionship of their home community, but their responsibilities increase. Food preparation and housekeeping chores previously shared among female kin become the sole responsibility of the migrant woman. In addition, the shift to a market economy requires women to spend more time marketing away from home.

They may also have to work for additional revenues to supply family necessities previously derived from farming or kin. Instead of the seasonal fluctuations characterizing the demand for women's work in the agricultural sector, the demands upon women for income generating work are ever present in the city. As many of the migrant families are young, the women either must watch children while they work or find someone to look after them. Traditionally, other members of the family look after children, but in the city there may be no nearby kin. This means that food purchase, scavenging, meal preparation, cleaning, and income generation must all be managed while caring for children. Just when the responsibilities for sustaining herself and her family increase, it seems that there are fewer people the migrant woman can call on for help.

The Boserup, Lopez and Lollensteiner, and Little studies show that women migrants have evolved a number of techniques for coping with the demands upon their time. First, in Africa they may join or set up social and economic associations which provide such diverse services as personal loans, cooperative purchase of goods for sale, or shared child care.[52] Second, they may take work into their homes. Although this often relegates women to very low-paying tasks such as piece work, it does allow flexible scheduling and is more compatible with the dual mother-worker role.[53] Third, as shown by a study in a Manila barrio, the women often find part-time jobs as sellers or vendors, where children may accompany them and even assist in the purchase, preparation, and resale of goods. Fourth, they may rely heavily on neighbors for assistance, either financially or for child care.[54]

The more educated women seem to cope better with the rural-urban transition in responsibilities and roles. This may be because educated women in urban areas participate more equally in family decision-making, as shown in Brazil and Greece, and get more assistance or cooperation in meeting the dual demands of worker and housewife.[55] More importantly, educated women have a greater opportunity for semi-skilled, skilled, or white-collar jobs, thus reducing the income constraint under which the family operates. This allows the woman to buy the services or goods she would otherwise have to provide herself.[56] In addition, literacy skills make it easier for a woman to shop carefully, with less likelihood of being cheated.[57]

*Neighborhood interactions* -- Coping with life in the new community is facilitated by

any technique which raises the family's security. Top priority for all migrants is finding a job, the major means to improve economic security. For most migrants, the search for employment is facilitated by settlement near job opportunities. In most African, Asian, and Latin American cities this means a central city "bridgehead" from which to launch their job-seeking activities.[58]

Although the central city location is well suited for job hunting purposes, it generally does not offer the support or services of less centrally located shantytowns. The central city usually has a very limited, low quality supply of housing at costs substantially higher than in shantytowns.[59] As Flinn shows in a study of migrants to Bogota, Colombia, migrants choose a shantytown location if they have the financial resources to cover additional transportation expenses of commuting, friends in the shantytown, and a skilled occupation which enables them to be more selective in where they will work.[60]

The INTERMET/IDRC studies show how the choice of a less geographically convenient location may enhance the transition of migrants from an old to new community.[61] Friends and kin in the shantytown locations form a transitional "little community" for the migrants. In contrast, the central city location often lacks the nearby kin and friends who dilute the unfamiliarity of the new life. Migrants living in the central cities of Seoul and Caracas indicated their dissatisfaction with this absence of community. Migrant satisfaction apparently depends at least as much on a sense of belonging to a group of friends as on convenient access to jobs.

While the support of friends, kin, or the community fosters migrant social and economic mobility, the most important determinants of socioeconomic mobility are the characteristics of the migrants themselves. Many studies show that the lower class, rural-born migrants show the lowest levels of mobility.[62] The less educated migrants are at a significant disadvantage relative to more educated migrants and city natives. With the help of friends already in the city, the extremely poor migrants may find jobs and even build a slightly better life, but the lack of preparation in terms of skills or knowledge remains the major factor limiting their advancement.

*Migrant squatters* -- One method of coping with life in the city is minimization of housing expenditures. For many migrants this means squatting, or occupying a piece of land without purchase or payment of rent. The owner of the land, generally a government entity, tolerates the squatter and his shack until the land is needed for other purposes.[63]

While the proportion of a city's population in squatter settlements may range from 15 to 65 percent, not all of the squatters are migrants.[64] The latter are dispersed throughout the squatter settlements according to their acquaintance with persons already living there, their information about available squatting sites, and their ability to afford living in alternative locations.[65]

Squatting allows migrants with extremely low and unstable incomes to spend almost no money for housing, leaving most of their limited resources for food and other necessities.[66] These people live in minimal shelters, any one of which is often little more than a roof and walls. If and when their incomes go up, the squatters can expend more of their energies and resources on improving their homes and communities, preferably in sites where eviction is less likely.

Squatting offers several additional advantages for consolidating and improving the social and economic security of migrants who have a higher and more stable income. While continuing to benefit from zero land rents, these more successful migrants may use their housing as an additional asset to improve their future income levels. The house may be used as a place of business, or it may be enlarged and rented in part to another family.[67] Even though many squatters are still in areas susceptible to "slum clearance" programs, some governments are beginning to grant title to squatters, making the potential gains more certain.

The squatter communities vary widely in the level of services offered to residents. The poorest settlements lack roads, proper drainage, water or sewage services, and electricity.[68] By Western standards, these conditions seem appalling, but in comparison with rural areas of developing countries the overall quality of housing and community services may not be that low. Recent surveys of conditions in squatter settlements show that many of the communities have a fairly adequate supply of services (see table 3). This is largely a result of squatter self-help efforts to provide themselves with transportation, water, and electricity, without costly reliance on outside sources.[69]

After obtaining adequate shelter, one of the first things migrants build is a school for their children.[70] The school has come to be recognized as the symbol of opportunity and hope for their children, hence access to school has a high priority.[71] Several studies have shown that a major source of the migrants'

Table 3. THE STATUS OF SERVICES IN SIX LOW-INCOME COMMUNITIES
(Figures are in percent and refer to households surveyed)

| Type or status of service | Bandung | Caracas | Istanbul | Kuala Lumpur | Manila | Seoul |
|---|---|---|---|---|---|---|
| No electricity | 48.4 | .4 | 18.3 | 65.7 | 4.8 | 27.7 |
| No toilets | 55.8 | 2.0 | -- | 14.6 | 40.3 | 0.2 |
| Source of water | | | | | | |
| Piped in house | 23.1 | 95.6 | 9.0 | 37.5 | 64.6 | 72.1 |
| Piped water, neighbor | 4.4 | 2.0 | .6 | 4.6 | 32.6 | -- |
| Public faucet | 3.2 | 2.4 | 62.7 | 42.2 | 1.3 | -- |
| Artesian well | 2.5 | -- | 1.0 | 9.3 | .5 | 8.3 |
| Open well, streams | 66.4 | -- | -- | -- | -- | -- |
| Vendors | -- | -- | 26.1 | -- | -- | -- |
| Others | .4 | -- | .6 | 6.4 | 1.0 | 19.6 |
| Garbage disposal | | | | | | |
| Government collects | 8.1 | 86.8 | 59.5 | 34.6 | 23.2 | 36.6 |
| Vacant lots | 0.4 | 6.2 | 1.9 | 0.6 | 4.6 | 7.6 |
| Bodies of water | 83.7 | 0.4 | 24.5 | 6.7 | 53.5 | 17.3 |
| Burn | 2.1 | 5.6 | 0.2 | 49.4 | 9.7 | -- |
| Pit and holes | 2.7 | -- | 5.2 | 7.5 | 2.0 | 1.8 |
| Throw anywhere | -- | 0.8 | 8.1 | -- | 5.4 | 5.2 |
| Others | 3.0 | 0.2 | 0.6 | 1.2 | 1.6 | 31.5* |
| Health care when sick | | | | | | |
| Public hospital | 26.8 | 30.3 | 56.3 | 8.1 | 20.4 | N |
| Private hospital | 7.4 | 0.4 | 1.0 | 3.3 | 2.0 | O |
| Private doctor | 40.9 | 0.6 | 40.2 | 66.2 | 23.2 | |
| Health centre | 10.1 | 68.7 | 1.6 | -- | 53.0 | D |
| Herb doctor | 4.1 | -- | -- | 0.2 | 0.8 | A |
| None | 2.6 | -- | 0.4 | 2.4 | 0.3 | T |
| Others | 8.1 | -- | 0.5 | 19.8 | 0.3 | A |
| N = | 683 | 500 | 499 | 507 | 392 | 2335 |

* Private disposal.

SOURCE: INTERMET/IDRC study (1974:197)
Based on sample surveys in squatter communities in each city

satisfaction with their new community is pride in having one or more children in school.[72]

*Migrant social and political outlook* -- The numerous studies showing migrant satisfaction or mobility indicate that their attitude is not pessimism or despair. There have been a few studies which attempted to show that poverty and unemployment of migrants lead to a disillusionment with urban life, perhaps eventually to political activism.[73] However, Joan Nelson's study refutes this claim, showing that most migrants do find satisfaction with their lives and are not political activists or dissidents.[74] Cornelius' study of Latin American migrants views them according to the political environment in which they are brought up. If violence and activism are part of their premigration environment, they may be prone to these methods of expressing dissatisfaction. Otherwise, dissatisfied migrants apparently do not use political channels to redress their grievances.[75] Although the hypothesis of migrant activism has been generally rejected, changes in migrant selectivity and in city conditions may force reconsideration of this issue, particularly if political activism and violence become more widespread.[76]

In the few studies where dissatisfied migrants have been prevalent, the primary response to dissatisfaction seems to be migration elsewhere. In one study of Thai migrants, those not finding jobs in Bangkok left to return home or try elsewhere.[77] The INTERMET study showed that only 34 percent of the migrants sampled in Seoul preferred their present life over their former life. The remainder expressed dissatisfaction, primarily stemming from limited educational opportunities for their children. More than half of these migrants said they would move to another community if given the chance, i.e., if they could afford to move again.[78]

Dissatisfied migrants who can't afford to move again are presumably trapped in their poverty. Because they may be too poor to send their children to school, there is little hope for improvement.[79] For these very poor migrants there remain many unanswered questions: Are their children trapped in a "culture of poverty?" What changes might allow these migrants a satisfying life? Under what conditions could they or would they move again?

One of the more obvious differences between mobile and less mobile migrants is the attainment of an urbane, outward looking perspective and lifestyle. For the very poor who come looking only for some improvement in their financial outlook and perhaps their children's education, only small changes in lifestyle are likely to occur. Their housing may remain crowded and makeshift, their nutrition inadequate, and their only luxuries an occasional visit to the cinema.[80] Although this may be an improvement over their previous life, the migrants remain at the subsistence level, with little margin for luxury. Because the major concern of the poor is to conserve what little income they possess, they shun activities which might drain their limited resources.

For example, risk may come from interaction with others outside the migrant's local community. Studies in Argentina, Mexico, and Uganda show that while less mobile migrants have a distinct social life complete with bars and clubs, the persons involved in these activities are generally from the migrant's immediate community.[81] There is limited participation in activities involving the wider community, such as going to the cinema or listening to the radio. Compared to rural residents, less mobile migrants may be more culturally open, but relative to city natives or other migrants, this group seems isolated and different.

Another source of risk is interaction with the government. Government actions towards squatters and migrants have frequently been restrictive, as exemplified by squatter removal programs, penalties for unlicensed vending, and requirements for residence and work permits.* The migrants are likely to view participation in government-related activities as threatening and something to be avoided.[82]

On the other hand the more mobile migrants, such as the Brazilian migrants sampled by Leeds and Leeds, participate more in activities outside the local community.[83] They more freely avail themselves of -- or demand -- governmental services through programs providing low-rent public housing,[84] assistance with self-help construction,[85] teachers for schools, and perhaps even welfare services.

Contacts with a broader range of persons from different socioeconomic classes increase the more mobile migrants' exposure to different values and activities. One study shows that Brazilian migrant women working with persons of higher occupational levels, e.g., as domestics in upper class households, were likely to adopt more "urbane" values.[86]

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* These and other aspects of government actions towards migrants are discussed at greater length in Chapter VI.

As Little shows for African women, these value changes may be little more than a desire for richer lovers and nicer clothing, or they may include participation in more citywide functions such as going to the cinema, listening to the radio, or playing soccer against teams from other areas of the city.[87] The more mobile migrants can risk more than the subsistence level activities. Compared to less mobile migrants, they have a little more money, more secure jobs, a little better education, more awareness of "city ways", and a vision of an appropriate lifestyle which includes more than their own little community can provide. Nonetheless, like their less mobile counterparts, they continue to fulfill most social needs within their community. They continue to rely on a network of friends within the neighborhood for help in making a living, caring for children, improving their homes and community, and entertaining themselves.

Integration with the wider urban community is, in a sense, in conflict with the migrants' fundamental concern -- an improved level of living and economic security. With this goal foremost, day-to-day living is concentrated on finding food and shelter. When the migrants' aspirations expand to include urban facilities such as water, electricity, and sanitation, they will work for the facilities, as shown by self-help activities in the squatter communities. Integration into the city may be necessary only when the migrants' own community cannot provide desired items or changes. As Hollensteiner, Leeds, and Peattie have shown, seeking goods or services controlled by city politicians may spur outside involvement.[88] Generally, however, the government views the squatters as a nuisance and the squatters know this. Most seem to consider a "leave us alone, we'll leave you alone" attitude the safest position for guarding their improving lifestyle. Only when the more mobile migrants consolidate their security do they shed some of this caution.

## *IMPACTS OF MIGRATION ON THE URBAN DESTINATIONS*

As noted earlier, perhaps the most startling impact of migration is the rapid pace of urbanization. Between 1960 and 1970, cities of over 20,000 population in developing countries grew at an average annual rate of 4.6 percent, while the rural areas in these countries increased by only 1.8 percent per year.[89] Between 1920 and 1970, cities in the developing world grew in population two and one-half times faster than those of the developed countries.[90] At this rate of growth, by the year 1980 the developing countries will contain over 50 percent of the world's urban population.[91] Although high rates of natural increase within cities partially account for this rapid growth, urban inmigration may generate as much as 75 percent of the increase in urban population.[92]

In addition to increasing the size of the urban sector, migration affects the social and economic fabric of cities. This section begins with a discussion of migration-induced changes in city size and how these in turn affect urban levels of living. Inclusion of all the changes which accompany growth is beyond the scope of this paper, but a few urbanization issues are relevant to the discussion of social and economic changes which follows. In particular, the lifestyle of migrants affects the population density of a city, its patterns of land use, and the availability and distribution of housing and urban services. The discussion here reviews these issues and the attendant economic, social, and physical consequences.

The economic impacts are primarily determined by assessing differences in various economic indicators before and after migration. The measures most often used are changes in the employment levels, occupational hierarchy, income levels, industry mix, savings and capital accumulation levels, and government revenue and expenditure levels. This method of analysis is not conclusive for separating changes due to overall population growth from those due solely to migration. A few studies attempt to resolve this issue by comparing migrants with city natives. The results of these studies are more specific and perhaps of greater value to the policymaker and planner.

The discussion of economic impacts is followed by a discussion of research covering social impacts on the city. Migrants experience social changes which alter the social fabric of the city. Similarities and dissimilarities between migrant and native lifestyles make the analysis of social impacts more difficult, but an attempt is made to present conclusions dealing with specific differences between the two lifestyles. The issues discussed include changes in the social class balance of the city, differences in community and neighborhood composition, and changes in the citywide and neighborhood levels of living.

### *Contribution to Urban Population Growth*

One of the most startling impacts of rural-urban migration has been the rapid pace of urbanization. As shown in table 4, between 1950 and 1970 cities in less developed countries grew twice as fast as cities of the more developed countries. Between 1970 and 1975 LDC cities grew at an average annual rate of 4.1 percent while their rural areas grew by

Table 4. AVERAGE ANNUAL PERCENT GROWTH IN URBAN AND RURAL POPULATIONS, BY MAJOR REGION AND SUBREGION: 1950-60, 1970-75, AND 1980-90

| | Urban Growth Rate | | | Rural Growth Rate | | |
|---|---|---|---|---|---|---|
| | 1950-60 | 1970-75 | 1980-90 | 1950-60 | 1970-75 | 1980-90 |
| World Total | 3.4 | 2.86 | 2.82 | 1.02 | 1.28 | 1.17 |
| More Developed Countries | 2.48 | 1.73 | 1.47 | -0.26 | -0.97 | -1.21 |
| Less Developed Countries | 4.92 | 4.07 | 3.89 | 1.37 | 1.69 | 1.48 |
| Africa | 5.08 | 4.84 | 4.68 | 1.68 | 1.97 | 2.10 |
| Eastern Africa | 5.64 | 5.67 | 5.43 | 1.98 | 2.37 | 2.50 |
| Middle Africa | 8.93 | 5.84 | 5.18 | 0.97 | 1.23 | 1.42 |
| Northern Africa | 4.68 | 4.53 | 4.22 | 1.56 | 1.65 | 1.61 |
| Southern Africa | 3.70 | 3.74 | 3.90 | 1.49 | 1.82 | 1.65 |
| Western Africa | 5.00 | 5.03 | 5.11 | 1.77 | 2.06 | 2.25 |
| Latin America | 4.45 | 3.93 | 3.57 | 1.36 | 0.99 | 0.87 |
| Caribbean | 2.93 | 3.31 | 3.18 | 1.35 | 0.73 | 0.71 |
| Middle America | 4.62 | 4.43 | 4.22 | 1.90 | 1.68 | 1.55 |
| Temp. South America | 3.09 | 2.13 | 1.72 | -0.44 | -1.28 | -1.41 |
| Trop. South America | 5.23 | 4.35 | 3.77 | 1.42 | 0.96 | 0.75 |
| Northern America | 2.72 | 1.53 | 1.51 | -0.07 | -1.03 | -1.14 |
| East Asia | 5.52 | 3.09 | 2.63 | 0.53 | 1.04 | 0.51 |
| China | 6.78 | 3.26 | 2.99 | 0.70 | 1.20 | 0.61 |
| Japan | 3.36 | 2.32 | 1.35 | -1.65 | -1.64 | -2.06 |
| Other East Asia | 5.32 | 4.26 | 3.37 | 0.39 | 0.25 | -0.02 |
| South Asia | 3.62 | 4.23 | 4.22 | 1.81 | 2.05 | 1.89 |
| Eastern South Asia | 4.62 | 4.64 | 4.42 | 1.83 | 2.18 | 1.87 |
| Middle South Asia | 2.98 | 3.95 | 4.13 | 1.81 | 2.05 | 1.93 |
| Western South Asia | 5.45 | 4.77 | 4.25 | 1.71 | 1.45 | 1.42 |
| Europe | 1.59 | 1.35 | 1.20 | -0.22 | -0.85 | -1.15 |
| Eastern Europe | 2.09 | 1.81 | 1.52 | -0.09 | -0.78 | -1.13 |
| Northern Europe | 0.62 | 0.74 | 0.84 | 0.05 | -0.54 | -1.04 |
| Southern Europe | 1.84 | 1.72 | 1.53 | -0.05 | -0.66 | -0.91 |
| Western Europe | 1.80 | 1.21 | 0.98 | -0.74 | -1.41 | -1.64 |
| Oceania | 2.44 | 2.36 | 2.16 | 1.80 | 0.96 | 0.74 |
| Australia & New Zealand | 2.35 | 2.15 | 1.86 | 1.88 | 0.03 | -0.53 |
| Melanesia | 9.91 | 8.82 | 6.77 | 1.56 | 1.56 | 1.45 |
| Micronesia & Polynesia | 4.52 | 4.29 | 3.84 | 2.25 | 1.77 | 1.48 |
| Soviet Union | 3.93 | 2.33 | 1.89 | 0.02 | -0.92 | -1.13 |

Notes: The definition of urban is that used by each country; there is some variation but most use 5000 persons as the lower limit. The remaining tables use the same country-specific defintions.

These estimates have been prepared by the U.N. Population Divison as medium variant, medium tempo of urbanization. They assume that urbanization deccelerates after a nation is 50 percent urbanized. In some cases this may lead to underestimation for countries that continue to have high rates of rural-urban migration.

Source: "Trends and prospects in urban and rural population, 1950-2000. As Assessed in 1973-74," Population Division, Department of Economics and Social Affairs, U.N., April 1975 ESA/P/W.D. 54., Table C1 and C2. See Appendix of this source for listing of countries included in each region.

1.7 percent. At these growth rates the LDC's will contain over 50 percent of the world's urban population by the year 1980. Among LDC's, the highest urban growth rates are expected for African, Melanesian, and some Asian countries. By the period 1980-90, virtually all LDC's will have urban growth rates exceeding those of the more developed countries. According to the data in table 5, by 1990 many LDC regions will be as highly urbanized as Europe was in 1960.

Not all growth of urban populations results from migration: much is due to natural increase of the native urban population. Kingsley Davis shows that during the industrial revolution cities of the more developed world grew primarily from migration. Death rates in these cities were actually higher than in the countryside while birth rates were higher in the country than in the city, and as a result urban growth was due primarily to rural-urban migration. In the growing cities of the developing world the chief contributor to growth, Davis claims, is not rural-urban migration. Instead, he finds that these cities are growing because they have high rates of natural increase, with death rates often considerably lower than those for the surrounding rural hinterlands.[93] Arriaga's study of urban population growth in Chile, Mexico, and Venezuela shows that natural increase accounted for 58-70 percent of the urban population growth, with the lowest contribution from natural increase found among cities with populations over 500,000 and the highest in intermediate-size cities of 100,000 to 500,000.[94]

Not all demographers agree with these findings, however. A World Bank study of recent urban growth rates for several metropolitan cities shows that with the exceptions of Bogota and Taipei, migration has accounted for 50-76 percent of the cities' growth. The data for Sao Paulo and Caracas show a decline over time in the share due to migration.[95]

Much of the disagreement over the migrant contribution to urban growth arises out of different estimates of the urban rate of natural increase. The U.N. Population Division analyzed the patterns of urban and rural natural increase for 1960, deriving rates from the 1960 age-sex distributions for urban and rural areas. The analysis showed that the ratio of urban to rural rates ranged from approximately .60 to 1.5, with most subregions' ratios falling between .90 and 1.0.[96] For 1970, the U.N. Population Division has assumed that in most countries urban and rural rates of natural increase are approximately equal, i.e., with a ratio of 1.0.[97] If this assumption is used, the migrant contribution to urban growth may be estimated as the difference between urban natural increase and total urban growth. Table 6 shows the resulting estimates for 1960, 1975, and 1990. Note that the table gives rural-urban transfers, which are largely comprised of rural-urban migrants but also include urban population growth due to boundary changes and reclassification of rural areas into urban ones.

What do these figures show about migration? For most regions, the share of urban growth due to migration is expected to decline. Among LDC's the migrant contribution to growth may drop from 60 percent in 1950-60 to 42 percent in 1980-90. The migrant share may drop from almost 80 percent in 1950-60 to about 50 percent in 1980-90 in Middle Africa. On the other hand, the rural-urban transfer share of urban growth is expected to rise in the Caribbean and in Middle and West Asia. It must be recognized that these figures are only a rough approximation, but a similar World Bank analysis found that the migration rates implied by the U.N. figures are reasonable, though perhaps low for some areas.[98]

Of course, if there is reason to believe that there are substantial differences between urban and rural rates of natural increase, the figures given in table 6 would be inaccurate. In such instances detailed analysis of urban and rural vital statistics is needed to prepare country-specific estimates of urban and rural rates of natural increase. Herrera and Pecht of CELADE have just completed such an analysis of urban growth rates in Latin America. They find that major differences in the estimates of the migration component of urban growth for Sao Paulo and Rio de Janeiro result from changes in the assumptions about urban rates of natural increase.[99] These differences are shown in table 7.

City size may also influence the proportion of growth due to migration. In Colombia, Arriaga found that the 1951-64 share of growth due to migration decreased from 47 percent for Bogota to 30 percent for the smaller city of Cartagena, but other studies find no consistent relation between percent of growth due to migration or level of urban natural increase and city size.[100]

Another factor that may influence an estimate of growth due to migration is the definition of migrant increase. If the children born to migrant parents are included as migrant growth, this substantially increases the proportion of growth due to migration. Using this definition, Martine found that estimates of the migration component grew by 8 to 25 percent for selected Latin America cities.[101] These figures show that, depending on assumptions concerning the urban rate of natural increase, city size, national level of urbanization, and definition of migrant increase, the migrant

Table 5. PERCENT URBAN FOR MAJOR WORLD REGIONS AND SUBREGIONS, 1960, 1975, AND 1990

| | 1960 | 1975 | 1990 |
|---|---|---|---|
| World Total | 33.7 | 39.3 | 45.2 |
| More Developed Regions | 60.1 | 69.2 | 77.0 |
| Less Developed Regions | 20.9 | 27.3 | 35.0 |
| Africa | 17.6 | 24.4 | 32.5 |
| East Africa | 7.5 | 12.3 | 18.0 |
| Middle Africa | 16.3 | 24.6 | 37.0 |
| North Africa | 29.2 | 39.5 | 49.3 |
| South Africa | 47.8 | 46.2 | 54.4 |
| West Africa | 12.8 | 18.5 | 25.9 |
| Latin America | 48.5 | 60.4 | 69.7 |
| Caribbean | 36.5 | 48.2 | 57.5 |
| Middle America | 46.1 | 57.1 | 66.6 |
| Temp. South America | 70.7 | 80.8 | 87.2 |
| Trop. South America | 45.7 | 59.3 | 69.9 |
| North America | 69.8 | 76.5 | 82.9 |
| East Asia | 24.6 | 30.7 | 37.7 |
| China | 18.7 | 23.5 | 30.3 |
| Japan | 62.5 | 75.2 | 83.7 |
| Other East Asia | 33.1 | 50.0 | 62.9 |
| South Asia | 18.0 | 23.0 | 29.6 |
| East South Asia | 17.0 | 22.1 | 29.3 |
| Middle South Asia | 17.2 | 21.1 | 26.9 |
| West South Asia | 30.6 | 43.7 | 54.6 |
| Europe | 59.2 | 67.1 | 74.3 |
| East Europe | 47.6 | 56.6 | 66.0 |
| North Europe | 71.9 | 75.1 | 79.7 |
| South Europe | 49.6 | 59.3 | 67.7 |
| West Europe | 68.9 | 77.1 | 83.3 |
| Oceania | 65.9 | 71.6 | 75.8 |
| Australia & New Zealand | 79.4 | 85.5 | 89.4 |
| Melanesia | 4.4 | 13.7 | 27.3 |
| Micronesia | 24.6 | 32.1 | 40.3 |
| USSR | 49.0 | 60.5 | 70.8 |

Source: Medium variant, "Selected World Demographic Indicators by Countries, 1950-2000," ESA/P/W.P. 55, Population Division, Department of Economics and Social Affairs, U.N., May 1975.

Table 6. AVERAGE ANNUAL RATE OF RURAL-URBAN TRANSFER AND RURAL-URBAN TRANSFER AS A PERCENT OF URBAN GROWTH FOR MAJOR REGIONS AND SUBREGIONS: 1950-60, 1970-75, AND 1980-90

| | Rural-Urban Transfers per 1000 Urban Population | | | Rural-Urban Transfers as Percent Urban Growth | | |
|---|---|---|---|---|---|---|
| | 1950-60 | 1970-75 | 1980-90 | 1950-60 | 1970-75 | 1980-90 |
| World Total | 16.7 | 9.3 | 9.3 | 48.7 | 32.5 | 33.0 |
| More Developed Countries | 12.1 | 9.3 | 7.3 | 48.8 | 46.2 | 49.7 |
| Less Developed Countries | 29.2 | 17.1 | 16.4 | 59.3 | 42.0 | 42.2 |
| Africa | 28.6 | 21.9 | 18.1 | 56.3 | 45.2 | 38.7 |
| East Africa | 34.7 | 29.3 | 24.7 | 61.5 | 51.7 | 45.5 |
| Middle Africa | 70.3 | 35.7 | 25.3 | 78.7 | 61.1 | 48.8 |
| North Africa | 21.3 | 17.2 | 13.9 | 45.5 | 58.0 | 32.9 |
| South Africa | 13.4 | 10.6 | 10.9 | 36.2 | 28.3 | 28.0 |
| West Africa | 28.9 | 24.5 | 22.0 | 57.8 | 48.7 | 43.1 |
| Latin America | 17.1 | 11.6 | 8.6 | 38.4 | 29.5 | 24.1 |
| Carribbean | 5.7 | 9.4 | 8.9 | 19.5 | 28.4 | 28.0 |
| Middle America | 14.7 | 11.5 | 9.2 | 31.8 | 26.0 | 21.8 |
| Temp. America | 13.4 | 6.9 | 4.7 | 43.4 | 32.4 | 27.3 |
| Trop. America | 23.1 | 14.4 | 10.0 | 44.2 | 33.1 | 26.5 |
| North America | 11.5 | 8.1 | 6.8 | 42.3 | 52.9 | 45.0 |
| East Asia | 39.6 | 14.4 | 13.7 | 71.7 | 46.6 | 52.1 |
| China | 51.9 | 16.0 | 17.1 | 76.5 | 49.1 | 57.2 |
| Japan | 21.3 | 10.6 | 6.3 | 63.3 | 45.7 | 46.7 |
| Other East Asia | 25.5 | 21.1 | 13.9 | 47.9 | 49.5 | 41.2 |
| South Asia | 15.6 | 17.1 | 17.3 | 43.1 | 40.0 | 41.0 |
| South East Asia | 24.0 | 19.5 | 18.7 | 52.0 | 42.0 | 42.3 |
| Middle Asia | 9.7 | 14.8 | 16.6 | 32.6 | 37.5 | 40.2 |
| West Asia | 28.7 | 19.1 | 12.6 | 52.7 | 40.0 | 69.5 |
| Europe | 7.1 | 7.8 | 6.7 | 44.7 | 57.8 | 55.8 |
| Eastern Europe | 9.0 | 11.7 | 9.8 | 43.1 | 64.6 | 64.4 |
| Northern Europe | 0.5 | 2.8 | 3.7 | 8.1 | 37.8 | 44.1 |
| Southern Europe | 7.1 | 8.7 | 8.1 | 38.6 | 50.6 | 52.9 |
| Western Europe | 11.6 | 8.6 | 5.8 | 64.4 | 71.1 | 59.2 |
| Oceania | 8.7 | 8.1 | 6.0 | 35.7 | 34.3 | 27.8 |
| Australia & New Zealand | 9.2 | 8.4 | 5.9 | 39.1 | 39.1 | 31.7 |
| Melanesia | 81.3 | 64.1 | 41.3 | 82.0 | 72.7 | 61.0 |
| Micronesia | 21.2 | 17.4 | 13.6 | 46.9 | 40.6 | 35.4 |
| USSR | 21.9 | 13.4 | 9.7 | 55.7 | 57.5 | 51.3 |

Note: Rural-urban transfers include net changes in the rural-urban balance due to all urban in-migration and reclassification of boundary changes to urban areas. Rates have been calculated with the assumption that urban rates of natural increase are the same as the national average. Urban growth rates are from "Trends and Prospects in Urban and Rural Population 1950-2000, As Assessed in 1973-74," Population Division, Department of Economics and Social Affairs, U.N., April, 1975.

Rates of natural increase are from "Selected World Demographic Indicators by Countries, 1950-2000." op.cit.Medium variant was used. For further discussion see S.E. Findley. "Estimates of the Migrant Contribution to Urban Growth for World Regions, 1970-75," Presented at the 1977 Annual Population Association of America Meetings, St. Louis, Missouri, April, 1977.

Table 7. ESTIMATES OF GROWTH DUE TO MIGRATION, SELECTED LARGE LATIN AMERICAN CITIES: 1950 TO 1970

| | Percent of growth if national rates are used | Percent of growth if urban rates are used | Urban rates of natural increase (per thousand) |
|---|---|---|---|
| Bogota | | | |
| 1951-64 | 53.1 | 53.0 | (NA) |
| Caracas | | | |
| 1950-61 | 53.7 | 58.3 | (NA) |
| Mexico D.F. | | | |
| 1950-60 | 42.0 | 39.8 | 34.1 |
| 1960-70 | 34.6 | 40.2 | 32.9 |
| Gran Santiago | | | |
| 1952-60 | 45.0 | 44.3 | 22.7 |
| 1960-70 | 39.6 | 49.6 | 23.1 |
| Gran Buenos Aires | | | |
| 1947-60 | 37.7 | 74.0 | 8.71 |
| Rio de Janeiro | | | |
| 1950-60 | 31.1 | 62.5 | (NA) |
| 1960-70 | 30.5 | 62.2 | (NA) |
| Sao Paulo | | | |
| 1950-60 | 57.4 | 76.3 | (NA) |
| 1960-70 | 47.5 | 72.1 | (NA) |

NA Not available.

Source: Herrera and Pecht (1976: 443), Table 2.23. Rates of natural increase are from Table 2.6-2.13. City rates are below national rates for Buenos Aires and Mexico (1960-70).

components of growth can range from one-third to three-fourths, and probably decline over time as the city grows larger.

Aside from the contribution to urban growth, migration can have other demographic impacts. As discussed above, migration is generally selective for younger persons. On the average, this would tend to lower crude death rates. Younger migrants may also disproportionately increase the share of persons in their early working years, swelling the younger, less experienced portion of the labor force. If migration is not heavily male selective, young migrant women may also increase the city's proportion of women in the peak child-bearing years. Such changes in the age distribution can have ramifications for urban unemployment rates, crude birth rates, and crude death rates.

Of particular interest is the potential migrants impact on the urban rate of natural increase. Migrants may raise the proportion of women in the peak child-bearing years, and this alone may raise birth rates. In Tegucigalpa, Honduras, for example, rural-urban migrants had 4.68 mean children ever born versus 3.70 for the natives.[102] It seems that migrant women from larger towns or cities, who are better educated, whose work is incompatible with staying at home to raise children, and whose spouses are occupationally mobile tend to have fertility levels at least as low as native levels, and in some cases substantially lower. In the Honduras example cited above, migrants from towns larger than 20,000 were younger and better educated than natives. Their median earnings were approximately 50 percent higher than native earnings and of all migrant or native groups they had the fewest mean children ever born, 3.32 per woman.[103] Thus, the mix of migrants can either raise or lower birth rates.*

Although urban migrants may go to many different cities within a country, the cumulative impact of urban inmigration in most developing countries has been the emergence of primate cities.** These cities, often the capitals or the leading export cities of colonial days, attract far more migrants than any other cities in the nation or region.[104] Even if all migrants do not originally go to the primate cities, they are often ultimately concentrated there through stepwise migration from smaller cities.

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* The interrelations between migration and fertility is discussed in Chapter V, below.

** A primate city is one which is more than twice as big as the next largest city.

Table 8 shows that in 1960 only 24.2 percent of the urban population of LDC's lived in cities larger than one million, but 41.1 percent are expected to do so by 1990. Approximately 24 percent of Latin America's 1990 urban population is expected to reside in cities larger than 5 million. While Latin America will continue to have the largest share in million-size cities, Africa is expected to have a dramatic increase in the share of its urban population in million-size cities, from 13.2 percent in 1960 to 39.7 percent in 1990. The cumulative impact of high urban rates of natural increase and stepwise, metropolitan-focused, urban migration has been and will continue to be reflected in the increasing concentration of urban population in the largest cities of the less developed world.

*Physical impacts of rapid urban growth* -- If the urban population is increasingly concentrated in the largest cities, what are the resultant changes in the physical characteristics of these cities? One obvious change is an increase in population density. The inflow of people raises the demand for housing faster than it can be supplied. To cope with the shortage, people double up, rent out rooms to families, and piece together barely adequate shelters. Squatter shacks spring up on vacant land, sidewalks, and roadsides through the city.[105] The shacks are generally small and closely spaced, sometimes leading to densities as high as 430 persons per acre.[106]

Densities are commonly not uniform throughout the city. The greatest demand for land is in the central business area. Much of this land is privately owned, and as the demand soars so do prices. Where such land has the additional attraction of utility and road access, it may account for as much as 50 percent of the total cost of acquiring land and buildings.[107] And where the land is very costly, only highly intensive uses such as for office and apartment buildings are profitable. The result is high density pockets surrounded by areas of lower intensity use.[108]

The rapid rise in land prices is in part a product of speculation. Much land may lie idle as owners hold it in anticipation of even higher prices. Such speculation in a "sellers" market may force land prices up at rates as high as 60 percent per year, as in Ankara, Turkey.[109] Many cities have not imposed systems of land taxation, which might prevent speculation and regulate land use. Longtime residents can continue living in low density homes in central city areas and not be forced out by high taxes.[110] As a result, people seeking low-cost housing are forced to look outside the more convenient central city, often beyond the range of adequate transportation or utility services.

Table 3. PERCENT OF URBAN POPULATION BY SIZE OF CITY FOR MAJOR REGIONS: 1960, 1975, AND 1990

| | Up to 100,000 | 100-499,999 | 500-999,999 | 1,000-4,999,999 | 5,000,000 and more |
|---|---|---|---|---|---|
| World | | | | | |
| 1960 | 56.6 | 15.4 | 7.1 | 13.8 | 7.1 |
| 1975 | 37.0 | 20.7 | 9.8 | 19.9 | 12.6 |
| 1990 | 32.7 | 18.5 | 8.7 | 22.7 | 17.4 |
| More Developed | | | | | |
| 1960 | 39.3 | 20.0 | 9.7 | 16.8 | 14.2 |
| 1975 | 35.8 | 20.7 | 10.0 | 19.2 | 14.3 |
| 1990 | 32.7 | 19.7 | 9.1 | 22.3 | 16.2 |
| Less Developed | | | | | |
| 1960 | 44.7 | 21.8 | 9.3 | 21.1 | 3.1 |
| 1975 | 38.0 | 20.8 | 9.7 | 20.7 | 10.8 |
| 1990 | 32.7 | 17.7 | 8.5 | 22.9 | 18.2 |
| Africa | | | | | |
| 1960 | 46.0 | 28.5 | 12.3 | 13.2 | 0 |
| 1975 | 35.5 | 29.9 | 12.5 | 15.0 | 7.1 |
| 1990 | 29.5 | 16.5 | 14.3 | 28.2 | 11.5 |
| Latin America | | | | | |
| 1960 | 48.3 | 15.8 | 6.5 | 23.0 | 6.4 |
| 1975 | 39.5 | 16.0 | 7.7 | 17.1 | 19.7 |
| 1990 | 29.5 | 15.7 | 6.6 | 20.9 | 24.2 |
| North America | | | | | |
| 1960 | 28.5 | 19.7 | 11.7 | 20.9 | 19.2 |
| 1975 | 25.2 | 16.7 | 10.7 | 28.9 | 18.5 |
| 1990 | 21.7 | 14.2 | 9.6 | 31.8 | 22.7 |
| East Asia | | | | | |
| 1960 | 41.2 | 18.1 | 8.8 | 19.6 | 12.3 |
| 1975 | 35.9 | 20.9 | 7.3 | 18.8 | 17.1 |
| 1990 | 33.5 | 19.4 | 6.2 | 21.8 | 19.1 |
| South Asia | | | | | |
| 1960 | 48.2 | 23.7 | 6.9 | 17.6 | 3.6 |
| 1975 | 41.0 | 19.4 | 10.0 | 22.4 | 7.2 |
| 1990 | 34.1 | 17.7 | 8.2 | 20.1 | 19.9 |
| Europe | | | | | |
| 1960 | 39.0 | 20.4 | 9.5 | 20.4 | 10.7 |
| 1975 | 38.0 | 21.0 | 9.8 | 20.0 | 11.2 |
| 1990 | 35.9 | 21.4 | 9.7 | 21.0 | 12.0 |
| Oceania | | | | | |
| 1960 | 34.5 | 16.7 | 11.1 | 37.7 | 0 |
| 1975 | 30.3 | 11.6 | 21.1 | 37.0 | 0 |
| 1990 | 41.8 | 10.6 | 3.8 | 43.8 | 0 |
| USSR | | | | | |
| 1960 | 49.4 | 24.7 | 13.7 | 6.2 | 6.0 |
| 1975 | 41.7 | 28.1 | 13.8 | 11.5 | 4.9 |
| 1990 | 38.3 | 24.7 | 11.4 | 18.6 | 7.0 |

Source: Total urban population from United Nations, Working Paper 54. Distribution by city size is from "Trends and Prospects in the Populations of Urban Agglomerations, 1950-2000, As Assessed in 1973-74," Population Division, Department of Economics and Social Affairs, U.N., November, 1975.

The spread of squatter settlements has produced relatively lower densities, even though they are overcrowded in comparison to suburban areas in western cities.

The pattern of settlement which results has most aptly been labeled "uncontrolled".[111] Neither the free market nor governmental regulations have succeeded in rationalizing the use of land.[112] Squatters spread out along highways leading into the town, along river banks at the edge of town, into the hills surrounding the town, as well as onto vacant lands in the interstices of the city. Vacant public lands are repeatedly the targets of squatter invasions, because squatters view eviction from these areas as less likely. The resulting distribution of residential, commercial, and industrial sites is often chaotic.[113]

The sprawl of the squatter settlements also extends the urbanized area, enlarging the problems of integrating and servicing the metropolis. Between 1949 and 1960, the area encompassed by Aleppo, Syria, grew at an average annual rate of 7.9 percent.[114] As a city expands, it absorbs existing villages, resulting in a complex distribution of new and old urban areas.[115]

*Demand for urban services* -- The uncontrolled, unplanned growth makes it difficult for cities to provide residents with the services they desire. Water, sewerage, and drainage facilities are expensive to install in low lying wetlands or on steep hilly terrain, yet these types of land often prove attractive to squatters because they are not suitable for permanent urban development.[116] Even where the squatters are not on land unsuitable for urban uses, their settlements may be so crowded that installation of underground water and sewerage services is impossible. One study claims that despite self-help efforts the overall level and quality of services, especially of sewerage, has been declining for suburban squatter areas in Latin America.[117] Another study shows significant water shortages for several Middle Eastern cities.[118] In areas which lack both water and sewerage systems, the inhabitants are faced with an additional problem, polluted water.

The combination of urban congestion and inadequate sanitation services generates water and air pollution problems. Although city dwellers complain of air pollution, water pollution is generally recognized to be a more severe problem. For example, waterborne cholera is almost endemic in Calcutta,[119] and hook worms and round worms are prevalent among Lagos children because there are no sewers.[120] Yet municipalities in LDC's have not generally recognized pollution as a major problem according to a recent survey by the U.S. Agency for International Development (USAID).[121]

Pollution, congestion, lack of adequate services, exorbitant land costs, and urban sprawl are experienced around the world by cities in both developed and developing countries. The only difference is one of degree; urbanization in the less developed countries has proceeded at a more rapid pace and most of their cities have been unable to meet the growing demand for housing and urban services. As shown below, the cities' problems have been magnified by the state of their economies.

### *Economic Impacts of Urban Inmigration*

The most critical economic consequence of inmigration is the impact on the city's economic growth. Some migrants may contribute to the city's economic well-being through greater labor productivity, higher incomes and savings, generation of capital, diversification of industry and services, construction of housing, and increased demand for consumer goods. On the other hand, many migrants burden the city's economy through increased underemployment and unemployment levels, lower levels of productivity, greater demand for costly municipal facilities and services, lower per capita tax revenues, and higher city budget deficits. The net economic impact of migration depends on the economic experience of the migrants themselves, which is also a determinant of the city's ability to productively absorb the migrants. In theory, the net economic impact is all the changes in economic conditions which would not have occurred if migrants had not arrived during the time period considered. As shown below, researchers have made this assessment using a variety of approaches, with varying degrees of success.

The economic impact of migration largely depends on the types of migrants involved. Education, economic resources, age, and sex affect the migrants' economic mobility. As a result employment, occupation, and income attained after arrival may vary among natives, mobile migrants, and less mobile migrants. The question of whether economically mobile or less mobile migrants are less of a drain on the city's economy is discussed below.

*Mobile migrants' impacts on unemployment and mobility levels* -- In the preceding discussion of migrant mobility it was assumed that migrants were mobile if they improved their socioeconomic status by migrating. In this section, the definition of mobile migrants is that they improve their status as fast or faster than the native population, with employment or income status as a major criterion.

The most critical assumption in this discussion is that migrants whose economic characteristics differ from those of the natives have a different impact on the city's economy than migrants with characteristics similar to those of the natives. In fact, because many migrants resemble the natives, great caution must be exercised to avoid overgeneralization.

Several studies have shown that migrants have lower rates of unemployment than natives,[122] possibly because they accept jobs which natives will not take.[123] The longer the migrant resides in the city, the greater his opportunities for employment and mobility. Herrick's study of migrants to Santiago shows that 23 percent of the men and 53 percent of the women were economically inactive prior to migration. Immediately after migration 2.9 and 2.7 percent, respectively, remained inactive, and by the time of the study virtually none were economically inactive.[124] Low unemployment rates among migrants may or may not lead to increased unemployment among natives. If the jobs are truly ones which natives do not take, native unemployment levels may be unaffected. This may be what has been observed in Bogota, which has the highest migration rate and lowest unemployment rate in Colombia.[125] While these few studies do not suggest that most migrants have lower unemployment levels than those of similar natives, the studies do question the assumption that migrants raise citywide unemployment levels through either their own unemployment or their taking jobs away from natives.

Migrants may equal or better the natives' occupational mobility. Some observers claim that the movement of migrants from unskilled employment to individual and family enterprise or to semiskilled employment allows other migrants, often kin who have arrived more recently, to take the old jobs.[126] For example, Gutkind's study of migrants to Kampala, Uganda, describes a migrant who obtains a job through kin contacts and plans to get a better job through a friend.[127] A recent study of migration to Abidjan, Ivory Coast, describes a similar mobility process.[128] Taylor attributes this higher mobility to the migrant's stronger drive to improve his status.[129] They are, as Browning calls them, "the ambitious ones, eager to ascend the ladder of success."[130] Even when migrants and natives have the same educational level, the migrants have already acted once to improve their lot, as shown by the act of migration, and are more likely to continue to take risks in order to advance themselves. This results not only in lower unemployment levels but also in higher levels of occupational mobility among migrants. The most mobile migrants are the minority of white-collar and professional workers, who often combine occupational and geographic mobility.[131] The large cities attract the most highly educated migrants, and in these cities migrants occupy proportionally more high level occupations than natives.[132]

When migrants occupy a disproportionate share of high-level occupations it would be expected that their level of income would be higher than that for natives. This does seem to be the case, according to Cardona and Simmons' description of the high incomes earned by migrants in the largest cities in Mexico and Colombia.[133] Yet this higher income does not automatically translate into higher levels of living. A migrant's higher income may be spread among the migrant's immediate family and extended family, including neighbors, with as many as two additional households partially dependent on the migrant's income.[134] Thus, while mobile migrant family incomes may be higher than those of native families, the respective levels of living may be comparable.

*Establishment of individual and family enterprises by mobile migrants* -- The pressure to improve the family's economic security takes precedence once bare subsistence is assured. This is most evident in the appearance of migrant entrepreneurs. Often all the members of the family or kin group pool their meager resources to set up a family enterprise.[135] The establishment of such an enterprise provides a source of employment for family members. As the owner of the firms the family controls its own capital, increasing the potential for further income gains. Most importantly, it is through the informal family enterprise sector that migrants' innovativeness and determination can result in enriching the city's productivity and capital stock.

As defined by Friedmann and Sullivan, the family enterprise sector is comprised of many small-scale entrepreneurs who manage their capital in order to realize a profit.[136] Many of them may continue to work as employees in the corporate sector, managing their enterprise in spare time. Commonly, the family utilizes its own home for the enterprise, making double use of the time and money invested in the structure. Repairing bicycles, selling fabrics, mending shoes, and baking bread are all examples of common family enterprises. The major input is labor, either unpaid family or cheap hired labor. The small amount of capital used is obtained informally, without relying on formal bank or loan structures for credit. The savings which are mobilized in the family enterprises would not otherwise be invested.[137] In this sense, such enterprises simultaneously generate and invest savings.

Competition in the family enterprise sector is fierce and profit margins are slim, but gains are possible. Even though prices are low, the low capital and high labor output ratios allow the family to maximize the returns on its most scarce resource, capital. Studies in Japan, India, Taiwan, Chile, Egypt, and Ecuador show that the rate of return on capital is higher for small family firms than for larger corporate firms.[138]

Hart's study of small-scale entrepreneurs in Ghana shows that not only do these firms have a high return on investment, but that their impacts on trade, employment, and specialization are positive and widespread.[139] The family enterprise sector poses little demand on scarce capital resources by substituting other inputs, potentially increasing savings. Instead of using scarce foreign exchange to purchase equipment or materials, the family enterprise sector generally utilizes domestically produced goods, in turn stimulating demand for these items.[140] Instead of the $1,000 - $1,500 required to create a job in the modern sector, the family enterprise sector requires on the average about $300 per worker. Low capital-output ratios allow the family enterprise sector to provide many jobs to both migrants and natives.[141]

The volume of capital accumulation resulting from the savings of the family enterprise sector is surprisingly large. In one Asian country, a small-scale firm manufacturing sewing machines with a labor-intensive technology was able to reduce the price to 60 percent of that for imported machines. This lower price, in turn, stimulated development of a host of clothing and footwear establishments. Ultimately, instead of importing sewing machines, the country exported them, reducing its trade deficit.[142] Although this example uses a larger firm at the top end of the family enterprise sector (and probably not one created by migrants), it illustrates the positive impacts labor-intensive technologies used in this sector may have on the balance of payments, on the level of prices for consumer goods, and on the creation of additional enterprises.

The few available studies of the family enterprise sector generally do not focus solely on migrants. Where migrants are considered, as in McGee's analysis of hawkers in Asia, and the recent ILO studies of the informal sector in Jakarta and Abidjan, it appears that the family-enterprise, bazaar sector does act as a "sponge" for migrants.[143] Boserup's[144] and Little's[145] analyses of the bazaar sector in Africa confirm this conclusion. In both Asia and Africa women migrants often find work opportunities in this sector. Based on limited evidence, it appears that mobile migrants constitute a fair share of the family enterprise sector. Although they may not enter this sector immediately, once a small amount of savings are generated many find their way into the bazaar sector. Because of its potential for absorbing migrants, much more research is needed on the role of migrants in the small-scale sector.

*Income and consumption changes produced by mobile migrants* -- The profits generated within the family enterprise sector improve the real incomes of these families. This may lead to an income redistribution which benefits the poor. For example, Cardona and Simmons' study of large Latin American cities with high rates of inmigration found a more equitable income distribution than elsewhere in the countries.[146] However, a detailed exploration of the relationships between rates of migration, absorption into the family enterprise sector, and income equity remains to be done.

Increases in the incomes of migrants raise their demand for goods and services. For example, Butterworth's study of migrants in Mexico shows that many of them enrich their diets, eating more and higher quality foods.[147] This increased food consumption has effects on the agricultural sector which will be discussed later. Beyond increasing food consumption, however, families purchase more clothing, utensils, and other goods, many of which are produced by the family enterprise sector. Thus, these mobile migrants participate in a widespread consumption goods market, both as buyers and sellers.[148]

The best known studies of the changing demands of mobile migrants concern housing and infrastructure. According to the terminology of John F.C. Turner, these mobile migrants are the "consolidators" who establish themselves in squatter settlements and over a long period of time convert the initial shelter into a house-cum-business.[149] One of the first things to go up is the permanent wall, defining the plot and keeping out unwanted persons.[150] When savings are accumulated, the family purchases building materials. With much labor, some of it from neighbors, the dwelling is slowly improved. The cumulative impact of many self-built homes is a sizable increase in the city's housing fund (this type can amount to one-fifth of the total).[151]

Because migrants often use their homes to augment their incomes, housing is both a consumption and a capital good.[152] One study in Indonesia shows that improvements in housing have similar welfare and health effects as alternative human capital investments.[153] In addition to providing the occupants with better health and a place from which to do business, the housing construction generates numerous backward and forward linkages with other enterprises. Vernez'

study of Bogota's "pirate" settlements shows that they have stimulated business for small construction firms who contract out to help the families as needed. For example, building materials suppliers have sprung up throughout the settlements.[154]

In summary, mobile migrants do succeed in raising their income and level of living. And these income gains do not stop at the family: the increased spending for consumption goods and for housing raises the income and employment of other migrants and natives within the community. This effect can be sizable because the majority of the permanent migrants to the larger cities can be characterized as mobile consolidators.[155]

*Service demands of mobile migrants* -- Sometimes a migrant settlement is laid out to allow squatter installation of the infrastructure at some future date. Once a family has built what it considers to be an adequate shelter, it may cooperate with other families in providing the area with municipal services such as roads, sewers, electricity, and water. By building their own roads and installing their own facilities, the squatters tremendously reduce the cost of these services both to themselves and to the municipality. Instead of paying for their services via higher initial housing costs which include these items, the squatters pay for the services with their own labor.[156] The services provided may not be of high quality, but as the INTERMET study clearly shows, cities simply cannot afford to provide Western-type services to all of their inhabitants, particularly when they are experiencing rapid growth.[157] Self-help efforts are the only means by which the bulk of the population can gain such services.

The INTERMET study shows that the individual and family enterprises set up by migrants may somewhat fill the gap in service capacity, as evidenced by jitney transportation services, private garbage and nightsoil disposal services, and water vendors.[158] Despite these self-help efforts, the rapid increase of population and urbanized areas poses heavy demands for services on the cities. Unfortunately, the existence of mechanisms to provide services does not guarantee the capacity to serve every household. There may be limited sewer treatment capacity, limited supplies of water or electricity, and too few buses. Expanding water supplies, enlarging sewage disposal capacities, increasing the fleet of city buses, and supplying more electricity to city residents represent enormous costs for the city.

The revenue of many cities is unequal to this demand. Studies in Latin America, Asia, and Africa show that municipal governments do not tap a major source of income, i.e., direct taxation of property, income, or inheritance.[159] As a result, the cities are financially dependent on the national government. And even though many authors cite an urban bias in budget allocations and service provisions,[160] housing and urban development has had a relatively low national priority. In Asia, for example, investment in housing and urban services has been declining. Furthermore, the planned outlays are not fully utilized, with expenditures averaging only 36-78 percent of the budgeted amount.[161] Without major support either from local revenues or from the national government, services are provided on a pay-as-you-go basis.[162] Clearly, as more migrants earn enough to pay money or labor for services, a greater number of people can be served. The mobile migrants who are as well off as natives presumably can pay as much for education, health, and other social services, carrying their share of the burden. The pressures for expansion come from both migrants and natives; thus the provision of resources for this expansion must be a shared responsibility.

*Underemployment* -- Regardless of whether mobile or less mobile migrants come to the city, the number of workers competing for jobs in the corporate sector increases. Studies show that the modern sector has not kept pace with this increased employment demand. Berry's recent survey of developing world urbanization shows that the population in cities has grown by 5 percent per year while modern sector jobs have grown by only 4.4 percent per year.[163] The result is increased underemployment. For example, Turnham and Jaeger's study of the employment problem in less developed countries shows that in many areas over one-fifth of the labor force in metropolitan areas were underemployed and wanted more work.[164] The bulk of these workers have been absorbed in the informal sector either as domestic workers, self-employed entrepreneurs, or in family enterprises.[165] Both migrants and natives in this informal sector tend to be underemployed.

Squatting, the predominant way of coping with the low income of underemployment, has been discussed above. But the fact that both migrants and natives form squatter settlements should be underscored. Squatting has become a widespread and viable technique to improve housing as well as income and level of living.[166] The settlements are becoming accepted as long-term and normal elements or urban growth, rather than "cancers" spawned by the flood of migrants.[167]

*Changes in urban economies of scale* -- In theory, economies of scale in the operation of a city's economy arise from the concentration of income and people. Services such as hospitals,

secondary schools, wholesale markets, and sewer and water facilities can be provided at lower cost per person to a concentrated population.[168] Economies of scale also result from the diversification and specialization made possible by the concentration of both labor force and firms.

How do migrants alter these urban economies of scale? First, their numbers may bring a city into a size range which allows more efficient provision of services; alternatively their numbers may make a city so large that it experiences diseconomies of scale in providing services. Second, the migrant addition to the labor force may result in greater specialization and increased labor productivity. This specialization of the labor force, along with improved city services may result in higher levels of productivity for firms, permitting those operating in larger cities to become more specialized and to adopt larger scale operations.[169]

Most studies agree that there are economies of scale associated with supplying services to concentrated populations. However, differences of opinion arise when researchers attempt to define the optimum city size. A Stanford Research Institute (SRI) study indicates that Indian cities below a size of 130,000 do not provide an adequate population or economic base to support industrial expansion.[170] Overhead costs for water, sewerage, and electricity installation become too high. The SRI study also shows that the labor markets of cities below that size do not provide enough specialization to meet the needs of industrial firms. Spengler's analysis of optimum city size in Africa has similar findings.[171] Health and education facilities, public safety, transportation, and parks are better and cheaper in cities within the range of 100,000 to 200,000 persons.

Above a population of 250,000 to 300,000 per capita costs for municipal services tend to rise. A 1968 study by the Advisory Commission on Intergovernmental Relations finds that per capita municipal expenditures and employment for common service functions in U.S. cities are at a minimum for cities of between 25,000 and 250,000 persons, and that there are increasing costs as the population exceeds that level.[172] The SRI and Spengler analyses reflect the same conclusions for LDC cities. Spengler shows that cities above a certain size experience declining economies of scale in the provision of urban services, greater communications problems, and substantial waste of resources and time.[173] These findings are further supported by a recent study prepared for the Agency for International Development (AID). This study shows that larger cities have higher land costs and complex infrastructure requirements which raise the costs of providing services.[174] Mera's analysis of social overhead capital in Japan shows a U-shaped curve, with per capita costs lowest for intermediate densities of 200 to 1,000 persons per square kilometer, although part of the rise in costs at higher densities may reflect a demand for higher quality services.[175] Singh's study of Indian cities is more explicitly related to city sizes and his findings support the conclusion that per capita government expenditures for services and infrastructure are lowest for intermediate size cities of 25,000 to 250,000 persons.[176] The issue of optimum city size for provision of public services suggest that migrants can move a city along the U-shaped cost curve to or beyond a position of minimum costs.

The evidence regarding firm productivity and city size is far less conclusive. There is general agreement that firms operating in medium size cities benefit from better public services as well as larger supply and sales markets. There is no agreement, however, on whether firm productivity also displays a U-shaped curve as city size changes. The SRI study shows that industrial expansion costs within large cities are possible only for large, highly specialized manufacturers.[177] The AID survey also tends to support the hypothesis that firms in the largest cities experience rising costs due to higher land rents and congestion.[178] Large city size is clearly no guarantee for higher firm productivity, as Honjo shows.[179]

In contrast, Fuchs' analysis shows that the largest cities have the highest levels of worker productivity.[180] Larger cities are often the only places where highly skilled administrative and technical manpower are concentrated.[181] Mera concludes that because the high productivity in large cities outweighs the higher infrastructure and service costs, investment and development in large cities should be encouraged.[182] The issue is far from resolved. More research is needed to support policy decisions concerning the relative merits of industrial development efforts in large, intermediate, or small cities.

An issue which has received little attention is the relationship between the informal, urban traditional sector and urban economies of scale. The migrants' innovative, labor-intensive techniques of self-help reduce the costs of service provision. In the largest cities this sector is large and contains a great variety of specialized enterprises. It is very possible that these enterprises offer cheaper inputs to the corporate sectors, allowing higher productivity. The interaction of the traditional and corporate sectors needs to be clarified. Such classification might shed additional light on the issue of the city economies of scale.

*Economic impacts of less mobile migrants* -- Although less mobile migrants may actually improve their incomes and occupations, they generally do so at a pace below the average for natives at the destination. They usually have less education, come directly from rural areas, and have few resources with which to establish themselves. These migrants, together with the poorest natives, constitute the very lowest socioeconomic group in the city.

Contrary to what might be expected, even the poorest migrants to the city remain unemployed only briefly after arrival.* Most find work in what Friedmann and Sullivan term the individual enterprises of the urban traditional sector because this sector is the easiest to enter. For this reason it has the greatest underemployment and the lowest wages. Migrants often must work longer hours to compensate for the low wages. Lopez and Hollensteiner's study of barrio residents in Manila, 20 percent of whom are migrants, shows that each family maximizes the use of its labor resources by having 64 percent of all household members working, including women and children.[185]

The result of many workers putting in long hours is an equilibrium at the subsistence level. If wages rise, more migrants come, swelling the underemployed ranks and again pressing wages.[186] Because employment prospects and wages are generally less favorable in urban than in unurban areas, persons outside the city quickly respond to employment possibilities there. Most of those attracted can't find work in the corporate sector and are absorbed in the tertiary sector at low wages.**[187]

Some studies find that upward mobility of migrants to higher paying jobs is extremely difficult.[188] Traditions and ethnic background may further limit the range of acceptable occupations. In Calcutta, migrants from different parts of India group themselves into specific jobs: Gujaratis are traders, Sikhs work in the transport sector, Biharis are factory or unskilled workers, etc.[189] Most limiting, however, is the inability of these poor migrants to save enough to set up a family enterprise. What extra they earn is often needed by friends and kin.[190]

*Reduced consumption of goods and services by less mobile migrants* -- According to Lopez and Hollensteiner's research in Manila, barrio residents have evolved a number of techniques for coping with their poverty.[191] Beyond utilizing every available labor and credit resource, less mobile migrants limit their consumption to the point of malnutrition and poor health. Most of their meager earnings go for food, but even so many meals are skipped and food quality is low. Housing is often a poorly constructed, one-room shack without toilet, drainage, or electrical facilities. Purchases are minimized, the only luxury being a radio. To avoid transportation costs, the poor migrants work near their homes. Of the squatter children sampled, 53 percent had dropped out of school after the free elementary school years. Poor migrants choose recreation activities which do not cost money. There are few studies of the consumption patterns of the very poor, but those concerned with this aspect of migrant lifestyle reach similar conclusions concerning low consumption.[192]

This low level of consumption means that the poor migrants do not generate as much additional employment through their demands as the better-off migrants. In fact, most are able to find employment in the individual enterprise sector only because the better-off migrants and natives generate needs which the poor can service.

The fact that the poorer migrants contribute little in the way of taxes is partially offset by a lower demand for electrical, sewerage, transportation, and perhaps educational services, as documented by studies cited above.*** Nonetheless, some services are utilized. The city must cope with the drainage and sewage problems. Migrants do use roads, welfare services, and primary education facilities, especially when the latter are free.[193] Housing problems predominate among the poor, who can't afford improvements either as tenants or as owners.[194]

Planners and policymakers have been concerned that migrant demand for public services will

* Bright young persons waiting for a good first job may be a majority of the unemployed, as Berry (1975:276-291) has shown in Colombia and Ridker (1971:12) in Southeast Asia. Abu-Lughod's analysis (1969:376-388) tends to contradict these findings.

** Brandao-Lopez (undated p. 12) shows that in Brazil this labor dualism allows the corporate sector to indirectly profit from the cheap goods and services provided by the tertiary sector.

*** Although the migrants can't afford public services, their coping techniques may actually cost more. The poorest squatters on the periphery of Karachi pay 20 times more for water than those who have it piped (Rao, in Chenery, et al., 1974:148). And the Manila squatters pay more for light using kerosene lamps than those who have electricity (Lopez and Hollensteiner, op.cit., 16).

increase faster than tax revenues from this group, adding to the cities' already critical financial problems. The evidence reviewed here indicates that the migrants' demand for services has been low enough to postpone crisis, but that situation may not persist.

*City size and the ability to cope with migrants* -- The economic impacts on cities caused by migrants depends on the characteristics of the migrants and the cities' ability to cope with the attendant changes. In large cities, the expected diseconomies associated with the sheer magnitude of the influx are offset by the positive economic experiences and innovations of the mobile migrants. Past studies show that at least 50 percent of the migrants to large and intermediate sized cities are urban born, better educated, and often have levels of mobility equal to or exceeding the city natives,[195] but there is no agreement that the proportion of mobile migrants will continue to equal or exceed that of the less mobile migrants.[196] Mobile migrants are more likely to undertake self-help measures which lower their dependency on public services. As indicated above, they also tend to contribute more to the tax base. In addition, the larger cities have greater access to national or regional funds and tend to have more innovative and effective administrators.

In smaller cities, the service and unemployment problems may be smaller, but the ability to tap external funds and generate jobs is more limited. In addition, migrants to the smaller cities tend to be less mobile (e.g., rural born, less educated, short distance movers) and contribute less to the tax base and to meeting their own service needs. These cities also have higher per capita service costs than intermediate sized cities, as shown above. If the smaller cities are to cope with increasing migration, they must compete more effectively with the larger cities for external revenue and mobile migrants.

### *Impacts of Migration on the Social Fabric of the City*

The social fabric of a city is altered by an influx of migrants, the changes depending on where migrants settle and on the lifestyle they adopt. Migrants may establish ethnic or homogeneous communities or they may mix thoroughly with the natives of the city. The migrants may achieve levels of living comparable to the natives, or they may evolve a lifestyle which is a rural-urban compromise.

*Migrant cooperation to improve communities* -- Because of housing scarcities, migrants often must rely on squatting to gain possession of living quarters. For example, under a cooperative technique used in Lima, a group of migrants banded together to invade an appropriate piece of land, establishing their presence on the land overnight.[197] Due to the scale of the invasion and the political problems associated with trying to remove the squatters, these invasions have proven quite effective and their widespread occurrence has significantly contributed to the suburban growth in many Latin American cities.

The cooperation in founding a squatter settlement often carries over to the construction of homes. Harris finds this situation in the Pampa de Comas settlement in Peru. Here the settlers are almost entirely migrants, who after the invasion established numerous communal and self-help associations to build homes and provide school and public utilities.[198] Such cooperative neighborhood associations are found throughout the developing world's squatter settlements. Undoubtedly these groups improve the level of living and quality of service available to migrants. For example, squatters in the Miraflores settlement of Lima planned an acceptable community layout, built community meeting halls and schools, installed electrical power lines, and constructed water supply systems. Such associations remain active long after the initial invasion.[199]

Mobile migrants also obtain housing through site and service schemes, i.e., government-sponsored programs in which the migrant acquires a legally subdivided site with a minimum of services already in place. After allocating sites the government may also supply credit and materials for building homes. Santiago, Chile, has a scheme which is designed to aid mobile residents and migrants already within the city,[200] while India's program is focused on incoming migrants.[201] Instead of squatters providing the layout and community organization, the government provides a framework into which the settlers fit, after they have acquired their lots. In Peru, families participating in a site and services scheme were organized by a governmental agency into self-help groups.[202] This combination of aid and organization sped up the home construction period from the 10 to 15 years required by conventional squatters to 1-1/2 to 2 years for the "aided" squatters. Although these groups are more formal and focused in purpose, participation in the governmentally initiated self-help groups does organize families socially.

Other site and services schemes are much less structured, providing only credit for the purchase of land and housing materials and technical assistance only as needed. This speeds up housing construction, but leaves the squatters free to evolve their own associations. Turner finds that under this approach participants are able to proceed more flexibly and quickly, build more "genuine relationships" among

themselves, and exhibit much more pride and satisfaction in their communities.[203]

*Interaction of more mobile migrants and natives* -- Contrary to Oscar Lewis' theory that poor squatters are apathetic about their environment, the more mobile migrants make substantial improvements in their homes and communities.[204] The older barriadas in Lima show an evolution into lower and working class neighborhoods.[205] Along with physical improvement comes a diversification of clubs and activities within the community. For example, Leeds and Leeds show that there is a wide variety of groups, ranging from soccer clubs to offshoots of local political parties, in the Rio favelas, and other studies reflect this variety elsewhere.[206]

Most of the clubs serve the needs of the local community, but some link the migrants to persons in other parts of the city. All these associations enrich the city's social fabric, providing more opportunities for both migrants and natives to participate in social activities.[207] It is through these clubs -- as well as through economic interactions -- that migrants and natives affect each others' lifestyles. The theory that migrants are isolated from nonmigrants does not seem to apply to the mobile migrants.[208]

Interaction among communities does remain fairly limited. Bose's study of Calcutta shows that the migrants tend to cluster in relatively homogeneous ethnic groupings, distinguished by language, occupation, and lifestyle.[209] Although cities elsewhere have not inherited the strong Indian tendency to determine occupation by caste or ethnic background, there is some evidence that migrants live in communities with people from their home place. Abu-Lughod's study shows that Cairo's migrants from specific areas cluster in neighborhoods, each of which has a fairly distinctive lifestyle.[210] These neighborhoods add diversity and broaden the overall cultural base of the city, while providing a familiar destination for the migrants. This may actually increase migration, as Caldwell finds in Ghana.[211]

*Limited integration of less mobile migrants* -- Establishment of migrant enclaves may be more pronounced among the less mobile migrants. First, because these migrants are poorer, they can afford to live only in areas near centers of casual employment. Often the poorest end up in old squatter communities, or in tenement areas vacated by the upper and middle classes.[212] Second, the poorer migrants are more likely to have rural origins. For these migrants the move to the city represents a greater change than for urban-urban migrants. To help cushion this transition, they are more likely to move near other migrants from their home community. The pull of friends and kin from the same geographic locale concentrates migrants in one or a few locations within the city and effectively limits the choice of later migrants.[213] These limitations on acceptable city locations may result in a concentration of the very poorest migrants in selected neighborhoods.

*Poor housing and fewer services among less mobile migrants* -- As seen earlier, the very poor evolve strategies for coping with their poverty, including minimization of housing expenditures. The poorest migrants are often tenants in older slum tenements, and they tolerate extremely low quality housing because preferable alternatives are beyond their means. If cheap rental units are not available, they may squat in the interstices of the city's downtown area, where tenure is far more risky than further out in more residential areas.[214]

Crowding within the dwelling and the neighborhood is more severe in the poorest areas. For example, in Cairo the poor migrants live in small, multi-family flats lacking the courtyards found in most rural homes. The housing units themselves are very closely spaced, leading to high densities.[215]

Despite this high density, a large housing deficit exists. For example, the United Nations estimated that between 1965 and 1986 Nigeria needs 175,000 - 234,000 units a year to eliminate the 1965 deficit, prevent further deterioration of housing conditions, and absorb new families into cities.[216] Yet only 35,000 dwelling units per year were being built by private construction and 500 by the government, and only 38 percent of these were for low-income families. The poor have been hardest hit by this deficit, because they can't afford to buy, rent, or build adequate housing for themselves.[217]

The combination of overcrowding and poor housing is generally accompanied by a low level of services. These communities often lack water, drainage, sewerage, and electrical facilities.[218] The poorest communities in Davao City, Philippines, complained the most about poor drainage and road maintenance, even though theoretically the city maintains these services.[219]

The low level of physical services coupled with high densities leads to sanitation and health problems for less mobile migrants.[220] It would seem that morbidity and mortality rates would be higher for these poor, but no studies of intra-urban differences in morbidity and mortality have been found.

Additionally, the poorest migrants may have limited access to social services, especially education. Even if there are schools, the enrollment of children poses direct and indirect costs upon the family, and drop-out rates are high.[221]

Many of the less mobile migrants are tenants or squatters on land where there is a high risk of eviction. Improvements in their housing seem worthwhile only if the family moves to a new community. Obviously this is what the more mobile migrants do, but the less mobile migrants can't afford to live elsewhere. As a result these areas degenerate into slums which often become objects of clearance programs, especially when they conflict with other city developments.[222]

*Community-focused social activities of the poorer migrants* -- Despite the slum conditions, various clubs and voluntary associations exist within each enclave of the poor. These community associations tend to cater exclusively to migrant needs and are less improvement oriented than those found in more mobile migrant communities. Studies in Ghana, Egypt, and Africa found "village benevolent" societies which facilitate the nonselective migrants' transition to urban life.[223] Instead of helping the migrants adapt to city life, these groups help the migrants maintain their own prior lifestyles in the city environment. Studies in Argentina, Egypt, India, Malaysia, and Peru indicate that the results emphasize more provincial characteristics than urban characteristics.[224]

Although these very poor migrants have organized clubs, poverty limits their access to activities outside the neighborhood. They can not afford the tickets or fees for the outside activities. This means that social linkages between poor communities and the rest of the city are limited. Goodman shows that this isolation may become perpetuated in the development of separate "fragments" which do not relate to each other politically or socially.[225] The very mechanism by which the less mobile migrants ease adaptation to the city, namely creation of a compromise provincial and urban community, also keep communities distinct and separate from one another. Goodman claims these conditions are conducive to making the more distinctive migrant communities into scapegoats for urban problems, but Leeds and Peattie would disagree.[226] This is one area of concern still very much lacking consensus.

*Political responses of less mobile migrants* -- The distinct migrant communities make the political unification of metropolitan areas difficult. There are fewer common problems, and those that exist still must be adapted to the local communities.[227] Hollensteiner's discussion of responses of the very poor Manila residents to metropolitan programs designed to affect their community shows both distrust on the part of the community residents and inappropriate program design by the government.[228] Distrust among the very poor migrants is also shown in studies of low-income communities in Colombia and Indonesia.[229]

Voter participation tends to be low among all migrants. Bonilla's survey of favela residents finds little participation in political parties and no feeling that government sincerely helps the favelado.[230] Flinn and Camacho's analysis of correlates of voting behavior in a Bogota barrio of fairly mobile persons, 80 percent of whom are migrants, shows that income, education and occupation are not significantly correlated with voting, but newness to the barrio, membership community, or voluntary organization, regular church attendance, and belief in political efficacy are correlated with voting.[231] Recalling that less mobile migrants are less likely to be regularly employed, members in organizations, or regular church attenders, it seems that they would be less likely to participate in the formal political process.

*Social outlook of less mobile migrants* -- Studies focusing on the poorer, less mobile migrants find a poverty lifestyle which combines their traditions, urban residence, and low irregular incomes. This lifestyle is not the same "culture of poverty" which Lewis describes in his analysis of poor Mexican migrants.[232] Rather than being apathetic and helpless, many feel they have made some improvements in their lives, and especially in their children's lives. They are committed to city life and when possible help kin or friends locate within the city. Several studies show that these communities are neither hot beds of discontent nor slums of despair.[233] Like the consolidating communities of the more mobile migrants, the "bridgehead" communities of the poor migrants serve their residents. They provide cheap housing near employment, making it possible for even the poorest migrant to realize some lifestyle improvements. Several researchers have called for recognition of these communities as vital to the urbanization process.

## *IMPACTS OF MIGRATION ON RURAL ORIGINS*

Unlike the migrants who move from one urban area to another, migrants leaving rural areas are in most cases not subsequently replaced by other migrants. In the rural areas this

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* Cornelius has shown that Latin American migrants are unlikely to participate in the more radical forms of political behavior.

loss of people and their potential contributions to the process of development affects the dependency ratio, levels of unemployment and underemployment, level of human capital, and innovation potential. Migrants may stimulate change within rural areas by creating new linkages between the rural areas and the migrant destinations. Unfortunately, the discussion of these issues below is handicapped by a paucity of relevant research.

*Population Impacts*

Outmigration from a rural area reduces its population and may be effective in alleviating overcrowding. The actual effects on the residual population depend largely upon the numbers and characteristics of the people who leave. If only a small proportion of the population migrates, density may remain high, as in Eastern Nigeria where outmigration has not significantly reduced the population density.[234] This situation is likely if only males migrate, leaving women behind to continue childbearing.

The age structure of outmigrants determines the effect of migration on the remaining labor force. Studies in Chile, Colombia, India, the Philippines, and elsewhere show that young persons predominate among those leaving rural areas.[235] When young working persons leave an area, the ratio of dependents to workers rises, particularly if there is no accompanying drop in birth rates. This means that the income of the remaining workers must support more persons, as Adams has shown for rural communities in Colombia.[236] Only migration of the elderly or the young reduces the dependency load, and a recent United Nations survey shows that these groups are least likely to migrate.[237]

*Economic Impacts c Rural Outmigration*

*Changes in unemployment and underemployment* -- Theoretically, if labor leaves a rural area, unemployment levels should fall, and the decline in the man/land ratio should result in higher output per worker where underemployment is high.[238] But conventional theory does not always apply. For example, youth may leave before they enter the labor force and therefore have no impact on actual unemployment levels. Testing this theory is complicated, however, by the difficulty of measuring unemployment in rural areas where "disguised" unemployment is more prevalent than open unemployment. Disguised unemployment or underemployment is difficult to quantify for it involves such problems as relating hours worked to income, evaluating noncash income, etc. Because of these and other difficulties, there are few studies that measure the impact of rural outmigration on unemployment or underemployment in the rural areas.

According to Rosenstein-Rodan, a reduction in underemployment is essential to raising agricultural productivity and income.[239] But as Berry and Soligo show, a transfer of labor from agriculture to the modern urban sector does not lead to a rise in agricultural productivity unless the remaining workers prefer work to leisure activities.[240] The remaining workers may not perceive the departure of labor as an opportunity to increase their earnings by working longer hours or by increasing the productivity of their own work. Thus output may drop.

Rempel and Lobdell have recently completed an extensive study of the rural impacts of rural outmigration. In an expansion of the Berry and Soligo theory, they show that rural outmigration can result in productivity increases for the remaining workers <u>only</u> if such migration removes redundant labor, causes remaining workers to intensify their labor, or induces technological change in response to changing labor force conditions. Their survey of the literature found little evidence that either of these responses are occurring in LDC's. While in some cases migration does remove redundant labor and result in a drop in underemployment, more often there is no change because high rates of population growth continually add more workers to replace those who leave. And lack of appropriate demand for rural output and of appropriate farm skills has prevented the work intensification or technological change from occurring.[241]

*Constraints on productivity gains from outmigration* -- There are additional constraints which keep agricultural productivity and incomes from rising as a result of outmigration. When migration reduces the size of the labor pool, seasonal labor bottlenecks increase. Ploughing, planting, and harvesting are labor-intensive tasks which can be done only at specific times. In Thailand, for example, it is not the lack of arable land which constrains production but the number of workers available to transplant rice.[242] Adams suggests that labor bottlenecks may also be a problem in Colombia's export crop production.[243]

This problem of seasonal labor bottlenecks is related to the larger problem of traditional farm techniques. Existing production techniques are not adapted to a smaller labor force. The persons who migrate are the ones most likely to seek out and utilize opportunities to improve production techniques. Boserup points out that the remaining workers, many of whom are women, lack the training and the skill to utilize the improved techniques.[244] In the United States, Hathaway and Maddox show

that older farmers left behind are unwilling or unable to improve their farm techniques.[245] In both cases, increased productivity compensating for outmigration is unlikely.

The absence of trade in a village lowers the incentive to increase productivity. With little access to consumer goods, the people left behind are not motivated to exchange leisure for work. To some extent, migrants may reduce this constraint by establishing links between the village and other communities. Migrants to the city may work in the bazaar or trade sectors, and are constantly in touch with rural people who supply them with goods. Caldwell claims that this trade not only integrates the villagers with the cash economy, but stimulates increased production for sale.[246]

*Loss of human capital* -- A well recognized economic impact of rural outmigration is the loss of human capital.[247] Those who migrate are often the better educated, and when they leave they take with them the investments made in their education. Unless the migrant returns or sends money back to the village, the investment is lost. The increased ability of these persons to innovate and adopt changes is also lost.[248]

*Migrant remittances* -- Remittances, or the flow of funds back into the village, represent a return on the education provided migrants. This income flow also links migrants with the people back home. Unfortunately, there are only a limited number of studies of remittance and of these not all show the relative contribution of remittances to rural family incomes or their subsequent use in the economy.

Studies that have been made show that remittances can constitute a fairly large share of both migrant and origin family incomes. The IDS review by Connell, et al., shows remittances ranging from 25 to 50 percent of the migrant's earnings in Pakistan, Mexico, Kenya, Cameroon, Uganda, and Nepal. Even larger contributions were made by international migrants, particularly when they sent money back to purchase land.[249] Studies in Ghana and Kenya found that the volume of money flowing out of urban areas may range from 10 to 20 percent of the migrant's income.[250] The number of households affected is fairly substantial. Surveys in Nepal and India show that one-half to two-thirds of all rural households receive remittances.[251] Caldwell's Ghanaian study shows that one-twelfth of rural households received a majority of their cash income from remittances. Rural families use this cash primarily to purchase household goods and gifts, although a few use the money for school fees.[252] While intermittent or uncertain remittances may not be invested, the purchase of consumer goods may stimulate trade and the additional income certainly improves the rural families' level of living. Longer term remittances, on the other hand, are used to purchase land, housing, and agricultural capital.[253]

Rempell and Lobdell have carefully examined the role of remittances. In accordance with the findings above, they find that migrants, especially in Africa, do remit significant portions of their incomes. But they show that these remittances are chiefly used to keep options open for the migrants' return and that they are rarely invested in productive activities.[254] Rather, they function as "insurance premiums" to protect the migrant in case of failure, illness, or other problems. Thus, their analysis suggests that remittances do not have a significant impact on rural productivity levels.

In fact, remittances may hamper other development processes. Because remittances go to village elders or parents, the remittances make it possible for the receipients to increase their consumption without changing their economic system. There is a resulting loss in pressure to change and the village may be less able to develop.[255]

While more studies, especially outside of Africa, are still needed to clarify the extent and effect of remittances, current evidence suggests that remittances do not further the cause of economic development.

### *Social Impacts of Rural Outmigration*

While the short-run economic consequences of outmigration seem to have a neutral or negative economic impact, migration seems to stimulate social change. Numerous studies show that home visits and return migration bring a greater awareness of other places and other lifestyles. In the longrun these may facilitate the economic improvements that migration alone cannot generate. On the other hand, they may increase the likelihood of further outmigration.

*Increased awareness of the migration option* -- Most contacts between migrants and friends or kin at their place of origin stress the good side of life at the destination. Several studies have shown that migrants tend to visit on special occasions, wear their best clothes, and deliver whatever gifts they can while home.[256] This appearance of prosperity tends to reinforce their relatives' beliefs that life is better in the city. Migrants are generally respected, and this respect may be transformed into the desire to migrate and share in the "good" life.

The home visits of mobile migrants may also increase the demand for social services within the village. If successful migrants are educated, then the desire for education may become even stronger, as demonstrated in Nigeria and Peru.[257]

Unemployed migrants visit much more infrequently because they can't afford the visit or the necessary gifts.[258] Their negative impact on attitudes towards education or "urban" ways is not felt.* Many migrants emphasize the positive aspects of their urban lives, thereby strengthening the demand for the nonagriculturally oriented education which enables the graduates to find urban "success".

When migrants from a village go to a variety of cities, the villager's awareness of alternative migration destinations increases. In his study of outmigration in an Argentine village, Wilkie shows that people with knowledge of several urban places are likely to go a longer distance to the best or largest city. Instead of "passively" following in the steps of prior migrants, these migrants actively select the best destination for pursuing the "good life".[259] In the end, the dispersal of migrants to different cities broadens the migration options available to the youth "back home", increasing the chances that they will migrate.

*Return migrant impacts* -- Return migration may have a significant impact on rural areas. Successful mobile migrants may bring back cash, skills, and a willingness to change; unsuccessful, less mobile migrants may reflect the hard life of the cities which may, in turn, affect attitudes towards migration. There is not enough research to determine which type of migrant returns more frequently, but given high urban prestige and low farm incomes, returnees are more likely to be migrants who were unsuccessful in the city. On the one hand, Zachariah finds that substantial numbers of short-distance movers over age 35 return to their villages in rural India and play a major role in speeding up the introduction of urban, nontraditional concepts.[260] These findings are in support of Mitchell's lifestyle theory of migration, in which migrants return at their time of retirement.[261] According to Connell, et al., some migrants return to set up business or pursue nonagricultural employment, but the only examples given are from India and New Guinea. On the other hand, several examples of "unsuccessful" returnees are given. In Mexico, for example, approximately 30 percent of the population of Cedral were returnees, and all but a small fraction were forced to return. Connell, et al., cite studies from Ghana, New Guinea, Peru, and Pakistan to provide additional evidence of "unsuccessful" returnees. They suggest that it is unlikely that these returnees will have acquired skills relevant to rural development, even though they may be more innovative.[262] Rempell and Lobdell's survey provides additional evidence that return migrants do not introduce new ideas and economic progress. And the potential for introducing innovations is further reduced when migrants come back to grow cash crops, but confront a world market offering unstable or low prices.[263] The balance of the evidence suggests that return migration does not have the catalytic effect one might expect, but additional research is still needed on this topic.

## *IMPACTS OF MIGRATION ON NATIONAL DEVELOPMENT: SUMMARY*

The basic question posed by the preceding discussion is whether or not the redistribution of population caused by internal migration has any observable impact on regional or national development. This section reviews the general elements of interaction between population distribution and development, and proceeds to discuss in detail the positive and negative impacts of migration on both regional and national economic development.

### *Population Distribution and National Development Goals*

Individual nations have their own particular goals which, according to Denis Goulet, fall into three general classes: One, to provide more and better life-sustaining goods to the population; two, to strive for freedom from outside control; and three, to foster the freedom of individuals to choose their own patterns of self-actualization, with a sense of self-esteem and pride.[264]

Based on the studies of migrants' self-perceptions discussed earlier, it can be concluded that migration generally does advance the feeling of self-esteem and freedom on the part of the migrant. But migrants are a minority of a nation's population, and it is also necessary to look at the impacts of migration on the people at the origins and destinations.

The major impact of migration in the developing world -- as in the developed world -- has been concentrated on the largest cities. The growth rates of the population in these

* The one exception to this is a 1972 study of Sabot on Tanzania, where rural demand for education declined when the educated migrants remained unemployed.

cities have sometimes quadrupled those of the national level. Although not all of this population growth has been due to migration, the rapid growth has resulted, in the short-run, in problems of unemployment and under-employment, in strains on the housing and service delivery systems, and in rising budget deficits. Despite these problems, migrants have developed numerous innovations and self-help systems which assist the cities in coping with the influx. Migrants have shown a wide-spread aptitude and potential for labor-intensive technologies in the urban environment. This, together with their pressure for more jobs, may have resulted in the current deemphasis of highly capital-intensive, Western-type industries. If this leads to improved matching of employment generation with employment demands in both urban and rural sectors, as it seems to be doing in several nations, then migration may indirectly serve long-run, nationwide goals.[265] It is presently unclear whether or not such a potential change in employment and development strategy can offset the urban unemployment and service problems.

This impact of migration on rural origins adds an additional dimension to this discussion. As noted above, rural outmigration may in the long-run produce an improved man/land ratio and ultimately enhance labor productivity, incomes, and rural welfare. But in the short-run these changes have not been observed. Not only have incomes and productivity failed to rise, but rural development potential may have been constrained by the loss of human capital and leadership potential accompanying outmigration of the brightest youth. The limited evidence available suggests that current patterns of rural outmigration have not served national goals of self-sustenance, self-esteem, or freedom for the vast majority of the rural populace. Indirectly, however, this neutral or negative impact of rural outmigration may have stimulated a reconsideration of agricultural and rural development strategies. A clearer focus on the inadequacies of the "green revolution" strategy may eventually lead to integrated rural development strategies to better cope with the rural employment and income problems evidenced by rural outmigration.

In the short-run, migration has principally benefitted the migrants themselves. Current migration patterns have magnified urban employment and service problems, particularly in the largest cities. In the long-run, these effects may force a revision in the models of migration and development, ultimately serving national development goals.

### *The Impacts of Migration on Regional and National Development*

The impacts of migration on development differ among regions. Development goals at the regional level focus on increasing regional contributions to development, while improving the level of living of the region's population. In Brazil, for example, the traditionally impoverished Northeast is the focus of special programs aimed at advancing the socioeconomic opportunities in the region.[266]

Underlying the evolution of regional development goals and planning is the theory that "economic growth and development take place within an integrated spatial framework,. . . . (where) the city is the 'engine' of regional development and the link between the regional economy and the national economy."[267] Innovations and economic stimuli originate in the cities and spread to the surrounding region. This center-hinterland approach to regional development is perhaps best exemplified in the Chilean growth center strategy which was formulated with the assistance of John Friedmann, one of the leading proponents of this theory.[268]

Central to the regional development approach are growth centers, or major regional cities in which "leading industries" are located. If the labor and input demands of a center's firms are met internally by the region's labor force and resources, and if the firms' profits and investments remain in the region, then the firms will foster regional development by raising employment and investment. This theory of growth centers has been discussed elsewhere and will not be discussed in depth here.[269] The issue examined here is whether or not migration has supported the development and successful functioning of growth centers.

The two major potential impacts of migration on regional development are: (1) Migration to the largest cities may deprive other regions of resources for their own cities, while diseconomies of scale may lower the productivity of those resources in the largest cities, at the same time, migration out of rural areas may slow a region's rural development; (2) Migration may be critical in shifting unemployed agricultural labor to growth centers or to regions with natural resources but no labor, thereby facilitating regional development through a better balance of labor and resources.

*Polarized population distribution as an impact of migration* -- The predominant form of urban-directed migration has brought the emergence of primate cities. Instead of migrants fanning

out throughout the urban hierarchy, they have tended to drift to the largest metropolitan areas. This growth of the largest cities has been self-reinforcing, as Brian Berry has noted.[270]

> Instead of development filtering down the urban hierarchy and spreading its effects within urban fields, growth is concentrated in the major cities. This is because each increment to the urban economy draws in more migrants, to maintain wages at the subsistence minimum . . . . There is no incentive for growth to decentralize. Modern enterprise remains concentrated in the major cities. Modernizing influences reach the migrants, but in the hinterlands traditional ways of life remain in the small towns and villages.

While most scholars agree that urbanization is necessary for development, there is no consensus on which form of urbanization is preferable.[271] According to several researchers a pattern of urbanization characterized by spatial uneveness or polarization of small versus large cities is associated with uneven economic development. The concentration of capital in the largest cities initially attracts migrants, who then constitute an expanded labor pool which attracts further investment. As a result, the largest cities maintain a clearcut advantage over smaller cities. This "ratchet effect" is evidenced in Bangkok,[272] Caracas,[273] India[274] and many other major metropolitan areas. Both urban population and industry become increasingly concentrated in the largest metropolitan areas. For example, Laquian has shown that metropolitan Manila accounts for over 50 percent of the total Filipino industrial payroll.[275] In addition, Johnson's study of Indian urbanization patterns[276] and Wilkie's study of Mexico[277] show that small cities are handicapped in their efforts to attract industry or migrants because they lack many of the necessary support services and the economic resources to provide them.

This polarization may result in an increased inbalance of income and development among regions: those which encompass major metropolitan areas grow, others do not. Instead of transmitting development impulses, these primate, metropolitan areas are "parasitic" exploiters of nonmetropolitan resources. Hauser finds that Asian primate cities obstruct economic growth in their countries:[278]

> . . . . by retarding the development of other cities in the nation, by contributing little to the development of their own hinterland, by being oriented primarily toward the contribution of services to the colonial power abroad or the colonial or indigenous elite in the great city itself.

Conroy gives Chile, Bolivia, and Colombia as examples of nations in which metropolitan areas have developed at the expense of outlying areas.[279] Hardoy claims that excessive metropolitan development consumes surrounding agricultural land and labor, negatively affecting food production.[280] Wingo shows that incomes in towns of 5,000 - 20,000 population in Venezuela are at 83 percent of the national per capita income level, while incomes in Caracas are 235 percent of the national level.[281] Indeed, there is widespread evidence that metropolitan development has been associated with further metropolitan-nonmetropolitan income and development differentials.

This widening income gap has been the subject of much concern. It indicates that metropolitan areas may not exert a spread or multiplier effect on the hinterlands. While Hirschman[282] expects this imbalance and gap to be removed as growth "trickles down", many other researchers claim that migration to major metropolitan areas does not serve the goals of regional development and call for a pattern of urbanization which leads to a balanced urban hierarchy of small, medium, large, and metropolitan cities.[283] If one of the national development goals is balanced growth both within and between regions, then migration leading to primate city development does not seem to facilitate such goals.

*Migration resulting in a population distribution facilitating development* -- Some scholars suggest that the present existence of primacy among metropolitan areas does not conflict severely with development efforts. The primary assumption underlying this view is that industrial growth is necessary to absorb "surplus" agricultural labor and increase per capita incomes. According to the Fei-Ranis model, the correct policy goal is maximization of industrial output, because this is the key mechanism by which per capita income grows.[284] This theory is often linked to the view that the large city is the only efficient location for manufacturing and specialized services. It has the

> . . . . advantage of a large and concentrated labor and consumer market; it is the focus of transportation routes; it has the economies of scale and juxtaposition of industries and specialists; it is

a fertile ground for social and cultural change necessary for development; it is a center from which these innovations or new adaptations, artifacts, and technologies . . . . diffuse into the countryside, and it is an area that receives migrants from the countryside thus relieving the farming areas of the burden of excess population."[285]

Supporters of metropolitan-focused migration claim that overurbanization has not occurred.[286] Mehta's analysis of the demographic and economic correlates of primacy is perhaps the clearest indication that primate cities have not significantly slowed overall economic growth. Still, Mehta is unable to show that primate cities have furthered income growth or the spread of innovations.[287]

Some researchers find that the concentration of persons in metropolitan areas has increased real incomes of migrants, which reflects a more productive allocation of labor, and has involved more persons in modernization processes.[288] For example, Papanek's recent survey of poor migrants in Jakarta found an average income gain of 140 percent.[289]

Contrary to theorists who claim that the metropolitan areas have not spread innovation, studies by Gibbs and Martin,[290] Zachariah,[291] Caldwell,[292] and Gonzmart[293] indicate that increased urbanization brings greater spread effects. These findings are limited, and more empirical support for the improved spread effects of metropolitan areas is necessary before any conclusions can be drawn.

*FOOTNOTES*

1. The following surveys found that migrants were "satisfied" with their lives:

| Country | Citation |
|---|---|
| Colombia | Flinn (1968:88) |
| Argentina | Margulis, cited in Brigg (1973:21) |
| Mexico | Butterworth (1970:107-112); Browning (1970: 273-314) |
| Brazil | Leeds and Leeds (1970:252) |
| India, Brazil, Indonesia, Venezuela, Turkey, Malaysia, Philippines | J. Nelson (1969:15-18) INTERMET/IDRC (1973:108) |
| Ghana | Caldwell (1969:180-182) |

2. The following found that migrants were satisfied, but not experiencing all of their desired changes:

| Country | Citation |
|---|---|
| Ghana | Caldwell (1969:180-182) |
| Philippines | Lopez and Hollenstiner (1974:11) |
| South Korea | INTERMET/IDRC (1973:108) |
| Peru | Chaplin (1970:167) |
| Philippines | Hackenberg (1972) |
| Venezuela | Garcia and Blumberg (1973: 1-27) |
| Nigeria | Plotnicov (1970:171) |
| Argentina | Germani (1961:221) |

3. The following studies found a fair amount of dissatisfaction among migrants for themselves or their children, expressed openly, by a desire to move or by actual repeat or return migration:

| Country | Citation |
|---|---|
| South Korea, Venezuela | INTERMET/IDRC (1973:108-114) |
| General | Cornbilt (1974) |
| Venezuela | Garcia and Blumberg (op. cit.) |
| Mexico | Rengert and Rengert (1973: 32) |
| Thailand | ILO Study, cited by Brigg (1973:34) |
| Argentina | Margulis, cited in Brigg (1973:21) |

4. Studies showing economic mobility of migrants are:

| Country | Citation |
|---|---|
| Colombia, Latin America | Cardona and Simmons (1973: 7-9) |
| Mexico | Browning (1970:32) |
| India, Indonesia | Cited in Brigg (1973:31-32) |
| Chile | Herrick (1965:80-88) |
| Southeast Asia | Laquian (1973:190-191) |
| Latin America | Hardoy (1972:23-27) |
| Nigeria, Africa | Mabogunje (1970:8-9) |
| Uganda | Gutkind (1969:389-400) |
| Venezuela, Turkey, Malaysia | INTERMET/IDRC(1973:75) |
| Taiwan | Speare (1974:316-318) |
| Costa Rica | Carvajal and Geithman (1974:108) |

5. Studies showing mobility equal to or above that of natives:

| | |
|---|---|
| Chile | Herrick (1965:80-88) |
| Latin America | Orrego de Figueroa (1974: 5) |

*FOOTNOTES (continued)*

5. (cont.)

| Country | Citation |
|---|---|
| Mexico | Browning (1971:298-300) |
| Costa Rica | Carvajal and Geithman (1974:108) |

(The above sources corrected for age-sex differences in the two samples.)

| | |
|---|---|
| Southeast Asia | Laquian (1973:190-191) |
| Latin America | Cardona and Simmons (1973: 7-9) |
| Argentina, India, Brazil | J. Nelson (1969:53) |
| Honduras | Nance and Thomas (1971: 118-119) |
| Colombia, El Salvador, Pakistan, Indonesia | Brigg (1973:18, 26, 30, 31) |

6. The following studies have found rural outmigrants to be better educated than their counterparts in the origin:

| Country | Citation |
|---|---|
| Africa | Hanna and Hanna (1971:35) |
| Taiwan | Speare (1974:316) |
| Jamaica | Harris and Steer (1968: 405-406) |
| Ivory Coast | Roussel (1970:245) |
| Mexico | Browning (1971:294-5) |
| Brazil | Sahota (1968:243) |
| India | Greenwood (1971:138-139) |
| Costa Rica | Carvajal and Geithman (1974:108-118) |

7. The following are examples of studies finding migrants younger than nonmigrants:

| Country | Citation |
|---|---|
| Colombia | Adams (1969:529) |
| Latin America | Orrego de Figueroa (1974: 5) |
| Nigeria | Akinbode (1971) |
| Chile | Elizaga (1966:352) |
| United States | Sjaastad (1962:88, Hathaway 1960:3) |
| Costa Rica | Carvajal and Geithman (1974:108) |

8. Theoretical support for risk-taking ability of migrants is given by Mabogunje (1972 a). There are few studies on the risk-taking aspect of migration. One approach to studying this ability of migrants has been to associate greater risk with migration to large cities, except when the large cities are also the closest. Studies in Mexico by Browning (1971:309-311) and by Rengert and Rengert (1973:32), and in Costa Rica by Carvajal and Geithman (1974:111-112), find a direct association between risk-taking ability and educational level of the migrants. If the assumption is valid that higher education represents a greater ability to take risks, then studies finding a higher educational level of migrants, regardless of size of destination, seem to support the risk-taking ability of migrants.

9. Herrick (1965:94). Other studies showing a lower unemployment rate for migrants after migrating are:

| Country | Citation |
|---|---|
| Indonesia | Temple (1974:19-23) |
| Colombia | Flinn (1968:86-87) |
| India | Zachariah (1966:388) |
| Taiwan | Speare (1974:315-318) |

10. Carvajal and Geithman (1974:108)
11. Papanek (1975:4-5)
12. Shryock and Siegel (1971:340)
13. INTERMET/IDRC (1973:75)
14. Occupational mobility has been shown by:

| Country | Citation |
|---|---|
| Chile | Herrick (1965:80-94) |
| Indonesia, Venezuela, South Korea | INTERMET/IDRC (1973:81-82) |
| Costa Rica | Carvajal and Geithman (1974:108) |

(Rural-born are less educated and also less mobile than urban-born migrants, who have equal or better education than natives).

| | |
|---|---|
| Thailand, Indonesia, Argentina | Brigg (1973:32-34, 20) |
| Mexico | Browning (1971:289-291) |

(Browning's findings are for positively selected migrants to large cities).

| | |
|---|---|
| Colombia | Flinn (1968:83) |

Simmon's study shows increased mobility associated with increasing length of time in city. (Simmons, 1970:172-190)

15. Browning (1971:294-95)
16. Mabogunje (1973:30)
17. Vaughan and Feindt (1973:398)
18. Additional studies supporting the relation between occupational and residential mobility are:

| Country | Citation |
|---|---|
| Peru | Turner, in Turner and Fichter, eds. (1971: 164-167) |
| Latin America | Turner, in Turner and Fichter, eds. (1966: 109-113) |
| Colombia | Flinn (1968:83); McGreevey (1971:12); Vernez (1973:3-11) |

In a study of economic mobility in Davao City, Philippines, Hackenberg found that the poorest were concentrated in peripheral communities, most of them earning relatively fixed, low industrial wages. The only opportunity for mobility is a

*FOOTNOTES (continued)*

shift to small business or trades, which is not possible for the poor unless the move is to a location accessible to the middle and upper class residents who form the clientele for their services. (Hackenberg, 1972:32, 45, 51)

19. Comparable data on occupations of migrants before and after migrating are available in the following studies:

| Country | Citation |
|---|---|
| Costa Rica | Carvajal and Geithman (1974:108) |
| Chile | Herrick (1965:94); Elizaga (1966:375) |
| India | Zachariah (1966:388) |
| Colombia | Flinn (1968:86-87) |
| Africa | Little (1973:31-36) |
| Argentina, Pakistan, India | Brigg (1973:21, 29, 31) |
| Taiwan | Speare (1969) |
| Indonesia | Temple (1974:19-24) |

The Taiwanese data exclude an unskilled category, although a category for transportation workers comprises 14 percent of all workers. Many of these may be the bicycle richshaw drivers found in most Asian cities, and as such would include unskilled labor.

20. Herrick (1965) found that almost 23 percent of the female migrants to Santiago found employment as white-collar workers. Boserup attributes this to the higher proportions of female students in Latin America, elsewhere the numbers of women in white-collar jobs are relatively low, ranging closer to 10 percent of all women migrants. (1970:123-126)

21. Herrick's study shows a 14-percent upward mobility out of unskilled occupations, while skilled, semi-skilled, and white-collar occupations showed a 24-percent increase in their shares. (1969:94)

22. For a more detailed analysis of restrictions of women's participation in economic activites in towns, see Boserup (1970). An in-depth analysis of African urban women is provided by Little (1973

23. Browning (1971:293) and Margulis (1965) support this trend.

24. The following are studies which find migrants who say they are no better off than before moving:

| Destination | Comments of Migrants | Citation |
|---|---|---|
| Monterrey, Mexico | 8% no improvement | Browning (1971:301) |
| Bogota | 3% worse<br>10% no better | Cardona (cited) in Browning, ibid) |
| Bandung | 13% not satisfied | |
| Caracas | 31% not satisfied | |
| Istanbul | 21% not satisfied | INTERMET/IDRC (op.cit.: 108) |
| Kuala Lumpur | 5% not satisfied | |
| Manila | 31% not satisfied | |
| Seoul | 66% not satisfied | |
| Colombia | "Most" migrants lucky to get any job | Whiteford (1974:165) |
| Jakarta | 25% not better<br>9% worse | Sethuraman (1976:110) |

25. For studies of the socioeconomic characteristics of the very poor, especially migrants, see:

| Country | Citation |
|---|---|
| Philippines | Hackenberg (op.cit.)<br>Lopez and Hollensteiner (op.cit.) |
| Jakarta | Papanek (op.cit.)<br>Sethuraman (1976) |
| Several Latin American communities | Cornelius and Trueblood (1974) |
| Comparative study | Nelson (1976) |
| Venezuela | Garcia and Blumberg (1973) |

26. Lopez and Hollensteiner (1974)
27. Sethuraman (1976:111-116)
28. See Lopez and Hollensteiner (op.cit.) Whiteford (op.cit.) and Lomnitz (1974), respectively.
29. Reed and Schnaiberg (1973); Rich (1973); Hackenberg (1972). Taira suggests that persons become trapped in the bazaar

*FOOTNOTES (continued)*

sector when information and awareness of life and opportunities outside of their own niche decline over time (Taira, (1969:133). This limited awareness among the lower socioeconomic classes is also supported by the work of Lin and Burt (Lin and Burt, 1973:22).

30. See Whiteford (op.cit.)
31. See Peattie (1974:101-109), Lomnitz (op.cit.), and Leeds (1974:67-99).
32. Hackenberg (1972) and Friedmann and Sullivan (1974:385-413). See also McGee (1971), INTERMET/IDRC (1974:159), Meier (1972), Papanek (1975:14-16), and Rengert and Rengert (1973:32)
33. Hardoy (1973:184-189)
34. Browning (1971:309)
35. Carvajal and Geithman (1974:109-110)
36. See Browning (1971) for a study of declining selectivity of migrants over a time period. The theoretical work of Ravenstein (1885) and Lee (1969) supports this theory from a different point of view: they hypothesize that as the number of migrants in a migration stream increases, selectivity declines, partly because the chain of kin and contacts among prior migrants reduces risks of migration and partly because there is more information about various destinations available to later migrants, which also reduces the risk of migration; as risks of migration decline, selectivity is also assumed to fall.
37. See Nelson's excellent analysis of temporary, "sojourner" migrants vs. permanent migrants. Nelson (1976:721-757)
38. Boserup (1970:98-144, 172-175)
39. The only examples found in this survey are the studies by Herrick (1965); Little (1973); and Lopez and Hollensteiner (op.cit.); Garcia and Blumberg (op.cit.); and Gadgil (op.cit.); Goldstein, et al.; (1973) for Thailand, and the Boserup study. Other surveys have focused on female labor force participation, urbanization, and fertility behavior, but not necessarily in the context of migration. For more detailed analysis of these issues, see Chapter V below.
40. Boserup (op.cit.)
41. A 1973 study by Little of African women finds that women who are negatively selected for education find life in town marginal.
42. Boserup (op.cit.:1960-170)
43. For Mexico see Vaughan and Feindt, 1973: 397-398, and for Colombia see Flinn, 1968:87-88.
44. INTERMET/IDRC (1973:98)
45. Assistance from kin is shown by:

| Country | Citation |
|---|---|
| Philippines | Lopez and Hollensteiner (1974) |
| Ghana | Caldwell (1969) |
| Venezuela | Peattie (1968:45) |
| Indonesia | Temple (1974:23) |

46. Studies in Africa show that kin groups help migrants find housing. (Caldwell, op.cit.; Little, 1973). In addition, surveys of shifts from central city to shantytown locations are often made because kin are in the shantytown. (Flinn, 1968:85).
47. The following studies show that kin or friends help migrants get their jobs:

| Country | Citation |
|---|---|
| Uganda | Gutkind (1969:389-400) |
| Peru | Chaplin (1970:171) |
| Mexico | Browning (1970:32-33) |
| Ghana | Caldwell (1969:138-139) |
| Philippines | Lopez and Hollensteiner (1971:8) |
| Brazil | Wilkening (1968:695) |
| Thailand | Brigg (1973-34) |
| Indonesia | Temple (1974:23) |

48. Studies showing the assistance of clubs or kin groups to migrant adaptation are:

| Country | Citation |
|---|---|
| Africa | Little (1973:49-60) |
| Ghana | Caldwell (1969:138) |
| Uganda | Gutkind (1969:389-400) |
| Argentina | Margulis (1968) |
| India | Rosser (1970:131) |

49. INTERMET (1973:111-112); Flinn (1968:86-87); Leeds and Leeds (1970:246-261); Little (1973:60); and Lomnitz (1974:142-154)
50. See Lopez and Hollensteiner (1974) for a study of the barrio friendship interactions in the Philippines, and Little (1973) for a comparative study of women's relationships in Africa.
51. The most extensive study of the changes women undergo when they migrate from rural to urban areas has been done by Ester Boserup (1970:98-175). The survey by Lopez and Hollensteiner (1974) gives greater detail on the coping techniques women use. Gadgil's brief summary for working women in India also reveals the above mentioned constraints on employment for women (1965:18-27). Little's study of African women shows the same combination of child care-employment (1973:49-60).
52. Little (1973:49-60)
53. Boserup (1970:115-117); Gadgil (1965: 18-27) also gives an example of this for India.
54. Lopez and Hollensteiner (1974:10-14)

*FOOTNOTES (continued)*

55. See Rosen and Simmons (1971:53-66) for the Brazilian study. Safilios-Rothschild (1969:1856-1858) briefly touches this issue in her Greek study.
56. See Boserup (1970:120-125); Gadgil (1965: 18-20); and Elizaga (1969:1594)
57. The benefits of literacy are shown in the Gadgil (1965); Lopez and Hollensteiner (1974); and Hackenberg (1972) studies.
58. Turner (1966:115-116). See also the following studies:

| Country | Citation |
|---|---|
| Mexico | Vaughan and Feindt (1973: 388-401) |
| India | Goetze (1968) |
| Colombia | Flinn (1968:80) |
| Malaysia | Armstrong and McGee (1968:353-373) |

59. The INTERMET/IDRC study cites some of the disadvantages of the central city (1973:113-115), which Turner (ibid.), also discusses.
60. Flinn (1968:90)
61. INTERMET/IDRC (1973:109-113). See also Abu-Lughod (1968) and Flinn (1971). A study which discusses some of the long-run implications of the "little community" in Malaysia shows that one problem is the isolation which the community may experience and which prevents the long-range integration of migrants into the city. (Goodman, 1966b:11-15). Most recent studies, however, find a fair degree of mobility among migrant communities as they improve their status. (See Turner's and other studies cited above, note 58.) The implication here may be that unless there is locational and economic mobility, the migrants may not be integrated with the rest of the city. Another viewpoint on this problem, just being raised among researchers, is the implication of "integration" as a goal for migrants. When migrants have succeeded in establishing themselves, even if, in a separate squatter community, does the question of further "integration" have any relevance? Discussions of this issue include Leeds and Leeds (1970), Lopez and Hollensteiner (1974), and Meier (1972).
62. Hackenberg's study of lifestyles of the upper, middle, and lower classes in Davao City, Philippines, gives details on how the opportunities for the little educated, poorest classes are severely limited (1972). The works of Lopez and Hollensteiner (1974), also for the Philippines; Garcia and Blumberg (1973) for Venezuela; McGee (1971) for Asia; and Reed and Schnalberg (1973) all provide further support for the limiting lifestyle of the poorest and least selective migrants.
63. Abrams (1964:35)
64. INTERMET/IDRC (1973:131-132)
65. Turner (1966). See also Flinn (1968)
66. John F.C. Turner (1966) has highlighted this rationale for squatting, as have the studies of Lopez and Hollensteiner (1974), Leeds and Leeds (1970), Garcia and Blumberg (1973), and Abrams (1966).
67. Garcia and Blumberg's study of squatters in Ciudad Guayana, Venezuela shows the large number of corner shops set up in squatters homes (1973:1-27). Turner (1971:148-240) and Abrams (1964:164) also show that houses are used for business. G. Vernez has studied "pirate" settlements in Bogota, Colombia, and has shown a large number of persons renting rooms from squatters (1973).
68. Abrams gives examples of these poor conditions for communities in the Philippines, Jamaica, Hong Kong, and Morocco (1964:12-24)
69. The INTERMET/IDRC studies in Istanbul, Caracas, Seoul, Bandung, Kuala Lumpur, and Manila show squatters satisfied with their communities, probably because they supplied themselves with many of the services. (1973:133-135) The following studies also show that squatters have fairly good access to services, especially to schools:

| Country | Citation |
|---|---|
| Mexico | Butterworth (1970:111-112) |
| Brazil | Leeds and Leeds (1970: 246-254) |
| Venezuela | Abrams (1964:17-19) |
| Colombia | Flinn (1971:89-90) |

70. Turner (1971:131-146)
71. The value of primary education continues to be high, despite high unemployment rates among school-leavers. Although there are not many studies on unemployment by educational level, it seems clear that unemployment among persons attaining primary level is lower than for those with more schooling of the formal, Western-type prevailing in most countries.
72. See Table 1, Chapter IV. Leeds and Leeds' study of Brazilian migrants also found them favoring favela life because of the school opportunities (1970:253-254). Flinn's study of a Bogota barrio found similar results, where 64 percent of migrants from outside Bogota said that educational opportunities were better for children (1971:90).

*FOOTNOTES (continued)*

73. Abrams' account of shantytown dissolutes and radicals in Jamaica is one example of these types of studies (1964:19-21)
74. Nelson (1969)
75. Cornelius (1971:106-116)
76. See Leeds (1974), Peattie (1974), Isbell (1974), and Whiteford (1974) for discussion of the more recent potentials for discontent and activism among migrants.
77. Cited in Brigg (1973:34)
78. INTERMET/IDRC (1973:108-114)
79. Hackenberg (1972:24) shows that the poor can't afford to send their children to school. Whiteford (1974:165) shows this for Colombian poor.
80. Documentation of the lifestyle of the poor is given in:

| Country | Citation |
|---|---|
| Philippines | Hackenberg (1972), and Lopez and Hollensteiner (1974) |
| Argentina | Margulis, cited in Brigg (1973:22) |
| Egypt | Abu-Lughod (1969) |
| Ghana | Caldwell (1969:119) |

81.

| Country | Citation |
|---|---|
| Argentina | Margulis, cited in Brigg (1972:21) |
| Mexico | Lomnitz (1974:144-148) |
| Uganda | Gutkind (1969:389-400) |

82. Hollensteiner (1974) describes why the poor of a Manila barrio do not generally become involved in government programs, and under what circumstances they might. Others who have cited this distrust are Papanek (1975:22-24) and Whiteford (1974:172-177)
83. Leeds and Leeds (1970:252-260)
84. Public housing has been built in many countries, but as Turner (1966) shows, much of it is too expensive for the poorest migrants.
85. Governments having programs which cooperate with squatters building their own homes are discussed by Abrams (1966) and Turner (1971:122-147)
86. Rosen and Simmons (1971:49-69)
87. Increased orientation to an urban lifestyle, especially with more conspicuous consumption, is shown for migrants to:

| Country | Citation |
|---|---|
| Africa | Little (1973:102-144) |
| Brazil | Leeds and Leeds (1970: 248-257) |
| Mexico | Butterworth (1970:108-112) |
| Africa | Hanna and Hanna (1971: 43-44) |

88. Hollensteiner (1974), Leeds (1974:86-91), Peattie (1974:106)
89. United Nations (1971:65-66)
90. Berry (1973:74)
91. Davis (1969)
92. World Bank (1972:80)
93. Davis (1972:12-19)
94. Arriaga (1968:241)
95. World Bank (1972:80)
96. United Nations, ESA/P/WP.46 (1972)
97. United Nations (forthcoming:17-18)
98. Beier, Churchill, Cohen, and Renaud (1975:12-18)
99. Herrera and Pecht (1976:439-443)
100. Arriaga (1965:241)
101. Martine (1975:189)
102. Nance and Thomas (1971:134-137)
103. Ibid.
104. Log-normal ranking of cities exists when the second largest city is one-half the size of the largest, the third largest one-third the size of the largest, and so on. Plotted on log-normal paper, the distribution of cities by size and rank would then form a straight line. Primacy exists when the largest city exceeds the size appropriate to a log-normal distribution. (Berry, 1973:97-98)
105. Abrams (1965:125)
106. Abrams (1974:120) This figure is shown for downtown Lagos. More normally densities may only be as high as 160 persons/acre. (Harris 1971:251)
107. Abrams (1964:29)
108. The central area of Kuala Lumpur had a density of 110 220 persons per acre, while fringe areas had densities 4-97 persons per acre. (Sendut, 1969:468)
109. Ragheb (1969:119)
110. An example of low levels of urban land taxation are given by Abrams (1964:55) for Manila, where annual taxes on a $50,000 property were only $150-$250. Mabogunje (1972:236) describes this problem in Nigeria, and Desmond and Prakash (1971) examine the problem of high land costs and low land taxes for Southeast Asia.
111. Turner (1966:107-109)
112. Abrams (1964:126-128)
113. Ragheb (1969:109). For other studies of enlarging metropolitan areas see: Abrams (1966:34), Hardoy (1973:189-190), and Harris (1971:235-269)
114. Ragheb (op.cit.:111)
115. Abu-Lughod (1969:378) describes this for Cairo, Sendut (1969:473) for Kuala Lumpur.
116. USAID (1972:34-36); Abrams (1966:28-31)
117. Hardoy (1972:36-39)
118. Ragheb (op.cit.:117)
119. Bose (1965:60-63)

*FOOTNOTES (continued)*

120. Abrams (1964:121)
121. USAID (1972:37)
122. For studies showing unemployment levels at least as low as native levels, see:

| Country | Citation |
|---|---|
| Chile | Herrick (1965:84) |
| Mexico | Browning (1971:300-301) |
| El Salvador | Brigg (1973:26 & 30) |
| India | Zachariah (1966:378) |

123. Orrego de Figueroa (1974:5-5)
124. Herrick (1965:94-95); Zachariah (1966) also shows this mobility for Indian migrants, as do Weller (1974:531-2) for migrants to Lima, especially for male migrants, and Carvajal and Geithman (1974:108) for Costa Rican migrants.
125. Cardona and Simmons (1973:6)
126. Chaplin (1970:170) for Peru; Laquian (1971:195) also observes this phenomenon.
127. Joshi, Lubell and Monly (1976:38)
128. Gutkind (1969:396)
129. Taylor (1969:131-132) Sources cited in footnote 124 provide empirical support for this claim.
130. Browning (1971:310)
131. Lansing and Barth (1964:14) show this for the United States.
132. Studies showing migrants in more high level occupations than natives are:

| Country | Citation |
|---|---|
| Japan | Mera (1970:12) |
| Mexico, Taiwan | Browning (1971:291, 300-301) |
| Pakistan | Cited in Brigg (1973:30) |
| India | Nelson (1969:16) |
| Nigeria | Akinnusi (1971) |
| Chile | Herrick (1965:86) |
| Costa Rica | Carvajal and Geithman (1974:108) |

133. Cardona and Simmons (1973)
134. Friedmann and Sullivan (1974:399)
135. Friedmann and Sullivan (1974:393-395)
136. Ibid. 394-395
137. Hart (1970:107-133)
138. Marsden (1970:489)
139. Hart (1970:107-113)
140. Friedmann (1972). Further documentation on the differences between corporate and family enterprises is provided by the World Bank (1972:18-19), Schumacher (1973:161-179), and Cline (1972:179) who shows the differences for Latin American firms.
141. The effect of increasing output and reducing employment through efficient production methods is vividly shown by Marsden (1970:480) who describes how one sandal manufacturer forced 5,000 small-scale leather workers out of business.
142. Marsden (1970:491-492)
143. McGee (1971:21) For more recent analyses of migrants in the informal sector see Sethuraman (1976:114-141) and Joshi, Lubell and Monly (1976:44-61).
144. Boserup (op.cit.:175-191)
145. Little (op.cit.:45)
146. Cardona and Simmons (1973:10)
147. Butterworth (1970:111)
148. Hardoy (1972:23-24) observes this in Latin America. Diaz-Alejandro (1972) and Owens and Shaw (1972:66) also see this rise in demand.
149. Turner (1966:121-126)
150. Turner in Turner and Fichter, eds. (1971:146)
151. Goetze (1968:2)
152. Desmond and Prakash (1971:18)
153. Burns and Tjioe (1968:401)
154. Vernez (1973:26-27)
155. See footnotes 4 and 5 for this chapter.
156. Examples of community built infrastructure are given by:

| City | Citation |
|---|---|
| Bogota | Vernez (1973:26-27) |
| Bandung, Kuala Lumpur, Seoul, Caracas, Manila, Istanbul | INTERMET (1973:133-146) |

157. INTERMET (1973:141-146)
158. Ibid.
159. See the following:

| Country | Citation |
|---|---|
| Latin America | PADCO (1971:21-29) |
| Nigeria | Mabogunje (1972:236) |
| Asia | Desmond and Prakash (1971:15) |
| LDC's | World Bank (1972:19) |

160. Examples of studies citing the urban bias in service provision are:

| Country | Citation |
|---|---|
| Worldwide | Berry (1973:95-96) |
| Africa | Eicher, Zalla, Kocher, and Winch (1970:10-12) |
| Latin America | Hardoy (1972:25) |

161. Desmond and Prakash (1971:10-11)
162. Ahluwahlia, in Chenery, et al., (1974:84-86)
163. Berry (1973:91)
164. Turnham and Jaeger (1971:60-70) give the following figures for the percent of labor force wanting more work:
Lima, 1967 - 26%
Montevidco, 1965 - 43.8%
Urban Philippines, 1965 - 29.3%
165. Wingo (1969:116)
166. Berry (1973:87-89) See also Turner (1976).

*FOOTNOTES (continued)*

167. One example of a discussion of squatters as a disease is given by Juppenlatz (1970:33). Countering his view are Turner (1966) and Berry (1973).
168. Turnham and Jaeger (1971:113)
169. See Alonso (1975:434-450), for a detailed discussion of the issues associated with economies of scale.
170. SRI (1969:319-320)
171. Spengler (1967:57-59)
172. Advisory Commission on Intergovernmental Relations (1968)
173. Spengler (1967:65-70)
174. Rivkin/Carson (1974:9-19)
175. Mera (1970:27)
176. Singh (1971:227) also shows that development costs are highest for large cities and lowest for intermediate size cities.
177. SRI (op.cit.:319-320)
178. Rivkin/Carson (op.cit.:10-21)
179. Honjo, cited in Weitz (1973:76-78)
180. Fuchs (1967) cited in Mera (op.cit.: 12-13)
181. Berry (1971:96)
182. Mera (op.cit.:27)
183. Friedmann and Sullivan (op.cit.:390-395)
184. Temple (1974:21). Friedmann and Sullivan (op.cit.:392-393) also discuss this.
185. Lopez and Hollensteiner (1974:9-12). The INTERMET Survey (1973:76) also found that 20-50 percent of all migrant households had more than one worker. Armstrong and McGee also show large numbers of children working in the tertiary sector in Southeast Asia (1968:353-361)
186. This has been analyzed by Knight (1972) for Ghana and Annable (1972) for several low-income countries. Friedmann and Sullivan (op.cit.:398-399) also describe this equilibrium of underemployment, wages, and level of migration.
187. See Todaro (1976b:216-222) for a rigorous proof of this phenomenon.
188. Zachariah (1966:383-384). Garcia and Blumberg's study of migrants to Ciudad Guayana, Venezuela, also shows a high proportion, up to 54 percent, of migrants in unstable and unskilled jobs (1973:22).
189. Bose (1972:73)
190. Lopez and Hollensteiner (1973:12-14). Friedmann and Sullivan (op.cit.) and Berry (1973) also discuss the shared poverty which keeps migrants poor.
191. Lopez and Hollensteiner (op.cit.:12-18)
192. The following studies describe the low levels of income and consumption among migrants:

| Country | Citation |
|---|---|
| Latin America | Turner (1966:115-118) |
| Venezuela | Garcia and Blumberg (op.cit.) |
| Indonesia | Papanek (1975:1-27) |
| Philippines | Lopez and Hollensteiner (op.cit.) Hackenberg (1972:49) |
| Mexico | Lomnitz (1974:135-155) |
| Colombia | Whiteford (1974:157-181) |
| Comparative study of migrants in LDC's | Nelson (1976:742-755) |

193. The Papanek study is the most thorough of these; he found that the poor migrants in the individual enterprise sector spend up to 85 percent of their daily income for food alone.
193. See Ibid.
194. Ibid., See the U.N. study of African urban problems (UN/E/CN.14/POP 69, 1969:21) which describes low-income housing deficits.
195. Studies finding that about 50 percent or more of large city immigrants are less unemployed and more mobile than natives are noted in Brigg (1973:18, 26, 20-32) for Colomiba, El Salvador, Pakistan, India, and Indonesia. See also the discussion of "Impacts of Migration on Individual Migrants", and footnotes 5-11 above.
196. Those arguing that migrant selectivity is declining find most of their evidence in Latin America. See:

| Country | Citation |
|---|---|
| Latin America | Hardoy (1972:27) |
| Argentina, El Salvador, Ghana | Brigg (1973:20, 26, 38, respectively) |
| Mexico | Browning (1970:37) |

197. Harris (1971:223)
198. Ibid.:228-230
199. INTERMET/IDRC (1973:128-147 and 195-198)
200. Caulriez (1972:203-204)
201. Turner (1966:124-5)
202. Turner, in Turner and Fichter (1971: 127-139)
203. Ibid. (1971:145)
204. Lewis, cited in Berry (1973:86)
205. Harris (1971:223)
206. Leeds and Leeds (1970:248-260). Evidence of the clubs linking migrants

*FOOTNOTES (continued)*

to others in the city is also provided by Little (1973) for Africa, Gutkind (1969) for Uganda, Lomnitz (1974) for Mexico and Peattie (1974) for Venezuela.

207. Ibid. See also Berry (1973:94)
208. Lewis, cited in Berry (1973:86)
209. Bose, (op.cit.); see also Zachariah (1966:387-389)
210. Abu-Lughod (1969:379)
211. Caldwell (1969:119-138)
212. McGee (1971) discusses the need for migrants to be near jobs in Asian cities. Flinn (1968:84-85) discusses migration to tenements in the "zona negra" of Bogota. Harris (1971:222) discusses migration to the corralones, or old squatter areas in Lima, Peru.
213. Abu-Lughod (1969:378-382) has described the establishment of these sub-communities in great detail, but evidence is also available in the 1973 INTERMET/IDRC study, for example for Peru, pp. 57-58.
214. Harris (1971:222-223), Turner (1966), and Abrams (1964) all give examples of the poor housing quality of the very poorest migrants.
215. Abu-Lughod (op.cit.:384)
216. U.N./ECA (1969:22-23)
217. Lopez and Hollensteiner (op.cit.:16)
218. See footnotes 191 and 192 above.
219. Hackenberg (1972:46-47)
220. Poor levels of sanitation and health are shown for:

| Country | Citation |
|---|---|
| Nigeria | U.N., ECA (1969) |
| Latin America | Hardoy (1972) |
| Calcutta | Bose (1965) |

221. Hackenberg (1972:48-49). See also Lopez and Hollensteiner, op.cit. and Abu-Lughod (1969:379).
222. Harris (1971:222). See also Abrams (1966:5-13)
223. See for:

| Country | Citation |
|---|---|
| Ghana | Caldwell (op.cit.:139) |
| Egypt | Abu-Lughod (1969) |
| West Africa | Little (1965) |

224. See for:

| Country | Citation |
|---|---|
| Argentina | Margulis, cited in Brigg (1973:15-16) |
| Malaysia and Southeast Asia | Goodman (1969) |
| Egypt | Abu-Lughod (1969:378-382) |
| India | Bose (1965:65-73) |
| Peru | Isbell (1974:244-250) |

225. See Goodman (1969b). His discussion focuses principally on the Chinese "fragment" within Southeast Asian cities, but the discussion is applicable for other culturally distinct migrants. Garcia and Blumberg's work in Ciudad Guayana, Venezuela, also supports this theory.
226. See Leeds (1974:86-91) for Rio and Lima, and Peattie (1974:106-107) for Ciudad Guayana.
227. Evidence for the lack of political unity comes mainly from Goodman (1969), but also from Bose (1965) and Hollensteiner (1974).
228. Hollensteiner (1974)
229. See Whiteford (op.cit.:177) and Papanek (1975:18-20)
230. Bonilla (1970:79-80)
231. Flinn and Camacho (1969:54-56)
232. Lewis, cited in Berry (1973:83-95)
233. See for:

| Country | Citation |
|---|---|
| Latin America | Turner (1966) |
| India | Rosser, cited in Berry (1973:89) |
| Philippines | Lopez and Hollensteiner (1974) |
| Southeast Asia | Laquian (1971:189-200) |
| Venezuela | Garcia and Blumberg (op. cit.) and Peattie (1974:106-7) |

234. Trewartha (1972:193)
235. Youthful migrants are documented by:

| Country | Citation |
|---|---|
| Chile | Herrick, (op.cit.) |
| Colombia | Adams (1969:535) |
| Philippines | INTERMET/IDRC (1973:86-87) |
| India | Zachariah, (op.cit.) |

236. Adams (1969:535)
237. UN/UNESCO (1973:502)
238. UN/UNESCO (1973:488)
239. Rosenstein-Rodan (1943:202-211)
240. Berry and Soligo (1968:230-249). Nath (1974:375-387)
241. Rempell and Lobdell (1976:31-36)
242. Inukai (1970:466-467)
243. Adams (op.cit.:536)
244. Boserup (1970:27-29 and 53-56) has shown that women comprise at least 40 percent of the agricultural labor force in Sierra Leone, Liberia, Turkey, Thailand, Cambodia, and South Korea. The limitation of production technologies is probably greater in such nations. A study by Cohen (1965) of Israeli Arab villages also shows that

*FOOTNOTES (continued)*

elimination of male-specific technologies accompanies male outmigration.

245. Hathaway (1960:387) and Maddox (1960: 400)

246. Caldwell (1969:216-217); see also Boserup (1970:75-79); Taira (1969) and Friedmann and Sullivan (1974).

247. Examples of this drain in human capital are given by:

| Country | Citation |
|---|---|
| Argentina | Wilkie (1972:111) |
| Colombia | Adams (1969) |
| Africa, Nigeria | Byerlee and Eicher (1972), and Byerlee (1972) |
| United States | Sjaastad (1962:80-93) |

(Sjaastad provides an exposition of the theory of migration as a human capital investment, which for rural areas is a disinvestment.)

248. Adams (1969) This "backwash effect" has been discussed by Myrdal (1956, Chapter 13) and recently by UN/UNESCO (1973:502)

249. Connell et al. (1974:5.0-5.1)

250. Ibid.:165-168. Caldwell suggested 10 percent as a share of Accra migrant incomes, while Johnson and Whitelaw's 1974 survey of migrant remittances shows about 20 percent of their income flowing from Nairobi to home villages in Kenya.

Bose (1965:70) also shows heavy remittances from Calcutta's migrants. The INTERMET/IDRC (1973:118) study also shows that over 50 percent of the migrants to Bandung, Caracas, and Manila sent food, necessities, or money home to relatives.

251. Connell et al. (op.cit.:5.3)

252. Caldwell (1969:161-165)

253. Connell et al., (op.cit.:5.5-5.6) The examples are Pakistan, Ghana, Tanzania, Libya, and Turkey. Caldwell mentions that one-fifth of the migrants had begun building a home in their home villages in anticipation of return migration.

254. Rempell and Lobdell (1976:215-216)

255. Rempell and Lobdell (1976:216)

256. The importance of home visits has been shown for:

| Country | Citation |
|---|---|
| India | Zachariah (1966:385) |
| Ghana | Caldwell (1969:144) |
| Venezuela, Philippines, & Malaysia | INTERMET/IDRC (1973:103) |

257. Jaiyesimi (1971) and Castillo et al., (undated).

258. Plotnicov (1970) documents this for Nigeria, for example.

259. Wilkie (1971:90-107)

260. Zachariah (1966:381)

261. Mitchell (1969:175-179)

262. Connell et al. (op.cit.:6.5-6.8)

263. Rempell and Lobdell (op.cit.:180-186, 247-248)

264. Goulet (1973:74)

265. Examples are Kenya, Tanzania, Sri Lanka, and Morocco. These will be discussed in greater depth in Chapter IV, below.

266. Neira Alva (1972:151-166)

267. Miller (1974:28-29). Miller has reviewed the regional development literature and the reader interested in more details is referred to this excellent summary.

268. Friedmann (1973). See in particular the chapters "A Theory of Polarized Development", pp. 41-56, and "Towards a National Urbanization Policy", pp. 153-185.

_____(1971:217-246) describes Chile's urbanization and regional development strategies.

For more detailed discussion see Miller, "Regional Development: A Review of the State-of-the-Art" (1974).

269. For a compilation of articles dealing with growth center theory and practice, see:

Kulkinski, A.R., ed., *Growth Centers and Growth Poles in Regional Planning*, (Mouton, Paris, 1972), and Hansen, Niles M., *Intermediate-size Cities as Growth Centers* (Praeger, 1971).

A brief review of growth centers is provided by: Nichols, Vida, *Growth Poles: An Investigation of Their Potential as a Tool for Regional Economic Development* Regional-Science Research Institute, Discussion Paper Series: No. 30 (May 1969).

For a discussion of the export, or base, theory underlying growth center strategies see: Thompson, Wilbur E., *A Preface to Urban Economies* (Johns Hopkins University Press, 1968). Also, Richardson, Harry, *Regional Economics* (Praeger, 1973).

270. Berry (1973:99)

271. Among the many studies linking urbanization and development are:

United Nations -- *The Determinants and Consequences of Population Trends*, Vol. I, Chapter VI, (U.N.,1971) ST/SOA/SER.A/50.

*FOOTNOTES (continued)*

Brian Berry -- *The Human Consequence of Urbanization,* (20th Century Fund, 1973).

J. Friedmann -- *Urbanization, Planning, and National Development* (Sage Publications, 1973).

R. Meier -- *A Communications Theory of Development* (MIT Press, 1964).

G. Breese, ed. -- *The City in Newly Developing Countries: Readings in Urbanism and Urbanization.* (Prentice Hall, 1969). Cf. especially the articles by B. Hoselitz, N. Sovani, and J. Gibbs.

Francine Rabinovitz and Felicity Trueblood, eds. -- *Latin American Urban Research,* Vol. I and II (Sage Publications, 1971 and 1972).

Leo Jakobson and Ved Prakash -- *Urbanization and National Development* (Sage Publications, 1971).

World Bank -- *Urbanization: Sector Working Paper* (1972).

R. Weitz, ed. -- *Urbanization and the Developing Countries: Report of the Sixth Rehovoth Conference* (Praeger, 1973).

Berry provides an excellent overview of the potential and actual role of urbanization in development. The United Nations Study summarizes the theory behind urbanization and development, giving a wealth of comparative materials on historical and current urbanization patterns.

The Friedmann and Meier studies give more theoretical treatment to the interactions between urbanization and development. The volumes edited by Breese, by Rabinovitz and Trueblood, by Jakobson and Prakash, and by Weitz provide the reader with more detailed country examples of the problems and contributions associated with urbanization. Finally, the World Bank sector working paper demonstrates a policy statement supporting the role of urbanization in development.

272. Goldstein, Sidney, Visid, Prachuabmoh, and Alice Goldstein, (1974:27-28)
273. Wingo (1969:125-132)
274. Johnson (1970:152-177)
275. Laquian (1966:2)
276. Johnson, op.cit.
277. Wilkie (1974)
278. Hauser (1957:87)
279. Conroy (1973:373-376)
280. Hardoy (1973)
281. Wingo (1969:125)
282. See Hirschman (1975)
283. Major proponents of the argument that concentration in large metropolitan areas has resulted in regional inequity and thus hampered national development are:

| Country | Citation |
|---|---|
| Southeast Asia | Berry (1971:114-140) |
| India & other nations | Johnson (op.cit. and 1965) |
| Chile | Achurra 1972, and Friedmann (1971:217-246) |
| Latin America | Utria (1972:68-69), and Hardoy (1972:20-42) |
| Malaysia | Goodman (1969) |
| Peru | Gonzmart (1966) |
| Brazil | Bergsman (1973), and Brandao-Lopes (undated). |
| France | Rodwin (1970) |
| Indonesia, Malaysia, & Philippines | Pryor (1974) |
| Thailand | Goldstein (1971:218-219) |
| Africa | Spengler (1967) |
| United States | Hansen (1971) |
| Nigeria | Logan (1972:16-39) |

284. Fei and Ranis, (1965:183-198)
285. Mehta, (1969:299)
286. Mills, in R. Weitz, ed. (1973:31-37), Mehta (1969:195-308), and Friedmann, in R. Weitz, ed. (1973:70-71). Friedmann's support of the development of metropolitan industrial areas seems to relate more to his core-periphery concept than to the roles of very large megalopoli.
287. Mehta (1969:300-307)
288. Cardona and Simmons (1972). See also other studies citing reduced unemployment and underemployment and improved incomes (footnotes 269, 273, and 275, above), and INTERMET/IDRC (1973:128-147).
289. Papanek (1975:11)
290. Gibbs and Martin (1969:309-321)
291. Zachariah, (op.cit.)
292. Caldwell, (op.cit)
293. Gonzmart, (1966)

# Chapter 5
# Migration, Urbanization, and Fertility

Migration is both affected by and affects the rate of population growth. This chapter contains a brief discussion of the relationships between migration and fertility.* First, evidence is presented that high rates of natural increase in rural areas generate a surplus labor force. Because the rate of population growth is generally lower in urban areas, this surplus tends to move to cities where job opportunities may be greater. Second, cases are discussed in which migration may lead to a decline in migrant fertility levels, particularly for young, educated, and employed women. The third section demonstrates that a decline in fertility is by no means universally associated with migration. Fourth, the long-range impacts of migration on urban fertility levels are discussed. Finally, there is a brief section on the effect of rural outmigration on the rural rate of natural increase.

## *RAPID POPULATION GROWTH AS A CAUSE FOR MIGRATION*

With the improvement in rural health care and nutritional levels in the developing world, plus a continued high level of fertility, the rate of natural increase has risen rapidly. Both birth and death rates have been declining in most urban areas, but in many rural areas only death rates have dropped. United Nations estimates show that fertility in rural areas is generally higher than in urban areas.[1] In fact, the *United Nations Demographic Yearbook* for 1969 lists only Botswana, Gabon, Gambia, Congo, and Jordan as having substantially higher urban than rural child-to-woman ratios. In most cases the urban areas have about one-fourth fewer children per woman than the rural areas.[2] The higher rural fertility levels, together with reduced mortality, have led to a rapid growth of the number of rural inhabitants agriculture must support.

The maintenance of a large rural population is often complicated and difficult under traditional land tenure systems. In many countries land is traditionally owned and controlled by the family. Upon maturation, family members inherit a portion of the family's land. When population growth rates are high, however, the successive distribution of land rights to each generation results in smaller and smaller parcels. Ultimately, the inherited share of land may not be large enough to support a family without other sources of income, and migration results. Several studies show higher rates of migration among persons owning small amounts of land,[3] and among larger families where the entire family can support itself only if some members move.[4]

Even if the overall man/land ratio is not high, the ratio of labor force to available rural jobs may be high. This leads to unemployment, underemployment, and often migration. Barraclough has shown that in seven Latin American countries much of the arable land is devoted to a type of agriculture which uses little of the available labor force.[5] Without increases in the labor used per unit of land, rapid population growth leads to surplus workers. Although some persons find nonagricultural service jobs in rural areas, many have only one viable option, migration. Like the farmers whose plots are too small to support them, these landless laborers move to rural areas where land is more available or to urban areas in search of jobs, as in Colombia, Korea, Nigeria, Thailand, Venezuela, and many other countries.[6]

High rates of rural population growth have often led to rural-urban migration because the gap between population growth and employment generation has usually been smaller in urban areas. Urban employment opportunities exert an even stronger pull where urban wage rates are substantially higher than rural wages. As Todaro has shown, any job created

* For more detailed reviews of the literature dealing with the socioeconomic factors affecting fertility, see Mason, et al., "Social and Economic Correlates of Family Fertility: A Survey of the Evidence", U.S. Agency for International Development, September, 1971; and Anne S. Williams, "Determinants of Fertility in Developing Countries: Review and Evaluation of the Literature", *Population, Public Policy and Economic Development*, ed. by Michael C. Keeley, Praeger (1976:117-159).

in the urban areas is likely to attract migrants from the underemployed, low-wage, rural sector.[7] Knight's analysis of Ghanaian rural-urban migrants also confirms that rural surplus labor continues to migrate to cities as long as the potential urban wage exceeds the supply price of rural labor.[8]

## *POTENTIAL FOR REDUCING MIGRANT FERTILITY IN THE CITY*

Many factors which operate to reduce the fertility of native urban women may also affect the fertility of migrant women. Some of these factors are age at time of arrival, length of separation from spouse while migrating, increased educational attainment, occupation and commitment to work, participation in family decisionmaking processes, access to improved health care and family planning services, "modernism", and the level of family income. Each of these factors is discussed below. Some of the studies discussed refer specifically to migrant fertility, but many deal with urban-rural fertility differentials. Given the lack of research on migrant fertility it is necessary to utilize the results of both types of studies.

Disregarding age, education, and economic activity, the findings are mixed and often qualified concerning migration as a cause for fertility change. In their review of the socioeconomic correlates of fertility, Mason et al. find that geographic mobility and fertility have at best a weak negative relationship.[9] Anne William's review reached similar conclusions.[10] One difficulty is that few studies of fertility actually distinguish migrants from nonmigrants. Also, migrants are often compared with nonmigrants at the destination, rather than the origin. To ascertain what happens to migrant fertility it is necessary to look separately at migrant, urban, and rural fertility. As noted above, many studies have shown that urban women generally have lower fertility than rural women.[11] However these differences are generally small, and there are contradictory findings.[12] Yet, if in general fertility is lower in urban areas, then migrants from rural to urban areas would be expected to reduce their fertility to a level between the urban and rural levels. Often studies of migrant fertility do not compare migrant fertility to rural fertility, but where this has been done, as in Brazil, Honduras, Puerto Rico, Thailand, Turkey, and the United States, migrants generally have been found to have fertility levels lower than the average in rural areas.[13] In Latin America, overall migrant fertility tends to be higher than urban nonmigrant fertility, but elsewhere findings vary.[14]

If a woman is nearing the end of her childbearing years, migrating to the city has little effect on her fertility, as studies in Brazil, Honduras, India, Puerto Rico, and Thailand show.[15] However, most migrant women are in the peak childbearing years, leading Goldstein to claim that they have the potential for reducing their fertility.[16] Testing this hypothesis is complicated by the interrelationships among age, marital status, educational level, and occupation, each of which affects both fertility and migration.

Migration may be a factor in causing women to delay marriage or to experience lengthy separations from their spouses. Such delays[17] and separations[18] can cause a reduction in the birth rate, as is shown by data for selected Latin American countries, Ghana, India, and Thailand. However, higher age at marriage or lengthy separations are often related to education or occupational level, which also affect fertility and family size.

Numerous studies have shown that one of the principal determinants of fertility is education.[19] According to Miro and Mertens,[20]

> No other socioeconomic variable shows such clear-cut negative relations to fertility as does education. This relationship shows clearly in the urban as well as in the rural-small urban areas . . . . somewhere at the primary level, especially at the completed primary level, a large decrease in fertility occurs; differences for the secondary and higher levels are much less marked.

There are two major hypotheses concerning education and fertility. First, education may enable women to find paying jobs, which compete with having large families. Second, education may lead to greater understanding of the benefits and risks associated with reducing family size and an increased willingness to take these risks. Evidence on both these hypotheses is discussed below.

Migrants tend to be positively selected for education, which is often correlated with higher levels of labor force participation. It follows that higher education among migrant women may lead to lower fertility through the intervening variable of labor force participation. Controlling for educational level, Macisco, Bouvier, and Weller found that Puerto Rican migrant women in the labor force had 18 percent fewer children than those not in the labor force.[21]

Some studies of labor force participation and fertility, not explicitly concerned with migrants, find a strong inverse relation,[22] while others find little or no relation.[23] To deal with these contradictory findings, researchers postulate that fertility falls if women work at jobs incompatible with the housewife role, such as white-collar and live-in domestic work. Collver and Langlois verified this theory by demonstrating a strong negative relationship between the child/woman ratio and female labor force participation rates when domestic servants are excluded.[24] Subsequent analysis by Gendell et al., in Guatemala and Stycos and Weller in Turkey add further support to the theory of role incompatibility.[25]

The theory concerning labor force and role incompatibility is similar to that dealing with occupation. It is hypothesized that women who work in higher level occupations will have lower fertility, in part because these occupations tend to be incompatible with the housewife role and in part because higher level occupations pay better. With higher wages, time is more valuable. Because children are time consuming, the opportunity costs of raising children increases, and income becomes more attractive, relative to children. Inverse relations between fertility and women's occupational status have been found in Brazil, Chile, Greece, Thailand, and Turkey.[26]

A variant of this theory relates fertility to the husband's occupational status and mobility. The fertility differential seems most marked between agricultural and nonagricultural occupations, which implies that rural-urban migrants shifting occupations will reduce their fertility. Mason et al., cite several studies supporting this theory, but Zarate's and Heer's and Turner's analyses tend to contradict the hypothesis that a shift to nonagricultural occupations reduces fertility.[27] Abu-Lughod's study of Egyptian fertility finds an inverse relation between fertility and status of husband, but not all studies confirm this view.[28] In Puerto Rico, for example, the wives of the highest status workers have higher fertility than those at midrange occupations, perhaps because women at the highest income levels can afford servants to care for children.[29] The husband's occupational mobility can account for lower fertility, as Boyd and Iutaka et al.[30] have shown, but it can also produce higher fertility due to the optimism generated by rising incomes, as Schultz, Heer and Turner, and Nance and Thomas suggest.[31]

Families in high status occupations generally have higher incomes, and often invest more in their children. Many studies in developed countries support the thesis that higher income families substitute fewer higher quality children for more, lower quality children.* A number of studies find an inverse relation between the level of the urban family's income and its size.[32] Yet this finding is not universal. The highest income families, including ones with high occupational or educational status, may not have as low a level of fertility as expected, perhaps because they hire servants or because they take children to other family members for day care.[33] Zarate suggests that part of this difference is reflected in the differences between urbanization and urbanism.[34] Families may live and prosper in the city, but their family size patterns are still determined largely by a rural or traditional culture.

Education may also alter fertility behavior through its effect on values. Controlling for female labor force participation, education is found to have a strong negative impact on fertility in Colombia, Egypt, Guatemala, Puerto Rico, Thailand, and Turkey.[35] With the exception of the Egyptian study, which did not deal explicitly with migrants, these studies suggest that education accounts for much of the migrant fertility differential.

If this is so, it may be due to the relation between education and modernism. According to Williams, fertility begins dropping when educational attainment reaches about 4 years, perhaps after literacy is obtained.[36] Because literacy is the prerequisite to reading newspapers and improved communication skills, it may accelerate the process of modernization and innovation, changing attitude toward family size. But there is little work in this field, and more study of value change seems in order. Education may also lead to a greater awareness and use of contraception, as suggested by the Williams and Mason, et al., reviews.[37]

Higher educational attainment may also be associated with changes in the family decisionmaking patterns. One theory is that more egalitarian decisionmaking among husband and wife often carries over into decisions on family size. Studies in Africa, Brazil, Greece, Puerto Rico, and the United States support this theory.[38] Rosen and Simmons suggest that after migrating educated Brazilian women may come into contact with role models who initiate this process of fertility change.[39] But without more research it is difficult to conclude that fertility change would not have occurred in the absence of migration.

One additional factor enabling mobile migrant women to reduce their fertility is better access to health-care facilities, including family planning clinics. Maternal and

* For a more detailed review of this topic

child health-care programs lower maternal and infant mortality rates, increasing the likelihood that children may survive until adulthood. This reduced infant mortality is cited as one reason why the family planning programs have been so successful in China.[40] Family planning workers and clinics are also often concentrated in urban areas. This makes it easier for urban migrants to reduce family size, as studies in Thailand and India show.[41]

Based on the above discussion, migrant women who are young, have at least primary-level schooling, and who work at occupations incompatible with the traditional housewife role seem to be the most likely candidates for reduced fertility. Indeed, findings from Brazil, Ghana, Honduras, Nigeria, Philippines, Puerto Rico, Thailand, and Turkey show that such women do attain fertility levels equal to or lower than those prevailing for similar urban natives.[42]

Because most of the influence on fertility pertains to the characteristics of the migrant herself, it may be that migrants who reduce their fertility are selected for lower fertility prior to migration. Goldstein makes this suggestion based on his work in Thailand.[43] Additional support is supplied by several analysts who show that the more highly educated rural women have fertility levels lower than those of poorly educated rural or urban women. As a result of their migration these women are generally able to reduce their fertility, but the differential with the fertility levels of the poorly educated nonmigrants is not due to urban residence alone.[44]

These findings can be orgainzed around the theory of risk and uncertainty. As postulated by Reed and Schnaiberg, in most developing countries there is a tradition of large families.[45] The advantages and problems of large families are well known to these women and involve few uncertainties. Small families are realtively new to the societies and present more uncertainty with respect to old-age security, total family income, ultimate family size, and so on. Even given greater knowledge of small family situations, there are still risks associated with the varying effectiveness of contraceptive methods, changes in mortality and variability of government, education, wages, housing, and social security policies. Reed and Schnaiberg suggest that education and income improvement enable families to learn more about small family costs and benefits and to give them more realistic consideration. Further, urban areas offer greater access to the means by which to achieve small families. This, migration, especially for mobile migrants, may lower fertility.

## *WHY MIGRANT WOMEN MAY NOT EXPERIENCE A FERTILITY DECLINE*

Not every woman who moves to the city has a smaller family than her rural counterpart. As with urban natives who have higher fertility levels, there may be a number of reasons why a smaller family is neither desirable nor feasible. Lower class women with little or no education and whose work tends to be compatible with traditional childbearing roles are likely to have higher fertility levels, perhaps not as high as in rural areas but certainly higher than the urban average.

The most obvious factor preventing a change in fertility level is age. Macisco, Bouvier, and Weller show that as average age of the migrant rises, there is a lower probability that the migrant's family size will differ from family size at the origin.[46] Another factor which affects the level of migrant fertility is the age at which migrant fertility is measured. In their recent review of migrant fertility differentials, Zarate and Unger de Zarate illustrate that in several cases where migrant fertility is lower than nonmigrant fertility in the early childbearing years, by the end of the childbearing years, migrant fertility has "crossed over" and may exceed urban nonmigrant fertility. This "cross over" may have a strong aggregate effect, leading to total migrant fertility higher than urban nonmigrant fertility.[47]

Also important in determining family size is the woman's level of education. Studies find that in contrast to women of higher educational attainment those with little or no education have a much lower incidence of reduced fertility. This may reflect the fact that the more traditional values of less educated women are not conducive to the practice of birth control. Schnaiberg suggests that one reason Turkish rural women have such high fertility levels is their lack of "modernity" (measured as access to media, less religiosity, and more subservience, among other things).[48] In a survey of women in Baghdad, Iraq, 26.8 percent of those rejecting birth control gave reasons of religion or respect for husband.[49] Less educated migrants may also lack information about small families or family planning. In both the Turkish and Iraqi examples the more traditional, less educated women have limited access to printed media or other sources of new values. Studies in Venezuela and elsewhere confirm that less educated, more traditional women are less interested in family planning programs and may actually fear birth control.[50] Although education does not guarantee receptivity to small families and birth control, it does have a significant impact.

Another reason for high fertility among less

mobile migrant women is their low incomes. As shown above, there is a strong inverse relationship between income and family size in developing countries. Hackenberg and Tabah have shown this in their respective analyses of urban Filipino and Chilean families.[51] The income effect on fertility is a product of both the woman's occupation and the perceived costs and benefits of children. At low wage levels, time is cheaper and the costs of raising children diminish.

Several studies of poor urban and migrant women failed to find any inverse relationship between fertility and participation in the labor force among those employed in occupations compatible with traditional housewife roles.[52] Less educated migrant women tend to find jobs which allow them to work at home or bring children to work, lessening the pressure to substitute work for childbearing, as in India, the Philippines, Thailand, Turkey, Venezuela, and West Africa.[53] In this way, as Boserup explains, migrant women are able to add to the meager family income while also fulfilling household responsibilities.[54]

In addition, lower income families may also use children to augment family income. Kasarda's analysis shows a positive correlation between child labor force participation rates and fertility.[55] Reed and Schnaiberg's analysis also shows that the high perceived utility of children in low-income families in Taiwan leads to larger families.[56] Poor families spend less on raising each child, yet expect more economic assistance and support from children. According to Reed and Schnaiberg, low-income families living at the margins of survival prefer the certainty of children and their benefits to the risks of smaller families.

One additional problem in reducing family size is the cost and uncertainty of adopting birth control. A survey of poor women in Caracas shows that the very poorest women are not interested in using the available clinics for religious, marital decisionmaking, and cost reasons. Poor women cannot afford to leave work, nor can they afford the transportation or child care involved in visiting the clinic. In addition there is uncertainty about the clinic itself. Among the poor women interviewed in Caracas there is a strong tendency to rely solely on information from neighborhood friends. If a woman has no close friends who are acceptors, she is unlikely to know about, be interested in, or visit a clinic.[57] Another element of uncertainty associated with family planning is distrust of institutions and government. A few authors have introduced this theme with respect to utilization of other government services, and it is possible this distrust also applies to family planning clinics.[58]

While low-income levels have been shown to indicate high fertility conditions, in the developing nation context the factors of role incompatibility, perceived child utility, and attitudes about change may be more critical than income itself.[59] Without changes in these factors the tradition of large rural families may be carried into urban areas.

### *NET IMPACT OF MIGRATION ON URBAN FERTILITY LEVELS*

The net impact of migration on urban fertility levels varies with the type and volume of migrants. In the aggregate, migrant fertility tends to be higher than urban nonmigrant fertility. Among migrants however, there is variation. As seen above, migrant women who have primary schooling and who work at jobs involving a separation of childraising and work responsibilities are more likely to reduce their fertility than women who merge childraising with parttime or household work. If the majority of migrants to a city are mobile and educated, then migration is not likely to result in higher urban fertility levels. On the other hand, if a city receives a large proportion of less mobile migrants, the overall urban fertility level will tend to rise. Nance and Thomas find that this occurred in Honduras.[60] Tegucigalpa recently received a large proportion of poor, high fertility, rural migrants, and as a result has a fertility level higher than other Honduran cities which received relatively more urban-urban migrants. This may explain why Miro and Mertens found that the mean number of children ever born for selected large Latin American cities is directly proportional to the percent of migrants.[61] Zarate also found high fertility levels in his study of migrants to Mexico City, although he attributes this to increased optimism among migrants.[62]

Apparently, the more mobile migrants with low fertility were often urban residents prior to migration. Although their parents may have come from rural areas, these urban migrants have grown up in an urban environment, generally benefitting from improved educational opportunities and more modern lifestyle. Several Latin American surveys show the lowest fertility levels among urban-urban migrants, as compared with either rural-urban migrants or urban nonmigrants.[63] For example, Nance and Thomas have shown that migrants coming from cities larger than 20,000 have lower fertility levels than those of Tegucigalpa natives.[64] Although Goldstein does not group the migrants in his study by size or urban origin, his results for 5-year

migrants, taken with later findings on the urban-urban nature of migration to Bangkok, suggest that this may also be the case in Thailand.[65] In contrast, Zarate found that the size of the migrant's origin community had a slightly negative but insignificant effect in predicting migrant fertility.[66] Clearly, more studies are needed on this matter.

Another aspect of migrant selectivity and fertility differentials is the issue of changing migrant selectivity over time. As Zarate and Unger de Zarate observe with respect to findings for Filipino, Mexican, and some Latin American migrant fertility patterns,[67]

> These findings strongly suggest that prior to (or in the absence of) rapid urbanization and economic development, migrant-native fertility differentials are quite small because of the high degree of selectivity of migrants, their rapid assimilation and consequent close socioeconomic resemblance to the urban-born. Later, economic growth and rural stagnation may stimulate migration that is much more representative of the rural population, and migrants differ greatly from urban natives whose fertility is much lower.

While the above comment applies to observed differences between countries at different stages of urbanization for countries at different time periods, additional research may not only address the selectivity issue on a longitudinal basis, but also on a cross-sectional basis, looking at different types of migrants and different city destinations.

If more studies show a positive correlation between migrant selectivity, size of origin, and fertility reduction, a long-range impact of migration on fertility is indicated. Even if the urban-urban migrant shows no migration-related reduction in number of children overborn, migrant children (especially girls) will likely receive a better education and take on more modern values than the parents and may well have smaller families.[68] For example, Baker and Bird have shown that African urban legal systems favor increased independence of women by reducing their subjugation to family and common laws.[69] This may ultimately make it easier for the woman to have smaller families. Thus, a potential impact of migration -- even of poorer, less mobile migrants -- is a delayed reduction in fertility. In the long run, this factor may tend to keep urban fertility levels at or below current levels, despite initial rises.

On the other hand, if the poor migrants pass their educational and income disadvantages on to their children, as suggested by Hackenberg[70] and Lopez and Mollensteiner,[71] the delayed fertility reduction may not occur and urban fertility levels may rise when this large group of migrant children mature and have their own families. In the context of urban mortality decline, this would result in even higher rates of natural increase.

Unfortunately, there are not many analyses of migration and fertility which include educational level of migrants, urban-rural origin, income after migration, wife's occupation, and some measure of fertility. Without more detailed research, particularly of second-generation migrant behavior, it is difficult to do more than guess at the longrange impact of migration on urban fertility.

It seems, however, that enough evidence has been marshalled to draw some tentative conclusions about the migrants themselves. Women who have at least a primary education, work largely outside the home, and exercise a fair degree of responsibility for family decision-making tend to have smaller families than similar women who did not migrate. These women, many of whom are urban-urban migrants, may have even lower fertility than the prevailing, city-wide average. But there are instances where migrant fertility is higher than native fertility, in some cases despite higher incomes and more skilled occupations on the part of both migrants and natives.[72] The fact that a family has a certain income or has migrated does not guarantee a reduction in completed family size.

## *A NOTE ON MIGRATION'S POTENTIAL DEMOGRAPHIC IMPACT ON RURAL ORIGINS*

While there has been relatively little research on the impact of migration on fertility, its impact on rural fertility levels has received even less attention. Migration may cause rural fertility to rise, fall, or remain unchanged. The brief discussion below presents the limited evidence concerning this topic.

When both young men and young women migrate, their departure diminishes the number of persons in the reproductive years. But rural-urban migration tends to be sex-selective, for males in Africa and Asia and for females in Latin America.[73] This sex selectivity alters the sex ratio of the remaining population and may lead to fertility declines. Studies in India, New Guinea, and West Africa, and a study of international migration all show lower fertility among women left behind in villages.[74] The Indian study shows that the ratio of children (ages 0-4) to women of childbearing age drops from .6050 for low-migration villages to .5335 for high-migration villages. But, separations and fertility may

be only temporary, particularly where visits are frequent. One Indian researcher has claimed that husbands on home visits are highly effective at inducing conception.[75]

Male-selective migration raises the dependency burden, as evidenced in Chile[76] and India.[77] In response, women in Hong Kong, Taiwan, Guadalcanal, New Guinea, India, Tanzania, and Turkey have taken over the agricultural jobs vacated by their husbands.[78] There is no information on the subsequent fertility levels of women involved, although Boserup suggests that in the long run the higher status conferred upon working farm women may result in lower fertility.[79] Further analysis of fertility change in areas where male-selective outmigration prevails is needed.

One major obstacle to smaller families in rural areas is the lack of knowledge concerning family planning. Without the means by which to practice birth control, rural women are ill-prepared to take advantage of any changes in their status. In commenting on urban migrants moving to smaller urban places in Thailand, Goldstein suggests that returning migrants spread new values and information about family planning.[80] There is little evidence that outmigration changes the economics of family size in rural areas, but migration may at least be a vehicle for introducing new family size concepts.

*FOOTNOTES*

1. The following studies show higher rural fertility:

| Country | Citation |
|---|---|
| Africa | Eicher, et al., (1970: 5-7) |
| Ghana | Caldwell (1969:183) and Gaisie (1975:21-34) |
| Nigeria | Akinbode (1971) |
| Latin America | Miro and Mertens (1968: 105-109) |
| Colombia | Schultz (1971:157-163) |
| Honduras | Nance and Thomas (1971) |
| Puerto Rico | Masisco, Bouvier, and Welier (1970:117-130) |
| Thailand | Goldstein (1973:225-240) |
| Developing World | Davis (1965:18-19) |

2. United Nations (1969:215-221). Other selected urban/rural ratios of the child/woman relationship, circa 1960-66 are:

| | | | |
|---|---|---|---|
| Turkey | .701 | Puerto Rico | .683 |
| Morocco | .782 | Brazil | .702 |
| Togo | .832 | Ecuador | .840 |
| Tunisia | .860 | Guyana | .608 |
| Panamá | .598 | | |

2. (Cont.)

| | | | |
|---|---|---|---|
| Peru | .799 | Indonesia | .905 |
| Venezuela | .716 | Korea | .656 |
| India | .924 | | |

3. Dorner (1972:41-42) Empirical support for the push derived from high man/land ratios is shown for:

| Country | Citation |
|---|---|
| India, New Guinea | Connell, et al., (1974:1, 3-4) |
| Bolivia, Peru | Dorner (1972:42) |
| Asia | Retherford (1972:53) |
| Brazil | Wilkening (1968:147) |

4. Increasing propensity to migrate of children of large families is shown by:

| Country | Citation |
|---|---|
| Nigeria, Mexico, Maharashtra, India, Ghana, Ceylon, Iran | Connell, et al., (1972:2, 4-5) |
| Mexico | Rengert and Rengert (1973) |

5. Barraclough (1970)
6. Studies which have shown outmigration of rural surplus labor are:

| Country | Citation |
|---|---|
| Venezuela | Davis (1965:19) |
| Colombia | Schultz (1969:55) |
| Korea | INTERMET/IDRC (1973) |
| Thailand | Lefferts (1973:3-4) |
| Nigeria | Anthonio (1971) |
| Several countries | Kocher (1973:67-88) |

7. Todaro (1971:387-414)
8. Knight (1972:221)
9. Mason et al., (1971:48)
10. Williams (1976:142)
11. Other studies showing that overall fertility levels in urban areas are lower than in rural areas are:

| Country | Citation |
|---|---|
| Brazil | Iutaka et al., (1971:55-62) |
| Guatemala | Gendell et al., (1970: 284) |
| Honduras | Nance and Thomas (1971: 116-8) |
| Latin America | Miro and Mertens (1968: 96) |
| Mexico | Zarate (1967:293) |
| Thailand | Goldstein (1973:234-5) |
| Turkey | Stycos and Welier (1967: 210-17), and Schnaiberg (1970:71-85) |

12. See especially Heer and Turner (1965: 279-92), and Mason et al., (op.cit.:41)

*FOOTNOTES (continued)*

13.

| Country | Citation |
|---|---|
| Brazil | Rosen and Simmons (1971: 49-69), and Iutaka et al., (1971:55-62) |
| Honduras | Nance and Thomas (op.cit.: 118) |
| Puerto Rico | Macisco, Bouvier, and Renzi (1969:170-71) |
| Thailand | Goldstein (1973:237) |
| Turkey | Stycos and Weller (1967: 210-17) |
| United States | Duncan (1965:240-49) |

14. Zarate and Unger de Zarate (1975:134-140)
15. Studies showing no decline in fertility for older migrants are:

| Country | Citation |
|---|---|
| India, Thailand | Goldstein (1973:238) |
| Honduras | Nance and Thomas (1971:118) |
| Puerto Rico | Macisco, Bouvier, and Weller (1970:51-70) |
| Brazil | Iutaka, Bock, and Varnes (1971:59-62) |

16. Goldstein (1973)
17. Studies showing a lower urban fertility associated with later age at marriage are:

| Country | Citation |
|---|---|
| Latin America | Miro and Mertens (1968: 103-4) |
| *Ghana | Caldwell (1969:183) |
| Mexico | Zarate (1967:286-7) |
| Egypt | Abu-Lughod (1965:241) |
| Brazil | Iutaka et al., (1971:60) |

*Separate study of migrants.

18. Goldstein (1973:238) and Visaria (1969: 257-283)
19. Examples of studies inversely correlating education and fertility are:

| Country | Citation |
|---|---|
| Guatemala | Gendell, Maraviglia, and Kreitner (1970:278) |
| Colombia | Schultz (1969:55) |
| Latin America | Miro and Mertens (1968: 105) |
| Puerto Rico | Stycos (1967) |
| Korea, Latin America | Rich (1973:28 & 72-73) |
| Thailand | Goldstein, et al., (1972: 72) |
| Turkey | Stycos and Weller (1967: 210-17) |
| United States | Slesinger (1974:356) |
| Taiwan | Freedman, et al., (1972: 281-96) |
| Ghana | Caldwell (1969:184 & 214) |
| Egypt | Abu-Lughod (1965:237) |

19. (Cont.)
An exception is the Brazilian study by Iutaka et al., (op.cit.:60), where education did not significantly influence fertility of migrants or natives.
20. Miro and Mertens (1968:106)
21. Macisco, Bouvier, and Weller (1970:61)
22. Studies finding an inverse relation between labor force participation and fertility are:

| Country | Citation |
|---|---|
| Puerto Rico | Carleton (1965:233-9) |
| Latin America | Heer and Turner (1965: 283), Miro and Mertens (op.cit.) |
| Chile | DaVanzo (1972) |
| Peru | Stycos (1965:42-54) |
| Turkey | Schnaiberg (1970:71-85) |
| Thailand | Goldstein et al., (1973: 235-7) |
| Brazil | Rosen and Simons (1971: 49-69) |
| Greece | Safilios-Rothschild (1969: 1855-1856) |

23. Correlations with only certain activities are found by:

| Country | Citation |
|---|---|
| Turkey | Stycos and Weller (1967: 210-7) |
| Mexico | Zarate (1967a:368) |
| Japan, Puerto Rico | Jaffe and Azumi, cited in Williams (1976:138) |

24. Collver and Langlois (1962:284)
25. Gendell et al., (op.cit.), and Stycos and Weller (op.cit.)
26. For a negative relationship between occupation and fertility see:

| Country | Citation |
|---|---|
| Chile | DaVanzo (1972) |
| Brazil | Rosen and Simmons (1971: 46-9) |
| Turkey | Schnaiberg (1970:71-85) |
| Greece | Safilios-Rothschild (1969) |
| Thailand | Goldstein (1972:429) |

For a discussion of the theory of children's opportunity cost, see Nerlove (1974:7)

27. Mason et al. (op.cit.:44-46), Zarate (1976b), and Heer and Turner (op.cit.)
28. Abu-Lughod (1965:244)
For examples of other studies showing a negative relationship between husband's status and wife's fertility see Miro and Mertens, op.cit., and Iutaka (op.cit.: 60-61)
29. Macisco, Bouvier, and Weller (op.cit.)
30. Occupational mobility as one determinant of lower fertility is shown by Boyd (1973:12), and Iutaka et al., (op.cit.)

*FOOTNOTES (continued)*

31. Schultz (1969), Heer and Turner (op.cit.), and Nance and Thomas (1971)
32. Studies showing reduced family size with increased family income are:

| Country | Citation |
|---|---|
| General | Gronau (1973:168-99); and Schnaiberg (1972) |
| Taiwan, South Korea, China, Costa Rica, Uruguay, Argentina | Rich (1973:24) |
| Philippines | Hackenberg (1972:48-9) |
| Ghana | Caldwell (1969:183) |
| Puerto Rico | Macisco, Bouvier, and Weller (1970:60) |
| Brazil | Rosen and Simmons (1971: 49-69) |
| Chile | DaVanzo (1972) |

33. Examples of high income - high fertility urban families are discussed by Mabogunje (1972) for Nigeria, Carleton for Puerto Rico (op.cit.) and Zarate for Mexico (1967b).
34. Zarate (1967b:293)
35. Studies showing an inverse relation of educational attainment and fertility are:

| Country | Citation |
|---|---|
| Colombia | Schultz (1973:71-77) |
| Egypt | Abu-Lughod (1965:234) |
| Guatemala | Gendell, et al., (op. cit.:278) |
| Puerto Rico | Macisco, Bouvier, and Weller (op.cit.) |
| Thailand | Goldstein (1972:419-436) |
| Turkey | Stycos and Weller (1967: 210-7) |

36. Williams (op.cit.:133)
37. Williams (op.cit.:135), and Mason et al., (op.cit.:50-52)
38. See, for example:

| Country | Citation |
|---|---|
| Brazil | Rosen and Simmons (1971: 46-9) |
| Greece | Safilios-Rothschild (1969: 1855-1856) |

39. Rosen and Simmons (1971:49-69)
40. Chen (1973:220)
41. Goldstein (1973:238)
42. Studies showing reduced fertility of mobile migrants are:

| Country | Citation |
|---|---|
| Thailand | Goldstein (1973:238) |
| Philippines | Hackenberg (1970:20) |
| Ghana | Caldwell (1969:183) |
| Nigeria | Ajaegbu (1972:262-9) |
| Turkey | Stycos and Weller (1967: 210-7) |

42. (Cont.)

| Country | Citation |
|---|---|
| Latin America | Miro and Mertens (1968: 114) |
| Brazil | Rosen and Simmons (1971: 49-69) |
| Honduras | Nance and Thomas (1971: 119) |
| Puerto Rico | Macisco, Bouvier, and Weller (1970:53) |

43. Goldstein (1973:238)
44. Pre-selection of young educated migrants with lower fertility is shown by:

| Country | Citation |
|---|---|
| Thailand | Goldstein (1973:38) |
| Mexico | Rengert and Rengert (1973:28) |
| Honduras | Nance and Thomas (1971: 119) |
| Latin America | Miro and Mertens (1968: 110-4) |
| United States | Slesinger (1974:360) |

45. Reed and Schnaiberg (1973)
46. Macisco, Bouvier, and Weller (1970:51-70)
47. Zarate and Unger de Zarate (1975:140-143)
48. Schnaiberg (1970:71-82)
49. Ghalli and Gadalla (1973:144)
50. For studies showing increased disinterest or fear of family planning programs, see:

| Country | Citation |
|---|---|
| Venezuela | Bamberger and Earle (1971:176) |
| Iraq | Ghalli and Gadalla, (op.cit.) |
| Sierra Leone | Dow (1971:165) |

See also Mason et al., (op.cit.:50) for reference to studies showing a positive correlation between education and use of family planning methods.

51. Hackenberg (1972:23-4). Tabah cited in Williams (op.cit.:130)
52. Studies showing fertility reduction for work incompatible with traditional roles are:

| Country | Citation |
|---|---|
| Turkey | Stycos and Weller (1967: 210-7) |
| Puerto Rico | Macisco, Bouvier, and Weller (1970:51-70) |
| Brazil | Rosen and Simmons (1971: 49-69) |
| Greece | Safilios-Rothschild (1969: 1855-1856) |
| Thailand | Goldstein, et al., (1972) |
| Latin America | Collver and Langlois (op.cit.:383) |
| Guatemala | Gendell et al., (1970: 273-286) |

53. The following studies find high fertility levels among less educated women working in the traditional bazaar or service sector:

| Country | Citation |
|---|---|
| *India | Gadgil (1965) |
| Philippines | Lopez and Hollensteiner (1974:9-10) |
| *Thailand | Goldstein, et al., (1972: 14) |
| *Turkey | Stycos and Weller (1967: 210-17) |
| Venezuela | Bamberger and Earle (1971: 1976) |
| *West Africa | Little (1973:38-51) |

*Specific studies of migrants.

54. Boserup (1970:112-7)
55. Kasarda (1971:307-17)
56. Reed and Schnaiberg (1973:12)
57. Bamberger and Earle (1971:176)
58. Studies finding a mistrust among poor for governmental agencies are:

| Country | Citation |
|---|---|
| Colombia | Whiteford (1974:177) |
| Philippines | Hollensteiner (1974) |
| India | Reed and Schnaiberg (1973: 22) |
| Indonesia | Papanek (1975:237) |

59. Rich (op.cit.). See also Mason et al., (op.cit.:36-40)
60. Nance and Thomas (1971:115-9)
61. Miro and Mertens (op.cit.)
62. Zarate (1967b:292-3)
63. These findings are demonstrated in studies in Peru (deVillaeorta), Chile (Elizaga and Tabah and Samuels), and several Latin American cities (Myers), as cited in Zarate and Unger de Zarate (1975:128-134)
64. Nance and Thomas (1971:115-9)
65. Goldstein (1973:236-9) and Goldstein, et al., (1974:18-19)
66. Zarate (1967b:284-6)
67. Zarate and Unger de Zarate (1975:150)
68. Schnaiberg (1970:71-85) finds that Turkish women with any urban residence are more "modern" than those without urban experience.
69. Baker and Bird (1959:99-122)
70. Hackenberg (op.cit.)
71. Lopez and Hollensteiner (op.cit.)
72. Examples of higher income families having more than the average number of children are:

| Country | Citation |
|---|---|
| Nigeria | Ajaegbu (1972:262-9) |
| Uganda | Southhall (1970) |
| Puerto Rico | Macisco, Bouvier, and Weller (1969) |

73. Rempell and Lobdell (1976:223-224)
74. Bougainville finds in New Guinea a substantial drop in the birth rate, which he associates with high rates of male selective outmigration. Cited in Connell, et al., (1974:7.1). The West African case is by Addo, cited in Rempell and Lobdell (op.cit.:227-228). The India study is by Bandekar, cited in Connell, et al., (1974:7.1) and the international case is noted by Nag cited in Williams (op.cit.:141-2)
75. Bandekar (op.cit.)
76. Herrick (1965:45)
77. Connell, et al., (1974:8.14)
78. (Ibid.:7.5-7.7)
79. Boserup (1970:51)
80. Goldstein (1973:240)

# Chapter 6
# Policies and Programs Influencing Internal Migration

The results of unplanned and unregulated migration have often not facilitated national development, therefore many governments have formulated migration-related policies. Generally, these policies have been developed in response to three major problems: rural overpopulation and poverty, rapidly expanding metropolitan areas, and inequitable regional development. In trying to influence migration, most governments have accepted the right of free movement, therefore compulsion is seldom used.[1] Most of the policies designed to influence migration rely on the assumed economic rationality of the individual and operate through employment and income changes. These are used to make it easier or harder for the individual to earn a decent living in specified locations, thereby fostering the desired migration flows.

Not all policies influencing migration are intentionally designed to alter the distribution or movement of population. Many general development programs have had substantial impacts on migration. In fact, these unintentional policies have probably had a more profound influence on migration than the intentional policies.[2] This chapter is a survey of policies which have either intentionally or unintentionally affected migration. The discussion categorizes migration policies of developing countries according to their influence on rural and urban development. The four major development strategies are:

- rural and agricultural development,
- dispersed urbanization,
- decentralized urbanization and regional development,
- centralized urban development.

The rural development strategy focuses most heavily on the agricultural sector and on retaining people or moving them into the rural areas. Centralized urban development policies focus on attracting persons to the largest cities where industrial development is occurring.

These strategies are not necessarily mutually exclusive. Major elements of the rural development, dispersed urbanization, and decentralized urbanization strategies are mutually reinforcing. The centralized urbanization strategy is least consistent with the others, and incidentally contains most of the policies which unintentionally influence migration.

To better elucidate the consistencies and conflicts between and within strategies, each policy element within a strategy is classified by its intended or actual effect on migration. Policies may encourage or discourage rural outmigration, encourage or discourage urban inmigration, discourage or channel migration to specific rural or urban locations, or force or prohibit migration. Each policy is accompanied by a description of the rationale, implementation mechanism, examples of countries which have implemented the policy, and either the intended or actual effect of the policy or program on migration behavior. The policies are described in some detail to give the reader a sense of all the program or policy elements that go into making a policy work. Policies from developed countries are included to the extent that they have application for developing country contexts.

## *RURAL DEVELOPMENT STRATEGIES AND THEIR INFLUENCE ON MIGRATION*

There are three basic approaches to rural development: commercialization and capital-intensive agricultural development, comprehensive rural development, and colonization of new agricultural lands. These approaches are not mutually exclusive and may be used or followed in various combinations. Each views the relationship of migrants to rural development differently. This section discusses each of these approaches, showing the explicit goals, rationale, strategy, program design, and effect on migration.

### *Commerical, Capital-Intensive Agricultural Development*

In a comprehensive survey of rural development options Griffin finds that[3]

> Most underdeveloped countries have pursued a strategy for rural development which is located toward the technocratic end of the spectrum. The prime economic objective has been to increase agricultural output. The economic system has been justified essentially in terms of a liberal capitalist ideology: emphasis is placed on competition, free markets, and widely dispersed private property as sufficient conditions for achieving the objective. In practice, property ownership is highly concentrated . . . . The benefits of technical change and higher output accrue, at least in the first instance, to the landowning elite and other men of property. Inequality in income, far from being deplored, is welcome, since it is assumed that the rich will save a large proportion of their extra income and thereby contribute to faster accumulation and growth. In other words, the concentration of income and wealth is one of the ways whereby the output objective is expected to be achieved.

Griffin summarizes the goal of the capital-intensive development strategy as increased agricultural output and productivity. Through technological advice, credit, and other inputs to the farmers, output is expected to rise. The program methods and inputs are designed to accelerate the accumulation of wealth among large landowners, with the assumption that the resulting increased income will be reflected in higher savings and investment. Eventually the benefits of this increased productivity are assumed to "trickle down" to the rest of the rural population.

Although the original strategy was not aimed solely at the larger landowners, the method of implementation has often ruled out participation by small farmers or the landless laborers. The technology upon which the higher productivity is based is expensive and not entirely risk free. Without adoption of an entire approach, new seeds do not necessarily produce higher yields.[4] Because inputs (seeds, fertilizer, water, pesticides) require substantial cash outlays, the innovator needs some form of credit. The poorer farmers do not have enough land to qualify for commercial credit and are unable to utilize new techniques because an entire package must be adopted.[5]

While the large landowners get richer, the small farmers are left behind. Because the increased output brings down prices, the small farmer is doubly hurt: using traditional forms of production at lower price levels, his income drops. In the absence of price supports, the farmer has little recourse but to sell out to the large landowners. He can either become an agricultural laborer or migrate.[6]

Yet agricultural labor may not be a reliable source of income. Because of capital subsidies, mechanization may become cheaper and the demand for labor may be reduced or limited to seasonal peaks. Further, the secular decline in demand for labor may be accompanied by an increased supply of workers, leading to wage declines. Because wages are low and job opportunities limited or seasonal, the technologically unemployed have little incentive to stay in rural areas.[7]

Ultimately, the capital-intensive "green revolution" strategy leads to the outmigration of unemployed agricultural workers and displaced small farmers. While this transfer of rural labor to urban areas is recognized as inherent in the process of development, such rural-urban migration has not had altogether salutary effects on national development efforts (as shown in Chapter IV).[8]

The following agricultural development policies and "nonpolicies" have tended to push small farmers and landless laborers out of rural areas.

*Lack of effective land reform prior to implementing technological innovations* -- In a recent survey of land reform programs in a wide range of countries, Montgomery concludes that only Bolivia, Chile, China, Iran, Japan, Mexico, South Korea, Taiwan, Venezuela, and Vietnam, have implemented land reform programs which substantially improved the farmer's equity, income, and security.[9] Other countries, including Argentina, Bangladesh, Brazil, Colombia, Ecuador, Guatemala, India, Indonesia, Iraq, Italy, Ivory Coast, Pakistan, Peru, Philippines, Turkey, and Vietnam have had reform programs which did not substantially raise peasant incomes. Griffin suggests that one reason why land reform in this latter group of countries has not worked is because credit, advice, and other support were not made available to the new small landowners.[10] If the land reform simply adds to the small farmer class without providing credit, technological assistance, and other agricultural inputs, reform beneficiaries may continue to lag behind the large and medium-size farmers. Studies have shown that this lag may ultimately cause the small farmer, tenant, or laborer to leave agriculture, as exemplified in Ethiopia,

Guatemala, India, Ivory Coast, Mexico, Pakistan, Philippines, and Thailand.[11]

Without land reform, small farmers and tenants may be able to increase their output only if they have adequate title to land or security of tenure.[12] Without secure title and tenure, farmers have little incentive to apply for loans because they have no guarantee that they will reap the benefits of their investment. The lack of title or tenure has inhibited the adoption of new technology in Colombia, India, and Malaysia, among other countries.[13]

Additionally, studies in Bolivia, Brazil, Central America, Chile, Mexico, Nigeria, and Peru show that large landholders often use less labor-intensive production techniques.[14] As a result, if a large share of the land is held by few landowners there are fewer opportunities for agricultural employment and migration ensues.

*Bank loan policies which favor credit to those who have sufficient collateral* -- Although Pakistan, Bangladesh, and India have a wide network of cooperative societies making loans to farmers, the savings and collateral requirements rule out credit to all but the middle and large-scale farmers.[15] Commercial credit collateral requirements have disqualified small farmers, tenants, and landless workers in many countries, including those in various Latin American nations, India, and Kenya.[16]

With limited access to loan monies at reasonable rates, small farmers have been unable to invest in buying new land or equipment. Large farmers in Chile, Colombia, Ethiopia, Guatemala, India, Kenya, Mexico, Pakistan, and Philippines received loans to raise output that were often unavailable to small farmers.[17]* This has no doubt led to outmigration of the poor and underemployed.

*Research and development focus on crops requiring specialized inputs* -- A number of studies show that many national agricultural research and development policies have focused on capital-intensive production methodologies and seeds.[18] The resulting innovations and projects are explicitly designed to favor large-scale farmers, especially those raising export crops. These innovations are often inappropriate, given local resource availability, and especially for small farms. For example, many of the high-yielding varieties (HYV) need more water than the older seed varieties. In Mexico, Pakistan, Philippines, and India new varieties have been most widely used in the irrigated or well-watered regions which were already prosperous.[19] Areas with less water have been unable to match the productivity gains of regions combining irrigation with HYV, fostering migration from the more arid locales.

Even if there is sufficient water to allow nationwide adoption of the "green revolution", other inputs may not be available without massive and costly imports. Because the cost of this capital is high, there is strong pressure to limit the use of the new seeds to the farmers and areas likely to make the largest productivity gains.[20] Again, the small farmer without adequate credit or training is left out.

*Subsidized agricultural mechanization* -- Several observers feel that it is the subsidization of capital investment, rather than the green revolution, which leads to rural unemployment. To enable farmers to buy the tractors and equipment deemed essential to raising the productivity and prestige of farming, many governments have reduced interest rates for these purchases or even provided diverse subsidies. In Pakistan, tractors cost almost one-half the price charged in the United States.[21] Subsidized mechanization has resulted in a preference for tractors over labor in Nigeria, Ethiopia, India, Philippines, Brazil, Thailand, Mexico, Colombia, and Honduras.[22] This has often led to a decline in rural jobs and to subsequent outmigration.

*Nonagricultural rural development policies stimulating outmigration* -- In the context of capital-intensive agricultural development, certain policies outside the agricultural sector have also stimulated outmigration. Among these policies are the lack of nonagricultural jobs, taxation of the agricultural sector without a commensurate return of resources to rural areas, lack of social security programs, enforcement of minimum wages on large-scale plantations or haciendas, lack of infrastructure and urban amenities, a bias toward urban lifestyle and culture in rural education, and political instability. Each of these reduces the ratio of jobs to population in rural areas while devaluing the rural lifestyle, as shown below.

As shown in Chapter III, a lack of nonagricultural job opportunities is signifi-

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* Some of these countries now have small farmer rural-development programs, which will be discussed below.

cantly correlated with rural outmigration. Industrialization is viewed as a major tool with which to create nonagricultural jobs, yet most industrialization efforts are concentrated in the major cities. In part this is because the types of industries established are ones best suited to metropolitan areas.

According to Owens and Shaw, the economic strategy pursued in many countries has been one of conspicuous industrialization.[23] The industries established often produce import substitutes, i.e., costly goods of limited internal demand. These goods are fairly sophisticated and demand the high-level management skills generally concentrated in metropolitan areas. Thus industries have tended to locate in the metropolitan areas, as in Brazil, Colombia, India and Nigeria. In Colombia in 1964, 21 percent of the nation's population lived in the national or regional capitals, yet 75 percent of the industrial jobs were in these few cities.[25]

Some nations have counterbalanced the tendency for industry to concentrate in urban areas, but in many cases the industrial decentralization policies have merely shifted capital-intensive industries from large to small cities and rural areas. India and Mexico are two examples of countries which have had special programs for industrial decentralization, but the industries located in smaller cities and rural areas have been less labor-intensive than industry as a whole.[26] It may be that these industries have generated some employment, but in Mexico this was largely limited to the agricultural sector.[27]

There are additional factors inhibiting the growth of enterprises indigenous to rural areas which may be amenable to policy change. These are the unavailability of skilled manpower,[28] lack of credit for small-scale entrepreneurs,[29] no industrial technological assistance programs,[30] lower levels of infrastructure development in rural areas, and high transportation costs.[31] While research on these topics is rather limited, the present findings suggest that these "non-policies" have restricted development of rural, nonagricultural enterprises, further crippling the abilities of rural areas to cope with agricultural unemployment.

Agricultural export taxes, such as those imposed by the Nigerian Marketing Board, have been designed to capture the profits from agriculture to pay for industrial development.[32] These taxes are often levied most heavily on labor-intensive primary products, discouraging rural employment by reducing the incentive to expand production of these crops.[33] More importantly, Eicher et al. suggest that export taxes on agricultural products depress producer incomes, widening the rural-urban income gap and promoting migration.[34]

According to Kocher:[35]

> Wage labor is typically institutionally overvalued (thereby depressing employment growth) because of minimum wage and other social legislation and trade union pressures. Even in the agricultural sector, employment in plantation or other forms of estate agriculture sometimes is held down by legislation or practices that overpay labor without provisions to insure maximum employment and to limit labor-displacing mechanization.

When government and protected wage rates went up by 20 percent in Nigeria in 1964, employment in large-scale agricultural operations dropped.[36] Wage supports, particularly when joined with capital subsidies, corporate investment credits, or tax waivers for capital investments exert a strong pressure to mechanize and reduce the utilization of labor. Rather than raising salaries of all workers, a few are retained while the rest lose their jobs and often end up in the cities.[37]

On the other hand, the lack of income security and desire for higher wages and social security benefits have been listed in previous chapters as causes of migration in Taiwan, Korea, and elsewhere.[38] Labor unions, wage contracts, and social security benefits are more common in urban areas, as is the possibility of finding a more secure job. As shown above, even if such benefits are instituted in rural areas, the majority of farm workers and small farmers may not benefit, and their only access to higher income security and similar benefits is through migration.[39]

In country after country, one of the incentives for rural outmigrants is the attraction of better education, health, water and sanitation, and communication facilities in urban areas.[40] The urban bias in provision of amenities and services is almost universal. In many former colonial countries, the capital city has been used as the nation's symbol of sovereignty, political power, and economic progress. Rural areas are taxed for these visible, "industry-attracting" urban services, while receiving only a small share of such amenities. Rural residents who wish to claim their share must move to the cities.

Lack of appropriate services and infrastructure has also hindered efforts to increase rural incomes. Johnson shows that several elements critical to commercialization of agriculture are: (a) a network of farm-to-market roads providing access to a market where farmers can buy inputs at reasonable prices and sell their products without dependence on a single buyer; (b) electric or diesel power for selective mechanization; and (c) water.[41] The lack of these services has hampered rural development efforts in Bangladesh, Cameroon, Ethiopia, Honduras, India, Malawi, Mexico, Niger, Pakistan, and Peru.[42] Where rural development has not provided access to adequate services among farmers, income and employment opportunities have not expanded and migration has become more likely.

Finally, without information on or access to birth control methods, rural areas may have high rates of natural increase, slowing rural development efforts. Where there have been a large rural-urban differential in population growth and employment, migration has ensued. Thus the lack of family planning services in rural areas has probably contributed to the employment squeeze. Eicher et al. show that population pressure alone has had a significant impact on rural unemployment in several African nations.[43] Other nations in which rural unemployment may have been accelerated by the absence of birth control services in rural areas include Brazil, Ethiopia, Burma, North Korea, and Peru.[44]

The inappropriateness of education in rural areas has long been noted as a major cause for the high rate of outmigration among school leavers. As shown in Chapter III, the more educated have a higher prepensity to migrate. Thus policies which have spread formal urban-oriented educational curricula into rural areas stimulate outmigration. While this phenomenon is most often observed in Africa, it has been observed elsewhere.[45]

Political violence and instability are additional government-related factors forcing people out of rural areas. Schultz found that violence in the countryside was a significant factor in compelling campesino migration in Colombia.[46] War refugees in Vietnam and elsewhere have been compelled to move to safer havens, uprooted from their homes and environment.[47]

### *Integrated Rural Development Programs and Policies*

Rural development strategies are not equivalent to agricultural development programs. Rural development strategies strive to improve rural welfare, level of living, and self-sufficiency. While agricultural development programs primarily pursue increased agricultural productivity.

According to Waterston, six program elements are necessary for viable rural development:[48]

- Labor-intensive agricultural development;
- Employment generating, minor public works;
- Small-scale, labor-intensive, light industry established in and around farms;
- Local selfhelp and participation in decisionmaking;
- Development of an urban hierarchy supporting rural development;
- Self-sustaining; appropriate institutional arrangements for multi-sector project coordination.

The major difference between this rural development strategy and an agricultural development program is the focus on human welfare rather than on productivity. Evidence of this concern for human welfare is an emphasis on small farmers and because of such a focus several shifts in program emphasis occur. First, programs strive to involve more farmers and rural people in the development process, therefore the introduction of innovations and change is sequential and progressive.[49] Second, while significant improvements in output are still regarded as essential to stimulating adoption of the new farm techniques, this strategy stresses adoption of labor-intensive techniques for increasing production.[50] Third, the strategy recognizes that in order to reach the maximum number of rural inhabitants, coordination and careful selection of program input is essential. Instead of trying to reach every village directly, the focus is on developing a hierarchical geographic specialization fostering the availability of a wide range of services and opportunitites in rural areas.[51]

To achieve the most appropriate distribution of services and functions, a fourth major component is used: group involvement and cooperation.[52] By dealing with groups rather than individuals, more persons are reached while the risks are spread among small groups rather than among selected individuals. At the administrative level, coordination and multisector programming facilitate more efficient allocation of

resources. Finally, the emphasis in this rural development strategy is on local initiative and responsibility.[53] The government provides assistance and guidance while the community, armed with increased knowledge and resources, takes a direct role in guiding its own development.

The integrated rural development stategies often have an explicit goal of slowing rural-urban migration. Because migrants often leave when they lack jobs or adequate income, increasing the range of agricultural and nonagricultural job opportunities and raising incomes is expected to reduce the number of migrants. Where agricultural development strategies have failed to slow the drift to urban areas, it is hoped that rural development programs will succeed. It is no surprise that the integrated rural development programs are popular among agencies and governments that have problems coping with metropolitan growth.[54]

Major policy components of a rural development strategy include:

- Supported land reform;
- Supervised credit for small farmers;
- Locally adapted agricultural inputs and extension;
- Labor intensive agricultural innovations;
- Complementary and coordinated provision of physical infrastructure;
- Training and education for rural development;
- Improvement of rural health care and housing;
- Development of nonagricultural job opportunities;
- Supportive national level policies.

These components are discussed below. Each component in isolation may not have a substantial effect on migration, but together there is great potential for altering rural migration flows.

*Supported land reform* -- An equitable distribution of landownership is a prerequisite to improving rural welfare, but land or tenancy reform is not a guarantee of increased productivity among the beneficiaries. Change in the agricultural support services are essential for widespread changes in income. According to Dorner:

> With population often pressing on land resources and with technology opening the way for major advances in the levels of living for all people, reform has the dual purpose of serving as both a redistributive instrument and a vehicle for achieving increased productivity. To achieve the latter, land reform must be accompanied by changes in the pre-reform structure of supporting services -- agricultural credit, marketing, research and extension, input supply, and processing and storage. Only through increased productivity widely shared can the quality of life of the underprivileged millions be enhanced. Without increases in productivity, redistribution alone will achieve only modest and temporary benefits. Land reform improves the prospects for raising production and productivity since new incentives for work and investments are created as a result of the more equitable distribution.[55]

In Bolivia, Chile, Iran, Japan, Korea, Mexico, Taiwan, Venezuela, Vietnam,[56] Indonesia, Thailand,[57] Kenya,[58] Benin, Rumania, Sudan, Tanzania, and United Arab Republic,[59] land reform has been accompanied by credit, assistance, and other supports, allowing participating small farmers to make substantial improvements in their productivity and incomes.

Owens and Shaw suggest that at a minimum, countries should implement tenancy reform. Fixed rents and secure tenancy in Central Luzon (Philippines), Sri Lanka, Taiwan,[60] and Eduador[61] have allowed tenants to adopt innovations without fear that the benefits of their investments and hard work will be lost to others. An additional suggestion is providing simpler means by which farmers can easily gain clear title to lands. In Colombia[62] and Kenya,[63] for example, simplified and inexpensive access to title would enable many small farmers to buy and sell land and to qualify for agricultural credit.

Assessments of supported land reform programs have generally covered only the income and productivity gains accruing from reform, but conclusions regarding migration changes can be made indirectly. While supported land reform certainly will not stop the flow from rural areas, if improved incomes and rural employment opportunities slow rural outmigration, then countries with effective land reform programs should exhibit diminishing migration. The implication of analyses for Venezuela,[64] Kenya,[65] and Sri Lanka[66] is that migration has been slowed, but evaluations of other land programs

do not include migration. The impact on migration should be measured in future evaluations.

*Supervised credit for small farmers* -- Programs of supervised credit appropriate to the needs and risk constraints of small farmers have been developed.[67] These programs make agricultural credit available in such a way that risks to the borrower and lender are less than under traditional systems. One major innovation is provision of credit to groups rather than individuals.[68] A factor which increases the chances of productivity gains is supervision, under which the farmer draws up a plan showing how the loan will be used, and the plan must be approved before a loan is granted. The supervision may also include actual technical assistance in adopting new farm techniques. Finally, the supervised credit program can also confront the problem of input availability and product markets, insuring that the loan can be used for the intended purpose and that the resulting production can be sold.[69]

Though coverage is generally limited to special project areas, several countries have implemented supervised credit programs for small farmers. Examples of such integrated credit programs are Puebla in Mexico, Fundacion Promotora de Cooperativos in El Salvador, Operacao Tatu in Brazil, Instituto Colombiano Agropecuario in Colombia, Small Farmer Development Agencies in India,[70] ASAR in Bolivia, FECOAC in Ecuador, CREDICCOA in Paraguay,[71] Kenya's Small Farmer Credit, Chilalo Agricultural Development Unit in Ethiopia, Lilongwe Land Development Program in Malawi, and Zones d'Action Prioritaires Integrees in Cameroon.[72]

Several studies show that supervised credit for small farmers has enabled them to increase their production, both by expanding the area cultivated and by adopting improved production techniques and inputs.[73] Most evaluations of the programs do not explicitly include the effect on migration; only Streeter's general evaluation of Operacao Tatu in Rio Grande do Sul (Brazil) discusses the slowing of outmigration resulting from the fertilizer-loan program. However, if supervised credit programs generate higher incomes for small farmers, they surely will reduce the pressure to move out of poor rural areas.

*Locally adapted agricultural inputs and extensions* -- Almost every rural development strategy offers an improved crop, but greatest success in adoption occurs where the crop is locally adapted. Without the potential of substantial improvement in yields, Streeter claims, farmers are not willing to risk loans, increased inputs, or new techniques.[74] However, the innovations cannot be so sophisticated that a dramatic and expensive shift in technology is required.[75] To insure that innovations guarantee a productivity gain while maintaining local feasibility, Eicher, et al., suggest that agricultural research stations be established on a regional basis.[76] The research could focus both on new varieties and on improvements to local strains.[77] Below the regional level, Streeter suggests that the findings be locally adapted by the agents or model farmers prior to the initiation of programs encouraging adoption.[78] The visible results of these trials would demonstrate the methods and benefits of adoption. Examples of countries which have implemented improved seed development programs on the above model include Bolivia, Kenya, Mexico, Morocco, Nigeria, Sri Lanka, and Tunisia.[79]

But availability of improved seeds adapted to local conditions is not enough to guarantee adoption by small farmers. An effective extension program is essential to correct utilization of the improved seeds. In the past, the extension agents have had little success in communicating innovations to small farmers, as Heyer, et al., point out for Kenya.[80] To increase the likelihood that small farmers correctly adopt the innovation, they suggest several changes to the extension service, including reduced staff turnover rates and more on-the-job training and supervision. Others have recommended expanded use of local training centers for model farmers.[81] These farmers, selected by the community to test techniques or seeds on their own fields, act as local change agents or assistants to the extension agents. Some of the projects using the model farmer are: Plan Puebla and Plan Maize in Mexico, ICA in Colombia, NCDS in Bolivia, Fundacion Promotora de Cooperativos in El Salvador, Vihaiga in Kenya, Kenya Tea Development Authority, Chilalo Agricultural Development Unit in Ethiopia, Zones d'Action Prioritaires Integrees in Cameroon, Comilla in Bangladesh, rural development programs in Malaysia, and programs in Mali, Upper Volta, Benin, and Senegal.[82]

Preliminary analyses show that small farmers may be more responsive to change than large farmers, and experience higher yields under the combined credit and extension strategy.[83] Although it follows that small farmers who participate in an effective extension program are more likely to raise their incomes and stay in farming, there are no explicit

assessments of the effect of extension programs on migration.

*Labor-intensive agricultural innovations* -- Because one of the major causes of rural outmigration is the lack of employment opportunities, strategies allowing more labor to be absorbed in agriculture would be expected to slow this migration.[84] The whole strategy of expanding employment opportunities is central to rural development.

The new seeds require more care, -- that is, better soil preparation, weeding, and application of fertilizer.[85] Instead of subsidizing the use of tractors and other labor-saving tools, farmers can be trained to use or hire more labor to accomplish these tasks. Several countries have adopted such training programs and their implementation has increased output, for example, in Japan, Taiwan, Philippines, and India.[86]

Tractors are introduced to remove seasonal bottlenecks. With their use, seasonal bottlenecks are removed, hence more land can be cultivated. Additionally, tractors can permit double or multiple cropping by enabling plowing when the soil is too hard for traditional techniques.[87] The selective introduction of tractors has increased employment and output in Ivory Coast, Japan, Kenya, Mali, Morocco, Philippines, Taiwan, Thailand, and Uganda.[88]

Small-scale implements may be used to reduce the drudgery of farm work and to increase labor productivity and income.[89] Countries which have used small-scale implement programs are Bangladesh, Gambia, Pakistan, Taiwan, and Tanzania.[90]

Selective mechanization allows farmers to increase acreage cultivated or adopt multiple cropping. It is generally income and employment generating, but its impact on outmigration is unclear. Fairly explicit evaluations of its effect on migration are only available for Gambia, Philippines, Malaysia, Taiwan, and Thailand where migration from farming areas seemed to slow in response to the introduction of selective mechanization.[91]

*Complementary and coordinated provision of physical infrastructure* -- A basic goal of rural development programs is the vitalization of the rural lifestyle. Rural residents complain not only of the drudgery but of the isolation and the poor quality of life. The latter in particular may be a major factor in driving young people to the cities. In response, rural development strategies seek to create a social and physical infrastructure which allows rural residents to share broadly in the nation's development benefits. The types of physical infrastructure provided are roads, water supplies, and electrification, while social infrastructure efforts include schools, clinics, housing, community buildings, marketing facilities, and various social organizations.

Roads for market access are particularly important for rural development. Without access to the supplies and markets of other economic areas, farmers have neither the means nor the incentive to increase production. Johnson suggests that three types of roads are needed to meet different needs.[92] The "commuter route" carries daily traffic to and from work, allowing for clustering into villages. Without this clustering, households must live where they work, which drives the cost of infrastructure beyond the feasible level, as several Eastern European nations have discovered.[93] In turn, each village must be linked to a district market by "farm-to-market roads". Access to district markets permits the concentration of buyers and sellers, averting monopolistic or monopsonistic conditions. Finally, these markets are linked to each other by "truck" roads, which allow each functional economic area to obtain goods and services from other areas. For example, farmers growing tomatoes can find a market among those growing corn, but only if there is access to a mutual market. These three types of roads create a structure for the local centralization and specialization which Johnson regards as essential to countering metropolitan polarization.[94]

Countries with coordinated road building programs include Thailand, Philippines, India, Nigeria, Malaysia, the United States, Israel, and Yugoslavia.[95] Road building programs exist in other countries, especially as public works or self-help endeavors, but the coordinated farm-to-market strategy may be absent.

Although in the long run farm-to-market roads are expected to slow migration by making farming more viable, initially migration may accelerate when access to cities is increased.[96] In Ghana[97] and Peru,[98] outmigration increased when trucks became more available for carrying people and goods out of rural areas.

Increasing the quality and availability of water is a second infrastructure improvement, but its effect on migration seems less clear-cut than for roads. The most dramatic water supply projects are major dam and

irrigation projects, but because they are major projects in their own right and have a substantial impact on migration into the irrigated area, they are covered in the section on rural settlement schemes. This section discusses minor water projects: tube wells, village water supplies, buffalo ponds, etc. Many countries have programs to assist self-help development of such water facilities; a few have major programs covering whole areas.[99] Aside from upgrading water quality and indirectly improving the health of the population, these projects are also designed to increase agricultural productivity and attract water-using industry to rural areas, reducing the pressure for outmigration. However, one analysis of a United States water development program finds little difference in migration rates from rural areas with and those without water.[100] Outside the United States, there is also little evidence that good water supplies alone may slow rural outmigration. Like other rural development programs, however, they have a cumulative effect on incomes, employment, and welfare, and may ultimately affect migration rates.

The effect of electrification on migration is even more indirect than that of improved water supplies. Most studies show that electrical consumption is concentrated in major urban centers, with most of the expansion of services occurring in these areas.[101] Because the extension of electrical lines to every village is expensive, Johnson suggests that the "most promising" areas be selected for electrification in conjunction with the development of other infrastructure. This proposal is currently being adopted in India under the growth center approach. Other countries extending electrification to rural areas have done so under the dispersed urbanization approach discussed below. For the most part, however, the electrical network expands on a "demand" basis where either those closest to or those able to pay for electricity receive it.[102]

If the provision of roads, water, and electricity is coordinated, significant impact on migration is possible. Together these factors make it possible to diversify the production base and generate more employment. While the coordinated provision of roads, water, and power alone may not slow outmigration, their availability facilitates other employment-generating programs which can slow migration.[103]

Market places are another facility critical to rural development. Because of their size and expense, they are generally built by governments, as in Mexico, Malaysia, and India.[104] According to Johnson:[105]

> The greater majority of underdeveloped countries are agricultural economies that can only be transformed and modernized if farming can become increasingly commercialized. Every farm locality that hopes to develop will therefore need access to markets where farm produce can be sold for cash without the danger of monopsonistic exploitation and where there are enough sellers of farm supplies to prevent monopoly. Such markets and farm supply outlets should be punctiform, so that buyers will not have to go to one place for farm supplies, to another for credit, and to still a third place to sell their crops. What is essential, therefore, is a unified market town where appropriate facilities are congregated.

Johnson shows that regulated markets have had a positive impact on the income and welfare of farmers using them. In India, areas with markets had higher incomes and more savings than those without. Johnson's recommendation of a market development strategy has been adopted by the Indian Government.[106]

Lele's analysis shows that African rural development strategies which have failed to meet marketing and storage needs have encountered more problems than those where market facilities were adequate.[107] Inadequate market facilities result in variable prices, speculation, and dominance by large landowners. In addition, the development of storage areas is needed, as in Ethiopia, Malawi, and Nigeria. Other governments seeking to improve farmer bargaining power by constructing warehouses and market outlets include Bolivia, Malaysia, Mexico, Pakistan, and Taiwan.[108]

Several studies have shown that small farmers' profits increased with the introduction of market and storage facilities because they were able to adopt improved seeds or cash crops.[109] As many of these projects are new, evaluation of their impact on migration is premature, but the increased flexibility and profitability resulting from improved market or storage facilities may lessen rural outmigration.

Along with availability of specific market and storage structures, marketing services

reduce the risks of adopting farm innovations. To use improved seeds or swtich to vegetable crops, a farmer must be able to purchase fertilizer, insecticides, and other farm inputs. He must know when, where, and at what price to sell crops to maximize his return. These requirements imply that the farmer needs not only physical marketing facilities, but marketing services, including a standardized system of weights and measures, a price information system,[110] grading of produce,[111] and a decentralized network of clients or marketing boards. All or some of these market services have been adopted in Bolivia, Colombia, Ecuador, Ethiopia, India, Israel, Kenya, Malawi, Malaysia, Mexico, Nigeria, Paraguay, Philippines, and Thailand.[112]

Several studies have shown that adequate marketing services are the "cutting edge" of development.[113] Without inputs at reasonable prices, improved seeds and methods cannot be used. Without a supply of consumption goods, there is little incentive to innovate. Without markets in which to profitably sell the higher levels of output, adoption of innovations is almost an exercise in futility, as Colombian farmers growing cabbage found out when they could not sell their produce at high enough prices to cover the input loans.[114] With appropriate marketing services, the risk of adoption is lessened and farmers can increase their incomes. Although marketing services may reduce the pressure to migrate, the impact on migration has not been explicitly evaluated.[115]

*Training and education for rural development* -- Several studies have suggested that educational reform may slow rural outmigration if the resultant system is relevant and supportive of rural lifestyles.[116] Included in such systems are curricula revision, adult literacy classes, agricultural and vocational training, removal of the elitist bias in the extension/training systems, and special leadership training programs. Despite the lack of evaluation of subsequent migration changes, the fostering of education programs specifically designed for rural areas continues to be central to strategies for slowing rural outmigration.

Cirricula have been revised to orient youth towards rural job opportunities in Benin, Upper Volta, Mali, Nigeria, Senegal, Kenya, and Peru.[117] As most rural schools are at the primary level, these efforts have shifted the emphasis from the formal, academic aspects of primary schooling to rural development problems and programs. Evaluation of subsequent migration changes has yet to occur.

Rural educational opportunities have been expanded through the use of paratechnicians and other low-level personnel in Indonesia, Philippines,[118] Benin, and Upper Volta.[119] Other strategies focus on training youth and adults in improved agricultural production techniques. Both Senegal and Upper Volta have village "polytechnique" programs to train adults and youths in literacy, arithmetic, and relevant agricultural and vocational skills.[120] Similar efforts have also been suggested or implemented in Kenya, Colombia, Bolivia, Nigeria, and Tanzania.[121]

To avoid intensifying the outflow of migrants seeking better educational opportunities, increased high-level offerings are also necessary in rural areas. Bolivia, Colombia,[122] Bangladesh, El Salvador, and Mexico[123] are using regional or mobile training centers to expand rural training opportunities despite limited skilled manpower and financial resources. These efforts seek to avoid the danger of expanding educational facilities via self-help construction prior to the ability to finance their ongoing operation.[124]

Many countries have also recognized the need for leadership training.[125] Without persons trained in and committed to organizing for development, little progress can be made towards the goal of self-sufficiency, and rural communities will continue to be dependent on the outside (urban) world for assistance and support. Theoretically, if rural campesinos or peasants feel they control their own destiny with some guidance and assistance they can be made independent and self-motivating. Applying Hirschman's theory of exit and voice, persons dissatisfied with rural life will exercise the "voice" option of changing the situation rather than "exiting" if they believe that control and change are possible.[126] Thus, leadership training and participation in planning and programs are considered important in slowing rural outmigration.

Stimulation of local initiative through training in planning, implementation, and evaluation is an important component of several rural development programs. Generally, a sequence of surveys and discussions to identify goals and priorities is used to enable local leaders to cooperate with

regional or national planners in selecting programs. Local leaders may also attend short courses on management, supervision, and planning. Variants of this approach have been implemented in Colombia, Bolivia, Mexico, Peru,[127] Niger, Tanzania, Kenya,[128] Senegal, Malaysia, Bangladesh, Taiwan,[129] and Thailand.[130]

Multipurpose cooperatives are often used for organizing local participation and training. In Bangladesh, Bolivia, Ecuador, Guatemala, India, Kenya, Paraguay, Philippines, Taiwan, Tanzania, Thailand, Uganda, and Venezuela cooperatives have helped to increase savings, raise agricultural output, and expand the services available to co-op members.[131] Some co-op leaders have received training in accounting and other tasks, further internalizing project implementation. In Taiwan cooperatives have become the focal point of leadership for the community.

In summary, the fostering of education in rural areas and the training of local leaders seeks to increase the ability of the rural population to cope with its problems. With proper education and guidance, communities can identify and solve problems by mobilizing available resources.[132] The confrontation and solution of problems, rather than their avoidance or surrender, is encouraged. Theoretically, this problem-solving ability results in lower-outmigration, because more persons are able to devise solutions or programs to meet their needs.

There have been few analyses of the impact of these educational strategies on migration. One evaluation finds graduates of rural education centers in Upper Volta applying their training by cooperatively buying and renting out oxen for plowing.[133] In French West Africa, increased emphasis on education in rural areas received a mixed reception, with some parents feeling cheated by the "lower" quality education given their children. Lobstein concludes that if educational reform -- like participatory training -- is to have any impact on migration it must be directly linked to realistic agricultural and nonagricultural employment opportunities.[134] Because local leadership training is focused on creation of employment and income-generation opportunities, the combination of rural education and local leadership training may indeed have a significant impact on slowing migration, but this impact has yet to be measured.[135]

*Improvement of rural health care and housing* -- Because improved health has a high priority in rural areas, several rural development strategies have projects designed to improve the availability and quality of health care. Health problems may be tackled by improving water quality or supply, as discussed above. Programs also focus on diet improvement through the local production of more nutritional foods (as in Niger,[136] Sierra Leone, Algeria, Guyana, Indonesia, Malaysia, and Colombia[137]), through improved food processing to reduce wastage and cost (as Nigeria and Ghana[138]), and by raising rural incomes, enabling the malnourished to buy more food (as in the strategy proposed by Lele and Mellor[139]). Health may also be improved by decentralizing the health care delivery system, but tremendous increases in health care manpower are required. As one solution, rather than providing highly skilled medical services to every village, clinics are staffed by paramedics, midwives, and nurses. Among the countries expanding rural health care are Bolivia, Cameroon, Colombia, Malaysia, Thailand and Venezuela.[140] Finally, many countries have mounted campaigns against specific diseases like trypanosomiasis or malaria.

In actuality, improved health may well reduce mortality and actually increase population pressures for migration. In the long-run, however, better health is essential to a viable rural lifestyle, where work may be done energetically and children raised without constant fear for their health. Improving the quality of rural life should reduce the impetus for rural outmigration, but no explicit evaluations of this impact are available.

The provision of decent housing through self-help measures is viewed as another way of improving the level of living in rural areas. Such programs have limited direct impact on migration, but better housing is one step toward improving the quality of life in rural areas. Countries with rural self-help housing programs include Mali, Togo, Zambia, Morocco, Bolivia, Peru, and the United States.[141]

*Increased nonagricultural job opportunities in rural areas* -- There are two major approaches to generating nonagricultural employment in rural areas: public works and decentralization of small-scale labor-intensive firms. Becuase research shows that income and employment are the major causes for migration, these employment-generation programs should have a direct impact on slowing migration from rural areas.

Because of high off-season unemployment, construction of public works has been widely

hailed as a solution to rural income and employment problems. Public works programs are particularly attractive because they provide jobs and much-needed infrastructure.[142] Self-help construction of minor public works is often the chief means by which local communities contribute to their own development. In addition to these local self-help efforts, some governments have implemented major employment-generating "peoples' works" programs. These labor-using programs pay workers rather than counting the labor as a local matching contribution against central government inputs. Examples of such projects are minor irrigation works, reforestation, and the construction of housing and other buildings. Countries which have adopted employment-generating public works programs are: Bangladesh, Benin, Ghana, India, Kenya, Malaysia, Mali, Morocco, Pakistan, Peru, Philippines, Senegal, Thailand, Uganda, and Upper Volta.[143]

Rural public works programs have additional benefits for rural development. Jackson and Turner's evaluation of the Moroccan "Promotion Nationale" finds that 60,000 man/years of employment have been created each year, and income has been redistributed to poorer families, while achieving an estimated rate of return on investment of 9 percent.[144] The study concludes that employment-generating public works are cost-effective means to provide tangible outputs beyond simple job creation. Output equals that of alternative investments, and the wages generated are recycled into the economy via the increased consumption by workers. Such projects may have continuing beneficial effects if the newly built facilities are maintained and adequately staffed. If every public works program generates such benefits, a substantial reduction in the pressure to migrate may result.

Seasonal or temporary provision of jobs is not a long-run solution to the problems of growing rural unemployment or outmigration: it is merely a stop-gap measure until farm incomes can be raised, networks of supporting services created, and year-round, stable sources of employment developed.

Decentralization of labor-using industries is one way of creating permanent jobs in rural areas.

> Because of their size and character, industries that are not capital-intensive do not have to be located in big cities. On the contrary, a considerable proportion of them can be dispersed throughout the outlying areas and in the rural towns. In this way they can contribute to the development of interrelations between agriculture and industry . . . . It reduces population movement to the big cities, enabling those villages who have acquired a certain amount of training outside the field of agriculture to find employment in their home areas.[145]

If decentralization is to affect employment and migration, job creation should be a major factor in planning the decentralization. In one of the best examples of this emphasis, Puerto Rico carefully designed a program to match industrial location with resource and employment needs, taking full advantage of spatial complementarities. The Puerto Rican "Operation Bootstrap" is reported to have had substantial multiplier effects on rural development.[146] Programs to induce industrial decentralization supportive of rural employment needs include: assistance in feasibility studies; construction of infrastructure and industrial estates; tax waivers; special training programs for local entrepreneurs; low-interest loans for the establishment of small-scale firms; research supporting small-scale, labor-intensive technology; and assistance in developing domestic and export markets (especially the latter). Countries which have used some or all of these programs to promote decentralization of labor-using industry are Thailand, Peru, Malaysia, Taiwan, Philippines, Puerto Rico, Swaziland, Mexico, Nigeria, Israel, Turkey, and India (which has recently revised its decentralization strategy to favor labor-intensive industry).[147]

Evaluation of the Indian, Taiwanese, Mexican, Puerto Rican, and Swaziland programs shows that the labor-using firms have generated jobs and raised incomes for workers, even though the number of jobs generated has not met expectations. One problem is that there are relatively few industries that take advantage of rural resources, employ a sizable number of people, and produce products which can be sold profitably. For example, according to Haissmann the most suitable industries for rural Mexico are handicrafts (for export), resource-processing and manufacture of transport-intensive rural consumption goods.[148] While compromises must be made between short-term cost and long-term employment goals, these programs have stimulated rural development by providing local entrepreneurs the incentive and means to invest their savings. As with other programs, decentralization has worked best where it is spatially

coordinated with a complementary infrastructure. When this has been done, the opportunity for occupational mobility without geographic mobility is greatest. Weitz claims that in Israel industrial decentralization has slowed the population drift to towns.[149]

Although there are only limited evaluations of the effect of rural industrialization on subsequent migration several authors have suggested that programs generating nonagricultural employment have the greatest potential for providing viable rural opportunities that do not require migration.[150]

*Supportive national policies* -- In addition to programs focused directly on the rural sector, there are a number of national economic policies which may buttress rural development efforts. These include policies or programs on such issues as price supports or controls, taxation, return of revenues to rural areas, and urban minimum wage levels. In short, policies supporting a redistribution of wealth from urban to rural areas and from rich, large-scale farmers to small or landless farmers are expected to offer the most support to rural development efforts. A "truly deep change in the economic and social structure" in Latin America, for example, might enable more of the rapidly expanding agricultural population to find productive work in rural areas.[151] Land reform and participatory local planning have already been discussed. This section addresses primarily the fiscal and trade policies which redirect rural priorities from concentration of wealth to development and income redistribution.

Several studies have shown that without price supports for agricultural products, small-scale farmers cannot afford to produce and market their goods. For Latin America, Barraclough stresses price supports -- with land reform -- as the only way to ensure that small farmers earn their share of profits.[152] Similar suggestions have also been made for Africa, although Lele suggests that price ranges rather than specific levels be used, allowing flexibility.[153] Of course, institution of price supports may require reform of the export tax structure so that the benefits of a guaranteed price are not taxed away. Implementing a price support program is difficult and administratively costly, but several countries have adopted price supports, especially for food crops, with some beneficial results for small farmers.[155] Unfortunately, the urban poor are adversely affected by higher food prices. It is unclear what the ultimate effect of these price changes is on rural outmigration, but it would seem that rural residents would be favored.

The reform of property and income tax systems may allow rural areas to capture some of the profits of development and lessen taxes on the rural poor. Many researchers have suggested tax reforms,[156] and a few countries have increased the progressiveness of their tax schedules.[157] Unfortunately, reform of property taxation also requires a workable land title system and a reduction in the rate of tax evasion. Further, in many countries most revenues are generated by sales and other indirect taxes. Therefore, some researchers suggest the removal of the heavy tax on basic consumption goods, accompanied by increased taxes on luxury goods, thus shifting the burden from the poor to the rich.[158] Governments may also stimulate rural employment generation by offering tax incentives for adoption of labor-intensive techniques, calculating social security payments according to output rather than payroll, and increasing taxation of urban wages.[159]

In conjunction with these tax reforms, the initiation of other policies may provide that more revenue be directed to the rural areas. For example, to reduce the urban bias in investments noted above, several countries are consiciously raising rural investment priorities; these countries include Philippines, Thailand, Malaysia, Indonesia,[160] Kenya,[161] and several others.[162] Also, Lobstein suggests that decentralization of state financing with creation of autonomous budgets at local and regional levels may increase the effective allocation of financial resources to rural development.[163]

Another policy measure designed to reduce the rural-urban income differential is basing minimum wage levels on the rural, rather than urban cost of living. According to Todaro,[164]

> Since the vast majority of the population of tropical Africa is agrarian-based, it makes considerable economic sense, as well as being more equitable, to attempt to relate minimum wage rates of unskilled workers in paid employment to the average level of agricultural incomes . . . . By eliminating the artificial incentive for disproportionate migration (which may be privately rational but is also socially costly), an effective policy or urban wage realignment can have an important and positive

> intermediate-term impact on the national output by improving the distribution of income arising from that output and generating employment opportunities in both rural and urban areas.

Adjustment of the urban minimum wage is suggested as essential to slowing rural-urban migration in Jamaica, French West African countries, and Morocco.[165] Although implementation of this policy in nations with strong urban labor unions may be nearly impossible, if Todaro is correct the potential for reducing rural-urban migration remains great.

Pricing policies, wage levels, tax schedules, concessions, and rebates have together had a sizable influence on rural-urban migration. Revision of these policies and programs may not be simple, because the legislators and administrators are very often the large landowners and industrial elite who benefit from current policies. In the longrun, however, it may be that only with the changes discussed above can integrated rural development efforts generate the self-sustained capacity to provide work and adequate incomes.

In isolation, these programs and policies have a limited impact on rural employment, income, and outmigration. If implemented simultaneously, the impact may be tremendous, as shown by the Taiwanese and Israeli examples.[166]

Unfortunately, full-scale implementation is very costly, especially in terms of administrative manpower. Thailand and Malaysia are experimenting with improved administrative techniques, but even with these approaches coverage is still inadequate.[167] Regional disparities are likely to develop, creating tensions between regions.

In a recent review of the United Nations, USAID, and World Bank approaches to integrated rural development, Rondinelli and Ruddle summarize the major obstacles to implementing integrated rural development programs. First and foremost, the agencies lack an operational strategy for translating rural development theory into practice. There is no set of standards for determining the most appropriate resource allocations among the various program components or for determining the best sequence for allocations. Second, the agencies find that there is a lack of understanding for the client populations' values, aspirations, and perceptions of the environment. Third, it is not clear that LDC's have the analytical capacity necessary to design the massive network of transportation, communications, and energy facilities that is implied by the concept of integrated rural development. Fourth, while local participation is recognized as essential to project design, there are no clearly defined procedures for generating it. The information flows continue to be one-way, from the top down. Fifth, although the rural development strategy is geared to improving the lot of subsistence farmers, there is only limited understanding of the real capabilities of subsistence farming; nor is it clear how changing the farm system will affect the environment and its long-term ability to sustain life. And finally, as pointed out in this study, there is limited administrative capacity.[168]

Despite these obstacles to implementation many researchers suggest that the costs -- human and otherwise -- of <u>not</u> pursuing this strategy compel its adoption. Efforts must be focused on resolving or lessening the above mentioned obstacles. Without coordinated implementation of the strategy the potential for slowing rural-urban migration is diminished, but the potential is still greater than that of the <u>agricultural</u> development strategy discussed above. As these strategies are implemented, several questions should be raised, namely:

> Given the introduction of integrated rural development programs, are rural incomes lagging further behind urban incomes? If this happens, reevaluation is in order.
>
> How do the programs affect rural income distributions? It is expected that they will increase the equity of the distributions, but there is no guarantee that the quickest innovators won't get a headstart, ultimately leading back to an inequitable situation.
>
> What are the migration impacts of implementing a program? Do people move in, stay, leave? If integrated rural development programs indeed reduce rural outmigration, is the resulting, relatively lower level of urbanization desirable?

All the strategies discussed above are new. As they mature and are more widely implemented, these questions should be kept in mind.

### *Rural Land Settlement or Colonization Schemes*

In an effort to cope with rural unemployment and low levels of agricultural output, many

countries have turned to land settlement, colonization, or irrigation schemes.[169] Settlement and colonization schemes have an explicit migration focus, namely to induce rural-rural or urban-rural migration. These programs rely upon a major infrastructure investment, such as penetration roads or dams to open up new land. With these improvements and a promise of title, the government actively attracts migrants to the area.

Governments have given several reasons for initiating land settlement programs. The foremost is the provision of land and jobs for urban and rural unemployed. By giving settlers title to land, the government may also defuse pressures for land reform. Cultivation of new lands may utilize untapped resources, increasing agricultural output. Finally, the government may wish to settle boundary areas for defense reasons.[170] These reasons often justify the strong, high-level commitment which is necessary to the settlement schemes, given their costly and long-term nature. Because these projects bring people into previously unsettled lands, the price tag per colonist includes infrastructure (road or canal construction), social services, transfer payments for land acquisition, credit to colonists, and investment in productive facilities.[171] The total cost may be great, therefore external aid is generally sought. Despite the high costs, the promise of large, tangible results has been used to justify implementation of massive schemes in several countries.

There are several studies which review the elements of land settlement schemes.[172] Before discussing the impact of settlement schemes on migration, a summary of major program components is presented, showing some of the problems encountered in implementation.

Initially, project goals are defined. Different goals will dictate different sites and projects. If, for example, the major program goal is allocation of land to landless laborers or tenants, then the project site may be the nearest large plantation, as in one effort in Venezuela.[173] If, however, the goal is to tap unused resources, a site will be selected in a previously unsettled area, as in the Trans-Amazon project in Brazil.[174] According to one researcher, most governments have failed to specify clear program objectives, and without these both site selection and project implementation are almost futile.[175]

Next, actual settlement locations are chosen, which generally involves a reconnaissance, or "windshield," survey of potential settlement areas. The objective of the survey is to identify locations and resource endowments that will serve the project goals. Included in the survey, according to Lees, are questions concerning the human element: Do "natives" of the area want a project? If so, what kind? Will it meet their needs?[176] Even though these projects are settling "new" lands, there are often indigenous residents who must be considered. Potential colonists should also be surveyed to ascertain their needs and constraints. The reconnaissance survey enables planners to decide if a project is generally desirable or feasible. Optimally, the survey aims at gathering the necessary quantity and quality of information, but in practice this balance is seldom achieved.[177]

If the reconnaissance survey finds project potential, a full-scale feasibility study is launched to select the most suitable site. This may involve the analysis of location; expected transportation costs; expected types of production; existing level of development; aerial photography of water resources, landforms, timber resources, etc.; soil surveys; and a detailed analysis of potential products and markets. Preliminary cost estimates for physical infrastructure are also made. The final outcome is identification of the best site, with estimated construction costs, expected production, and a general timetable for project development.[178]

Based on the feasibility study, detailed plans are prepared and implemented. Multi-agency coordination is essential to guaranteeing coordinated implementation of the many facets of a colonization scheme.[179] Flexibility with the authority to respond quickly and decisively to changing conditions is necessary. The most successful administrative structures have been regional commissions or agencies with authority to supervise participating ministries. The Colombian INCORA and the Malaysian Federal Land Development Authority provide good examples of agencies with regional multi-agency coordination authority.[180]

Various options are available for the essential land acquisition. If the land belongs to the government, it can be sold directly to settlers.[181] The government may buy large pieces of land and subdivide it for resale to colonists, as in Kenya's Million Acre Scheme. The government may expropriate large foreign-owned estates, as in Kenya's Africanization programs.[182] The government may implement a land reform

program and expropriate holdings in excess of a specified limit for colonization and settlement, as in Venezuela.[183] Fragmented holdings may be consolidated and redistributed among the resettled population, as in Kenya's land intensification scheme.[184] Construction of penetration roads, as in Peru, Bolivia, Colombia, Ecuador, and Brazil lends itself to the first three techniques of land acquisition, while scattered resettlement programs or irrigation strategies are more suited for the last two types.[185]

Colonization may begin either before or after completion of the infrastructure. In the Peruvian Chimbote project, colonists arrived before infrastructure completion to build irrigation canals.[186] In Sri Lanka, Malaysia, and Nigeria sites were cleared and homes built prior to settler arrival.[187] In Kenya, Malaysia, and Nigeria income producing trees were planted for the colonists.[188]

Dozier shows that the selection of colonists is important to project success. Poorly selected colonists may not stay, as in Bolivia's Alto Beni project.[189] Conversely, the selection process may screen out the very people the project is designed to serve. In Brazil, the Trans-Amazon project is designed to give Northeasterners access to land, but few of the colonists are from the Northeast because applicants from that area can't pass the physical examination.[190] Cumbersome selection criteria may also unduly burden the project administration. The balance between excessive and inadequate selection criteria is a fine one, yet it is critical to the project's short and long-term viability.[191]

The test of a colonization project really begins with the arrival of settlers. In return for receiving title to their lands, colonists may be required to work the land for a minimum time period, as in Bolivia.[192] Alternatively, each settler may take out a loan on which he must make payments, as in Nigeria.[193] In Malaysia, settlers receive wages, part of which they return to the government to pay for their land.[194] But more important than pay may be the support services required.[195] Extension services, market and transportation facilities, and social services to ease the transition into the new settlement are required to insure productive use of the land. In short, colonists require all the elements of the rural development strategy discussed above. Current project evaluations show that without support services, the probability of successful colonization is considerably reduced.[196]

Generally, services and facilities are concentrated in rural service centers or market towns, which may be either pre-existing (e.g., for irrigation projects) or built explicitly to serve settler needs, as in Brazil, Ghana, and Malaysia.[197] These centers also provide a location for enterprises, particularly those processing the natural resources of the area. The presence of rural service centers may facilitate project success, and they should be incorporated into future evaluations.

What has been the effect of these colonization programs on migration? While in some cases colonists have stayed on, making a decent living, generally the results have been disappointing.[198] Low numbers of migrants and substantial cost overruns are common. For the settlers who do stay, it is a struggle to make ends meet, especially when the planned facilities fail to materialize, as in Brazil, Bolivia, and Peru.[199] Barraclough and Schatan write:[200]

> Numerous Latin American governments have proposed at one time or another to solve their agrarian problems by means of the rapid colonization of new lands. The results of most official colonization projects have been discouraging as costs have been high and the number of families affected relatively few. 'Spontaneous' colonization, after putting land titles in order and constructing penetration roads, has given much more encouraging results. Even so, there are few examples of cases where colonization has made an impressive dent in the problems of rural unemployment in long established farming areas.

The case for road construction and spontaneous (nonaided) settlement may be somewhat better. Government outlays are much lower, but so are government controls. In Brazil, for example, Katzman finds that the Belem-Brasilia highway has opened up the state of Goias to settlement and has raised productivity.[201] Migrant flows into the area, especially via the newly opened Trans-Amazon, may allow development of new lands in the northern section. Thus Katzman suggests that the road has played a strong role in providing destinations for impoverished migrants. Nonetheless, there is a need to evaluate fully the expected costs, benefits, number of colonists, etc., before launching a scheme to open up new lands.

This brief summary of the components of land-settlement, colonization, or irrigation schemes shows that success demands a heavy and long-range commitment to planning and implementation. Because most projects have not included all of these elements, the results generally have not met expectations, especially in terms of creating rural employment and establishing migrant settlements. The financial, technical, and administrative costs prevent implementation of programs involving large segments of the rural unemployed. Thus colonization schemes seem to offer at best temporary relief to the migration problem. Major irrigation strategies have also had less impact on unemployment than anticipated, and additional problems are generated when reservoirs silt up. Neither scheme handles as many of the rural unemployed as expected, yet they drain heavily on financial and administrative resources. Perhaps recent projects will prove more effective at coping with rural unemployment, but the outlook is not favorable. Perhaps more limited projects aimed solely at rationalizing pre-existing, spontaneous colonization will prove justified. Generally, however, settlement schemes simply are not feasible on a scale large enough to deal with massive rural unemployment and underemployment.

## *URBAN DEVELOPMENT STRATEGIES*

### *Dispersed Urbanization Strategy*

The dispersed urbanization strategy combines the integrated rural development approach with an explicit focus on developing rural service centers, market towns, and small cities. Instead of focusing solely on rural farm development, this strategy recognizes that rural development is linked to a network of central places serving rural areas. The smaller cities and market towns within rural regions serve rural development needs, improving rural employment and reducing rural outmigration. This strategy recognizes that there will always be individuals who wish to leave rural areas and offers them nearby regional centers and market towns as alternatives to major metropolitan areas.

The rationale has been concisely stated by Johnson, a leading proponent of this strategy:[202]

> There is a really astonishing difference between developed and underdeveloped countries in their relative number of central places and in the dispersion of these towns, small cities, medium-sized urban centers, and still larger cities. In the developed countries the varied hierarchy of central places has not only made possible an almost complete commercialization of agriculture but has facilitated a wide spatial diffusion of light manufacturing, processing, and service industries . . . . The relative lack of such a central-place infrastructure in underdeveloped countries leads to serious handicaps. Because the countryside is inadequately provided with accessible market centers where farm produce can readily be sold and where shops filled with consumer and producer goods can exert their tempting 'demonstration effects', the incentives to produce more for the market and the inducement to invest in better tools, fertilizers, or better livestock in order to generate a larger marketable surplus are weak . . . . A second handicap that stems from an inadequate number and a faulty distribution of central places is rural unemployment, underemployment, and a wanton dissipation of ability and talent . . . . Young people have no way of knowing what talents they may actually possess unless they have some opportunities for experimenting. If their lives are confined to a rural economy where the only thing visible on the horizon is a landscape or villages, their latent proficiencies, unperceived aptness, and unsuspected creativity may never be released."

Johnson shows that a hierarchy of urban centers may provide a wider range of producer and consumer goods, markets large enough to prevent monopoly or monopsony, investment opportunities, and nonagricultural employment. Centers fulfilling these functions foster agricultural development while slowing rural outmigration.

The assumptions behind the dispersed urbanization strategy differ from other urbanization strategies. The "first principle" is maximum dispersal of urban towns or service units.[203] Instead of concentrating opportunities and services in a few large cities, these are spread throughout the urban hierarchy. Services are sufficiently concentrated in these many focal points to provide a broader availability without loss of effectiveness or economies of scale. Smaller centers offer fewer

services, but they are linked to larger centers which can support more specialized services. Weitz recognizes that this contact and cooperation between centers or towns is seldom fully achieved, but he regards dispersion, effectiveness, and cooperation as essential to a supportive urban hierarchy.[204] He claims that such a hierarchy can provide adequate opportunities for economic and occupational mobility without massive migration to the cities.

To reach as many villages as possible, spatially and temporally coordinated specialization is essential. In his discussion of the rationale for rural service centers in India, Sen writes:[205]

> Three elements have characterized our planning and development efforts: marco-level planning, schematic budgets, and special development programs, such as industrial estates, small-scale industries, minor irrigation, small farmers programs. No systematic study of the locational implications has ever preceded the implementation of these programs. Once the priorities and budget allocations are defined at the national and state levels, the actual location of these programs is normally left to intuitive judgements or to political expediency. Yet undoubtedly, these locational decisions are the most critical factors in determining the success or failure of a program.

Every village can not serve as a market town; selection is necessary. Without coordination of programs to support this selection, the required complementarities may not materialize.

Another difference is the explicit focus on the rural-urban links. Development of the towns does not guarantee that they will become service centers. The towns must be linked to the farmers and vice versa. The services and goods provided must be such that the farm people can and will use them, given appropriate routes of access.

Selection of central places and their functions, coordination of programs and investments, involvement of hinterland population, and construction of access routes are the major elements of the dispersed urbanization strategies. For each of these major elements, actual country approaches to their implementation are discussed.

*Selection of central places and functions.* In his discussion of rural development planning, Kulp shows that there are different criteria on which location decisions may be based.[206] Selection may involve "bottom-up" initiative where potential market towns initiate development and seek community and governmental support for this development. In contrast, the decision may be made centrally, or "top-down", where towns are selected by the national or state governments with little or no local participation or initiative. Among the countries which have implemented service center schemes, central selection has prevailed, often based on greatest need at the regional level with the most promising sites chosen within these areas of need.[207]

Function selection may be carried out simultaneously with location selection. Using a methodology for identifying central places exemplified by Wilkie for Mexico[208] and Berry for the United States,[209] towns are classified by the number and type of services they provide. Towns which provide secondary services such as a secondary or vocational school, post office, credit union, or grain silo are regarded as potential market towns already providing some higher level functions to smaller villages. Surveys are also used by planners to identify the minimum number of people required to make service provision economically feasible.[210] This permits the development of an order for introducing services as the town grows.

Almost all of the "top-down" plans mentioned above inventoried the distribution and number of people served by each function. The functions covered generally include governmental, administrative, postal, communications, police, social work, health care, education, market storage, agricultural services, and public works. Surveys are also used to determine the needs of the region's residents. Belloncle and Gentil,[211] Caillot,[212] and others have suggested that this is necessary for the selection of appropriate services and for the cooperation of the communities in development of these services. Local involvement in surveys, according to Lees, also increases the likelihood that programs initiated respond to the "felt" needs.[213]

A continuing problem in implementing dispersed urbanization strategies is the conflict between the demand for maximum dispersion and the need for adequate concentration of services and infrastructure.

Because top-down development of market towns requires a large commitment of administrative and financial resources, few countries have been able to implement such programs on a nationwide basis. As a result, income and opportunity differentials between participating and neglected areas may widen, leading to jealousy and pressure to equalize investments, as in Cameroon and Tanzania.[214] Centers developed as part of a colonization or land settlement scheme, as in Bolivia, Ghana, Malaysia, and Peru,[215] or centers initiated locally as in Brazil, Guatemala, India, Israel, Peru, and Taiwan,[216] seem less susceptible to this jealousy and competition for government favors.

*Coordination of town development* -- Several analysts have shown that establishment of a single agency capable of coordinating all programs relating to rural and market town development facilitates the timing and allocation of investments.[217] One governmental authority can synchronize and supervise the various ministry-level programs to fully utilize complementarities in infrastructure and services. Coordinated provision of inputs is essential to the development of service centers or market towns.

Spatial and temporal coordination is furthered by the utilization of clearly defined investment and program criteria, according to Chambers.[218] When both cooperating agencies and participating communities know their responsiblities and rights, there is less confusion about who gets what and when.[219] For example, in Mexico's PIDER, the government has made use of three party, joint planning.[220] The local, regional, and federal representatives jointly draw up a plan, which is then drafted in contract form so that each party knows exactly what to expect. This system represents a case in which general criteria evolve into very specific commitments. Another approach is central definition of specific eligibility, cost, and timing criteria for individual projects, as in Malaysia and Bangladesh.[221] Coordination of inputs according to previously defined and known criteria also lessens the likelihood that resources will be meted out solely as favors and makes the differential allocation of investments more understandable to communities. If, for example, a cooperative knows that construction of a warehouse will not be aided unless a certain volume of grain storage can be maintained, it can estimate how many farmers and villages must participate. If they meet the minimum, they can qualify for assistance; if not, they receive no assistance. This is not to say that political expediency or development assistance for relief will or even should disappear. But as pointed out by Kulp, without rationalization of program development and administration, the dispersed urbanization strategy cannot be implemented.[222]

*Involvement of local communities* -- As in the case with integrated rural development programs, a key tactic of the dispersed urbanization strategy is the involvement of local communities in self-development. Self-help is, if anything, even more critical to the development of market towns and centers. Each participating village must feel that the results of cooperation with the center are greater than if it tried to operate in isolation.[223] This is essential for the "bottom-up" approach.

To develop this sense of cooperation, communities must be informed and knowledgeable of the opportunities for joint action. Establishment of plans or program criteria is fruitless if the individuals involved are not aware of opportunities or ready for them when they arise, as seen in Costa Rica.[224] Citizens need access to training and information concerning the planning and development of service centers.

Communities must also be able to participate in their own planning and development. In Mexico's PIDER, the mechanism is joint planning; in Kenya's SRDP, there are provincial development committees. Malaysia has its district level planning councils, and multipurpose cooperatives are common in Uganda.[225]

Existence of local participation does not guarantee that the local voice will be followed. Without concomitant delegation of authority to make decisions and control program funds, participation tends to be superficial, ineffectual window dressing.[226] Decentralization of authority to plan and implement programs now exists in Bangladesh, Chile, Costa Rica, Cuba, Ghana, India, Indonesia, Kenya, Malawi, Malaysia, Mexico, Niger, Senegal, Taiwan, Tanzania, and Thailand, among others.[227] Locating decentralized agencies in the service centers serves a dual purpose. The service center is strengthened both as a source of decision-making and as a focal point for the attention and demands of the residents, increasing the likelihood of locally relevant decisions.[228] In addition, the decentralized agencies constitute locations to which higher-up program decisions may be oriented,

thus facilitating broad coordination of the rural and center development programs.

Evaluations of the local participation center development have tended to be disappointing. In Kenya's SRDP, and Ethiopia's CADU, there has been little real local involvement in decisionmaking, despite the existence of participatory channels.[229] In Ghana, there have been too many local authorities, each controlling its own little fiefdom of resources, with a resulting lack of coordination.[230] In Niger,[231] Bangladesh, Senegal and Malaysia,[232] however, there seems to be a balance between regional and federal coordination and local initiative and responsibility. The approaches differ, but each balances regional versus local authority, supervision versus training, and flexibile versus fixed criteria. The key for each seems to be effective two-way communication.[233]

*Establishment of linkages between villages and towns* -- The linkages needed to support the development of market towns and service centers cover all aspects of access to the center. Johnson stresses the importance of farm-to-market, and market-to-market roads and paths.[234] Weitz, however, places great importance on the contact and cooperation between centers, particularly if they are to attract and hold "skilled personnel who are the key to the successful operation of the supporting system in the rural areas."[235] Both linkages are necessary if the center is to attract and serve the hinterland population.

The theories of Christaller and Losch describe potential patterns of linkages between farms, villages, centers, market towns, and small cities, and have been utilized for center planning in India.[236] As shown in vanDusseldrop's analysis, the pattern of linkages generally is determined simultaneously with the selection of primary, secondary, and tertiary centers.[237] The actual linkages depend on the number of subcenters each is designed to serve and on existing roads and geographic constraints. Establishment of social, economic, and administrative links between the centers is the major task of the dispersed urbanization strategy.

Most of the center strategies discussed above have only recently been implemented, and evaluation of their impacts on employment, income, and migration would be premature. Where center plans have been in existence for some time, evaluations tend to be very positive. In a comparative analysis of many countries, Johnson finds a rough inverse relation between the number of villages served by each market town and national per capita income.[238] Countries which have implemented explicit dispersed urbanization strategies, including Yugoslavia, Israel, and Puerto Rico, have shown substantial income and employment gains in vicinities surrounding the towns. Further, Johnson indicates that these towns are providing alternative employment opportunities to farm youth. He writes of the Yugoslav program:[239]

> The real virtue of the communal system is that it tends to create investment clusters in every possible eligible location, thereby increasing employment opportunities, widening occupational choices, and helping to draw out more of the talents of Yugoslavia's energetic and gifted people.

Evaulations of integrated industrial decentralization, rural service center development, and establishment of regulated markets in Swaziland, Israel, Mexico, and India are basically positive.[240] Where establishment of trade centers or market towns has been combined with the development of cooperatives, as in the WADU program of Ethiopia, more progress seems evident in improving employment and income.[241] The gains, particularly for nonagricultural employment, may not accrue as quickly or be as large as intended, but they do exist.

There are two problems which continue to limit the impact of the dispersed urbanization strategy. First, due to high administrative costs this strategy can generally be implemented only in a few areas, and the resulting disparity between lagging and growing areas dampens enthusiasm. Second, there is a tendency to emphasize the public works aspect of the program.[242] This emphasis may delay or reduce its generation of permanent employment and shift attention away from underlying social problems. After construction of roads, markets, schools, and clinics, the communities may still lack the resources to operate these facilities, the price supports necessary to benefit from the markets, or the training needed for small-scale industry. A viable rural service center or market town is much more than the physical infrastructure.

While it is recognized that the development of service centers and market towns is only part of the larger development

effort, there is some optimism that this strategy will improve employment and income opportunities in rural areas, allowing more rural youth to find employment and a suitable lifestyle in rural areas. Some authors claim that the development of a dispersed urban hierarchy is the only way that countries can successfully cope with their rural and urban problems.[243]

### *Decentralized Urban and Regional Development Strategy*

One of the basic goals of decentralized urbanization and regional development is the redirection of migrants from large metropolitan areas to smaller intermediate-size cities. It is assumed that if suitable urban alternatives are available migrants will choose them over the congested primate cities. This means that the regional cities must offer employment and lifestyle opportunities comparable to those of the larger cities. It is further hoped that improving the economic condition of the region will reduce the pressures for regional outmigration. Among the nations adopting regional development strategies to channel migrants to regional centers and slow down regional outmigration are Argentina, Australia, Austria, Brazil, Colombia, Chile, Ecuador, France, Great Britain, Guatemala, Honduras, India, Malaysia, Mali, Mexico, Netherlands, Nigeria, Pakistan, Peru, Philippines, Thailand, and Venezuela.[244]

The regional development or "concentrated decentralization" strategy is founded on three basic assumptions. First, the city is the engine of development. Second, in order for urban activity and innovation to reach beyond the cities, there must be links to the hinterland. Third, a hierarchy of cities is required to integrate the entire nation into the development process.[245] One large metropolis is not sufficient: several large, many medium, and even more small cities are needed to achieve spatial integration. Regional development policies have been designed to stimulate the growth of smaller and intermediate-size cities and effectively integrate the urban and rural population into the process of development. This section of the chapter discusses the regional development policies of many countries, showing their goals, implementation mechanisms, and consequences.

Many regional development strategies are based on the theory of growth poles or centers, first postulated by Francois Perroux in 1950.[246] These are centers "from which centrifugal forces emanate and to which centripetal forces are attached." The forces are generated by "propulsive" firms, linked to other enterprises in the region. As the propulsive firms grow, the economy of the regional "hinterland" linked to them also grows. Ideally employment and income gains are retained in the region, allowing the skills and capacity of the population to be continuously upgraded in response to the firms' demands. This theory has been discussed by several authors, and for more details the reader is referred to the works of Nichols, Kuklinski, Friedmann, and especially Darwent.[247]

Putting the theory of growth centers into practice, however, is difficult. There are several problems which confront planners: definition and selection of the region, selection of the "core" city, definition of the "propulsive" firms, attracting these firms to the region, determining optimum "core" city size, limiting the spread or multiplier effects to the region, and establishing links with other regions. Darwent's review of the literature finds that the theory of growth poles does not adequately deal with these issues.[248] Nonetheless, many governments have implemented growth center strategies. Their experiences and successes are varied. For this reason the discussion below gives some of the particular methods used and some of the problems that were encountered in implementing the methods.

The major appeal of growth centers lies in their presumed ability to reduce regional development inequities while slowing outmigration. Whether the center is developed in a pre-existing, intermediate-size city or de novo, it is designed as the focus for regional development.[249] The expectations are imposing: redirect migration, pull a region out of its depressed condition, generate exports, stimulate commercialization of agriculture, integrate the region's population into the modern "mainstream". This section examines the performance of growth center strategies, particularly concerning migration. In most cases the deliberate urbanization strategies have been only recently implemented, but some instructive evaluations are beginning to emerge.

Implementation of a decentralized urbanization strategy involves several steps. These include:

- Preparation of a regional plan;
- Selection of growth centers;
- Acquisition or control of land use within the center;
- Stimulation of city and regional growth:
  - Physical and infrasturcture development,

Tax revenues, and transfer measures to attract firms,

Human resource development programs,

Development of marketing, housing, and other support services,

Administrative decentralization and/or reorganization.

Rationalization of hinterland agricultural areas.

The sections below discuss in detail each of these steps, showing the specific approaches and consequences in countries adopting this strategy.

*Preparation of a regional plan* -- The generally recognized first step in implementing a growth center strategy is the evaluation of development prospects. In Chile, the growth-center policy began with the observation that the process of hyperurbanization in the Santiago region had led to more negative than positive results. In particular, the majority of Chileans were excluded from the benefits of economic development. To counter the negative aspects of Santiago's rapid growth, it was decided to urbanize other regions of the country.[250]

Planning is necessary to concentrate urbanization in the most appropriate areas.[251] Plans generally discuss the current situation and development potential of relevant regions, the expected outcomes of implementation and nonimplementation, and the programs recommended for establishing the growth centers. As is the case with the selection of colonization sites, the plan begins with surveys of resource and development potential, population, housing, socioeconomic characteristics, infrastructure, economic systems, and linkages to other regions. In addition, Friedmann emphasizes integration of regional development strategies with other regional and national strategies and with global, sectoral, and private programs, perhaps using coordinated program budgeting as a tool.[252]

In Chile, for example, a recent plan was designed to achieve the national goals of doubling economic growth per capita, including inflation, and integrating Chileans into modern society. The mechanism selected was regional development with an emphasis on urban development outside Santiago. The plan was coordinated through the Development Corporation, CORFO, and the Ministry of Housing and Urbanism, but within the regions the initiative for the selection of projects and ordering of priorities was delegated to the local communities involved.[253] Other examples of countries utilizing comprehensive regional planning of this type are Brazil, Colombia, France, Ghana, Israel, Italy, Japan, Mali, Nepal, Philippines, Poland, Thailand, Turkey, U.S.S.R., the United States, and Venezuela.[254]

The actual preparation of the plan seldom covers all the elements discussed above. A regional plan is very demanding of information and skilled technical personnel, both of which are scarce, especially outside the national capital. In his discussion of regional planning in Thailand's Northeast, Pakkasem[255] finds that,

> Regional planning always operates under serious constraints of data availability, professional skills, time and funds. Complicated regional studies, while they may add prestige to the sponsoring insitution, rarely yield results that are useful for the decisions which normally have to be made every day.

To cope with the shortage, Thailand, like many other countries, has relied heavily on foreign experts for assistance. Although this alternative raises additional problems of relevance and local participation, the Thais recognize that it is the only way they can tackle the enormous task of regional planning. Even with outside technical assistance there are many compromises that must be made in analysis due to insufficient data.

Decentralization of planning may improve the realism and usefulness of the plan and may enhance local participation, as in the Philippines.[256] As noted by Pakkasem, above, national or expatriate planners are less likely to prepare relevant regional plans. On the other hand, decentralization of planning does create some problems. Decentralization without actual delegation of authority and information may only complicate matters. For example, in Indonesia regional determination of programs and targets without accompanying performance responsibility led to unrealistic goals. Hansen suggests that broader operational authority at the local level may produce more practical regional goals than if locals operate in a vacuum of information and power.[257]

*Selection of the growth centers* -- There is a continuing controversy over the best criteria for site selection. Some criteria cited are the presence of a resource

base,[258] a growing city with embryonic industrial complex or other indications of economic strength,[259] or a frontier area where there are not cities integrating the region's population.[260] Most centers are chosen using a combination of these three criteria, with perhaps the heaviest emphasis on rate of population and economic growth and industrial mix. And some decisions are made without any clear or detailed method of selection.[261]

A growth center plan may be based upon urbanization targets. For example, Brazil, India, and Turkey have tried to draw remote areas into the development process by relocating national or state capitals.[262] Others, recognizing the necessity for more than one alternative to the large metropolitan areas, have established several growth centers. Growing cities have generally been selected where additional stimulus and administrative coordination can have a substantial impact. Many of these cities are provincial capitals already serving as a focal point for their district. Logan suggests that utilization of provincial capitals enormously simplifies the selection and implementation of growth centers because they already benefit from administrative and political focus, in addition to generally better infrastructure and services.[263]

Selection of centers is related to implementation mechanisms, as well as to program goals. If, for example, a city is to derive its growth from exploitation of natural resources, a site such as Ciudad Guayana in the resource-rich watershed of the Orinoco makes sense. If, however, the goal is to give added impetus to nonprimate growth and to attract migrants, then perhaps support of already growing cities is most reasonable. Selection also depends on whether the government is maximizing geographic equity by spreading its urban development resources among several regions, as in Brazil, or whether the resources are concentrated on one big project, as in Venezuela. Selection of a growth center can be critical to the success of a development strategy. If the site is inappropriate for the purposes specified, the chances of success can be substantially reduced and it is likely that any effect on migration and population distribution will be similarly diminished.

*Acquisition and control of land for the development of the city* -- Once a site has been selected for development, control of land use is the primary mechanism for ensuring that the city develops as planned. Land use has a direct impact on the number and nature of migrants coming to the city, as it is closely related to employment and residential opportunities. For example, if industry and modern sector jobs are desired, the government may develop industrial estates. Alternatively, the government may seek to accommodate and attract migrants by constructing housing. Both of these approaches require the acquisition of land. Because this route is costly, the development of land already owned by the government or the control of land use without acquisition may be preferred.

Most of the research regarding land acquisition focuses on land banking. In theory, governments establish land development banks or corporations with

> the authority and the capital to acquire land for designated public purposes at existing prices at the time of designation. Such land should be designated and acquired sufficiently in advance of urbanization to ensure that the incremental value resulting from the development of surrounding land will accrue to the land bank or corporation and hence to the populations to be served by its operations. Land thus acquired should be developed for use according to the overall physical development plan of the municipality or region. The developed land can then be sold or leased for construction of housing for specified income groups.[264]

Land banking obtains land for public purposes while reducing speculation. It may also produce revenue for land development or housing construction. Many intermediate-size cities have adopted land banking, but not always with the expected results.[265] For example, in their survey of intermediate-size cities, Rivkin and Carson find that the Turkish Land Office received too small a budget to effectively develop a land bank.[266]

Unless land is bought prior to speculation, land banking is expensive. Yet in the absence of effective urban land use controls or outright public ownership, it may be the only way the government can make land available for public purposes and influence the development of the city.

It has been suggested that urban reform is a cheaper, and in the long-run a more effective, mechanism to control and direct

urban growth. Zambia has considered outright nationalization of all urban land.[267] Without going to this extreme, governments may influence the sale and control of land by changing the land ownership laws to expand or limit certain classes of ownership.[268] For example, Bolivia passed a law limiting individual ownership of unimproved urban property to one hectare, with any excess subject to public expropriation. Rojas finds that the law has never been enforced significantly, perhaps because of inadequate land registry and enforcement mechanisms.[269] Thus the potential for control has not been realized, and this may be a problem for others implementing urban land reform.

According to Prakash, a major obstacle to rationalizing urban development is the property tax system.[270] Many cities lack progressive property taxes, taxation of improvements, and penalties for holding unimproved land. To remedy this absence of control, Prakash suggests taxation of land at market value, public auction of all disposable land, establishment of a real estate valuation organization, and institution of an ad valorem tax on land sales.

Rivkin and Carson find, however, that "In practice few LDCs have taken this course (of tax reform) because land speculation is so much a way of economic life and because of the political implications involved."[271] Korea, Malaysia, and Singapore have implemented speculation taxes, but they are either ineffective or have been in effect too short a time for evaluation. Control of speculation is a major element to gaining control of land use and urban development, but no viable approach to limiting the rise in land costs has been demonstrated.

The most common methods for controlling urban development are zoning and sudivision ordinances. These are established to enforce a previously adopted urban development plan in order to prevent development of the wrong type, in the wrong place, or at the wrong time. A zoning ordinance details uses which may or may not be permitted in an area and sets standards for its development. Subdivision regulations limit the lot size, house type, etc., in residential districts. If the use of a parcel of land does not conform to zoning subdivision regulations, permission to develop may be withheld. Often, however, these regulations are not enforced or are circumvented by appeal. Despite such limitations, most major cities have enacted zoning and subdivision regulations.

Enforcing a zoning ordinance in a rapidly developing growth center poses special problems. Just when the need to coordinate the location of business, industrial, and residential locations is greatest, planning and administrative capacity may be limited. Rivkin and Carson have examined zoning problems in several countries and their analysis yields several recommendations. They suggest that planning assistance teams be provided from the national level, that capital budgeting be coordinated with the land-use plan, and that a "guide plan" (a generalized land-use and transportation guide) be used.[272]

One of the most effective tools the government has for channelling development -- and migrants -- is the provision of roads and utilities. Areas with a basic infrastructure attract users, enabling the government to shape the distribution of development by controlling the location and type of these services. If, for example, services suitable for industrial use are provided, firms may be drawn to these locations. In practice, construction of roads, sewers, water, and electric lines have been the most powerful mechanisms for obtaining general conformance to land-use plans.

This method of controlling land development is not without weakness. As Rivkin and Carson indicate, several agencies may be responsible for the provision of infrastructure and they may not coordinate their activities with each other or with the master plan.[273] Further, many cities have the resources to provide only minimal services. If such a city attracts migrants, squatting on land without services will ensue, regardless of governmental intentions for available sites. If the provision of services cannot keep up with the existing population, migrants are unlikely to be drawn to specified locations within the urban area.[274]

*Stimulation of economic growth within the center* -- Several studies have highlighted the use of infrastructure to attract or hold migrants and firms.[275] These measures are especially popular because they provide tangible evidence of government action. Some observers have criticized this emphasis on "bricks and mortar" because it does not confront the underlying human problems. All too often public works provide temporary construction jobs and a permanent monument to a political sponsor, but little long-run program benefit. In Brazil, for example, as in many other countries, politicians reportedly use public works to advance their careers, often at the expense of on-going public programs.[276] Although providing

roads, clean water, and electricity has contributed to the growth of the cities served, most observers agree that such infrastructure alone does not create sufficient conditions for urban growth.[277]* In writing about the experience of the Economic Development Administration in the United States, Carson, Rivkin, and Rivkin, find that:[278]

> The findings of the public works projects evaluation are sufficiently encouraging in general for this program to continue to receive strong support. The evaluation's main yardstick was job generation, and it was found that water and sewer projects were the most cost-effective in terms of investment per job equivalent generated. Industrial/commercial developments were twice as expensive per job generated. However, in terms of 'process impact' (change in local economic development process as measured by attitudes, community effort, organization, and planning and coordination) the industrial/commercial projects were generally associated with more positive changes in economic process activity than were the water and sewer projects.

Construction of industrial estates, or areas supplied with infrastructure suitable for industrial use, has been another key tool for coaxing industries out of the primate cities. As part of an industrial decentralization program, the government may provide roads, water and sewer lines, electricity, and even build the actual facilities. For example, Brazil, Chile, Malaysia, Nigeria, Thailand, Turkey, and Venezuela have constructed industrial estates in support of growth pole development.[279] The government generally purchases the site and finances development for resale or long-term (100 year) lease to industrial firms. In many cases, the estate is designed to provide an adequate base for developing the desired propulsive industrial mix. But without some control over the firms chosen to occupy the estate, there is no guarantee that it will generate a substantial number of jobs or produce significant multiplier effects.[280]

In addition to providing infrastructure, governments may also stimulate development by selective changes in the taxation and transfer policies. Tax waivers, reductions, and holidays are commonly used to draw industry to an area. Such tax policies can support industrial decentralization, particularly when the changes apply only to selected industries, as in India and Malaysia.[281] The International Information Centre for Local Credit lists several other fiscal policies used to attract industries to growth centers, including governmentally subsidized or guaranteed loans for development of private industry in the selected area, loans to municipalities for city development or establishment of enterprises, establishment of a revolving fund or compulsory savings plan to be used for loans or public enterprises.[282] Studies in Europe and the United States, however, show that favorable tax and loan policies are secondary to other considerations in the selection of plant sites by large industry.[283] Yet, they are important to smaller firms where investments and profits are on a smaller scale.

Perhaps more effective than tax policies are governmental cash transfer or subsidies, which may actually be used to establish public enterprises. The Rivkin and Carson study finds that governmental ownership and development of industrial enterprises is becoming more popular, particularly when the government wishes to make sure that the specific area benefits. Brazil, Malaysia, Turkey, and Venezuela have met with mixed success in running government-owned industries.[284] Because of the administrative and financial drains on public resources, however, this option is used less than combining industrial estate and tax policies.

Many countries have located growth poles on their coasts because of obvious trade advantages. To encourage shipping and industrial development, the selected city is designated as a free port (where tariffs and import duties are reduced or waived). Some of the nations with free ports are Brazil, Chile, Italy, Luxemburg, Mexico, Peru, Philippines, Taiwan, and Venezuela.[285] Most of these free ports have not existed long enough to be evaluated, but the Chilean and a Philippine case show that a free port does not guarantee development of alternative growth poles. In the Philippines, the free port of Mariveles is too close to Manila to effectively serve as a counter magnet, even though industries and firms have been attracted to the zone.[286] In Arica, Chile, the government lost considerable tax revenues and foreign exchange without substantially improving the area's production relative to national needs.[287] These experiences suggest the need for great care in choosing and planning a free port.

* This does not imply that the provision of infrastructure is not an effective tool for channelling growth within urban areas.

Most of the existing tax and transfer policies have focused on attracting or creating heavy industrial enterprises in the growth center. Employment and local resource mixes have often been ignored. Recognizing the need to integrate economic growth with employment and migration goals, some governments have used tax credits, import duty schedules, and other fiscal tools to encourage the development of labor-intensive, small industry in growth centers and intermediate-size cities.[288] The evaluation of such programs in Mexico finds that they have helped in establishing the desired enterprises and therefore seem to offer more promise for absorbing migrants.[289]

Many researchers now stress the importance of training and utilizing local manpower, rather than using outsiders in all skilled positions. These policies attempt to train local residents in establishing and operating enterprises, in technical and vocational skills, and in other areas of need. Instead of counting on infrastructure, attractive loans, and credits alone to draw industry, these programs recognize the importance of human capital in attracting industry. It is assumed that ultimately, only upgrading of the skills and resourcefulness of the people is likely to have any lasting impact on regional development and migration. In the United States this view has shifted the emphasis in the Economic Development Administration from public works and industrial development to human resource development.[290] Along similar lines, several countries are now offering training to local craftsmen, entrepreneurs, potential technicians, mechanics, and so on.[291] Many others are relocating or establishing universities and training centers in intermediate-size cities. In addition to training students, these schools channel them to locations outside the primate cities. Evaluations of decentralized and regional training efforts tend to be positive, although there is a recognized problem in timing training to coincide with the creation of suitable employment opportunities.

To date, human capital development has not focused heavily on administrative and planning capacity. The Rivkin and Carson study shows how two countries, Turkey and Brazil, are tackling this need in the comprehensive and land-use planning areas.[292] Such training is recognized as a basis for developing a municipality's ability to cope with and channel its growth.

Several observers have pointed out that development of industrial and service enterprises relies heavily on simultaneous expansion of the marketing network. For a growth center, this means first that the transportation linkages must be adequate, both within and between regions. Although this fact is well recognized in the literature, communication, transportation, and resource flows are often overlooked in actual practice. In Argentina, for example, the centers in Patagonia are simply too far from the major industrial area for real access to that market.[293] Beyond access, the marketing system is critical to center development. Center strategies which focus on propulsive industries whose goods do not have a ready demand have foundered.[294] A valuable insight in Haissman's analysis of the Mexican industrial decentralization program is that markets need to be carefully developed and nurtured.[295]

Implicit in the development of growth centers is the attraction of migrants, and these migrants must be accommodated with housing and infrastructure. The manner in which this is done strongly influences the internal development of the city. Often, the government provides housing for only salaried employees, ignoring the many poor migrants attracted by the hope of employment. The latter then find it difficult to house themselves within their means in ways compatible with the government's plans for city development. This has happened in Brasilia, Bhubaneswar, and Ciudad Guyana.[296] Even in Ciudad Guyana where self-help and site and service options were available to migrants, they were either poorly located or too expensive for the majority of the unskilled arrivals. These problems are not unique to growth centers developed de novo; rapidly growing intermediate-size cities also experience this difficulty. In an effort to cope with this problem, several governments have launched public, low-cost housing programs.[297]

It is also incumbent upon the local government to provide a wide range of health, education, and other services to the city's expanding population. At a minimum, citizens should be assisted in developing these facilities to themselves. According to Hansen and others, the existence of decent health care and educational facilities increases the viability of intermediate-size cities in the United States.[298] The cities themselves generally need outside assistance, therefore growth-center policies (e.g., of the Appalachian Regional Commission) should provide outside resources for the expansion and stimulation of local health care, education, and social work services. While the concerns for social services may seem peripheral to growth poles in less developed nations, Richardson and Richardson find that:[299]

> Growth center policies make sense in Latin America only if they are combined with compatible policies on other fronts, e.g., industrial organization, social welfare policy, human resource strategies, and administrative decentralization. Otherwise, they are likely to be abortive.

In the long run, these services are essential to the social changes which must accompany growth center development.

Numerous researchers suggest that growth centers work best when authority for project design and implementation is decentralized.[300] Furthermore, most suggest that one agency should coordinate all projects. Both issues are, of course, highly political and several projects have stumbled over the question of control.

India, Malaysia, Philippines, Thailand, Turkey, and several Latin American nations have introduced political and administrative decentralization with regional development-growth center strategies.[301] Yet the existence of regional agencies does not guarantee that they actually possess the authority to plan and implement decisions. The lack of this authority may negate decentralization. In other instances, the decentralization policies are not fully implemented and real control is maintained at the national level. Even if decentralization is implemented, the regional policies may not be coordinated with national sectoral policies. Clearly, there are many problems associated with political and administrative decentralization.

Several researchers show that decentralization must be supported by other administrative changes.[302] Chief among these is the increased need for coordination between and within regions. The most common mechanism by which this has been achieved is the establishment of a single, multipurpose agency responsible for planning and coordinating regional development. Each of the countries cited in the preceding paragraph has utilized this technique. To increase the effectiveness and ability of such an agency, the following approaches have been suggested:

- Creation (or expansion) of a regional data bank to foster informed decision-making;
- Strong national political commitment to the goals of the agency(s);
- Autonomy and ability to respond flexibily and quickly, particularly in early development stages;
- Regional allocations within national sectoral plans;
- Provision of well-trained and motivated staff;
- Establishment of linkages and coordination pathways between governmental and concerned private agencies;
- Clear delineation of goals and responsibilities;
- Utilization of citizen advisory groups.

*Rationalization of the region's agriculture* -- The development of areas outside the city is often overlooked. Yet the city is being designed and developed to serve the needs of the hinterland, and vice versa. Without these mutual linkages, the city may be only a national "enclave", not serving regional development.

For an elaboration of policies and programs designed to foster rural development linked with urban development, see the discussion of the dispersed urbanization strategy, above.

*Evaluation and summary of the impact of decentralized urbanization strategy on migration* -- Growth-center strategies are being implemented in a number of countries, but there are few evaluations of their effect on migration. Numerous national or provincial capitals which have been relocated have evolved into effective countermagnets to primate cities, but in some cases ending up with more migrants than anticipated.[303] Other programs may be only partially implemented, thus attracting too few migrants. Richardson and Richardson evaluate several Latin American efforts and find that in most the strategies were at best only weakly implemented.[304] (The exceptions, Peru and Mexico, are too new for evaluation). As a result, short-run changes to regional development and migration in Chile, Colombia, and other countries have been small or undesirable. On the other hand, there are several positive evaluations of regional development policies using growth centers. Sundquist shows that policies in France, Netherlands, Great Britain, Sweden, and Italy have definitely had positive impacts on redirecting migrants to chosen cities,

although not always in the manner anticipated by planners.[305] Rivkin and Carson's[306] analysis suggests that the development of Goiana, Brazil, has stimulated migration and development, and Pryor's[307] evaluation of the Thai and Filipino programs shows optimism.

One problem with growth-center strategies is the enormous scale of a growth pole effort. The policy listing above shows that effective implementation requires a wide range of technical and administrative skills and heavy financial and political commitments over a long period of time. In most countries these ingredients are in short supply. Further, this strategy requires concentration of these scarce resources, rather than maximum spread. So while there are widespread demands for growth-center projects, successful implementation necessitates an inequitable distribution of the scarce resources in the interests of long-range regional development. To reduce the level of investment required, it has been suggested that provincial capitals or already-growing intermediate-size cities be selected, yet even in these cases large commitments are still required.[308] This may be why this strategy seems to fare better in developed countries.

In addition, some authors question the whole validity of the growth-center approach. Although Niles Hansen has long been a supporter of intermediate-size city development, he has recently modified his view of centers. First, he notes that industries normally move out to smaller cities as they develop and require less highly skilled, innovative manpower (such as is found in metropolitan areas). Thus, the development of growth centers to explicitly attract industry is redundant to the natural process of industrial relocation in lower wage areas. Second, the emphasis on service development (often a major component of center strategies) in smaller cities is somewhat incompatible with the large market needs for a well-developed service sector. Third, and most conclusive, he finds that spread effects have failed to occur in many of the centers established in the United States, France, and England. Instead, he notes:

> . . . from an economic point of view regional policy should focus on the development of human resources and on service delivery systems which enhance the quality of life. Increased out-migration to regions where employment and income opportunities are greater may result, but again from an economic perspective, this should be viewed as a gain unless the aim of regional policy is simply to maintain or expand the number of persons resident in a given area. In the long-run, out-migration may be expected to decline. Many persons who benefit from social investments will choose to remain in lagging regions . . . . Moreover, improved opportunities may induce significant return migration. Nevertheless, in the short-run this general approach would not likely produce dramatic changes (a political liability), though it would permit a gradual adaptation of regional population to regional resources. But, of course, efficiency is by no means the only or even the major concern of actual regional policies.[309]

The major problem in lagging regions, Hansen concludes, is not the lack of economic opportunity or the low level of urban development but the lack of openness to innovation. Economic development cannot simply be viewed as growth in scale; it is a qualitative change in the way of doing things. More fundmental than changing economic structures are changes in the willingness and ability of local leaders to cooperate on a regional basis.[310]

Thus, focus on human community building may be the essential precursor to economic growth efforts. These efforts would include human resource development, as well as the programs for decentralization, increased local autonomy, and administrative reorganization.

Despite the observed problems with decentralized urbanization and regional development, these strategies continue to be viewed as promising methods for coping with regional inequities and hyperurbanization. With regard to Latin America and its polarized urban development, Richardson and Richardson write:[311]

> There are strong arguments why growth center strategies should have a significant role in regional and urban development policies in Latin American countries, provided that both the theory and its applications are modified in ways that increase their suitability for the developing world in general and Latin America in particular. However, there is a pressing need for design improvement, for closer links between the strategy selected and the policy objectives that it

is intended to serve, and for devising more effective policy instruments for implementation. Finding solutions to these problems will determine how far Latin American countries will be successful in remedying their unsatisfactory spatial distributions of population and economic activity.

To date, one of the most comprehensive and up-to-date analyses of possible strategies for regional development is found in Rondinelli and Ruddle.[312] They find that basic structural imbalances are the primary obstacles to achieving growth with equity and that the "polarized dualism" that now characterizes most developing societies must be reduced. After looking at the range of strategies that focus on development at various points in the rural-urban continuum, they conclude that no less than full integration of urban functions into rural development is necessary, and that this requires a well articulated spatial structure with linkages between development centers of all sizes. How is this to be achieved? They note that the greatest gaps in the spatial network exist at the intermediate levels and that development can be stimulated only by "careful location of productive investments and social services at strategic points in the spatial system." Major strategic points are market towns at the lower end of the hierarchy and intermediate size regional centers towards the upper end of the hierarchy. However, because the emphasis in their approach is on changing the entire spatial network rather than on changing individual city groupings, they call the strategy "transformational development."

In many respects, transformational development joins the elements of the dispersed and decentralized urbanization strategies discussed here. What is unique to this concept, is its emphasis on the method of implementation. The strategy is carefully designed to move successively toward the goal of spatial integration of the entire economy. It does so by utilizing and stimulating the adaptive and innovative aspects of local conditions while phasing out the unproductive or unadaptable elements. The authors place confidence in the strategy not just because it has strong theoretical justification, but also because it seems to provide an administratively realistic means to achieve the goal of spatial integration. To do so, transformational development must:

Build on existing resources;

Involve local people;

Adapt modern technologies and services to local conditions;

Promote specialization based on existing spatial comparative advantages;

Use appropriate, low-cost, acceptable methods to produce "demonstration effects" that can be readily replicated;

Plan for displacement of unproductive and unadaptable institutions;

Establish by strategic intervention the preconditions for transformation;

Create a planning process that is flexible, incremental, and adaptive.[313]

These points respond to some of the problems and criticisms that have been raised by the discussion here. While the strategy still requires substantial planning and administrative inputs, perhaps the phasing implicit in the strategy will reduce the amount by which this constraint limits the strategy's feasibility. In any case, Rondinelli and Ruddle have given a strong argument for this mode of integrating population distribution and movement into the development process.

### *Centralized Urbanization Strategy*

Whether intentionally or unintentionally, the centralized urbanization policies have directed migrants to the largest cities. The general goals of the centralized urbanization strategy fall into two classes: rapid industrial and economic development, and coping with rapid urbanization. These are discussed in this section, showing the policy instruments used and their effect on development and migration.

The basic rationale behind the policies supporting the centralized urbanization strategy is that economic development requires a substantial concentration of economic and social resources. These resources are generally concentrated in the national capital or major port.

*Policies concentrating urban and idustrial development* -- Perhaps the strongest effect on migration has been generated by the host of policies aimed at rapid industrial development of the largest cities.* These policies have focused on increasing a nation's output

* Although some of these policies were mentioned in the chapter on causes and contexts of migration, this section provides a coherent summary of industrial development policies.

through industrialization. Expanded employment generally has not been an explicit goal, except that it is assumed that in the long-run workers must be shifted from agricultural to industrial employment.

To attract the desired capital investment, several measures have been implemented:

First, use has been made of capital investment allowances, such as tax credits, subsidized interest rates, tax waivers or vacations, and so on. These have sometimes been location-specific, (i.e., applicable only in certain cities), but usually they have applied to all cities. Such subsidies have been used in Brazil, India, Kenya, Malaysia, Nigeria, Pakistan, and many other countries in an attempt to attract capital, especially foreign captial.[314]

Second, loan criteria have often channeled government or private loans to the capital city where the profit potential of industrial development is most favorable. Loan criteria have reinforced the growth of cities already favored with better transportation, access to governmental decisionmakers, larger markets, more diversified labor markets, etc. Hardoy notes that implicit location requirements exist for industrial loans and interest rate subsidies throughout Latin America,[315] and Johnson discusses implicit locational criteria in India and elsewhere.[316]

Third, urban tax structures have been designed to enccurage the use of capital for industrial development.[317] For example, rather than taxing profits, taxes may be based on the number of employees, encouraging capital- rather than labor-intensive techniques. This has been done to increase general capital investment. Morawetz shows that certain import quota and tariff reductions have also stimulated capital-intensive industrial development, which is generally located in the big cities.[318]

Fourth, pricing policies for infrastructure and other services may support industrial development in the largest cities. For example, Morawetz finds that electricity is often underpriced.[319] All of the nation pays taxes for infrastructure, but good roads, electricity, sewer, and water are generally found only in the biggest cities, at rates subsidized by the rest of the country.

The combination of location-incentive loans, service and utility prices, tariffs, and tax structures has stimulated the development of industry in many cities. This industry has sought the most economic locations, namely the big cities. And as the cities develop, increasing numbers of migrants are attracted by the growth and the hope of employment.

More skilled and committed manpower is assumed to be necessary for industrial development, therefore higher wages and benefits have been used to attract skilled personnel. Central to the Todaro migration model are the migrants' income expectations. The practice of setting minimum wages for modern sector jobs has substantially contributed to the forces pulling migrants into the primate cities. Union pressure has kept industrial and government wages rising with increases in the cost-of-living. In Kenya, for example, Todaro finds that nonagricultural earnings rose by 11 percent per year (1960-66) while the average increase for the small farm sector was only 5 percent per year.[320] Similar situations exist in other developing country cities.[321] Further, social security programs, primarily found in the big cities, make the latter even more attractive.

Because of the large wage differential between the industrial or modern sector and the traditional urban or rural sector, a dual economy has evolved in many countries. This dual economy, some claim, pulls many more migrants to the cities than if wage levels were more uniform. According to Tidrick, the higher modern sector wages are, the more likely agricultural workers will join the urban unemployed, seeking higher paid jobs while subsisting on shared income or casual labor.[322] Because of these nonformal earning opportunities, high levels of unemployment can be tolerated. Furthermore, income sharing between the employed and unemployed can provide support for the unemployed while they seek modern-sector jobs. Thus, creation of one high-wage, modern-sector job attracts more than one migrant, swelling the ranks of the unemployed or underemployed.

Another de facto policy attracting migrants is the administrative and political concentration of the government in the capital. While such concentration can improve central government efficiency and decisionmaking ability, it also requires civil servants to reside primarily in the capital. In Latin America, for example, those who wish to get governmental contracts or favors locate in the capital where they have easy access to politicians and decisionmakers.[323]

A major policy instrument for stimulating industrial development has been provision of infrastructure: railways; roads; transport services; sewer, water and drainage facilities; electricity; and communications. For good reasons many governments have focused on creating one favorable location for

industry before spreading infrasturcture investments to other areas. This meant that the well-established towns (the capitals or major seaports) were most likely to attract industry, because they were the first places to offer these services. But when growth did occur, governments continued to invest in the major cities, just to serve their expanding needs. Thus the gap in services between the major metropolises and other cities tended to widen, making industrial investment in and migration to the big city even more likely. This metropolitan bias in provision of infrastructure has been noted in many countries, including Botswana, Chile, India, Kenya, Nigeria, Philippines, Senegal, and several Latin American nations.[324]

Johnson claims railways have been critical in spurring metropolitan growth, because a rail transportation network generally radiates from the capital or port, although as the network expands it facilitates migration to an increasing number of cities. Highways also tend to converge on the capitals, further facilitating migration to them, as in Burma, Chile, Ghana, India, Nigeria, Peru, Thailand, and elsewhere.[325]

In most nations, the metropolitan areas offer the best access to social services. Given the large demand concentrated in the metropolitan areas, more specialized services can be offered, and the provision of some services may benefit from economies of scale. Further, higher urban wage levels mean that more people can afford the services. Finally, the bureaucrats and politicians themselves form an effective lobby for expansion of the social services. Several surveys show that higher education, health-care services, welfare programs, and other services are concentrated in the largest cities.[326] While this availability attracts and serves industrial enterprises, it also attracts migrants.

More important, however, may be the fact that the educational system, the media, and the administrative systems reinforce the image that the metropolis is "the" center of life and the only place where a modern lifestyle is possible. Formal education channels students into white-collar jobs, available principally in the metropolis. The media broadcasts from and relates primarily to the big city, generally presenting a positive image of urban life. Political favors emante from the metropolis-capital. Several observers conclude that this cultural and political focus on the primate city has increased the probability that innovators, entrepreneurs, and educated youth will migrate to the city.[327]

The most important policies which have pulled industry and migrants to the major metropolises are the industrial investment and incentives programs which encourage entrepreneurs to locate in the most "economic" locations (i.e., those established during colonial days as the centers of trade and political control). Additional infrastructure makes these cities even more attractive to entrepreneurs. The cities have developed and grown, becoming modern metropolises. Hordes of job-seekers have come in response to the cities' economic growth and urban minimum wage laws. The hope for well-paid, secure, prestigious jobs -- available mainly in the major metropolises -- has brought millions of migrants to the world's largest cities.

*Policies designed to cope with rapid urbanization* -- The rapid growth of metropolitan areas through migration and natural increase has created extreme pressures on urban land, services, and job markets. These pressures are manifested as:

> uncontrolled urban sprawl, traffic congestion, pollution, unemployment, crime, proliferation of squatter communities, inability to provide services, and, in general, a fear that living standards could be depressed by further uncontrolled growth.[328]

In response to these problems, metropolitan regions have begun implementing measures designed to control the pattern of growth and cope with the difficulties of providing jobs, shelter, and other amenities to the population.* They have often done so in the face of opposition, lack of resources, and overwhelming problems. Peter Oberlander has aptly described the strains under which these efforts have been made:[329]

> People deciding the future of our cities have to operate under a threefold handicap: Inappropriate time limits, insufficient resources and information, and inadequate or non-existent policy objectives. Yet, despite these universal handicaps, decisions have to be made and

* For information on pracitcal aspects of pulling together projects to explicitly benefit the urban poor. See the valuable reference documents, *Guidelines for Formulation Projects to Benefit the Urban Poor in the Developing Countries* (Vol. I & II) PADCO, prepared for USAID, 1976.

implemented. In fact, no decision may be the most damaging decision of all.

Rather than abdicate responsibility, governments have been implementing a wide range of programs designed to rationalize the process of urban development. This section discusses these attempts to create more employment opportunities, expand the housing options, extend infrastructure and social services to more of the city's populations, rationalize the land use, and, in general, enhance the quality of life. Rather than overtly keeping migrants out, most governments have sought to accommodate them. Although many of the adaptive policies have been discussed in other surveys, the purpose here is to briefly cover the entire spectrum, showing their effect on urban inmigration and migrants.[330]

Until recently it was assumed that the modern sector would ultimately be able to employ all the urban workers. High levels of unemployment and a declining share of the urban labor force in the industrial sector are proving this assumption wrong. In providing alternative employment, governments have suggested or tried:

Expanding the labor-intensive export sector, as in Singapore, Hong Kong, and Taiwan.[331]

Adding relevant job-training programs which link trainees and employers as in Colombia and Tanzania.[332]

Initiating training programs for small-scale entrepreneurs, much like an urban extension service, as in Japan, Nigeria, Swaziland, and as suggested for many countries.[333]

Legitimitizing the role of small-scale entrepreneurs. Instead of discouraging hawkers, venders, and family enterprises, Friedmann and Sullivan, McGee, Hackenberg, and others suggest policies explicitly recognizing and vitalizing the role of the small firm, including programs specially designed to provide credit, marketing support, technical assistance, and market places to family or small-scale entrepreneurs.[334]

Reducing wage floors to rural levels. According to Thorman, this will diminish the pull to the cities by eliminating the factor-price distortions and reducing wage differentials.[335] To the same end, it is suggested that capital subsidies be restricted to corporations producing capital equipment or other selected items.[336]

Expansion and stimulation of the construction industry. Strassman suggests that the construction industry is capable of providing many jobs while requiring little capital and expanding the housing supply.[337] Turner recommends changes allowing a wider variety of housing and construction techniques (e.g., plastic pipes) to permit expansion of the construction industry, thus generating more jobs and houses.[338]

Implementing an urban public works program. According to Shahid Burki, an urban public works program can accomplish several goals, including provision of infrastructure, training, and income redistribution to workers.[339] If the public works program is concentrated in slums and shanty towns, it may help the unemployed migrants. The program is geared primarily to increasing the absorption of migrants and providing them with subsistence until they find other work, rather than offering a permanent solution.

In all the discussions of employment-creation strategies, the importance of shifting away from capital- to labor-intensive forms of production is emphasized. Most researchers agree that vitalization of the small-scale or family-enterprise sector is essential to combating the urban unemployment problem and to productivity absorbing migrants into the city's economy.[340] This requires development of appropriate small-scale technologies and support services. Several agencies are currently attacking this problem and there is optimism that progress can and will be made.[341]

Whether one chooses to provide more modern or more traditional sector jobs, it is important to recognize that providing jobs to alleviate urban unemployment may induce more migration and result in a worsening rather than an improvement of the urban unemployment situation. Because urban job creation also changes the probabilities that migrants will find jobs, one might expect such a worsening as more migrants are attracted to the city. Recently, Todaro has shown that for 14 less developed countries this is precisely what will happen when "substantial" rural-urban real income differentials and chronic urban unemployment exist. The threshold elasticities for migration with respect to the probability of obtaining a job are such that job induced migration will outnumber additional jobs, and the level and rate of urban unemployment will rise. Thus

Todaro concludes that any real attempt to cope with urban unemployment must tackle the rural-urban wage differential before altering the job supply.[342]

There are two basic approaches to solving the housing dilemna: construction of public housing and development of facilities or networks for self-help housing. The public housing approach assumes that the government should, can, and will build more and better housing than the private market. The types of programs undertaken are construction of public rental housing, slum clearance and urban renewal, and housing estates. The self-help housing approach assumes that if given appropriate resources and assistance, the poor will build their own homes. Self-help programs include site and service schemes, transient tent camps, cooperative self-help housing groups, controlled "sanitary" slums, and revision of minimum standards legislation. Despite these differences, both approaches assume that a substantial share of the housing will continue to be built through the private market. Both approaches recognize the need for expanded housing loan services, development of industrialized building components, and general stimulation of the construction industry. These programs are discussed below.

Many countries have developed public housing programs.[343] Most of these efforts have failed, because they were poorly located, built, or designed, and often too costly for the poor. Generally the construction has been piecemeal and inadequate. Some of the failures have been salvaged as hire-purchase schemes for middle-income families, but even then these units have often gone to wealthy, upper-income families. Some programs, notably in Singapore, have achieved some success in terms of low-cost, appropriateness, and popularity.[344] Yet, in Singapore the number of migrants actually helped by public, low-cost housing is small.

Often construction of public housing has been combined with slum clearance programs. This has been seen as the solution to the slum's social by-products by doing away with them easily and quickly with a bulldozer. Yet the problems of evicting the squatters and providing alternative housing have proven to be major snags in virtually all slum-clearance or urban-renewal schemes. The housing provided for the evictees has often been illsuited to their needs, poorly located, and too costly. As a result, many squatters have resisted slum clearance and relocation. If the slums are cleared, the squatters often remain, increasing crowding in neighboring areas.

Abrams describes several such inappropriate schemes.[345] In most cases slum clearance has been of little help, even detrimental to efforts to provide housing, and the programs do not keep migrants from coming, for example as Tobar finds in an Argentine program.[346] In a 1966 study prepared for the U.S. Department of Housing and Urban Development, Abrams makes several suggestions for an appropriate and comprehensive approach to squatter and slum clearance.[347] His focus is on wider provisions for reestablishing communities in new housing or sites.

Several countries have constructed residential estates located some distance from town. These housing estates serve to decongest the city and take advantage of lower land prices outside the city. Yet, several observers have shown that housing estates suffer many of the public housing ills mentioned above, namely poor transportation links, inappropriate design, and high rents. Often the settlement thrives only after the city grows out to meet it; otherwise there has been a tendency for residents to return to the main city, as in Lagos, Lima, Karachi, Manila, Santiago, and elsewhere.[348]

Under various names, including sites-and-services, controlled slum, and sanitary slum, many cities have initiated programs to direct housing monies to their poorest residents. Recognizing problems of public housing, governments have initiated programs which assist families in building their own homes on the sites designated by the government. The city's control over settlement patterns is increased and the assisted families are more able to achieve their housing goals.*

The site-and-service scheme generally involves selection of a location meeting both migrant and city requirements; acquisition of land; provision of main access roads and water, sewer, and electrical trunk lines, limited extension of lateral lines and feeder roads; installation of standpipes, toilet, and wash areas; and sometimes installation of latrine and water facilities on each site. The squatter is given title to a lot, normally smaller than in a standard subdivision, on a leasehold basis, or loans are made available for outright purchase and home construction. Many programs offer

* For further discussion of the social impacts of squatting and self-help efforts, see the section on Impacts to Migrants, Chapter IV, above.

assistance in acquiring construction materials or loans, in organizing group cooperation, in learning construction methods, and so on. The squatters are expected to complete infrastructure, local roads, and their homes. The individual squatter may tailor the home to personal timing, budget, and design constraints. Such self-help housing programs exist in Brazil, Chile, Colombia, Hong Kong, India, Indonesia, Kenya, Malawi, Morocco, Peru, Philippines, Senegal, Turkey, Zambia, and elsewhere.[349] Generally, these schemes are well received by the migrants, aid cities in controlling settlement patterns, and create additional housing at fairly low cost.

Transient tent camps have been suggested for coping with seasonal and "manhood" migrations. Tent camps have been used in Delhi, but they are so overcrowded and poorly maintained that many migrants prefer to sleep in the streets.[350]

Cooperative self-help housing programs are often combined with site-and-service schemes, and are also available to squatter families who wish to improve their existing homes. Such programs may work with individual families, or they may require group involvement. Some make loans for purchase of materials while others provide materials and assistance directly to the squatters. Generally, the participating families combine loan payments and "sweat equity" to gain title to the land and house.[351]

These programs offer varying levels of administrative and technical resources. Turner finds that some of this administration is needless and paternalistic.[352] Comparing two programs in Peru, he finds that the less organized families got their homes up faster and with fewer difficulties than more heavily administered group efforts. Turner claims that if given the resources, particularly loan monies, the approval and acceptance of long-run construction, habitation of homes still under construction, and the promise of title, squatters are quite capable of finding materials, building their homes, and improving their communities.

For coping with housing shortages, the self-help approach is a very promising, low-cost solution. Although some observers claim that self-help programs merely passify the squatters, most feel this approach is the best suited to squatter and migrant needs.[353]

Part of the housing dilemna, according to Turner, is the imposition of high construction standards.[354] These have driven the cost of housing beyond the reach of most households, as well as producing houses less suited to the needs of the lower and middle class. Self-help housing programs are designed to allow the owner-builder to slowly approach safe standards, within his other constraints. Turner suggests that self-help programs can be facilitated by granting greater discretion to the owner as to what is needed and what is not.

Some observers have suggested that use of standardized components may expedite the process of commerical or self-help construction. Ghana, Bolivia, and Nigeria have used roof loans made for the purchase of prefabricated roofs, windows, and doors.[355] The rest of the construction is done on a group, self-help basis. Core housing can be standardized without being prefabricated. Standard plans and directions can be available, allowing the shell of the house to be built quickly. Core houses have been used, for example, in Ghana (for the Volta River resettlement project), India, Puerto Rico, and the Philippines.[356] While some parts are standardized, the owner-builders still have substantial control over the ultimate house layout within the constraints imposed by core.

It was hoped that manufactured housing might not only speed production but also reduce costs. However, a recent survey of several such schemes in the developing world found that costs are actually higher than for traditional construction.[357] Capital-intensive housing production strategies seem ill-suited to the markets and factors prevailing in developing country cities. The survey authors suggest partial industrialization, such as the roof-loan or core house described above. Such programs, using local materials and labor, may reduce housing costs and overcome some of the bottlenecks in construction.

Severe housing shortages exist in most developing country cities. A recent U.S. Agency for International Development survey found that public housing programs meet only a small fraction of the vast need.[358] While the greatest hope lies in self-help schemes, governments must also stimulate increased production of construction materials and expand the supply network.[559] Strassman suggests that innovations (e.g., prestressed ceiling beams) might reduce costs and increase slightly the demand for privately built, middle-income homes.[360] He concludes that the construction sector should account for 8 percent of the gross domestic product and 10 percent of nonagricultural employment.

In a recent survey of housing finance systems in the ESCAP region, Desmond and Prakash

find a great need for institutions specializing in lending for home purchases and improvements.[361] Although a few such institutions exist, they command only a small fraction of total savings and investment. Their ad hoc and uncoordinated efforts are inadequate to meet current housing and infrastructure demands. Desmond and Prakash suggest that housing construction be tied more closely to availability of financing as in Hong Kong, Korea, Iran and Singapore. Where public funds are scarce, governments can rely on the regulation of private savings. The Philippines has proposed such a system,[362] and it has already been adopted with considerable success in Brazil, Chile, Colombia, and Peru.[363]

Of particular importance are programs providing housing money to low-income families. Most commerical loans are for completed homes. Vernez' suggestion of loan improvements for Bogota's pirate settlements has relevance for other situations where new means must be found to fund squatter upgrading. He suggests decentralized savings and loan sources; maximum but no minimum income limits; low or subsidized rates; short-term loans with flexible repayment schedules; loans based on savings in a maximum 6:1 loan/savings ratio; cooperative group loans; and risks taken by central bank, not branches.[364] One popular, low-income loan program is the Operacio Sitio in Chile.[365] Initiated in 1967, this program rationalized all the miscellaneous housing loan programs, allowing families to obtain funds for semi- or completely urbanized sites and for self-built, basic housing to four-story apartment buildings. The homes or lots are purchased from the government, which has planned the use, laid out lots, and installed basic infrastructure. Through this plan both the city and families are able to meet their respective needs for planned growth and housing.

Many programs are being implemented to cope with the severe housing shortages. Of particular importance are the various self-help schemes which allow migrants and natives to utilize their own skills and ingenuity. While shortages and inadequate housing conditions persist, these programs offer hope of reducing the shortages. Such programs are probably not directly instrumental in attracting migrants, but they do help persons who migrate.[366]

The self-help options are not without their disadvantages. This type of construction tends to be low density and uses considerable land. For cities already confronted with service and transportation problems, this only adds to the problem of sprawl. Meier suggests high-speed transit networks to link the communities in a region, but this is a long-range and costly solution.[367] Additionally, without simultaneous expansion of sewage and water facilities, the growth of low-income suburbs rapidly exceeds the serviced area. This adds to both pollution and cost problems. In the long-run it is far more costly to provide sewerage and water facilities to built-up areas, even if residents provide help. The water and sewer problem is serious and growing. To cope with this and other problems, many cities are turning to land-use planning and coordinated provision of infrastructure.

Numerous techiques for controlling urban growth in growth centers and intermediate-size cities are being used in metropolitan areas. (These have been discussed above in the section on "Acquisition and Control of Land Use, Decentralized Urbanization Strategy".) In the metropolitan regions, the problems are larger, older, and the competition for land perhaps fiercer. The political support for rising land prices and speculation is well entrenched. Infrastructure projects may require more long-range and larger scale planning and therefore be more expensive. Larger cities also have more diversity and can experience larger conflict over infrastructure priorities. Although metropolitan regions often command more municipal and national resources (technical and financial), the problems of uncontrolled settlement, exorbitant land rents, and chaotic land-use patterns are in a more advanced state than in intermediate-size cities. As a result, metropolitan regions are likely to adopt more radical solutions, such as new towns or greenbelts.[368]

Some migrants are attracted to the cities by the better educational facilities, health-care services, and access to amenities, and their expectations for these services are much higher than in rural areas. As discussed above, cities have done surprisingly well at providing the desired services.* Migrants and natives have built schools, clinics, and community meeting halls, primarily through a wide network of self-help activities.

Yet a gap between demand and available services remains. In response to the resultant squeeze on social-service resources, a few governments have sought to restrict access to services. In Singapore educational choices are severely limited for children of families with three or more offspring.[369]

* See "Demand for Urban Services, Impacts to the Urban Destinations", Chapter IV.

This educational policy attempts to diminish educational demands by pressuring couples to have fewer children, but its effects on family size and educational demand are still undetermined. In Manila, free education has been restricted to city natives, but no impact on migration has been seen. Using false papers, children continue to enter school and Manila's education budget has soared.[370]

Nonetheless, the gap between the demand for and supply of services is not as large in urban as in rural areas, hence migrants are fairly satisfied. Although they may complain of poor road maintenance and other problems, as in Davao City, Philippines, they are either busy struggling to make a living or cognizant that they are better off than before.[371] Most residents accept the level of services available, given their neighborhood and income. Although some communities launch self-improvement programs, when residents are able to afford better housing, health care, or education, most move to neighborhoods offering (and supporting) better services.

Attributing rising unemployment and pressure on services to heavy inmigration, some cities have implemented specific measures for curtailing this movement. The most extreme policies restrict admission to the city. Indonesia, Italy, and China have all implemented programs limiting inmigration to persons registered as having employment waiting for them.[372] China's policy worked fairly well, Djakarta's system only increased corruption (with perhaps a slight reduction in inmigration), and Italy's was blatantly ignored.

For whatever political, administrative, or financial reasons, Cambodia has recently forced its urban inhabitants out into the country side.[373] Movement in the country is controlled by means of a series of check points and identification cards. It is too early to determine if this method will achieve redistribution of the population, but it certainly is one way of starting off with a clean slate for urbanization.

Cities have also restricted access to housing, education, or market licenses.[374] By making life more difficult for migrants, local governments have hoped to deter entry. These programs have failed to substantially slow migration, because they are difficult to enforce. Licenses are easily forged, monitoring the entire city is costly and time-consuming, and evicted persons can return. In the absence of tight control over all aspects of society -- as in China -- mechanisms to restrict or deter migration into the cities have not worked.

All of the government programs discussed above cost money. As local governments have expanded the range of policies influencing the quality of urban life, they have been confronted with several problems. These are summarized in an informative study by INTERMET as:[375]

> Local governments have been unable to finance all their programs. The major local revenue sources have been property and income taxes and user charges, both of which have been inadequate. Revenue-sharing, conditional and unconditional grants, and loans from the central government have assumed major significance as local revenue sources.
>
> As the central government's financial aid to local governments increases, so does central political and administrative control. Metropolitan growth is often more influenced by the national than local government. There is little effective and equal participation in decisions pertaining to municipalities.
>
> Among the problems making it more difficult for local governments to cope are overlapping jurisdictions and, in metropolitan areas, no single governmental authority capable of unifying planning and programming.
>
> An additional problem is the lack of an adequate machinery for intergovernmental negotiation and review of fiscal and financial problems within the context of metropolitan <u>and</u> national priorities.

The study suggests reorganization of local governments to permit unified regional planning and delivery of services; fostering equal participation of local and national governments in program decisions; expansion and diversification of the local revenue base (through more progressive property and income taxes and adoption of local sales and other taxes); and increased revenue sharing (especially for major investments). Similar recommendations are echoed in the PADCO study of administration in Latin

America.[376] This latter study makes some specific recommendations concerning financing, including better mobilization of private funds for investment consistent with government programs, and greater use of project (as opposed to departmental) funding.

Given the problems faced by local governments, it is not surprising that the most effective programs for coping with urban growth rely on a high level of individual initiative and participation. Assistance for small-scale entrepreneurs, site-and-service schemes, and self-help housing and community development programs are viewed with optimism.[377]

Local governments have also recognized the need to exert greater control over the direction and type of growth. They are turning to land-use planning, land banking, municipal and urban development corporations, and integrated social, economic, and physical planning. These programs are basically aimed at guiding private, cooperative, and individual efforts by defining the areas and timing of development.

This linkage of self-help with metropolitan planning efforts is regarded as a promising way of coping with and directing urban growth. It is recognized that blocking migration and destroying slums do not promote orderly urban development.

The lack of rural employment opportunities, combined with the growth of the industrial and modern sector in metropolitan areas, has channeled migration into the primate cities of the developing world. By supporting industrial entrepreneurs, many cities have prospered and become modern metropolises. Even when unemployment has soared, migrants have continued to flow into the large cities because opportunities seemed better there than elsewhere.

This growth of metropolitan areas has been a mixed blessing. It has enabled the establishment and growth of much needed local industry. The metropolitan areas have also become the locus for highly specialized activities such as medical research or data analysis, functions which might otherwise not be feasible. But the growth has also been accompanied by congestion, pollution, and deterioration of the living environment. In some cases, citizens who see their opportunities and lives threatened by the floods of migrants have pressed for means to exclude or deter them. Most of these efforts have not worked.[378]

Yet metropolitan governments must still cope with their population growth. In doing so they have gone into debt providing infrastructure, housing, teachers, and doctors. In response to the sprawl, congestion, crime, and squatter settlements, programs have been implemented to "clean-up" the cities, eradicate the slums, and provide housing in new towns outside the main city. But these efforts have not worked: squatters have returned, congestion has grown, and new towns have generally been financial disasters. Recognizing that new approaches are necessary, municipal governments are turning to programs involving regional and metropolitan planning and coordination, greater control over private land development, support for self-help efforts, and site-and-service projects. Essentially, the urban industrialists and residents are being asked to pay for a larger share of the services they receive. Simultaneously, efforts are being made to increase funding from the central government and expand coordination of urban and national programs. These changes may better prepare municipal governments to deal with their growth.

## *CONCLUSION AND INTEGRATION OF THE POLICY STRATEGIES*

This survey of migration policies highlights several key considerations. First, population distribution, migration, and urbanization are influenced by an incredibly wide range of governmental policies. Second, most of the influence is indirect and often unintentional. Third, many of the policies such as the "green revolution" and rapid industrial development work in tandem, having a larger joint impact than possible separately. Fourth, the policy effects are sometimes lagged, not occurring or discernible immediately. Fifth, and probably most crucial to subsequent policymaking, it is clear that the lack of a decision about migration is a decision in itself. Even in the absence of a conscious policy on population distribution, national agricultural and urban development policies constitute a migration strategy.

The de facto rural outmigration and urban inmigration strategy prevailing in most countries has been the product of capital-intensive agricultural and industrial development programs. Confronted with the resultant problems of crowded cities and rural impoverishment, many nations now recognize that it is time to explicitly change existing migration patterns. In a recent U.N. survey of 98 less developed countries, 50 percent of the nations surveyed consider the present levels of metropolitan growth excessive. To divert migrants from metropolitan regions, integrated rural development, dispersed urbanization, and regional development

programs are now being implemented in 75 percent of the countries responding.[379]

The main point arising from this survey is that population distribution and development efforts are intimately linked. Population distribution can help or hinder efforts to achieve development goals. The following assumptions suggested by Pryor may be helpful in identifying some of these linkages, as well as potential policy mechanisms.[380]

- Urbanization is a necessary but not sufficient condition for modernization and economic development.
- Appropriate policies can direct rather than exacerbate urban regional growth.
- All regional strategies must be planned jointly.
- Programs can be implemented to effectively redistribute at least a proportion of existing and future populations, but broad based investment in infrastructure and human resources is necessary, i.e., the programs are not necessarily cheap.
- Sectoral policies regarding agriculture, manufacturing and social planning needs are major mechanisms for achieving changes in the rural-urban balance.
- Regional equity may not be appropriate or feasible, given regional resource mixes.
- Political bases may need to be broadened and strengthened, i.e., population redistribution implies a redistribution of power.
- Excessive rates of metropolitan growth in the Third World justify short-term direct redistribution programs, but in the long-run regional economic, technological and fertility control measures are integral to achieving a population distribution congruent with development goals and needs.

Perhaps the greatest task confronting planners attempting to alter the migration pattern is coordinating the vast number of policies which influence migration. The simple word "coordination" hides a multitude of decisions, programs, meetings, and negotiations at all levels, covering the full scope of development policies. This task may be nearly impossible but nonetheless is one that must be confronted in shaping national growth policies.

## FOOTNOTES

1. Cornblit (1967:7:7)
2. See Bergsman (1973) and Hardoy (1973)
3. Griffin (1973:240-241)
4. Ibid.:243-244
5. Ibid.:246-248 See also Dorner (1972:25-27)
6. Examples of small farmers and tenants who have been forced to sell out or leave are:

| Country | Citation |
|---|---|
| India, Pakistan Thailand, Philippines, Ivory Coast | Griffin (1973:248-250) |
| Ethiopia | Cohen (1974) |
| Chile | Shaw (1974:123-130) |

7. Griffin (op.cit.:250). Griffin cites India, Philippines, Thailand, and Pakistan as nations where low rural wages have been significant factors pushing labor out of rural areas.
8. Dorner (1972:17)
9. Montgomery (1974:10). Barraclough's (1973) analysis of Latin American reform also support Montgomery's findings.
10. Griffin (1973:246-249)
11. Ibid.:249-251. For the Ethiopia reference see Cohen (op.cit.)
12. Dorner (1964)
13. Insecurity of tenure as a limit on adoption of innovations is shown by:

| Country | Citation |
|---|---|
| Colombia (real reason is the excessive title cost) | Arevalo-Salazar (1972) |
| India | Dorner (1972:26-27) |
| Malaysia | Huang (1973:1242) |
| General | Owens and Shaw (1972: 87-89) |

14. Studies showing rising rural unemployment in areas with highly inequitable land distributions are:

| Country | Citation |
|---|---|
| Nigeria, Central America, Guatemala | Dorner (1972:94-100) |
| Chile, Bolivia, Peru, Brazil, Mexico | Shaw (1974:123-130) |

15. Kocher (1973:23) for Bangladesh and Pakistan, Owens and Shaw (1972:76-81) for India.

*FOOTNOTES (continued)*

16. Studies showing the negative impact on small farmers of credit restrictions are:

| Country | Citation |
|---|---|
| Latin America | Pearse (1970:201-209) |
| Mexico | Streeter (1973:9-11) |
| India | Owens and Shaw (op.cit.) |
| Africa, Kenya | Lele (1974:59-78) |

17. Unavailability of credit to small holders or tenants as a cause for outmigration has most explicitly been shown for Chile by Shaw (1974:123-130). These findings are confirmed by:

| Country | Citation |
|---|---|
| Guatemala | Schmid (1967) and Griffin (1973:245) |
| India, Pakistan, Mexico, Philippines | Griffin (1973:244-246) |
| Ethiopia | Cohen (1974:584-613) |
| Botswana | Holm (1973) |
| Colombia | Grunig (1969) and Adams (1969) |
| Kenya | Lele (op.cit.:59) |
| Mexico | Cook and Cook (1972:7-9) |
| Sub-Sahara Africa, | Eicher et al. (1970:32) |
| Tanzania, Ivory Coast, Kenya, Malawi, Nigeria | Eicher, et al. (1970:10) |

18. Studies showing that emphasis on capital-intensive development of cash crops has led to a decline in rural employment opportunities and outmigration are:

| Country | Citation |
|---|---|
| India | Lele and Mellor (1973:3) |
| Pakistan | Child and Kaneda (1975: 262) |
| Ethiopia | Tendler (1973:117-118) |
| Africa | Boserup (1970), Eicher, et al. (1970:33-34), and Todaro (1969) |

19. Griffin (1973:245) and Dorner (1972:26)
20. Ibid.

21. Owens and Shaw (1972:56-57)

22. Subsidized mechanization has led to outmigration in:

| Country | Citation |
|---|---|
| Nigeria | Byerlee (1971) |
| Ethiopia | Lobstein (1970:171-199) |
| India, Philippines, Thailand | Griffin (1973:247-250) |

22. (Cont.)

| Country | Citation |
|---|---|
| Brazil, Mexico, Colombia | Owens and Shaw (1972: 56-62) |
| Honduras | Brunn and Thomas (1971: 66) |

23. Owens and Shaw (1972:107)
24. Examples of countries adopting urban-focused, import-substitution industries are:

| Country | Citation |
|---|---|
| Nigeria | Kocher (op.cit.:28-30) |
| Brazil | Diaz-Alejandro (1972) |
| India, Colombia | Owens and Shaw (1972: 114-115) |

25. Owens and Shaw (1972:107)
26. Industrial decentralization without significant employment generation is found in:

| Country | Citation |
|---|---|
| India | Johnson (1970:254) |
| Mexico, Pakistan | Haissman (1973:10-24, 79) |

27. Haissman (1973:15-29)
28. Kulkarni, ed. by Sen (1972:115-116). See also Johnson (1970).
29. Owens and Shaw (1972:111). For further discussion of problems of small pump manufacturers in Pakistan see Child and Kaneda (op.cit.)
30. Eicher, et al. (1970:7-15)
31. Friedmann and Sullivan (op.cit.)
32. Byerlee (1972:13)
33. Kocher (1973:29). Lele (1974:84) discusses problems with the Malawi marketing board.
34. Eicher et al. (1970:7)
35. Kocher (op.cit.:29)
36. Eicher, et al. (1970:28)
37. Thormann (1970:127-147)
38. See Chapter III, footnote 44 and Chapter V, footnote 22.
39. Evidence for outmigration due to protected wages in urban and rural areas is given by Todaro (1973:163-164) and Thormann (1970:127-147).
40. Examples of nations where the lack of amenities in rural areas has led to outmigration are:

| Country | Citation |
|---|---|
| Africa, Nigeria | Eicher et al. (1970:12) |
| Mexico | Haissman (op.cit.) |
| Israel | Weitz (1968:12-19) |
| India | Sen (1972:27-33) |
| Peru | Castillo, et al. (undated) |
| Honduras | Brunn and Thomas (1971) |
| Turkey | INTERMET/IDRC (op.cit.) |

Also see footnote 74, Chapter III.

*FOOTNOTES (continued)*

41. Johnson (1970:194-298)
42. For examples of the lack of rural development correlated with inadequate infrastructure service facilities, see:

| Country | Citation |
|---|---|
| Mexico | Cook and Cook (1972:45) |
| Peru | Castillo, et al. (op.cit.) |
| Honduras | Brunn and Thomas (op.cit.) |
| India | Johnson (op.cit.) |
| Bangladesh, Pakistan | Kulp (1970:144-168) |
| Thailand | Montgomery (1972:2) |
| Malawi, Ethiopia, Niger, Cameroon | Lele (op.cit.:84-106) |
| Sri Lanka | IDRC (1974:63) |

43. Eicher, et al. (1970:44-49). Some of the countries without family planning programs in rural areas as of 1970 were: Kenya, Ghana, Tanzania, and Uganda. Nortman (1972:32-33) shows that very few African nations have family planning clinics in rural areas. Prachuabmoh (op.cit.) also cites this unavailability of family planning services as a problem in Thailand.
44. Berelson (1974:24)
45. Expansion of formal education in rural areas has stimulated outmigration in:

| Country | Citation |
|---|---|
| Argentina | Wilkie (1971:106-7) |
| Nigeria | Akinbode (1971) |
| Ghana | Caldwell (1969:85) |
| Brazil | Wilkening (1968) |
| Honduras | Brunn and Thomas (op.cit.) |
| Egypt | Abu-Lughod (1969:376-388) |

46. Schultz (1969:55-56)
47. The following studies have explicitly examined the problems of refugees:

| Country | Citation |
|---|---|
| Vietnam | Hien (1973:3-7) |
| Nigeria | Duru (1971) |
| India | Bose (1972) |

48. Waterston (1974)
49. Owens and Shaw (op.cit.:99-100)
50. Streeter (1973:13)
51. Ensminger and Roy, in Sen (1972:17)
52. Owens and Shaw (1972:76-81). See also Carroll (1971:199-249)
53. Ibid.:21
54. As of 1974, governments with integrated rural development programs explicitly designed to slow rural-urban migration:

| Country | Citation |
|---|---|
| India | Sen (1972:4) |
| Thailand, Philippines | Pryor (1974:12-15) |
| Nigeria (suggested) | Johnson (1970:356-360) |
| Israel | Weitz (1968) |
| Pakistan | Gov't of Pakistan (1974) |

54. (Cont.)

| Country | Citation |
|---|---|
| Colombia | Streeter (1973) |
| Kenya | Heyer, Ireri, and Moris (1971) |
| Costa Rica and Mexico | Owens and Weiss (1974) |
| Tanzania | Lele (1974) |

Other programs have been initiated since 1974, many with a goal of slowing rural-urban drift, including those in Nicaragua, Niger, Senegal, and Sri Lanka. For more discussion of integrated rural development programs see Rondinelli and Ruddle (op.cit.:29-93).

55. Dorner (1972:19). For empirical support see Montgomery (1974)
56. Montgomery (1974)
57. Pryor (1974)
58. Clayton (1970:435)
59. Dorner (1972:49-57)
60. Owens and Shaw (op.cit.:89)
61. Development Alternatives, Inc. (1975: 1-4)
62. Arevalo-Salazar (1972)
63. Clayton (op.cit.:447)
64. Mathiason and Shearer (1967)
65. Clayton (op.cit.)
66. Owens and Shaw (op.cit.:87-89)
67. Gilette and Uphoff (1973:7)
68. See Carroll (1973:263-279) for a discussion of group credit program elements.
69. Ibid. See also U.S. Agency for International Development -- *Spring Review on Small Farmer Credits, Analytical Papers*, Vol. XIX, No. SR119, June 1973, and Tinnermeier and Dowswell, "Small Farmer Credit", A/D/C Research and Training Network, Workshop Report No. 1, March 1973, for detailed analyses of the goals, advantages, and disadvantages associated with small farmer credit programs.
70. Streeter (1973)
71. Development Alternatives, Inc. (1975)
72. Lele (1974). Additional examples of small farmer credit programs are found in U.S. Agency for International Development -- *Spring Review on Small Farmer Credit, Country Surveys*, Vol. XVII, 1973.
73. Studies showing production gains associated with small farmer credit are:

| Country | Citation |
|---|---|
| Bolivia, Ecuador, Colombia, Mexico, Paraguay | Development Alternatives Inc. (1975) |
| Uganda, Peru, Chile, Brazil, Mexico | Carroll (1973:269-278) |

*FOOTNOTES (continued)*

73. (Cont.)

| Country | Citation |
|---|---|
| Ethiopia | Cohen (1974:590-614) |
| Taiwan, Uganda, Bangladesh, Brazil, Venezuela, Sri Lanka, Philippines, Kenya, Thailand, Tanzania, | Owens and Shaw (1972:76-83) |
| Colombia, Brazil | Thrisk (1974:19-20) |
| Mexico, Colombia, Brazil, El Salvador, India, | Streeter (1973) |
| Mexico, India Bangladesh | Adams and Cloward (1972:9-14) |

74. Streeter (op.cit.:12)
75. Owens and Shaw (op.cit.)
76. Eicher, et al. (1970:35)
77. Heyer, et al. (1971:105-107) make this suggestion for Kenya.
78. Streeter (op.cit.)
79. Examples of improved seed programs are found in:

| Country | Citation |
|---|---|
| Mexico | Streeter (op.cit.) |
| Bolivia | Development Alternatives, Inc. (1975) |
| Kenya, Morocco, Tunisia, Nigeria, | Griffin (op.cit.) |
| Sri Lanka | Owens and Shaw (op.cit.) |

80. Heyer, et al. (1971:107-110). See also Owens and Shaw (op.cit.), Streeter (op.cit.), and Lele (1974:54-55), each of whom give country examples of the agent bias for working with the villages and farmers who make more progress.
81. Those suggesting the use of model farmers as agents are:
    Lele (1974:54-56)
    Streeter (op.cit.)
    Choldin (1972:671-690)
    Kulp (1970:412-413)
    Belloncle and Gentil, in Lele (1974: 57-58)
82. Development Alternatives, Inc. (1975)
83. Some of the nations which have improved seed programs for part or all of the nation are:

| Country | Citation |
|---|---|
| Mexico, Colombia, Bolivia | Development Alternatives, Inc. (1975) |
| El Salvador, Kenya | Streeter (op.cit.) |

83. (Cont.)

| Country | Citation |
|---|---|
| Ethiopia, Cameroon | Lele (1974:54) |
| Bangladesh | Choldin (op.cit.) |
| Malaysia | Kulp (op.cit.:130) |
| Mali, Upper Volta, Benin, Senegal | Lobstein (1970:171-199) |

84. Examples of authors hypothesizing that labor-intensive techniques might slow the migration resulting from non-labor-intensive techniques are:
    Todaro (1971:387-414)
    Oshima (1964)
    Waterston (1974)
    DeWilde (1971)
    Pryor (1974)
    Griffin (1973)
    Eicher et al. (1970)
85. Griffin (op.cit.:243-246)
86. Examples are:

| Country | Citation |
|---|---|
| Japan, Taiwan | Oshima (op.cit.) |
| Philippines | Streeter (op.cit.) |
| India | Mellor (1969) |

87. United Nations (1973:220)
88. Selected tractor use has increased output in:

| Country | Citation |
|---|---|
| Thailand | Mukai (1970:453-74) |
| Japan, Thailand | Oshima (op.cit.) |
| Philippines | Streeter (op.cit.) |
| Mali, Ivory Coast | DeWilde (1971) |
| Uganda, Kenya | Clayton (1970) |
| Morocco | Griffin (op.cit.) |

89. Makanjoula (1971) cites the lack of mechanization as a major source of the drudgery pushing youth out of agriculture in Nigeria.
90. Examples of some small-scale implement and pump programs are:

| Country | Citation |
|---|---|
| Gambia, Tanzania, | Eicher et al. (1970:25) |
| Taiwan | Oshima (op.cit.) |
| Pakistan | Child and Kaneda (op.cit.) |
| Bangladesh | Choldin (op.cit.) |

91. These evaluations have been made by:
    Oshima (op.cit.), Pryor (1974), and Eicher (1972)
92. Johnson (1970:235-241)
93. UN, ECE (1972)
94. Johnson (op.cit.:235-241)

*FOOTNOTES (continued)*

95. Countries with coordinated road building programs are:

| Country | Citation |
|---|---|
| Thailand, Philippines | Pryor (1974) |
| India | Sen (1972) and Johnson (1970:336-340) |
| Nigeria | Poleman (1972). See also Johnson (1970:359) |
| Malaysia | Kulp (op.cit.:131-142) |
| United States | Hansen (1971) |
| Yugoslavia, Israel | Johnson (op.cit.:281-310) |

96. See Johnson (op.cit.:235-241) and Weltz (1971:118) for more detailed accounts of how farm-to-market roads will ease migration pressures.
97. Caldwell (op.cit.)
98. Gonzmart (1966)
99. A few examples of countries with rural water development programs:

| Country | Citation |
|---|---|
| Ethiopia | Tecle (1974:10-15) |
| Bangladesh | Choldin (op.cit.) |
| Malaysia | Kulp (1970:132-139) |
| Thailand | Pryor (op.cit.) |
| Colombia | Adams (1969) |
| Bolivia, Ecuador | Development Alternatives, Inc. (op.cit.) |

100. Carson, Rivkin, and Rivkin (1973)
101. Johnson (op.cit.:271-273)
102. Ibid.
103. Carson, Rivkin, and Rivkin (op.cit.)
104. Market places have been built, for example, in:

| Country | Citation |
|---|---|
| Mexico | Cook and Cook (1972:7-8) |
| Malaysia | Pryor (1974) |
| India | Johnson (op.cit.:335-342) |

105. Ibid.:228
106. Shaw (1974:215-228)
107. Lele (1974:84-91)
108. Examples of governments building market facilities are:

| Country | Citation |
|---|---|
| Malawi, Nigeria, Ethiopia | Lele (op.cit.:84-91) |
| Mexico | Cook and cook (1972:7-8) |
| Bolivia | Development Alternatives, Inc. (op.cit.) |
| Malaysia | Pryor (1974) |
| Pakistan | Gov't of Pakistan, Ministry of Food, Agriculture and Rural Development (1974) |
| Taiwan | Owens and Shaw (op.cit.: 89-99) |

109. Studies showing profits going up with improved marketing include:

| Country | Citation |
|---|---|
| Taiwan, Japan | Owens and Shaw (op.cit.) |
| Mexico | Cook and Cook (op.cit.) |
| Colombia | Development Alternatives, Inc. (op.cit.:4-23) |
| India | Johnson (op.cit.:310) |
| Malawi | Lele (op.cit:84-91) |

110. Both suggested by Lele for African markets. See also Joshi, Lubell and Monly (1976:40-42) for an example of this in Abidjan.
111. Development Alternatives, Inc. (op.cit.: G-15-19)
112. Examples of countries which have improved marketing service programs are:

| Country | Citation |
|---|---|
| Mexico | Cook and Cook (op.cit.) |
| Bolivia, Ecuador, Paraguay, Colombia | Development Alternatives, Inc. (op.cit.) for ASAR/ARADO in Bolivia, F.E.C.O.A.C. in Ecuador, and ICA in Colombia |
| India, Israel | Johnson (op.cit.) |
| Malaysia, Thailand, Philippines | Pryor (1974) |
| Malawi, Ethiopia, Kenya, Nigeria | Lele (op.cit.) |

113. For studies showing the importance of supportive marketing services see sources cited in footnote 109.
114. See discussion of the ICA Rural Development Pilot Project in Eastern Cundinamarca, Colombia, in Development Alternatives, Inc. (op.cit.:H-11)
115. Weitz (1971:89-149) discusses this for Israel. The Indian study (Sen, op.cit.) also assumes that development of market towns and facilities will slow outmigration.
116. Those suggesting educational reform to slow rural outmigration:

| Country | Citation |
|---|---|
| Africa, general | Todaro (1971:387-414) |
| General | Coombs and Ahmed (1974:10-26) |
| Africa | Lele (1974:144-158) and Eicher, et al. (1970) |

*FOOTNOTES (continued)*

116. (Cont.)

| Country | Citation |
|---|---|
| Latin America | Orrego de Figueroa (1974) and Herrick (1971) |
| Colombia | Adams (1967) |
| French West Africa | Lobstein (1970:171-199) and Lethem (1974) |

117. Rural curriculum reforms have occurred in:

| Country | Author |
|---|---|
| Benin, Upper Volta, Mali, Nigeria | Lobstein (1970:180-182) |
| Senegal | Lethem (1974) |
| Kenya | Heyer, et al. (1971:116) |
| Peru | Gali (1974) |
| Colombia, India, Korea, Thailand | Coombs and Ahmed (op.cit.) |

118. Pryor (op.cit.)
119. Lobstein (op.cit.)
120. Lethem (op.cit.)
121. Village polytechnical programs have been suggested or implemented in:

| Country | Author |
|---|---|
| Kenya | Heyer, et al. (1971) |
| Colombia | Adams (1969:527-539) |
| Latin America | Barraclough (1970:118-119) |
| Bolivia | DESEC in Bolivia, described by Development Alternatives, Inc. (op.cit.) |
| Nigeria, Tanzania | Owens and Shaw (op.cit.: 130-131) |
| Kenya, Senegal, Thailand | Coombs and Ahmed (op.cit.: 22-88) |

122. Development Alternatives, Inc. (op.cit.)
123. Streeter (op.cit.)
124. Lele (op.cit.:101-102) shows that Kenya and Tanzania are now saddled with disproportionate recurrent expenditures for education and health. To reduce these costs, Heyer et al., have suggested that Kenya make greater use of the nonpublic harambee schools and of paratechnic educational assistants, especially for teaching rural vocational skills.
125. For discussion of the theory behind leadership training see Owens and Shaw (op.cit.:22-28) and Kulp (op.cit.:65-99). For examples, see Miller (1974) on the PIDER program in Mexico, Kulp (op.cit.:131-142) for Malaysia, and Montgomery (1973) for Thailand.
126. Hirschman (1970)
127. Futuro par las Ninez in Colombia, ICE in Bolivia, Plan Maize in Mexico, and Vicos in Peru, all described in Development Alternatives, Inc. (op.cit.). Mexico's PIDER also uses this approach. (Owens and Weiss, (op.cit.))
128. Lele (op.cit.)
129. Kulp (1970:103-186)
130. Krug, Schwarz, and Bhakdi (1973:8-23)
131. Examples of countries having multipurpose cooperatives providing training are:

| Country | Author |
|---|---|
| Bangladesh, Taiwan | Kulp (op.cit.:161-168, 113-121) |
| India, Thailand, Philippines, Uganda, Tanzania, Kenya | Owens and Shaw (op.cit.: 80-83) |
| Guatemala | Fledderjohn (1972) |
| Bolivia, Ecuador, Paraguay | Development Alternatives, Inc. (op.cit.) |
| Philippines, Senegal, Tanzania | Coombs and Ahmed (op.cit.:66-85) |

132. See discussion of Colombia's Futuro par las Ninez in Development Alternatives, Inc. (op.cit.)
133. Lethem (1974:26)
134. Lobstein (1970:180-183)
135. The following show that rural education with participatory training may slow migration:
   Weltz (1971:81-109)
   Owens and Weiss (1974)
   Owens and Shaw (1972)
   Kulp (1970:187-197)
136. Lele (op.cit.:190)
137. IDRC (1974:51-55)
138. Ibid.
139. Lele and Mellor (op.cit.). See also Poleman (1972)
140. Examples of countries with rural clinics are:

| Country | Author |
|---|---|
| Thailand, Colombia, Venezuela | IDRC (1974:58-64) |
| Bolivia | SEPSA in Bolivia, Development Alternatives, Inc. (op.cit.) |
| Malaysia | Pryor (1973) |
| Cameroon (ZAPI) | Lele (op.cit.:105-106) |

141. Examples of countries with rural self-help housing are:

| Country | Author |
|---|---|
| Mali, Togo, Zambia | DeWilde (1971) |
| Morocco | Jackson and Turner (1973: 318) |
| Bolivia, Peru | VIPO in Bolivia and RDD in Peru, Development Alternatives, Inc. (op.cit.) |
| United States | Self-help Housing, Inc. (Rural Housing Alliance, 1975) |

142. For a discussion of the rationale for public works programs see:
Waterston (op.cit.)
Lele and Mellor (op.cit.)
Jackson and Turner (op.cit.)

143. Examples of countries which have rural public works programs are:

| Country | Author |
|---|---|
| Morocco | Jackson and Turner (op.cit.) |
| Pakistan | Inayat (1974) |
| Philippines | Laquian (1972:15) |
| Bangladesh | Choldin (op.cit.) |
| Thailand, Malaysia | Pryor (1974) |
| India | Lele and Mellor (op.cit.) |
| Benin | Lobstein (op.cit.) |
| Upper Volta | Byerlee (op.cit.) |
| Kenya, Uganda | Holmquist (1972:62-67) |
| Senegal, Mali, Ghana | IDRC (op.cit.:51-63) |
| Peru | Dozier (op.cit.:64-132) |

144. Jackson and Turner (op.cit.:318)
145. Weitz (1971:131)
146. Johnson (op.cit.:255-256)
147. Examples of countries with decentralization programs are:

| Country | Author |
|---|---|
| Thailand, Malaysia, Philippines | Pryor (1974) |
| Taiwan, Puerto Rico | Johnson (op.cit.) |
| Swaziland | Vakkuri (1975:11) |
| Mexico | Haissman (1973) |
| Peru | Dozier (op.cit.:64-132). See also RDD in Development Alternatives, Inc. (op.cit.) |

147. (Cont.)

| Country | Author |
|---|---|
| Nigeria, Israel, Turkey | Weitz (1971:132-138) |
| India | Malgavkar and Ghiara, in Sen (op.cit.:315) |

148. Haissman (op.cit.:80)
149. Weitz (1971:150-151)
150. See Todaro (1971), Freidmann and Sullivan (op.cit.), and Lele and Mellor (op.cit.)
151. Barraclough and Schatan (1973:182-185)
152. Barraclough (1970:116-117)
153. Lele (op.cit.:81-91)
154. Eicher, et al. (op.cit.), Kocher (op. cit.:29), and Barraclough and Schatan (op.cit.) each suggest the reduction of agricultural export taxes.
155. Examples of countries in which price supports have been adopted include:

| Country | Citation |
|---|---|
| Sri Lanka | Weitz (1971:99-100) |
| Ethiopia, Malawi, | Lele (op.cit.:84) |
| Kenya | Heyer et al., (op.cit.:105) |
| Mexico | Cook and Cook (1972:7-8) |

156. Researchers suggesting progressive taxation include:

| Country | Citation |
|---|---|
| Latin America | Barraclough (1970:118-120) Diaz-Alejandro (1972), and Cline (1972) |
| Africa | Todaro (1971:903) |
| Asia | Desmond and Prakash (op. cit.) |

157. Countries which have implemented tax reforms are:

| Country | Citation |
|---|---|
| Kenya | Todaro (1971:403) |
| Thailand | Pryor (1974) |
| Taiwan | Owens and Shaw (op.cit.: 45-47) |

158. See Cline (1972:183) and Diaz-Alejandro (op.cit.)
159. Todaro (1971:403)
160. Pryor (1974)
161. Todaro (1971:403)
162. See the World Bank, Rural Development, Sector Working Paper
163. Lobstein (1970:179)
164. Todaro (1971:403). See also Thormann (1970:145). Lele (op.cit.:130-134) also finds that local control of budgets would greatly enhance cost-effectiveness allocations in Kenya and Tanzania.

165. Examples of countries for which a rural-based minimum wage are suggested are:

| Country | Author |
|---|---|
| Jamaica | Tidrick (1975:322-324) |
| French West Africa | Lobstein (op.cit.:179) |
| Morocco | Jackson and Turner (op. cit.:339) |

166. See Kulp (op.cit.:104-121) and Weitz (1971:150-151)

167. For a discussion of administrative problems in implementing rural development programs see:

| Country | Citation |
|---|---|
| Thailand | Montgomery (1973), and Krug, et al., (1973) |
| Malaysia | Kulp (1970:123-142) |
| General | Ilichman (1973) |
| General review | Rondinelli and Ruddle (1976:147-164) |

168. Rondinelli and Ruddle (1976:48-58). This study provides an excellent analysis of the spatial aspects of rural development; interested readers are referred to its detailed coverage of recent rural development programs.

169. Countries which have implemented land settlement programs are:

| Country | Citation |
|---|---|
| Thailand | UNECAFE (1967) |
| Venezuela | Mathiason and Shearer (op.cit.) |
| Tanzania | Lele (op.cit.:134-138) |
| Kenya | Clayton (1970:439-443) |
| Ethiopia (WADU) | Tecle (op.cit.) |
| Philippines | INTERMET/IDRC (1973:188-189) |
| Mali, Niger, Ghana, Togo, Upper Volta (with eradication of river blindness first) | IDRC (1974) |

Those with colonization schemes are:

| Country | Citation |
|---|---|
| **With construction of penetration roads:** | |
| Brazil | Sanders (1973a) and Sawyer (1967) |
| Peru, Colombia, Bolivia, Ecuador | Stohr (1972) |
| **In mineral-rich areas:** | |
| Chile, Venezuela, Cuba | Stohr (op.cit.) |

169. (Cont.)

| Country | Citation |
|---|---|
| **With irrigation or river basin development:** | |
| India, Nigeria, Ghana, | Johnson (op.cit.) |
| Peru, Brazil, Colombia, Ecuador, Uruguay, Argentina, Paraguay, Bolivia | Stohr (op.cit.) |
| Benin | Lobstein (op.cit.) |
| Sudan | Dorner(op.cit.:52-53) |
| Mexico | Cardenas (1972) |
| Philippines | Juppenlatz (op.cit.:188-196) |
| United States | Hansen (1971) |
| **In general:** | |
| Costa Rica, Bolivia, Mexico, Ecuador, Peru, Paraguay | Casals, et al. (1970:64-95) |

170. Examples of countries colonizing borders for defense purposes are:

| Country | Citation |
|---|---|
| Argentina, Peru, Chile, Colombia, Brazil, Mexico, Guatemala, Paraguay, Venezuela | Stohr (op.cit.) |
| Israel | Weitz (1971) |

171. Casals, et al. (1970:47-48)

172. Ingersoll et al. (1976) provides an excellent annotated bibliography on resettlement projects and problems. Also of particular use is the American Geophysical Union's monograph *Man Made Lakes: Their Problems and Environmental Effects* Monograph No. 17, Washington, D.C., 1973. Studies which review land settlement programs (irrigation or colonization) are:

| Country | Citation |
|---|---|
| Peru, Mexico, Bolivia | Dozier (1969) |

172. (Cont.)

| Country | Citation |
|---|---|
| Malaysia | Johnson (1970:393-399) |
| Sri Lanka, Philippines, Malaysia | INTERMET/IDRC (1973:184-189) |
| Latin America | Casals et al. (1970) |
| Africa | Lele (op.cit.) |
| Nigeria | Roider (1971) |
| Mexico | Cardenas (1974:143-150) |
| Philippines | Juppenlatz (1970:188-196) |
| Surinam, Malaysia | vanDusseldorp (1971) |
| Sudan, Kenya | Dorner (1972:52-53) |

173. Mathiason and Shearer (op.cit.)
174. Sanders (1973a)
175. Casals, et al. (op.cit.:19)
176. Lees (1974)
177. Casals, et al. (op.cit.:20)
178. Ibid.:21-22
179. Dozier (op.cit.:117-132). See also Casals, et al. (op.cit.:48-50)
180. Casals, et al. (op.cit.:48), and Johnson (op.cit.:393-399)
181. Dorner (1972:52-53)
182. Clayton (op.cit.:442)
183. Mathiason and Shearer (op.cit.)
184. Clayton (op.cit.:439)
185. Stohr (1972)
186. Dozier (op.cit.:88-95)
187. INTERMET/IDRC (op.cit.:184-189) and Roider (op.cit.)
188. Clayton (op.cit.), Johnson (op.cit.), and Roider (op.cit.), respectively.
189. Dozier (op.cit.:125-130)
190. Sanders (1973a)
191. Dozier (op.cit.:190ff.)
192. Ibid.
193. Roider (op.cit.)
194. INTERMET/IDRC (op.cit.:184-189)
195. See Dozier (op.cit.), and Casals, et al. (op.cit.:27-50)
196. See notes 195 and 198.
197. The following projects have towns designed explicitly to serve project needs:

| Country | Citation |
|---|---|
| Brazil | Sanders (1973a) |
| Ghana | Johnson (1970:346-350) |
| Tanzania, Ethiopia | Lele (op.cit.:88-89, 135) |
| LaJoya in Peru | Dozier (op.cit.:105) |
| Malaysia, Surinam | vanDusseldorp (op.cit.) |
| Nigeria | Roider (op.cit.) |
| Kenya | Clayton (op.cit.) |
| Paraguay | Stohr (1972) |

198. See analyses in footnote 172. The Sudan, Kenya, Malaysia, Sri Lanka, and Ghana, projects are reputed to be successes. The Western Nigeria scheme is accounted a failure. Others are still ongoing and without evaluation.
199. Sanders (1973a) depicts the struggles of the colonists on the Trans-Amazon. Dozier (op.cit.) tells of troubles in Peru and Bolivia.
200. Barraclough and Schatan (1973:188)
201. Katzman (1975:105-107)
202. Johnson (op.cit.:171-173)
203. Weitz (1971:115)
204. (Ibid:115-116, 147). Waterston (op.cit.) and Owens and Shaw (op.cit.:18-22, 34-35) also show the importance of urban hierarchies to rural development and to slowing the rural exodus.
205. Sen (1972:27)
206. Kulp (1970:77)
207. Countries which have implemented rural service-center or market-town strategies using top-down selection are:

| Country | Citation |
|---|---|
| Surinam | vanDusseldorp (1971:67-91) |
| Mexico, Costa Rica | Owens and Weiss (1975) |
| India, Malaysia, Ghana, Yugoslavia, Puerto Rico, China, Nigeria, Sweden | Johnson (op.cit.:281-399) |
| India | Shah (1974:215-228) |
| Pakistan | Govt. of Pakistan (1974) |
| Thailand | Goldstein (1973) |
| Turkey | Weitz (op.cit.:134) |
| Syria | vanDusseldorp (1971:92-100) |
| Kenya, Ethiopia, Cameroon | Lele (op.cit.) |
| Taiwan | Owens and Shaw (op.cit.: 34-35) |
| Romania, Finland, France, Ukraine | UNECE (1972) |

Countries which have a significant bottom-up component in some or all of the rural service center strategy are:

| Country | Citation |
|---|---|
| Peru | Development Alternatives, Inc. (op.cit.:1-14-26) |
| Mexico | E. Miller (1974) |
| Malaysia | Kulp (1970:131-142) |

*FOOTNOTES (continued)*

207. (Cont.)

| Country | Citation |
|---|---|
| Puerto Rico, Israel | Johnson (op.cit.) |
| Taiwan | Owens and Shaw (op.cit.) |
| Israel | Weitz (1968) and Prion (1968) |
| Tanzania | Lele (op.cit.:107) |

208. Wilkie (1973)
209. Berry (1967)
210. vanDusseldorp (1971:34-35)
211. Belloncle and Gentil, in Lele (op.cit.: 57-58)
212. Caillot, in Goulet (1973:161-164)
213. Lees (1974)
214. Lele (op.cit.:105-106)
215. The following countries have incorporated a rural service center strategy in colonization programs:

| Country | Citation |
|---|---|
| Peru, Bolivia, Mexico | Dozier (op.cit.) |
| Brazil | Sanders (1971) |
| Surinam, Malaysia | vanDusseldorp (op.cit.) |
| Ethiopia | Tecle (1974:28) |
| Ghana | Johnson (op.cit.:346-350) |
| Tanzania, Cameroon | Lele (op.cit.:135-142) |

216. Bottom-up centers have evolved through village cooperation in:

| Country | Citation |
|---|---|
| Taiwan | Owens and Shaw (op.cit.) |
| Israel | Prion (op.cit.) |
| India | Johnson (op.cit.:385-389) |
| Brazil | Streeter (op.cit.:28-30) |
| Guatemala | Fledderjohn (1972) |
| Peru | Development Alternatives, Inc. (op.cit.) |
| Ethiopia | Tecle (op.cit.:28-29) |

217. Authors who have supported the establishment of a single agency coordinating programs are:

| Country | Citation |
|---|---|
| Brazil (SUDENE) | Neira Alva (1972:151-166) |
| Taiwan (JCRR) | Kulp (1970:103-121) |
| Kenya (SRDP) | Heyer et al., (op.cit.) and Lele (op.cit.:134-135) |
| Malaysia (FLDA) | vanDusseldorp (op.cit.: 133ff) and Johnson (op.cit.:393-399) |
| Mexico | E. Miller (1974) |
| General | Waterston (op.cit.) |

218. Chambers (1974:105-108)
219. Lele (op.cit.:129-130). Owens and Shaw (op.cit.:25-26) show how minimum standards have benefitted Taiwanese farmers' associations.
220. E. Miller (1974:5-6)
221. Kulp (op.cit.:123-168)
222. Ibid.:201-247
223. Prion (op.cit.:42-57)
224. Owens and Weiss (op.cit.:24). Others who have shown the importance of local training for local planning are shown in footnote 134 of this chapter.
225. Local participatory planning channels are incorporated into most service center schemes. Examples are:

| Country | Citation |
|---|---|
| Mexico | E. Miller (op.cit.) |
| Kenya | Lele (op.cit.:129-130) |
| Malaysia | Kulp (op.cit.:131-142) |
| Uganda | Owens and Shaw (op.cit.: 76-77) |
| Ethiopia | Tecle (op.cit.:28-29) |

226. Authors finding that devolution of responsibility is necessary are:

| Country | Citation |
|---|---|
| Latin America | Hardoy (1972) |
| Mexico, Costa Rica | Owens and Weiss (1975) |
| Thailand | Montgomery (1973) |
| Africa | Lele (op.cit.:142) |
| Malaysia, Bangladesh, Senegal, Taiwan | Kulp (op.cit.:388-402) |
| Taiwan, Bangladesh, Uganda | Owens and Shaw (op.cit.: 26, 47, 67-83) |
| Indonesia | Hansen (1972:18-23) |
| General | Ilchman (1973) |

227. Countries which have devolved local planning responsibilities are:

| Country | Citation |
|---|---|
| Cuba | Acosta and Hardoy (1972: 167-177) |
| Chile | Conroy (1973:371) |
| Mexico, Costa Rica | Owens and Weiss (op.cit.) |
| Tanzania | Ingle (1972) |
| Ghana | Metterick (1971) |
| Niger | Charlick (1972) |
| Malawi, Kenya | Lele (op.cit.) |
| Senegal, Bangladesh, Malaysia, Taiwan | Kulp (op.cit.) |

*FOOTNOTES (continued)*

227. (Cont.)

| Country | Citation |
|---|---|
| India | Sen, in Sen (op.cit.: 326-334) |
| Thailand | Montgomery (1973:7) |
| Indonesia | Hansen (1972:18-23) |

228. Lele (op.cit.:130-142)
229. Ibid.:159-174
230. Mettrick (1971:34-37)
231. Belloncle and Gentil, in Lele (op.cit: 147)
232. Kulp (op.cit.:93-197)
233. Chambers (1974:105-108)
234. Johnson (op.cit.:237-239)
235. Weitz (1971:116)
236. Wanmali, in Sen (op.cit.:196-204)
237. vanDusseldorp, (op.cit.)
238. Johnson (op.cit.:176)
239. Ibid.:296
240. The following analyses find that market towns have expanded rural income and employment opportunities in:

| Country | Citation |
|---|---|
| Israel (center) | Weitz (op.cit.:150-151) |
| India (industries) | Johnson (op.cit.:388-390) |
| Taiwan, Korea, (centers) | Owens and Shaw (op.cit.: 42-66) |
| Mexico (markets) | Cook and Cook (op.cit.) |
| Swaziland (industries) | Vakkurri (1975) |
| Uganda (co-op centers) | Owens and Shaw (op.cit.: 76-77) |
| Ethiopia (markets) | Tecle (op.cit.:28-29) |
| Morocco (industries) | UN, FAO (1972:63-64) |

241. Tecle (op.cit.:27-29)
242. Karpov, in Kulkinski (1972:125-134)
243. Those who staunchly advocate a dispersed urbanization strategy focusing on building a graduated urban network are:
   Waterston (op.cit.)
   Owens and Shaw (op.cit.)
   Johnson (op.cit.)
   vanDusseldorp (op.cit.)
   Weitz (1971)
   Sen (op.cit.)
244. Examples of countries adopting regional development strategies are:

| Country | Citation |
|---|---|
| Great Britain, Austria, Netherlands, France, United States | International Information Centre for Local Government (IICLC) (1964:11-23) |
| Argentina, Brazil, Colombia, Chile, Ecuador, Mexico, Peru, Venezuela, Honduras, Guatemala | Stohr (1972:241-249) |
| Mali | Johnson (op.cit.:342-346) |
| Nigeria | Logan (1972:16-39) |
| Senegal | deJonge et al. (1976: 95-150) |
| Turkey | J. Miller (1974:42-44) |
| Pakistan, Australia | Hardoy, in U.N. (1967: 232-240) |
| India | Grenell, in Turner and Fichter (op.cit.:95-121) |
| Thailand, Malaysia, Philippines | Pryor (1974) |

245. J. Miller (1974:28-30). Miller presents an excellent "state-of-the-art" paper on regional development and the interested reader is referred to his paper.
246. Perroux (1950:27)
247. Theorists who have discussed growth center theory are:
   Kulkinski, ed. (1972)
   Nichols (1969)
   Friedmann (1968:364-373) and (1973)
   Richardson and Richardson (1975:163-178)
   Darwent (1969:5-32)
   Carson, Rivkin, and Rivkin (1973:79-92)
   (Both Darwent and Nichols ably review the literature on growth poles).

*FOOTNOTES (continued)*

247. (Cont.)
Analysts who suggest that development of "spread" effects does not necessarily occur are:

| Country | Citation |
|---|---|
| Chile, Colombia | Conroy (1973:374-78) |
| United States | Carson, et al. (op.cit.), Erickson (1975:17-26), and Hansen (1971) |
| General | Hansen (1975:165-183) |

248. Darwent (op.cit.:5-32)
249. Rivkin and Carson (1974:1)
250. Friedmann (1968:364-365)
251. Weitz (1971:178-188)
252. Friedmann (1973:300-301)
253. Friedmann (1971:222-225)
254. Examples of countries utilizing comprehensive planning to plan counter-magnets to primate cities are:

| Country | Citation |
|---|---|
| Chile, Venezuela | Friedmann (1971) and (1968:364-373) |
| Colombia | Conroy (op.cit.) |
| Brazil | Neira Alva (1972:151-166) |
| France | Rodwin (1970:156-216) |
| Italy | Bussey (1973:106-107) |
| Poland, U.S.S.R., Japan | U.N. (1973:222) |
| Thailand | Pakkasem (1973:4-10) |
| Philippines | Alabanza (1974:5-11) |
| Mali, Ghana, Turkey, Nepal | J. Miller (op.cit.:34-38) |
| United States | Weitz (1971:174-188) |

255. Pakkasem (1973:6)
256. Alabanza (op.cit.:11)
257. G. Hansen (1972)
258. Those who suggest locations based on resource potential are:

| Country | Citation |
|---|---|
| Ciudad Guayana, Venezuela | Rodwin (1970:30-45) |
| Brasilia, Brazil | Hardoy, in U.N. (1967:235) |

259. Those who emphasize development of intermediate-size cities are:

| Country | Citation |
|---|---|
| United States | Hansen (1971) |
| Nigeria | Logan (1972:16-39) |
| Brazil, Malaysia, Venezuela, Turkey | Rivkin and Carson (op.cit.) |

259. (Cont.)

| Country | Citation |
|---|---|
| General, Latin America | Friedmann (1968:368) |
| Thailand, Philippines | Pryor (1974) |

260. Those who have pushed or described center development in relatively unurbanized areas are:

| Country | Citation |
|---|---|
| Brazil | James (1969:827-833) |
| Turkey | Rivkin (1965) |
| Malaysia, Philippines, | Pryor (1974) |
| Latin America (several nations) | Friedmann (1968:368) |
| Australia | Hardoy, in U.N. (1967:233) |

261. Kilbridge (1974). See also Darwent (op.cit.:12-19) who finds that Friedmann's center-periphery scheme may best incorporate the spatial characteristics of specific regions.
262. Relocation of a capital is exemplified by:

| Country | Citation |
|---|---|
| India (Bhubaneswar and Chandigarh) | Grennell (1971:95-121) |
| Brazil (Brasilia), Pakistan | Hardoy, in U.N. (1967:232-234) |
| Turkey | Rivkin (1965) |

263. Logan (op.cit.)
264. Desmond and Prakash (1971:21)
265. Countries which have or have suggestions for developing land banks are:

| Country | Citation |
|---|---|
| Sweden, Netherlands, Canada, India, Chile, Ecuador, Turkey, Pakistan, Malaysia, Brazil, Venezuela | Rivkin and Carson (op. cit.:34-37) |

266. Ibid.:34-35. This is an excellent comparative study of land-use control techniques as practiced in Brazil, Turkey, Malaysia, and Venezuela.

*FOOTNOTES (continued)*

267. Ibid.:38
268. Suggested for Indonesia by Oliver (1971:55-60) and for Nigeria by Mabogunje (1972c).
269. Rojas (1972)
270. Prakash (1971:218-223)
271. Rivkin and Carson (op.cit.:43)
272. Ibid.:26-31
273. Ibid.:34
274. See Kilbridge (op.cit.) for a discussion of this problem.
275. Studies which have surveyed regional development measures, including the use of infrastructure for attracting migrants are:

| Country | Citation |
|---|---|
| Latin America | Stohr (op.cit.) |
| Western Europe, United States | IICLC (op.cit.:18-23) |
| India and other nations | Johnson (op.cit.) |
| General, United States | Hansen (1971), and Carson, Rivkin, and Rivkin (1973) |

276. Rivkin and Carson (op.cit.:85)
277. Hansen (1970), Carson, Rivkin, and Rivkin (op.cit.), and Johnson (op.cit.)
278. Carson, Rivkin, and Rivkin (op.cit.:84)
279. Examples of countries implementing industrial estate programs supporting development of growth poles are:

| Country | Citation |
|---|---|
| Thailand | Pakkasem (1973) |
| Malaysia, Philippines | Pryor (1974) |
| Chile | Friedmann (1971) |
| Venezuela | Rodwin (1970:38-45) |
| Brazil, Turkey | Rivkin and Carson (op.cit.: 36-40) |
| Italy | Bussey (1973:106-107) |

280. Erikson (1975:24-25). His analysis of industries in the United States's growth centers shows that spread effects were not substantial. Haissman (op.cit.) finds similar evidence in Mexico, while Weitz (1971) has positive findings for Israel.
281. Some of the countries which have tax changes pertaining to all or some industry are:

| Country | Citation |
|---|---|
| India | Malgavkar and Ghiana, in Sen (op.cit.:135) |
| Malaysia | Rivkin and Carson (op. cit.:115) |

281. (Cont.)

| Country | Citation |
|---|---|
| Thailand, Philippines | Pryor (1974) |
| France, Italy, Austria, United States | IICLC (1964:21-23) |
| El Salvador | Ebel (1972:204) |
| Pakistan | Child and Kaneda (op.cit.: 273) |

282. IICLC (op.cit.:13-19)
283. Ibid.:23
284. Examples of countries sponsoring public enterprises are:

| Country | Citation |
|---|---|
| Venezuela | Rodwin (1970:50) |
| Brazil, Turkey, Malaysia | Rivkin and Carson (op.cit.:36-37) |

285. Countries with free ports supporting growth-pole development are:

| Country | Citation |
|---|---|
| Philippines | INTERMET/IDRC (op.cit.: 192) |
| Taiwan | UNECAFE (op.cit.:49) |
| Chile, Brazil, Peru, Venezuela, Mexico | Stohr (op.cit.) |
| Italy | Bussey (1973:106-107) |
| Luxembourg | IICLC (1964:18) |

286. INTERMET/IDRC (op.cit.:192)
287. Achurra (1972:133-134)
288. Governments which have made preliminary revisions of fiscal policies to attract small-scale industry, are:

| Country | Citation |
|---|---|
| Mexico | Haissman (op.cit.) |
| Pakistan (suggested) | Child and Kaneda (op. cit.:273) |
| India | Malgavkar and Ghiana, in Sen (op.cit.:315) |
| Sweden, Puerto Rico, Yugoslavia | Johnson (op.cit.:363-369, 310-325, and 281-296) |

289. Haissman (op.cit.)
290. See Hansen (1970), (1971) and Carson, Rivkin, and Rivkin (op.cit.) for discussion of this shift.

*FOOTNOTES (continued)*

291. Countries offering or proposing local training and technical assistance are:

| Country | Citation |
|---|---|
| Latin America (suggested) | PADCO (1971) |
| Chile | Friedmann (1971:236) |
| Brazil | Neira Alva (1972:155) |
| Pakistan (suggested) | Child and Kaneda (op.cit.: 273) |
| Nigeria, Africa, Asia, Venezuela, Italy, United States | J. Miller (op.cit.:34-42) |
| Malaysia | Rivkin and Carson (op. cit.:106) |
| Swaziland | Vakkuri (op.cit.) |
| Nigeria | Johnson (op.cit.:350-362) |

292. Rivkin and Carson (op.cit.:57-62 and 79-83)
293. Richardson and Richardson (1975:167-174)
294. Ibid.:172-175
295. Haissman (op.cit.:7, 79)
296. Wilkening (1968a); Grenell, in Turner and Fichter (1971:95-121); and Garcia and Blumberg (op.cit.)
297. Examples of countries with low-cost public housing programs serving intermediate-size cities are found in Brazil, Turkey, Malaysia (Rivkin and Carson, op.cit.) and in the Philippines and Thailand (Pryor, op.cit.)
298. Hansen (1970), (1971), and Carson, Rivkin, and Rivkin (op.cit.:84-86)
299. Richardson and Richardson (1975:168)
300. Those calling for administrative and political decentralization for regional development and growth center strategies are:

| Country | Citation |
|---|---|
| Latin America | Richardson and Richardson (op.cit.:166) and Utria (1972:62-80) |
| Chile | Friedmann (1971:235-240) |
| Philippines | Alabanza (1974:9-10) |
| Indonesia | Hansen (1972) |
| General | Ilchman (1973), Rondinelli and Ruddle (op.cit.: 80-87) |
| El Salvador | Ebel (1971:209-211) |

301. Examples of countries combining decentralization with regional development or growth center strategies are:

| Country | Citation |
|---|---|
| Thailand, Malaysia, Philippines | Pryor (1974) |
| India | Sen, in Sen (op.cit.:326-334) |
| Turkey | Rivkin and Carson (op. cit.:68) |
| Venezuela | Rodwin (1970:35-50) |
| Brazil, Mexico, Chile | Richardson and Richardson (op.cit.:172-175) |

302. These various administrative suggestions have been made, in all or part, by:
PADCO (1971)
Stohr (op.cit.)
Richardson and Richardson (op.cit.)
Rodwin (op.cit.:66-69 and 201-216)
Moreillo (1972:187)
Rivkin (1965:192-198)
Hardoy (1972:36-42)
Achurra (1972:135-138)
Alabanza (op.cit.)
Ilchman (op.cit.)
Ebel (1971:209-211)
Rivkin and Carson (op.cit.:134-150)
303. Rivkin and Carson's analysis shows that Ankara has now become a primate city; Wilkening (1968a) and Grenell, in Turner and Fichter (1971), find that massive migration is now a problem in Brasilia and Bhubhaneswar.
304. Richardson and Richardson (op.cit.:175).
305. Sundquist (1975)
306. Rivkin and Carson (op.cit.:90-91)
307. Pryor (1974)
308. See Logan (1972:16-39) and Hansen (1971)
309. Hansen (1975:171-174)
310. Ibid.:183
311. Richardson and Richardson (op.cit.:176)
312. Rondinelli and Ruddle (1976:197-281). The entire book, however, pertains to the methods of achieving regional development.
313. Ibid.:281
314. Countries which have subsidized capital for industrial development include:

| Country | Citation |
|---|---|
| India | Johnson (op.cit.) |
| Pakistan | Child and Kaneda (op.cit.) |
| Malaysia | McGee (1972) |

*FOOTNOTES (continued)*

314. (Cont.)

| Country | Citation |
|---|---|
| Kenya | Clayton (op.cit.:436) |
| Nigeria | Jaiyesimi (1971) |
| Brazil | Bergsman (1973) |
| Chile | Achurra (op.cit.:139) |
| El Salvador | Ebel (op.cit.:204) |
| Latin America | Hardoy (1972:31) |
| Africa | Eicher, et al., (op.cit.) |
| Colombia, Puerto Rico, Korea, Mexico | Morawetz (1974:508) |

315. Hardoy (1972:31)
316. Johnson (op.cit.:157-166); Friedmann (1973:153-183) also discusses the implicit locational criteria of loan requirements.
317. Tax structures favoring industrial development in primate cities have been examined by Prakash (1971:205-224), Singh (1971:225-240), deKoning and Dale-Harris (1973), and PADCO (1971)
318. Morawetz (op.cit.:508-509)
319. Ibid.
320. Todaro (1971:392)
321. See footnote 43, Chapter III.
322. Tidrick (1975:309, 317)
323. Hardoy (1973:188)
324. Countries which have had a metropolitan bias in provision of infrastructure (the bias may no longer exist) are:

| Country | Citation |
|---|---|
| India | Johnson (op.cit.:163-166) |
| Philippines | Juppenlatz (1970:188) |
| Botswana | Holm (1972:81) |
| Kenya, Senegal | Clayton (op.cit.) |
| Nigeria | Mabogunje (1972a:47) |
| Chile | Herrick (1965:104-105) |
| Latin America | Hardoy (1973:167-192) |

325. Johnson (op.cit.:155). Examples of nations with a metropolitan focus transport are:

| Country | Citation |
|---|---|
| Peru | Castillo (undated) |
| Chile | Friedmann (1968) |
| Nigeria | Green and Milone (1972: 14-17), Mabogunje (1972a:47) |
| Ghana | Caldwell (op.cit.:207) |
| India, Thailand, Burma | Johnson (op.cit.:154-155) |

326. Social service concentration in the metropolis as is shown for:

| Country | Citation |
|---|---|
| Asian nations | Retherford (op.cit.) |
| Brazil, Peru | Leeds and Leeds (op.cit.) |
| Puerto Rico | Boswell (op.cit.) |
| Colombia | Adams (1969) |
| Philippines, Nigeria | Akunnusi (1971) |

327. Cultural and political concentration reinforcing growth of the capital region is found for:

| Country | Citation |
|---|---|
| Jakarta, Rangoon, Accra, Belgrade, Lagos, Cairo, Baghdad | Johnson (op.cit.:154) |
| Santiago | Friedmann (1968:364-373) |
| Various Latin American capitals | Hardoy (1973:167-192) |
| Bangkok-Thonburi | Prachuabmoh and Tirasawat (op.cit.) |
| San Salvador | Ebel (1971:189-203) |
| Freetown | Levi (op.cit.) |

328. U.S. AID (1972:24-25)
329. Oberlander (1975:38)
330. For surveys of various urbanization policies see:
   - Charles Abrams -- *Man's Struggle for Shelter in an Urbanizing World*, (MIT Press, 1964)
   - John F.C. Turner and Robert Ficther, eds. -- *Freedom to Build*, (MacMillan Co.:1971)
   - Brian J.L. Berry -- *The Human Consequences of Urbanization*, St. Martin's Press, 1973
   - G.M. Desmond and Ved Prakash -- "Financing Housing and Urban Development in the ECAFE Region", SEADAG Paper, 1971
   - Rolf W. Goetze and John F.C. Turner -- "Developing Incentives to Guide Urban Growth", SEADAG Paper, No. 46, 1968
   - Malcolm Rivkin -- *Land Use Programming in the Intermediate-Size City*

FOOTNOTES (*continued*)

330. (Cont.)
*in Developing Countries*, Praeger Publishers, New York, 1976
United Nations -- *Planning of Metropolitan Areas and New Towns*, 1967
U.S. AID -- *Focus on Urban Development: Perceptions, Problems, Approaches, and Needs*, 1972
INTERMET/IDRC -- *Town Drift: Social and Policy Implications of Rural-Urban Migration in Eight Developing Countries*, 1973
PADCO -- "Stengthening Urban Administration in Developing Countries", Prepared for U.S. Department of Housing and Urban Development, 1971

331. IDRC (op.cit.:19-21)

332. Owens and Shaw (op.cit.:130)

333. Training programs for small-scale entrepreneurs have been implemented in:

| Country | Citation |
|---|---|
| Japan | Owens and Shaw (op.cit.: 113) |
| Swaziland | Vakkuri (op.cit.) |
| Latin America, Asia, Nigeria | IDRC (op.cit.:22-25, and 36) |

334. Friedmann and Sullivan (op.cit.:408ff.) cogently outline some of the problems and needs for small-scale entrepreneurs. See also for Ghana, K. Hart (1970); for Asia, McGee (1971); and for the Philippines, R. Hackenberg (1972)

335. Thormann (op.cit.)

336. Friedmann and Sullivan (op.cit.:408)

337. Strassmann (1970:503-518)

338. Turner, in Turner and Fichter (op.cit.: 148-240)

339. Burki (1973:36-38). Examples of this type of urban public works program have not been found.

340. Friedmann and Sullivan (op.cit.:409)

341. For more information about small-scale industries and technologies:
UNECAFE (ESCAP) -- "Small Industry Bulletin for Asia and the Far East", 1971
"Small-Scale Industries in Arab Countries of the Middle East", 1971
OECD -- "Promotion of Small and Medium-Sized Firms in Developing Countries Through Collective Actions", (Paris, 1969)
Sara Jackson -- "Economically Appropriate Technologies for Developing Countries: A Survey", (Washington, D.C.: Overseas Development Council, February 1972)

341. (Cont.)
Keith Marsden -- "Progressive Technologies for Developing Countries", *International Labour Review*, Vol. 101, No. 5, May 1970: 475-502
E.F. Schumacher -- *Small is Beautiful: Economics as if People Mattered*, (Harper:1973)

342. Todaro (1976a:211-222)

343. Examples of inappropriate public housing programs are:

| Country | Citation |
|---|---|
| Hong Kong, Nigeria, Peru, Venezuela | Turner (1966:123-124) |
| Kenya, Thailand, Ivory Coast, Malaysia | U.S. AID (1972:102-103) |
| Nigeria, Barbados, Venezuela, Jamaica | Abrams (1964:129, 220-221) |

For a detailed review of the problems encountered with this approach see Abrams (1964).

344. Singapore's public housing program is described in U.S. AID (op.cit.:103). Brazil's BNH (National Housing Bank) has had an extensive program with some degree of popularity and adequacy (Rivkin and Carson, op.cit.:85)

345. Abrams (1964:118-127 and 130-133)

346. Tobar (1972)

347. Abrams (1966:8-13)

348. Turner (1966:123-124). Juppenlatz (op.cit.:77-78) describes the fizzled popularity of a "new town" outside Rio de Janeiro when the promised steel plant failed to materialize. See also Abrams (1964) and Berry (1974)

349. A comprehensive discussion of site-and-service programs is available in "Planning for Sites and Services Programs", (vanHuyck, 1971). Turner, in *Freedom to Build* (1971), provides a detailed account of the evolution of a self-help program in Peru, and Abrams describes some "sanitary slum" approaches in his 1964 work. The World Bank Paper "Sites and Services Projects" April 1974, gives a complete discussion of design and cost-benefit consideration for sites and service schemes. In addition to these, specific accounts of country programs are found in:

*FOOTNOTES (continued)*

349. (Cont.)

| Country | Citation |
|---|---|
| India | Goetze (op.cit.) |
| Philippines | Abrams (1964:81-84) |
| Chile | Caulriez (1972:203-209) |
| Colombia | Vernez (op.cit.) |
| Zambia, Malawi | Hosken (1974) |
| Other countries | vanHuyck (op.cit.) |

350. vanHuyck (op.cit.)
351. Programs of self-help housing are described by Turner and Fichter, eds. (1972), Abrams (1972), vanHuyck (op. cit.), Vernez (op.cit.), and Caulriez (op.cit.). In addition to nations listed above for site service schemes, others with self-help programs include:

| Country | Citation |
|---|---|
| Turkey | Juppenlatz (op.cit.) |
| Rhodesia | vanHuyck (op.cit.) |
| Guatemala, Honduras, Panama | Institutio Cooperatio Interamericano de la Vivienda (1963) |

352. Turner, in Turner and Fichter (op. cit.:128-130)
353. Rivas (1972) exemplifies the approach that self-help is mere passification. See especially Turner (1976) for a thorough and favorable discussion of current self-help housing issues and practice.
354. Turner, in Turner and Fichter (op. cit.:172-173). Strassman (op.cit.) and Goetze (op.cit.) also discuss the need for flexible standards.
355. Abrams (1964:187-194)
356. Ibid.:177-181
357. Turner and Turner (1972:V-1)
358. U.S. AID (1972:31-34)
359. Turner and Fichter (1971:255-273)
360. Strassman (op.cit.:514-518)
361. Desmond and Prakash (1971:25-28). For another analysis of specific housing finance programs see Abrams (op.cit.: 142-163)
362. Ibid.:29
363. Countries with housing banks or mortgage loan societies are:

| Country | Citation |
|---|---|
| Brazil | PADCO (1971:24-25) |
| Chile | Caulriez (1972:203-209) |
| Colombia | Vernez (op.cit.) |
| Peru | Turner, in Turner and Fichter (op.cit.) |

364. Vernez (1973:29-30)
365. Caulriez (op.cit.:205-207)
366. That self-help housing schemes do not attract migrants is suggested by the INTERMET/IDRC research (op.cit.), as well as by research that gives housing

366. (Cont.)
and urban amenities low priority among the "pull" factors.
367. Meier (1972)
368. For a discussion of new town strategies see:
Turner (1966:123-124)
Ann Louise Strong, *Planned Urban Environments: Sweden, Finland, Israel, the Netherlands, France* (John Hopkins Press, 1971), contains a discussion of new-town strategies in Europe, where they have been most tried.
United Nations, *Planning of Metropolitan Areas and New Towns* (1967). Offers a discussion of new-town developments in developing countries, as of 1964.
Hooi (1972) describes Singapore's greenbelt designations.
369. Yue-man Yueng, Remarks at ICP Conference on Migration, Urbanization, and Fertility, November 10-13, 1974, Elkridge, Maryland.
370. INTERMET/IDRC (op.cit.:194-195)
371. Hackenberg (op.cit.)
372. Control of inmigration is described for:

| Country | Citation |
|---|---|
| Indonesia | INTERMET/IDRC (op.cit.: 193-194) and Temple (1974:24) |
| Italy | Bussey (op.cit.:106-107) |
| China | U.N. (1973:219) and Chen (1972) |

373. For an account of this exodus, see David A. Andelman, "Urban Exodus Complete, Cambodian Refugees Say", *New York Times*, Friday, June 13, 1975.
374. Licensing of hawkers in Manila is described by Hollensteiner (1974) who finds that this hurts, but does not stop, efforts by migrants and natives to make a living. Squatting has unsuccessfully been prohibited in Argentina and the Philippines (See Tobar, (op.cit.) and U.N. (1973:218)).
In Niger, unemployed youth are forced to leave the city; again the U.N. study (op.cit.:218) shows that this has not kept youth out.
375. deKoning and Dale-Harris (1973:1-12)
376. PADCO (1971:26-29 and 40-41)
377. Observers supporting combined self-help and community development efforts are INTERMET/IDRC (op.cit.), Berry (1974), Turner and Fichter (op.cit.), Friedmann and Sullivan (op.cit.), Pryor (1974), and PADCO (op.cit.:26, 40-41)
378. Personal communication from Henry Rempel, December 31, 1976. He notes

*FOOTNOTES (continued)*

378. (Cont.)
this as a cause for restrictive policies in Nairobi. Evidence of this motive also appears in Peru (Isbell, 1974:247).
379. United Nations (1974:46)
380. Pryor (1974:7-8)

# Chapter 7
# Conclusions: What Do We Know and Where Do We Go From Here

The first chapter of this report introduced several issues of importance to policymakers concerned with migration. These are:

> What are past, present, and predicted levels of migration? How are these estimated?
>
> What are the determinants and contexts of migration? Who moves? What relations exist between fertility and migration?
>
> What impacts of migration are of most concern to policymakers? What happens to the migrants, to urban destinations, and to rural origins?
>
> What policies have influenced migration behavior?
>
> Which policy options increase consistency between development goals and migration patterns? How is a migration strategy selected?

The report has addressed these issues one by one, presenting the evidence and results of studies bearing on the issues. Is enough known to permit individual policymakers to focus on the critical questions, find answers, and make policy decisions? Based on the information assembled in the preceding chapters, the answer to this query is in most cases believed to be "yes". The questions may not be explicitly answered for each country, each region, or each city, but there are many studies to guide the policymaker in considering and formulating migration policies.

One problem with much of the research cited in earlier chapters is in its application to to development issues. More attention must be paid to linking research findings and policy needs. An attempt has been made throughout this study to connect findings with relevant governmental actions, relating problems, conditions, and policy responses to outcomes.

## *ASSESSING THE DETERMINANTS AND CONTEXTS OF MIGRATION*

An understanding of who moves and why is useful, if not essential, to estimating migration flows.

Migrants are found in all types. Rural-urban migrations in LDC's, however, seem to be generally of two types distinguished largely on the basis of motivation. On the one hand are the "mobile" migrants who actively search out opportunities. They tend to be positively selective with respect to education and resources, and are likely to experience upward socioeconomic mobility after moving. Many studies find that mobile migrants have constituted the majority of those moving to cities, especially at an early stage in the urbanization process. On the other hand are the "less mobile" migrants who are reactive in that circumstances force them to move. They may be ill prepared to move, but have no other options. Unlike mobile migrants, they are not positively selective, often coming from very poor rural families and having little or no education or resources.

Both mobile and less mobile migrants are strongly motivated by economic factors. Mobile migrants respond to the "pull" of economic opportunity, less mobile migrants react to the "push" factors of unemployment, little income, etc.

But economic conditions are not necessarily sufficient cause for migration. Social, educational, or personal factors may also play a strong role in determining the incidence and timing of migration. In particular, it has been shown that many migrants, especially less mobile ones, select destinations where they have friends or kin to help them get established.

This survey shows that the strongest factors affecting migration are jobs and wages, but other mechanisms may also have influence. A brief list of these factors and an indication of their relative strengths are given in table 9, below.

Table 9. FACTORS INFLUENCING MIGRATION FLOWS

| Factors | Strength of influence |
|---|---|
| Economic | |
| Provision of employment | Very strong |
| Wage levels | Strong |
| Pricing of agricultural goods | Moderate - strong |
| Income redistribution measures | Potentially strong but uncertain |
| Loan and credit programs | Fair - moderate |
| Educational and life style | |
| Primary education | Strong, depends on form |
| Curriculum design | Moderate, can be strong |
| Media and other information sources | Moderate |
| Functional education programs | Fair |
| Leadership training | Moderate |
| Provision of support services | Moderate - strong |
| Demographic and life cycle | |
| Information on benefits of a small family | Strong, but indirect |
| Social security or old age assistance | Fair |
| Institutional | |
| Labor intensive technologies | Strong |
| Access to political power | Moderate |
| Assistance in community building | Moderate |
| Construction of infrastructure | Strong, but varies |

## *EVALUATING THE IMPACTS OF MIGRATION*

Most studies find that the bulk of migrants are reasonably satisfied -- or rather, not strongly dissatisfied -- with their new lives. The majority of migrants claim to have made some material and social gains, although recent studies have found dissatisfied migrants who are not doing better.

Mobile and nonmobile migrants have different impacts on their old and new communities. Although both contribute to population growth and decline in the destination and origin areas, respectively, they may integrate into the new communities in greatly different ways. The active, mobile migrants are more likely to be innovators, entreprenueurs, and self-reliant in terms of finding work, food, and housing. They may even generate jobs for other urban residents. Their neighborhoods generally improve in time, and many become stable, working-class neighborhoods. The less mobile, reactive migrants, however, are often very poor, barely ekeing out a subsistence. It is in these poor neighborhoods, migrant and native alike, that officials most despair over deteriorating levels of living, slum conditions, crime, and other urban problems.

Mobile and less mobile migrants may also have different impacts on rural areas of outmigration. The rural communities may be hurt by the loss of young, active migrants who are the potential leaders, but they may view the loss of the poor, less mobile, passive migrant as one less mouth to feed or job to find. There is, however, too little research on the impacts of outmigration on rural areas to draw any firm conclusions.

The impacts of migration on urban areas have been the subject of considerable research, yet there is still disagreement over whether migration benefits or harms cities. Urban impacts depend not only on the type of migrant but also on the type of city (as measured by employment, unemployment, and underemployment; migrant and native incomes; housing and social service availability; overall adequacy of infrastructure; and budget-revenue ratio, one measure of the "ability to cope"). Despite the innovativeness of migrants, big cities find it increasingly difficult to cope with their growing numbers. Unemployment generally increases and the level of living falls as more migrants crowd into the big cities. Smaller cities, however, may benefit from a more diversified labor force and a wider supply of services from the bazaar sector. Both may find that increased economies of scale or firm productivity outweigh the disadvantages of growth. Given the present difficulties of large cities in absorbing migrants economically and providing adequate services, many observers conclude that massive migration to the large cities is detrimental to urban and regional development.

This assessment must be balanced against the impacts on rural areas and against the situation which might have prevailed in the absence of migration. Much less is known about impacts to rural areas. Using the same criteria of employment, income, services, infrastructure, and overall "ability to cope", present evidence suggests that rural areas do not experience strong benefits from migration, largely because of the loss of human capital. In the long-run, however, migration may foster change by establishing links to other communities. Also, over time migration may stimulate individual change and force a redistribution of people and resources to patterns more favorable to development objectives. In this light, the short-term inability of large cities or rural communitites to cope with migrant impacts may be counterbalanced. Clearly, policy responses to migration must be based on all these potential impacts. Table 10 presents a summary of these impacts with their relation to potential policy measures.

## *ANALYZING POLICIES INFLUENCING MIGRATION*

Based on the factors outlined above, it is clear that a vast number of policies influence migration. The following discussion is concerned with selected policies according to their implicit or explicit impact on population distribution or rural and urban development, as follows:

- Rural-centered development policies,
- Dispersed urbanization policies,
- Regional and decentralized urban development policies,
- Centralized urbanization policies.

Table 11 summarizes the major types of migration policies, showing their goals, implementation problems, and impacts.

The most pervasive implicit policies influencing migration are the capital-intensive agricultural and industrial development policies which have fostered the massive rural- urban migrations associated with the hyper-urbanization of large cities. Overt

Table 10. TYPES OF MIGRATION IMPACTS AND POTENTIAL POLICY RESPONSES

| Impacts | Potential policy responses |
|---|---|
| Impacts on individual migrants | |
| Benefits to mobile migrants (higher incomes, better jobs). | Facilitate migration of mobile migrants or provide for mobility in origin. |
| No gains to less mobile migrants (no income gains, low level of living, bare subsistence). | Offer other migration opportunities, provide income supports or jobs in rural areas as alternatives to migration, provide more alternative destinations, or increase employability of less mobile migrants. |
| Impacts on urban destinations | |
| Problems of hyper-urbanization: | |
| Underemployment and unemployment. | Provide more jobs and support for job and slow migration to cities. |
| Inadequate infrastructure. | Stimulate self-help infrastructure installation, adopt lower standards, and slow migration to cities. |
| Budget deficits. | Stimulate self-help, increase user charges, reform tax and budgetary systems, and slow migration to cities. |
| Deteriorating urban environment. | Rationalize land use via planning, sites and services, etc., adopt pollution controls, establish public transit and sewerage systems, and slow migration to cities. |
| Low firm productivity. | Rationalize economic support system (credit, assistance, etc.) upgrade labor force, or facilitate development of complementarities and agglomeration economies. |
| Lack of social unity or absorption. | Facilitate community development within city, or increase governmental unity within. |
| Problems of cities that are "too small". | |
| Too small or homogeneous a labor force. | Attract migrants, especially skilled, mobile migrants. |
| Administrative inability to cope. | Conduct a governmental or political reorganization to increase local autonomy, provide more funding and planning assistance to city, or alter migrant mix to include larger share of more mobile migrants. |
| Lack of adequate capital to support development. | Increase capital flows to city, facilitate self-help development of enterprises or infrastructure, or slow migration to match ability to absorb in terms of capital or employment. |

Table 10. TYPES OF MIGRATION IMPACTS AND POTENTIAL POLICY RESPONSES (cont'd)

| Impacts | Potential policy responses |
|---|---|
| Impacts to rural origins | |
| Lessened ability to develop. | |
| Loss of human capital. | Provide alternatives for employment, mobility, and innovation for more would-be migrants, alter educational system to be relevant to rural uses, and encourage remittances and return migration. |
| Little income gain. | Encourage technology change to increase productivity of those left behind, or encourage remittances. |
| Labor shortages. | Mechanize selectively to reduce seasonal bottlenecks, or alter production technology to use available labor more efficiently. |
| Increased long-range development ability. | |
| Decreased population density. | Encourage smaller families to reduce reoccurrence of migration pressures. |
| More contact with other communities. | Encourage migrant visits and returns. |
| Fewer jobs necessary. | Encourage technology change and reorganization to involve more persons in production. |
| Impacts to regional and national development | |
| Uneven regional population distribution associated with inequitable regional incomes and differences in development and modernization. | Encourage development of balanced urban hierarchy within and between regions, channel migrants to less populated areas, or slow migration out of lagging regions by increasing incorporation of lagging regions into development. |
| Redistribution of population facilitating modernization and urbanization. | Encourage migration to cities, and facilitate increased ability of cities to absorb migrants (socially, politically, and economically). |

Table 11. POTENTIAL MIGRATION POLICY IMPACTS

| Policy options | Implementation problems | Evaluation of impacts |
|---|---|---|
| Migration Goal: Slow Rural Outmigration | | |
| Employment and income policies. Create more jobs at higher income levels in rural areas. May include production technology changes, land reform, rural public works projects, industrial decentralization, price supports, etc. | Can be implemented piecemeal, but solution may require long-term support programs or structural change. Employment programs can be supplemented by programs to upgrade skill levels and innovative abilities. Long-range reduction of population growth may be necessary to bring jobs and resident population into equilibrium. | Some examples show higher incomes and less underemployment associated with public works; industrial decentralization may have mixed results because it is often capital-intensive. Credit and improved methods are important to income gains, but price supports may be a critical incentive to change. Land reform may not guarantee permanent income redistribution. |
| Integrated rural development. Often follows land reform to provide small farmers with new support system. Includes comprehensive provision of new technology, credit, inputs, marketing, and social services. | Costly in terms of political supports, administrative resources, and funding. Coordination is important, as well as real profit potential for small farmers. Generally for implementation in selected areas only. | Improves small farm income if well innovated and coordinated. Employment changes are secondary. Probably slows outmigration, but this is yet not evaluated. May create greater regional inequity between areas with and without programs. |
| Dispersed urbanization. Includes creation of market towns to facilitate commercialization of agriculture. Nonagricultural employment also important to strategy. | Coordination and selection are important. Contrast between top-down and bottom-up development of market towns. Linkages between farmers and villages are critical. Heavy infrastructure components may be necessary. | Adopted in only a few nations or regions but results are encouraging for slowing outmigration. Migrants go to nearby towns, rather than out of region. Can be costly but is reduced by self-help. Bottom-up efforts may prove less costly and more viable. |
| Migration Goal: Redirect Rural Outmigration | | |
| Rural settlement or colonization projects. | Often involves costly construction of highway access, reservoirs, irrigation systems, etc. Inclusion of educational and social programs is critical. Migrant selection and assistance are major problems. | Settlement and colonization schemes open up new land, but are very costly, and they do not guarantee successful settlement. Least spontaneous colonization, with penetration or feeder roads. On balance, projects reach a minority of rural poor, given the large investments. |

Table 11. POTENTIAL MIGRATION POLICY IMPACTS (Cont.)

| Policy options | Implementation problems | Evaluation of Impacts |
|---|---|---|
| Migration Goal: Channel Urban Migrants to Selected Destinations | | |
| Development of growth poles at intermediate-size cities. Often based on industrial development but may also exploit region's resources. Can be mixed with regional and dispersed-urbanization strategies. | Selection of centers is difficult because there is no good definition of how to make a successful center. Political decentralization may be necessary for regional autonomy. It is important to link center-hinterland development. Control of city's development may be difficult. | Industries may not be labor-intensive and may not generate "spread" effect or growth in rest of region. Problems with unbalanced development may only accelerate. Migrants may be attracted, but there may not be adequate provision for absorbing poor, less mobile migrants. Some strategies work, but these depend on strong center-hinterland linkages prior to initiation of the program. |
| Regional development efforts. To create a balanced urban hierarchy with wide range of urban destinations available. | Identifying regional problems and goals is important to agreement on regional development. Upgrading human resources is essential to the strategy's long-range employment and income goals. Marketing and industrial decentralization programs may be included. Implementation of plans is difficult because of long-range commitments and massiveness of investment. | Problems of increased inequity may result if efforts to develop precede structural change, e.g., land reform or income redistribution. Agriculture may be slighted. Difficult to evaluate development program's direct relation to migration change, but if development goals met, migration out of region may slow. |
| Migration Goal: Encourage Migration to Major Metropolis | | |
| Capital-intensive development of agriculture. Includes adoption of new technologies raising labor productivity and requiring fewer laborers. A whole package of inputs is involved. | Requires capital which can be subsidized. The package of inputs may not work unless the entire package is adopted. Often shuts out small farmers who have limited credit. | Tends to make rich richer and poor poorer. Creates a labor surplus. Wages may fall as labor becomes less in demand. May become a major cause for rural outmigration. |
| Industrial development of cities. Goal is to reduce dependence on foreign imports and to increase access to goods, thereby raising level of living. | Focuses on most advanced cities, accentuating and supplementing their advantages and economies of scale. Requires much capital, which may be subsidized. Inmigration is desired to keep wages low. | Cities grow as migrants are attracted to jobs. More industrialized goods are available to nation, but may reach only urban population. Migrants have gone to seek industrialized jobs, but job creation has not kept pace with migration. Creation of a dual economy with marginal subsistence and modern industrial sectors. |

Table 11. POTENTIAL MIGRATION POLICY IMPACTS (Cont.)

| Policy options | Implementation problems | Evaluation of impacts |
|---|---|---|
| Migration Goal: Cope with Urban Inmigrants | | |
| Provide more jobs for migrants, especially in the small-scale sector. | Expansion of small-scale, labor-intensive sector is necessary, and this requires special credit, training, and marketing programs. | Involves programs with promise of absorbing migrants, but has been little tried or evaluated. |
| Rationalize housing and land use patterns. May include sites and services, public housing, planning and zoning, establishment of industrial estates, and construction of new towns or satellite cities. | Location of infrastructure is key to guiding growth. Rationalizing land use is difficult. New towns are very costly and offer no guarantee of permanent resettlement. Self-help and attention to neighborhood needs are important. | Most effective tool is site and services, but industrial estates have also had some success. Public housing and new towns usually are too costly and poorly designed relevant to the needs of the poor. |
| Extension of social services, including education, health, and welfare. | Different neighborhoods have different needs. Major problem is who pays for services. Self-help is often used to build facilities, but operation and maintenance are problems. Attention to community factors (social, cultural, political), may be critical to extending services. | Self-help efforts have had substantial impact on reducing service gap because migrants are often responsible for helping themselves. Major problem continues to be inadequate financing and management. |
| Migration Goal: Restrict Migration to Metropolitan Areas | | |
| Adopt metropolitan permit system. | Major problem is monitoring population flow. Requires strong political control. | May reduce migration slightly, but at great political and administrative cost. May increase corruption and negative attitude toward government. May harm natives and migrants by making life harder for all. |

policies seeking to stop the flow of migration toward friends and employment opportunities in the big cities have had little success.

Among nations wishing to slow migration to their metropolitan areas, two basic strategies are used, sometimes separately, sometimes together. One set of programs focuses on slowing rural outmigration by providing alternative rural destinations and by expanding rural economic and social options. Another set of policies is designed to reduce migration to the big cities by redirecting migrants to market towns, regional growth centers, or intermediate-size cities.

One problem with adopting explicit migration policies is that many are new and not yet fully evaluated. Even where prior research findings suggest strongly that some of these policies may have a significant effect on migration, there still remains uncertainty about program design and implementation.

A second difficulty in designing migration strategies is the sheer number of programs which can influence migration. Because migration is linked to many variables involved in both rural and urban development, the policymaker's real problem is selecting the most appropriate elements of a migration strategy. This decision also depends on whether the government wishes to influence migration directly or in a subtle manner. The more direct programs may reduce the uncertainty of the desired migration or urbanization outcomes, but they may also pose severe drains on the political, administrative, and economic resources of the government. Both the immediate and long-range impacts of implementing any migration strategy need to be carefully weighed.

## CHOOSING A MIGRATION AND POPULATION DISTRIBUTION STRATEGY

Perhaps the toughest issue involved in preparing migration policies is the decision concerning a desired population distribution. Most of the studies covered in this report recognize that cities are going to continue growing, but there is disagreement over how this urban population should be distributed. On the one hand, some deplore the pattern of urbanization in which most of the urban population is concentrated in a few large cities because the rural masses are generally excluded from the process of development. Instead, many authors suggest that nations strive for a balanced urban hierarchy, with many rural towns, numerous small cities, fewer intermediate-size cities, and very few metropolises. Such a hierarchy offers a wider range of options to the migrants. Similary, some stress regional development and stimulation of growth centers to counter the magnetic effects of primate cities. With access to urban amenities and services in market towns, rural areas can be vitalized. More persons can profitably stay in farming, therefore the rural exodus will be reduced. The development of intermediate-size cities can serve the needs for industrialization and for nonagricultural lifestyles and jobs. Those who do wish to leave rural areas will have a broader range of urban destination choices. Thus, the strategy broadens the range of alternatives for rural and urban persons, while enhancing the spread of modernization throughout the country.

On the other hand, arguments can be made on behalf of the centralized urbanization strategy. While the development of large metropolitan areas may have hindered efforts to involve the rural subsistence population in modernization and development, it has accelerated innovation and change for many of the migrants who left rural areas for big cities. Further, recent evidence offered by Hansen shows that the development of market towns and intermediate-size cities has often failed to have the positive spread and income effects expected.[1] Thus it seems that the selection of a desired population distribution cannot be based on economic justifications alone. Political, cultural, and environmental concerns are also relevant to this decision.

Decisions concerning population distribution, urbanization, and migration also depend on the availability of implementation mechanisms. This report has tried to cover the range of policies used to attain the goals of each basic strategy, showing some of the problems governments have encountered in implementing the policies. Some of the policies require substantial political, administrative, or financial resources, often forcing governments to focus on selected regions or implement programs in phases.

What is clear from this analysis is the need for conscious elaboration of a national population distribution strategy. Many governments have begun coordinating national and spatial development with rural, regional, and urban development strategies, and others recognize the need to do so.

## ASSISTANCE FOR DEVELOPING POPULATION DISTRIBUTION STRATEGIES

### *Keeping Track of Migration Policies*

One method to facilitate the development of

population distribution policies is to increase the availability of information on policies influencing migration. This report has attempted to supply some of the basic information concerning various issues and migration policies, but more information is needed on the actual results of policies. It is essential that migration and urbanization impacts be included in policy evaluations. Only by broadening our knowledge of actual program experience will the task of selecting and influencing population distribution become easier. The establishment of a system for collecting information on migration programs is needed. The critical areas for evaluation of migration-policy consequences are changes in national and local employment, income level and distribution, and level of living, with the attendant changes in migration patterns. The same variables used in the evaluation of policies not explicitly designed to influence migration can be utilized. Program details should also be collected.

To provide greater comparability, the use of a uniform program classification is suggested. One which seems to match migration and development programs clearly is as follows:

- Capital-intensive agricultural development,
- Integrated rural development,
- Rural colonization and settlement programs,
- Market-town development,
- Intermediate-size city development,
- General regional development,
  - Economic base, industrial development,
  - Human resource development,
- Metropolitan planning and development,
- New towns and satellite cities,
- Other.

Information on the development and implementation of these programs in the various countries should be made readily available, perhaps at clearing-houses associated with each of the United Nations regions. If information on programs and program consequences is easily available, the task of integrating national, regional, and local programs should be much easier than if each country must rely on a trial and error approach.

### *Training for Migration and Urbanization Planning*

There is considerable need for assistance in preparing urbanization and migration strategies. The coordination of national sectoral programs with spatial development programs is a demanding and continuing task. Furthermore, most countries have little experience in this process. Old planning and program methodologies need to be adapted and new ones added. Communication channels between the various levels of decisionmaking need to be added and utilized. Training in goal formulation, plan preparation, and program implementation is especially important at local levels, although national agencies also may need assistance in integrating national plans with regional and local plans. Accomplishing this training is not easy, given the scarcity of planning manpower.

Two methods which may be adopted to increase training resources are as follows: First, mobile teams of planners can operate out of the capital, providing assistance to local planners and citizens. In some cases, international assistance may be needed at the national level in countries which do not have a well developed national planning capacity. This could be arranged, for example, through the United Nations or bilateral donor agencies, with care taken to adapt planning methodologies to each nation's priorities and chosen operational mode. Second, planning internships can be made available to local planners. They can receive on-the-job training with federal or regional agencies, as in Brazil and Chile.[2]

### *Additional Research on Migration Issues*

As more becomes known of the spatial and distribution aspects of development goals and programs, this knowledge can be incorporated into the planning of regional and national development programs. Along with the policy evaluation research suggested above, inquiry into the following areas might well improve understanding of how programs influence migration, and vice versa.

- Noneconomic factors affecting migration decisions --
  - To what extent is migration a lagged response to prior development or to prior migration by friends or family?
  - To what extent is the concept of risk and uncertainty relevant to migration decisions?
  - To what extent is migration a response to political stagnation or powerlessness operating against change in the origin (or for changes in the destination)?
- Migration impacts --
  - Is there a trend toward increased numbers of less mobile migrants? When the proportion of less mobile migrants increases, how are migration impacts, altered in terms of

unemployment, demands for services, ability of cities to cope, and migrant politicization?

What is the role of the urban traditional sector in absorbing migrants? How do changes in this sector affect absorption?

What is the role of the urban traditional sector in urban development? How does it enhance or detract from efforts to raise overall productivity or municipal ability to provide services?

What are the short- and long-range rural development impacts of rural outmigration? Do remittances and return migration alter these impacts?

Is migration related to fertility decline, relative to the origin, and if so, under what circumstances?

Growth centers--

What are criteria for selecting market towns and growth centers?

Under what circumstances do and do not spread effects occur?

How is city size related to ability to cope with migrant influxes? What attributes facilitate absorption of poor, less mobile migrants?

### *The Need for Coordination*

Beacause migration and development programs are interactive, planning and coordination is a dynamic process and one which is never complete. Despite the immenseness of the task, integration of national with regional and local development is critical to development. National development programs have migration consequences which can either help or hinder subsequent progress toward modernization and growth. Ignoring the problems of migration and rejecting programs for improvement are decisions in themselves. Knowledge of the policies and impacts is incomplete, but action now is better than waiting for better techniques or information, thus inviting potentially worse spatial inequities.

### *FOOTNOTES*

1. Hansen (1975:165-180)
2. See discussion of Chile's ODEPLAN agency (Friedmann, 1968), and Brazil's CURA and IBAM (Rivkin and Carson, op.cit.).

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