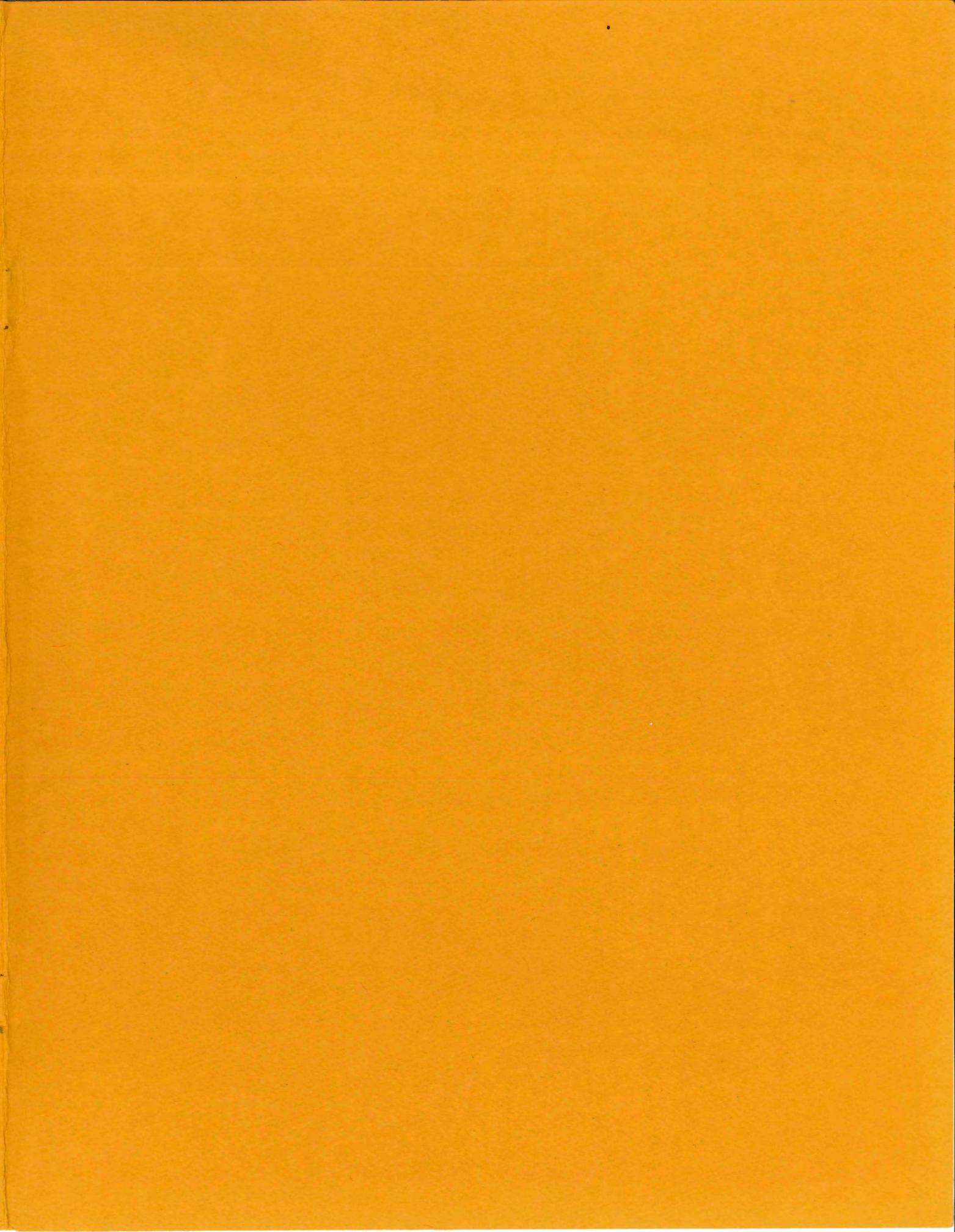


Development Activities and Rural-Urban Migration:

Is it Possible to Keep Them Down on the Farm?

March 1979

**Office of Urban Development
Bureau for Development Support
Agency for International Development
Washington, D.C. 20523**



DEVELOPMENT ACTIVITIES AND RURAL-URBAN MIGRATION:

IS IT POSSIBLE TO KEEP THEM DOWN ON THE FARM?

by

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March 1979

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FOREWORD

Over the years there have been many changes in the focus of development assistance programs. Some change is induced by previous development efforts. Some of the shifts in direction and emphasis are reflections of changed circumstances in donor and recipient countries alike. Indeed, some of this change is a result of increased knowledge and understanding of the problems being addressed and of the effects of various solution-seeking approaches.

For the past four or five years many development assistance agencies have emphasized the rural aspects of the development process, almost to the total exclusion of its urban dimensions. This study examines one of the most frequent assertions about rural development programs and about the changes they help to produce - - i.e., that they can help retard or stop rural-to-urban migration. The inquiry is posed provocatively in the study's subtitle: Is it possible to keep them down on the farm?

Dr. Rhoda reviews the relevant literature on migration, including the presentation of theoretical models and empirical studies, then looks at nine different development activities in rural areas and their impacts on rural-to-urban migration. He examines also the similar efforts of international agencies. His conclusions are set forth clearly and concisely, including also a useful table summarizing the "migration implications of specific development activities in rural areas." He concludes

his study by identifying important implications for development activities, project assessment and analysis, and future research.

This is another significant contribution which Dr. Rhoda has made to the Agency and to the field of urban and regional development. His earlier "Guidelines for Urban and Regional Analysis..." has been well received and used widely; it is expected to be issued soon in a revised form which will include several empirical case studies.

The Office of Urban Development is grateful to Dr. Rhoda for his continuing interest in and for his willingness to use his considerable talents to advance the state-of-the-art of development.

PREFACE

In the past, it generally has been assumed that development activities in rural areas act to slow rural-urban migration. Though the assumption is still widely accepted, scholars familiar with development activities and migration in third world areas have questioned the validity of this assumption. What is the rural-urban migration impact of development activities in rural areas? This issue is more complicated than previously believed. In an attempt to clarify this issue, the Office of Urban Development, Development Support Bureau, Agency for International Development, sponsored the research which is reported herein. I hope this report clarifies the issue by analyzing relevant literature and exposing a number of popular misconceptions concerning the assumption that development activities in rural areas slow rural-urban migration. It is hoped that this exploratory study will stimulate additional discussion and research on this important issue.

I would like to thank William R. Miner and Eric Chetwynd, Jr. of the Office of Urban Development for their valuable comments and suggestions on all phases of the investigation from preliminary outlines to final draft. I am also very grateful to Sally E. Findley who made a very comprehensive and constructive critique of the first draft of the report. Judy Gilmore and Jasper Ingersol also provided valuable input to the investigation. Though this work greatly benefitted from the comments and suggestions of others, any opinions, conclusions or errors found in the report are the sole responsibility of the author.

Richard Rhoda

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EXECUTIVE SUMMARY

A relatively popular belief is that development in rural areas can slow rural-urban migration and therefore help alleviate problems of urban poverty. The logic behind this belief is based on a number of propositions which are not completely consistent with available empirical evidence. This study investigates the proposition that development activities in rural areas can slow rural-urban migration. The study analyzes relevant migration theories, empirical studies of migration, and numerous different types of development activities.

Social theory of migration suggests three reasons for expecting a positive impact on migration. First, development activities increase urban-rural integration and reduce the physical and socio-cultural distance between rural and urban areas. With the reduction of these intervening obstacles to migration, greater rural-urban movements are expected. Second, development in rural areas often results in higher levels of education, aspiration and general modernization. These social changes tend to increase propensity for rural-urban migration. Third, as societies develop, migration volumes and rates usually increase.

Economic models are in conflict concerning the impact on migration. The Todaro expected income model suggests that migration will be slowed because rural-urban income differentials decline as a result of development activities in rural areas. The intersectoral linkage model predicts accelerated migration as development induced additions to rural income are spent on urban goods and services thus leading to urban employment generation and rural-urban migration. The Sjaastad benefit/cost model suggests an ambiguous impact on migration as both net benefits and costs of migration tend to decrease as a result of development activities in rural areas.

Empirical studies suggest that development activities in rural areas have mixed impacts on rural-urban migration. In general, migration tends to be slowed by activities which reduce population growth, increase cultivatable land, or distribute land or income more equitably. In contrast, migration is usually stimulated by

activities which foster rural-urban integration, improve rural roads or other forms of access to cities, increase commercialization of agriculture, or improve rural education and skill levels. Development activities which raise rural incomes may either increase, decrease, or have no net effect on rural-urban migration; the relationship between rural income growth and rural-urban migration is complex and eludes broad generalization.

The findings of this investigation, which are summarized in Table 2, indicate that different types of development activities in rural areas have different implications for migration. Each specific activity may have some impacts which accelerate migration and others which tend to slow rural-urban movements. Because of these counteracting impacts on migration, it is difficult to make broad generalizations. The actual impact of a specific development project on rural-urban migration depends in large measure upon the specific characteristics of the project and the area into which it is introduced. On the other hand, the investigation suggests a number of tentative generalizations about the impact on rural-urban migration of development activities in rural areas.

While some types of agricultural development activities may have a negative impact on rural-urban migration, others tend to have a positive impact. In general, land reform and resettlement schemes tend to slow migration. Rural-urban movements also may be slowed by irrigation projects. On the other hand, the adoption of Green Revolution technology (high yield seeds and fertilizer) tends to accelerate rural-urban migration. The destination of Green Revolution induced migration flows may focus more on regional centers and market towns than on metropolitan areas. Other activities which have tended to stimulate migration include rural land rent ceilings, agricultural mechanization and the provision of agricultural credit and extension.

Development activities which generate off-farm employment usually stimulate migration to places experiencing employment growth. Since most "rural" enterprise development occurs in small urban centers, induced migration tends to be directed towards small towns in the short run. However, as workers gain nonfarm

occupational skills they may move to metropolitan areas. Construction of rural public works can slow rural-urban migration; however, after completion of construction, urban migration may accelerate.

With the exception of education, development activities which improve social services in rural areas have relatively minor impacts on migration. Education provides youth with modern/urban skills, attitudes and values; therefore it provides a strong stimulus to rural-urban migration. Improved health care has weak and mixed impacts on migration. Family planning programs and other activities which reduce fertility can slow rural-urban migration in the long run.

The rural-oriented activities of international development agencies generally stimulate additional rural-urban migration. The primary reason for this impact is that operating and project expenditures for agency rural oriented activities are made primarily in capital cities. Employment generated by these expenditures and their multipliers provide a significant incentive for rural-urban migration.

Though the generalizations presented in this study are only tentative, two definite conclusions are offered. First, the impacts on rural-urban migration of development activities in rural areas are complex and elude broad generalization. Second, in general, development activities in rural areas cannot be justified on the grounds that they slow rural-urban migration.

I. INTRODUCTION

Background

Increasing urbanization is one of the most pervasive processes in developing countries. According to a recent World Bank document, "Between 1975 and the year 2000 the cities of the developing countries will be expected to absorb 70 percent of the projected population increases - 1.3 billion."¹ Projections such as these often give the impression of massive rural-urban migration flows and extreme problems of urban poverty and unemployment. Even at present, problems of urban poverty are very visible, especially in the largest cities. This visibility has resulted in the focus of considerable attention on urban poverty and un- and under-employment. Governments are particularly concerned, either for humanitarian reasons or because the growing urban underclass is perceived as a threat to political stability. Governments often assume that problems of urban poverty are a direct consequence of rapid urban growth. A recent survey of governments in 98 developing countries indicated that half considered present levels of metropolitan growth excessive.² The governments tended to link urban poverty problems with rural-urban migration; about three-quarters of the surveyed countries were pursuing programs designed to reduce migration flows.

A relatively popular belief is that improvement of conditions in rural areas will reduce rural-urban migration and consequently relieve some of the growing problems of poverty in urban areas. Based on this belief, many development activities in rural areas have been justified partially on the grounds that they will reduce urban migration. The proposition that development activities in rural areas will reduce rural-urban migration seems intuitively obvious. Development will make rural areas more attractive; therefore, people will be less apt to leave. Development will increase

¹Notes are located at the end of each chapter.

rural incomes and employment thus, diminishing the major motivation for migration - namely, economic gain. At first glance the proposition appears to be consistent with both migration theory and empirical studies of rural-urban migration. However, on closer inspection the proposition seems less valid. Some of the migration and development literature suggests that development activities in rural areas may even increase rural-urban migration. The proposition which seems so intuitively obvious at first is actually a hypothesis in need of testing.

Thorough reviews of the migration and development literature indicate that little research had focused directly on this hypothesis. A number of reasons can be offered for the lack of research in this area. First, the hypothesis seems so obvious that it may not have appeared worthy of investigation. Second, the separation of academic research and applied knowledge may have contributed to the neglect of this issue. The hypothesis links essentially applied phenomena, development activities, with a more general social process, rural-urban migration. The more general question of interrelationships between rural social change and migration have been investigated on occasion. Such investigations, which will be discussed in greater detail later, provide some reasons for doubting the proposition that development activities in rural areas will reduce rural-urban migration. Anthropologists working in rural areas could provide considerable information concerning the hypothesis; however, until recently they generally selected culturally "pure" areas which were not contaminated by development activities. In addition, social scientists studying rural societies have tended to concentrate more on those who remained rather than those who migrated. Despite these caveats, there have been a great number of studies on rural outmigration; unfortunately, few of these have focused directly on the interrelationships between migration and development activities. Third, in the past, development agencies have allocated very limited resources for the evaluation of such social impacts of their projects as rural-urban migration. Lack of research on the hypothesis may also stem from the general lack of effective methodology for conducting social impact analyses.

There appears to be some misconceptions in the logic behind the belief that development activities in rural areas will reduce urban migration and therefore alleviate problems of urban poverty. The logic behind this belief often is based on some or all of the following propositions. First, expansion of urban population and rapid increases in urban poverty are closely associated with migration. Second, the majority of those in urban slums and squatter settlements are migrants. Third, most migrants are poor or, at least, not so well-off as urban natives. Fourth, the flow of migrants into urban areas primarily originates in rural areas. Fifth, migrants who are forced to leave rural areas due to rural poverty and unemployment usually move into urban areas. Sixth, improvement of conditions in rural areas will reduce the flow of rural-urban migration. Finally, development activities in rural areas will improve rural conditions and therefore reduce rural-urban migration. Unfortunately, this relatively popular set of propositions is not completely consistent with empirical evidence. Before discussing this matter further, it is useful to clarify some definitional issues which contribute to misconceptions about rural-urban migration.

Empirical studies of rural-urban migration and its impact on urban growth contain a variety of different definitions which tend to confuse basic issues and lead to misconceptions. Perhaps the biggest stumbling block revolves around efforts to divide the rural-urban continuum into a dichotomy of "rural" and "urban" components. At one extreme are those who consider any center which provides urban-type services as "urban." Such small centers may contain populations of only 50 people. At the other extreme are those who consider everything outside the capital or primate city as "rural." With this approach, cities of 500,000 or more are placed in the "rural" category. The confusion surrounding definitions of "rural" and "urban" is widely recognized but still blocks rational discussion of rural and urban interactions.

A variety of definitions has been used to separate "migrants" from "nonmigrants." Unfortunately, many studies do not provide an explicit definition; consequently the reader is forced to make an arbitrary assumption. Distinctions between migrants and nonmigrants

are particularly important in analyses of the contribution of migration to urban population growth. Studies which stress the importance of migration to urban growth may define migrants as anyone who was born in another area or the child of anyone who was born in another area. On the other hand, migrants may be defined as those who have moved into the area within the last year, while all of the rest are considered as nonmigrants. Obviously, there is a wide variety of alternative definitions between these two extremes. Confused definitions concerning migrant-nonmigrant and rural-urban are partially responsible for some of the popular misconceptions about migration and urban population growth.

Perhaps the most serious misconception is that migration is the primary cause of urban population growth. Migration is only one of the many factors which contribute to urban growth. The most important factor in urban population growth is natural increase in urban areas. Available data suggest that natural increase (the difference between births and deaths in urban areas) accounts for almost 60 percent of the increase in urban population.⁴ Another factor is natural increase in rural communities which pushes their population across arbitrary urban-rural classification borderlines, thus causing them to be reclassified as "urban" communities. Similarly, the city limits of urban areas are often expanded to encompass populations which were previously classified as "rural." Recent calculations based on United Nations data indicate that during the next decade rural-urban migration will account for less than 25 percent of the urban population growth in Latin American and less than 40 percent in Africa and developing countries of Asia.⁵ Though these figures are only rough approximations, they are sufficient to rectify the misconception that most urban growth is caused by migration.

Many recent studies have focused on migrants in slums and squatter settlements.⁶ These studies give many readers the impression that most of the residents of slums and squatter settlements are migrants and that most migrants are poor or at least not so well-off as urban natives. Reviews of available information suggest that migrants, by whatever definition, generally are almost as well-off as urban natives.⁷ The literature reveals considerable

variation concerning the comparative social well-being of migrants and natives. Though many migrants are relatively poor, a very sizeable proportion are quite successful having moved to urban areas to take advantage of their relatively high education and skill level. The fact that the socioeconomic distributions of migrants and nonmigrants are quite similar should dispel the popular belief that most migrants are poor in comparison to urban natives. By the same token, available empirical evidence suggests that migrants usually are a minority in urban slums and squatter settlements even though such areas may have a slightly higher percentage of migrants than the total urban area.

Another popular misconception concerns the origins and destinations of major migration flows. Many appear to assume that migrants in urban areas have come from rural areas and that those who leave rural areas migrate to urban areas. Available evidence indicates that a very sizeable proportion of migrants to urban areas come from other urban areas, especially in highly urbanized Latin America.⁸ For example, less than 15% of migrants to Santiago and less than 25% of migrants to Bogota came from rural areas.⁹ Rural to rural migration is also important, particularly in the less urbanized areas of Africa and Asia. A well known example of rural to rural migration is the movement of rural labor into the cocoa and coffee producing areas of West Africa. Urban to rural migration is also significant in many areas. The importance of migration to rural areas is often overlooked; a study of migration in the highly urbanized country of Colombia indicates that over one-third of all migrants had moved to rural areas.¹⁰

In summary, the belief that development activities in rural areas will reduce urban migration and, therefore, relieve problems of urban poverty, is based on a number of propositions which are not completely consistent with available empirical evidence.

Purpose of the Study

The overall purpose of the study is to investigate the hypothesis that development activities in rural areas reduce (or

increase) rural-urban migration. The approach taken is to analyze all available published and unpublished literature which is relevant to the hypothesis. Two major bodies of literature are screened -- namely, the migration literature and the development literature pertaining to rural areas. It was recognized at the outset that a conclusive answer was probably not possible because conditions vary so greatly between countries and between types of development activities.

For the purpose of the study, development activities in rural areas are defined as actions taken by national or international agencies which are explicitly designed to increase production or improve the quality of life in rural areas. While this definition includes policies, programs, projects, and specific rural improvements, the emphasis is placed on projects and specific improvements. Numerous types of development activities are considered under three general headings: agricultural development, off-farm employment, and provision of rural social services. Integrated rural development projects or market town projects may include several types of rural improvements, such as improved education, health services, agricultural credit, and employment generation. The study does not explicitly focus on these types of general projects; instead, each type of improvement is analyzed separately so that its individual impacts on the rural-urban migration can be isolated.¹¹ The study also focuses on rural improvements rather than the methods used to implement improvements.¹² However, labor intensive methods of implementing rural public works are considered in the section on off-farm employment.

Rural-urban migration in this study is defined as residential relocation from a predominantly agricultural area to an area in which a majority of the employment is in nonagricultural activities. Though this definition does not distinguish between urban centers of varying sizes - i.e., between market towns and metropolitan areas - throughout the study there is an attempt to make this distinction when it is relevant and possible. The definition also does not distinguish between seasonal, other temporary and permanent migration. Though the focus is on permanent migration, the study does not explicitly distinguish between temporal types of

migration because seasonal and temporary movements often lead directly to permanent migration.

The nature of the study implies a concentration on activities and characteristics in rural areas which influence rural-urban migration. This concentration is not meant to suggest that activities and characteristics in rural areas are the only nor the most important factors in rural-urban migration. Certainly, economic opportunities and availability of friends and relatives in urban areas are extremely important factors. However, these factors are held constant in this study so that attention can be focused on the impacts on migration of development activities in rural areas. In terms of economics, the relationship between development activities in rural areas and rural-urban migration is investigated under ceteris paribus conditions. The implicit assumption is that wage rates, social service provision, and amenities are generally higher in urban than rural areas. This assumption is consistent with evidence from all developing areas. In other words, the assumption is made that a significant urban "pull" factor is present in all cases.

The study is limited to the impacts of development activities on migration. The investigation is not directly concerned with impacts of migration on development activities, rural origins, or urban destinations. Furthermore, the study is not concerned with the question of whether rural-urban migration has a net positive or negative effect on national development.¹³

The report is presented in four chapters. The first or introductory chapter describes the central hypothesis and purpose of the study. The second reviews relevant migration literature by discussing key migration models and theories and investigating empirical evidence related to the central hypothesis. The third chapter reviews relevant development literature and attempts to isolate the impact on rural-urban migration of a variety of development activities in rural areas. The final chapter summarizes the findings, draws conclusions, and discusses implications for development activities and future research.

Notes

¹Beier, et al. (1975)

²Findley (1977: 111)

³Though several studies have investigated the relationships between rural-urban migration and development as a process, few, if any, focus explicitly on relationships between migration and development activities - i.e., development projects and programs.

⁴Findley (1977: 32-38); U.N. (1975).

⁵Findley (1977: 36); U.N. (1975). Calculations use national definitions to distinguish between "rural" and "urban" areas. Methodology is based on projections of rural and urban population growth and assumption that rural and urban rates of natural increase are equal.

⁶Karpat (1976); Perlman (1976); Mangin (1970); Peattie (1968); Flinn (1968); Cornelius (1975).

⁷For reviews of relevant empirical studies see Findley (1977: 23-32, 41); Brigg (1973); Speare and Goldstein (1978).

⁸Simmons, et al. (1977); Yap (1975); Brigg (1973); Findley (1977: 22).

⁹Simmons, et al. (1977: 94).

¹⁰Simmons, et al. (1977: 92).

¹¹The focus on individual rural improvements precludes an analysis of the possible impacts on rural-urban migration of interactions between different types of improvements. Such interaction effects are complex and beyond the scope of this exploratory study.

¹²It realized that different implementation methods may influence migration; for example, local participation in project identification, design, and administration may increase local commitment and, therefore, might possibly reduce rural-urban migration. There is almost no available literature relating implementation methods and migration; consequently, this issue was considered beyond the scope of this exploratory study.

¹³For a review of the influences of migration on rural origins, urban destinations, migrants themselves, and national development, see: Findley (1977: 23-64); Lipton (1978).

II. REVIEW OF RELEVANT MIGRATION LITERATURE

Theoretical Models of Migration

Numerous different theoretical models of migration have been developed. Models relevant to the purpose of this study can be grouped conveniently into social models and economic models. The different social models which are relevant can be incorporated into a general social theory of migration. On the other hand, for the purpose of this study, it is useful to discuss each relevant economic model separately.

A General Social Theory of Migration

Perhaps the first attempt to develop a theory of migration was Ravenstein's presentation of "laws" of migration in the late nineteenth century.¹ These laws were comprised of a set of migration generalizations which largely have withstood the test of time. Working from the so-called "laws" and additional empirical generalizations, Everett S. Lee presented his theory of migration in 1966.² He attempted to develop a truly general theory which explained internal and international migration in and between both developed and developing areas over a long period of history. Lee's conceptual framework is sufficiently general to incorporate other social models relevant to our central hypothesis. The framework focuses on migration decision-making and presents four general factors which influence migration decisions: origin factors, destination factors, intervening obstacles, and personal factors.

Origin Factors.³ In every area there are factors which influence migration from the area. Some of the attractive factors tend to hold people in the area while other factors tend to repel them. Such factors may be thought of as "push" and "pull" forces. An important point is that these factors may influence the migration decisions of different people in different ways. For example, land reform may be perceived as a positive factor by tenant farmers; therefore, it may decrease their propensity for migration. On the

other hand, land reform can increase the migration propensity of large landholders.

Development activities in rural areas are designed to increase production and improve the quality of life in rural areas. These activities should, therefore, increase the attractiveness of rural areas and, consequently, reduce the propensity for out-migration of most rural people. In short, the impact of development activities on origin factors should reduce rural-urban migration. This relatively obvious impact is the basis for the popular belief that development in rural areas will reduce rural-urban migration.

Destination Factors.³ As with origins, destinations have attractive and repulsive forces which influence migration decisions. The so-called "pull" of urban areas often are discussed in conjunction with "push" forces in rural areas. However, it should be remembered that both origins and potential destinations contain "push" and "pull" factors. Another important point is that migration is not directly influenced by origin and destination characteristics, rather by the perceptions of these characteristics by migration decision-makers. While origin factors may be accurately perceived, this is not always the case for destination factors. Inaccurate perceptions of potential destinations, often based on lack of information, impose an element of risk for those who migrate.⁴

Development activities in rural areas of origin may not have direct effects on factors at potential urban destinations, but they have indirect effects. Development activities increase production levels in rural areas and often lead to a shift from subsistence to commercial agriculture. With increased production, income, and commercialization, the rural demand for urban-produced consumer goods and agricultural inputs tends to rise. Such increases in demand can generate economic activity and employment in urban areas through rural-urban economic linkages and multipliers.⁵ Expanded economic activity in the urban areas can act as a stimulus to rural-urban migration. In short, successful development in rural areas can increase the "pull" of urban areas and, therefore, contribute to rural-urban migration.

Intervening Obstacles.⁶ The simple summation of the push and pull factors at origins and potential destinations does not in itself dictate migration decisions. Consideration must be given also to everpresent natural inertia and obstacles between origins and potential destinations.

Distance is the most obvious obstacle; countless studies reveal the negative relationship between distance and migration.⁷ Both physical distance and socio-cultural distance are important. Physical distance is related to the time and cost of initial moves as well as visits to urban areas. Socio-cultural distance includes differences between origins and destinations with respect to language, degree of modernity, religion, values, and attitudes. Lack of information concerning opportunities and characteristics of potential destinations is related to socio-cultural distance.⁸ In some cases, physical barriers and enforced migration restrictions act as intervening obstacles to migration.

In general, development activities in rural areas tend to reduce intervening obstacles to rural-urban migration. Physical distance between rural and urban areas is reduced by road and highway improvements, building of bridges, and improvements in transportation services. Development which increases rural incomes enables people to overcome obstacles to rural-urban migration more easily. Migration requires an amount of financial resources; often people do not migrate because they simply cannot afford it.⁹ Development activities may provide them with the funds needed to migrate.

Perhaps more important than the reduction in physical distance is the impact that development has on the socio-cultural distances between rural and urban areas. The most obvious example is the development of formal education in rural areas. Education enables rural youth to acquire modern urban attitudes, aspirations, language skills, and accreditation in the form of school diplomas and certificates. Thus, formal education has reduced socio-cultural distance greatly and, therefore, resulted in considerable rural-urban migration.¹⁰ Development activities usually involve a shift from traditional systems to modern systems - for example, from subsistence

to commercial agriculture, from fatalism to rational planning, from traditional to modern languages and belief systems, and from provincial to urbane interests and attitudes. These changes all tend to reduce socio-cultural distance between rural and urban areas. An explicit purpose of many development activities is to integrate rural areas into the national system; this reduces rural-urban socio-cultural distance and provides rural populations with considerable information concerning opportunities and characteristics in urban areas. Such information reduces the risk of rural-urban migration.

In summary, a direct impact of development activities in rural areas is the reduction of such intervening obstacles to rural-urban migration as physical distance, socio-cultural distance, and information. The reduction of these intervening obstacles is expected to increase rural-urban migration.

Personal Factors.¹¹ Personal factors are an important consideration in rural-urban migration. As mentioned earlier, it is the perceptions of origin and destination factors and intervening obstacles which are crucial to migration decisions. Perceptions of the same factors can vary considerably from individual to individual. Different individuals also are affected differently by the same factors. For these reasons it is important to distinguish between types of individuals. Though Lee recognized that no two individuals are the same, he suggested that generalizations can be made about types or classes of migration decision-makers. While most theories implicitly assume that migration decisions are made by potential migrants, evidence from developing countries suggests that family heads often make migration decisions for members of their clan.¹²

A number of personal characteristics are related to propensity for migration. Relevant personal characteristics include age, sex, marital status, level of education, income, landholdings, occupation, previous exposure to urban areas, and such behavioral variables as attitude toward risk, aspiration level, value and belief systems, and attachment to rural society. Some of the relationships between personal factors and migration propensity are complex and not completely understood.

Development activities in rural areas may have considerable effect on personal characteristics. Increases in individual landholdings are expected to reduce rural-urban migration. Growth of individual income can have either a positive or negative impact on migration depending on the specific situation.¹³ As discussed earlier, development tends to be associated with a number of individual factors which may result in greater propensity for rural-urban migration. These factors include increased levels of education, aspiration, awareness of urban opportunities, and general level of modernization. It appears that the net impact of development activities on personal factors tend to increase propensities for rural-urban migration. However, these impacts are likely to vary considerably from place to place and from individual to individual.

Hypotheses. Lee hypothesized that a number of general propositions can be made which characterize migration in a wide variety of circumstances. He suggested that the volume and rate of migration tend to increase with the passage of time and level of progress in the country. Development activities which accelerate socio-economic change (i.e., passage of time) and stimulate progress are expected to increase all types of migration including rural-urban migration.¹⁴

Lee presented a number of hypotheses concerning the selectivity of migration. He suggested that migrants responding primarily to pull factors at urban destinations tend to be positively selected (i.e., come from more well-off groups in rural areas). On the other hand, those who primarily respond to push factors at rural origins are likely to be negatively selected. Taking all migrants together, selectivity tends to be bimodal - i.e., migrants are more apt to be either relatively poor or relatively well-off. The pattern of bimodal selectivity suggests that development activities which increase equity in rural areas may reduce migration. Lee also hypothesizes that the degree of positive selection increases with the difficulty of intervening obstacles. Thus, more well-off rural groups are more likely to make the difficult migration either to distant metropolitan areas or during the early

stages of urbanization when rural-urban socio-cultural distances are great. The converse suggests that development activities which reduce intervening obstacles can lead to less selective migration as poor rural residents find it easier to move to cities.¹⁵

Conclusions. Though social theory of migration suggests that development activities in rural areas have both positive and negative impacts on rural-urban migration, the net impact is expected to be positive. The theory suggests one basic reason why development activities may reduce migration. Successful development activities make rural areas more attractive in terms of economic activities and amenities; therefore, the desire of rural residents to migrate should be reduced. This relationship is the basic idea behind the belief that development activities in rural areas will reduce rural-urban migration.

In contrast, three basic components of social theory of migration imply that development activities in rural areas will increase rural-urban migration. First, development activities result in greater rural-urban integration and the reduction of physical and, more importantly, socio-culture distance between rural and urban areas. As these intervening obstacles to rural-urban migration are decreased, greater flows of rural-urban migration are expected. Second, development activities are associated with a general modernization of the personal characteristics of rural populations. Such changes tend to increase propensity for rural-urban migration. Third, the theory indicates that as societies progress or develop, migration volumes and rates increase.

In summary, social theory of migration indicates that development activities in rural areas are expected to have a net positive impact on rural-urban migration. The impacts are expected to vary considerably with respect to rural conditions and types of development activities.

Economic Models of Migration

Three economic models of migration are of particular interest concerning the question of the impacts on rural-urban

migration of development activities in rural areas: (1) the human capital or benefit/cost approach, (2) the expected income model, and (3) the intersectoral linkage model. The well-known labor mobility models of Sir W. Arthur Lewis and Fei and Ranis are not relevant because their assumption of a stagnant rural subsistence sector precludes the possibility of development in rural areas.¹⁶

The Human Capital or Benefit/Cost Model. This model uses the concept of investment in human capital to focus on the costs and benefits of migration decisions. The model as developed by Sjaastad assumes that people will migrate when the benefits outweigh the costs.¹⁷ Benefits of migration are the present value of potential income gains from the difference in income between origins and destinations. Nonmonetary benefits such as those arising from location preference are also included in the model. Costs of migration include moving expenses, opportunity costs of foregone earnings between jobs, and nonmonetary "psychic costs" such as the disutility of leaving one's home community and settling in an unfamiliar environment.

The benefit/cost model is attractive because it recognizes the effect of the individual characteristics of potential migrants. Older people are less likely to move because differential income returns from migration accrue over a shorter remaining lifespan and "psychic costs" may be greater. Educated youth tend to be more mobile because their origin-destination income differences are usually larger and their greater awareness probably reduces the "psychic costs" of migration.

The model has a number of implications concerning the rural-urban migration impact of development activities in rural areas. Development tends to reduce migration costs and may either increase or decrease the benefits of migration. Development in rural areas reduces both the monetary costs of migration (by improving rural-urban transport, etc.) and, more importantly, non-monetary or "psychic costs." Costs of migration in this context are analogous to "intervening obstacles" within the social theory of migration. Development in rural areas can increase the benefits of migration by preparing rural residents to more effectively

participate in urban activities. Development is associated with improved occupational skills, higher levels of education, greater aspirations, and more modern attitudes; such changes enable rural residents to better exploit urban economic opportunities. Modernization of rural residents may also act to increase the nonmonetary benefits of migration (i.e., appreciation of amenities, social opportunities, entertainment, etc.). On the other hand, development activities also increase the benefits of not migrating. Development can increase rural income and employment as well as provide improved living conditions; such changes make rural areas more attractive places to live. In short, development activities in rural areas tend to increase both the benefits of migration and the benefits of nonmigration. A crucial question is whether or not it increases or decreases net benefits of migration (migration benefits minus nonmigration benefits). If development activities have equal impacts on the benefits of both migration and nonmigration (i.e., if there is no change in net benefits of migration), then rural-urban migration is expected to increase because the costs of migration are reduced.

In conclusion, the benefit/cost model of migration suggests that development activities in rural areas will have mixed impacts on rural-urban migration. In actual situations the impacts will affect different people differently -- either increasing or decreasing their individual net benefits of migration and individual propensities for rural-urban migration.

Expected Income Model. This model was developed by Todaro in an attempt to explain a seemingly paradoxical situation of continued rural-urban migration in the face of rising unemployment in cities.¹⁸ The model is based on the idea that migration decisions depend upon perceptions of "expected" income rather than on actual wage rates. Expected income in rural areas is based on prevailing rural incomes and wages; in urban areas, expected income is a function of arbitrarily high urban sector minimum wages and the probability of gaining urban employment. According to the model, rural-urban migration will continue until the expected urban income is equal to the expected (prevailing) rural income.¹⁹ The model has received considerable attention and refinement.²⁰

Though the model focuses attention on selection of appropriate employment policies in urban areas,²¹ it also provides some implications for development activities in rural areas. Todaro suggests that investment in rural amenities and efforts to reduce rural-urban income differentials will result in decreased rural-urban migration.²² Harris and Todaro point out that, while creation of urban jobs will reduce rural production through induced migration, job creation in rural areas will not reduce industrial output and, in theory, will induce urban to rural return migration.²³

In conclusion, the expected income model implies that development activities in rural areas will reduce rural-urban migration flows. This model and the economic perspective in general appear to be the basis of the popularly held belief concerning the negative relationship between development in rural areas and rural-urban migration.

Intersectoral Linkages Models. This approach is based on the idea that different sectors as well as rural and urban areas are interconnected by systems of backward and forward linkages.²⁴ Through such linkages, development in rural areas influences economic activities in urban areas. Agricultural development is associated with increased demand for farm inputs; this backward linkage results in the growth of such urban activities as production and distribution of farm implements and machinery, fertilizer, new seed varieties, credit, and agricultural information. Forward linkages are apt to be more important; these include transport and storage of agricultural commodities, food and other agri-processing activities, and wholesaling, transport, and retailing of agricultural based products. Final demand linkages resulting from increased rural incomes are particularly important. Rural produced goods tend to be income inelastic while urban goods and services are generally income elastic.²⁵ Consequently, as incomes rise, rural customers are expected to spend an increasing proportion of added income on urban goods and services. While added rural income will generate some additional demand for rural goods, it will have a much greater impact on demand for urban goods and services. To meet this added demand, urban production will increase resulting in employment generation in urban areas and induced rural-urban migration.

The distribution of income gains in rural areas can have important implications for migration. The poorest rural families are apt to spend most of their additional income on basic food-stuffs which have little or no linkages to the urban sector. On the other hand, more well-off rural residents are likely to spend almost all of their added income on goods and services from the urban sector. In other words, development activities which increase incomes of middle-level and more well-off farmers will have a stronger positive impact on rural-urban migration than activities which concentrate benefits on the poorest rural residents.

Intersectoral linkages have important implications for the pattern of rural-urban migration. Most of the urban employment induced by agriculture growth through backward (demand for farm inputs) and forward (agriprocessing, etc.) linkages will accrue to market towns and regional centers. Consequently, backward and forward intersectoral linkages are likely to stimulate migration from rural areas to market towns and regional centers. Rural income growth also will increase the demand for consumer services in market towns and regional centers; the resulting employment generation will stimulate migration to these smaller urban centers. In contrast, employment generation induced by additional rural demand for urban products may primarily accrue to primate cities or even developed countries if products are imported. Therefore, this type of intersectoral linkage is likely to stimulate migration to metropolitan areas; however, this depends on the industrial structure and consumer preference of individual countries.

In conclusion, the intersectoral linkage model suggests that rural-urban migration may be stimulated by development activities in rural areas which raise rural incomes. While some of the induced migration may flow into large primate cities, most migrants probably will move to market towns and regional centers.

Overview of Theoretical Models

Different theoretical models are in conflict concerning the impact on rural-urban migration of development activities in rural areas. Some theories suggest that migration will be stimulated

while others imply that it will be reduced. General social theory of migration focuses on social changes associated with development; these changes provide rural residents with urban orientations and skills which consequently facilitate migration. The intersectoral linkage model also predicts accelerated migration as development induced increases in rural income are spent on urban goods and services thus leading to urban employment generation and rural-urban migration. On the other hand, the Todaro expected income approach suggests that migration will decrease because rural-urban income differentials decline as a result of development activities in rural areas. The situation is further confused by the Sjaastad benefit/cost migration model which suggests an ambiguous impact on migration as both net benefits and costs of migration may decrease as a result of development activities in rural areas. In short, theoretical models do not provide a clear-cut answer concerning the rural-urban migration impacts of development activities in rural areas. The next section attempts to clarify this issue by examining empirical evidence on rural-urban migration.

Empirical Studies of Migration

A large number of empirical studies have been conducted of internal migration in developing countries. Several reviews of these studies are available.²⁶ This section discusses empirical studies relevant to the impacts on rural-urban migration of development activities in rural areas. The discussion is presented in three units: (1) motivations for migration, (2) characteristics of migration origins, and (3) characteristics of migrants.

Motivations for Migration

Most surveys indicate that migration is primarily motivated by economic considerations. This result is consistently reaffirmed by empirical studies in Africa, Asia, and Latin America.²⁷ Economic factors are cited in surveys of both reasons for leaving an area and reasons for selecting a specific destination. Studies of out-migration generally indicate that economic "push" factors are most

important while in-migration studies suggest that economic "pull" factors are predominant. This difference could be attributable to two factors: (1) The locational context of the survey, *i.e.*, "Why did you leave here?" versus "Why did you come here?". (2) Those surveyed at rural origins and those at urban destinations may be samples of two different migrant groups because rural out-migrants are not the same as urban in-migrants.

Economic "push" factors may be most important to some migrants while "pull" factors are the primary concern of others. Empirical evidence suggests that major economic "push" factors include agricultural un- and under-employment, lack of land, and general rural poverty.²⁸ These factors are all interrelated and tend to have the strongest impact on the rural poor. Surveys indicate that the most important economic "pull" factor is the perception of high wages from urban employment.²⁹ "Push" and "pull" factors are closely interrelated; those who are "pushed" into migration are simultaneously "pulled" by the hope of finding something better elsewhere. By the same token those who are "pulled" by urban opportunities are simultaneously "pushed" by the lack of opportunities in rural areas.

Though empirical studies indicated that economic motivations are clearly most important, a number of other motivations for migration are suggested. Empirical studies in Latin America, Sub-Sahara Africa, and Asia suggest that some rural-urban migration is motivated by a desire for the educational opportunities offered in urban areas.³⁰ Other motivations cited in the literature include marriage (especially for women), joining the family already at the destination, escape from rural violence or war, and desire for urban amenities.³¹ Very little empirical evidence supports the popular idea that rural-urban migration is motivated by "bright city lights" or urban entertainment.³² It should be remembered that noneconomic factors are generally secondary reasons for migration; in the majority of cases economic considerations are the primary motive for migration.

Characteristics of Migration Origins

Relatively few empirical studies have investigated correlations between origin characteristics and rates of rural-urban migration. On the other hand, numerous investigations have been made of general out-migration (without distinguishing whether out-migrants went to urban or rural areas). These studies suggest that out-migration is associated with land availability and origin economic characteristics.

Land Availability. A number of empirical studies indicate that rural areas with high out-migration rates tend to have high population densities or high ratios of labor to arable land.³³ The positive correlation between out-migration and lack of land is generally true for rural areas in Africa, Asia, and Latin America; however, a few studies indicate a negative correlation.³⁴ Making causal inferences from studies correlating out-migration and land availability is problematical. Lack of land may cause out-migration; however, out-migration causes changes in land availability. Distribution of available land is also a factor in migration. Evidence from India and Latin America suggests a positive correlation between high rates of rural out-migration and unequal distribution of land.³⁵

Origin Economic Characteristics. A number of empirical studies investigate the relationship between level of rural development and rates of out-migration; however, the results of these studies are inconclusive. Much of the evidence from Asian countries suggests that rural areas with low income levels or low yields tend to have relatively high rates of rural out-migration.³⁶ On the other hand, studies from Africa and Latin America reveal high rates of out-migration from rural areas with relatively high levels of income³⁷ or education.³⁸ Relationships between income level and out-migration can be misleading because the causal link is ambiguous. Low (or high) per capita income in a rural area may be associated with factors which could cause increased out-migration. Alternatively, high rates of out-migration could cause increased per capita income (if the poorest left or if remittances were substantial) or decreased income (if better-off residents migrated).

Empirical evidence suggests that rural-urban integration is correlated with high rates of out-migration. Studies of rural areas in India, Colombia, and New Hebrides indicate a positive correlation between high rates of rural out-migration and commercialization of agriculture.³⁹ However, evidence from Turkey suggests a negative correlation.⁴⁰ Care should be taken in interpreting these results because farmers may have migrated temporarily in order to obtain the funds needed to invest in commercial agriculture. The large number of studies which indicate distance inhibits migration suggest that rural areas which are accessible to, and well integrated with, urban centers should exhibit high rates of rural-urban migration. This expectation is supported by the few studies which have explicitly investigated this issue.⁴¹ On the other hand, villages on the outskirts of cities may have low rates of out-migration because their residents may commute to opportunities in cities.

Conclusions. Clearcut conclusions are difficult to obtain because most studies of rural out-migration fail to distinguish between rural-rural migration and rural-urban migration. Empirical evidence suggests that rural-urban migration is positively correlated with rural accessibility to, and integration with, urban centers; however, this generalization is based on relatively few studies. Many empirical studies indicate that lack of land is associated with high rates of rural out-migration; however, whether or not these out-migrants go to urban areas is not clear.

Characteristics of Migrants

A large number of empirical studies have investigated the characteristics of rural-urban migrants. In almost all cases, studies reveal that migrants tend to have relatively high levels of education and are most likely to be young (15 to 30 years).⁴² In Africa and Asia migrants are more apt to be male while in Latin America and the Philippines females predominate.⁴³ Though the evidence is mixed, it appears that rural-urban migrants are more likely than nonmigrants to have nonagricultural occupational skills.⁴⁴

Rural-urban migrants are also more apt to have made previous visits to cities, have friends and relatives in cities, and be more aware of cities and the opportunities they provide.⁴⁵ In short, there is considerable evidence to suggest that rural-urban migrants are generally more qualified for urban life than rural nonmigrants.

A number of studies indicate that rural-urban migration is positively correlated with family income level.⁴⁶ The correlation appears to imply that as a rural family's income increases, it experiences higher rates of rural-urban migration. This implication is in direct contradiction to the expected income theory of migration. The theory suggests that rural-urban migration is positively related to the size of the rural-urban income difference; therefore as a rural family's income grows it should experience lower rates of migration (assuming expected urban income remains unchanged). The positive correlation between rural-urban migration and income level does not mean that income growth will necessarily lead to (cause) higher rates of rural-urban migration. The causal link between income level and migration is ambiguous; successful migration and remittances may cause high migration groups to have relatively high incomes. The correlation between income and migration rate also is confused by a number of intervening factors. Income is associated with other characteristics which promote rural-urban migration such as education and occupational skill levels, aspirations, information and awareness, self-efficacy, intelligence, and attitude toward development. It is these other factors which are positively linked to migration and not income per se. If income could be increased without influencing any of these other factors, then income growth might possibly slow rural-urban migration propensity. However, it is doubtful that this could result from a development activity. Development implies income growth and social change; income growth by itself is not considered development.

What is the influence of development-induced income growth on rates of rural-urban migration? This is a crucial question; unfortunately, relevant empirical evidence concerning this issue is not available. On the one hand, income growth could reduce the incentive for migration, thus lower migration rates are expected.

On the other hand, development-induced income growth is associated with social changes which tend to accelerate rural-urban migration. This is especially true for youth who are expected to have higher levels of education and rising aspirations as a result of income-generating development activities. Furthermore, rural income growth may stimulate additional demand for urban goods and services; thus generating urban employment through intersectoral linkages and stimulating additional rural-urban migration. In short, neither empirical evidence nor migration theory provide a clearcut answer concerning the impact on rural-urban migration of rural income growth induced by development activities. Because there are strong arguments on both sides of the issue, we assume in this study that development-induced rural income growth has a mixed impact on rural-urban migration. However, we can be sure that rural-urban migrants are positively selected in that they come from higher socioeconomic groups in rural areas.

There is some evidence to suggest that the degree of positive selectivity in rural-urban migration tends to decline with time. In other words, the differences in education, income, etc., between rural-urban migrants and rural nonmigrants generally decrease with the passage of time. This seems reasonable; early migrants must be well qualified to overcome the many obstacles to rural-urban migration. Later migrants find it easier because they can follow existing migration paths, stay with friends and relatives upon arrival, and rely on established networks to obtain housing or employment. Studies indicate declining rural-urban migration selectivity in Latin America.⁴⁷ However, there is little or no evidence of this trend in Africa or Asia.

Though rural-urban migrants usually come from better-off groups in rural areas, this generalization does not hold for all out-migrants from rural areas. Much of the literature on rural out-migration might appear to suggest that rural out-migrants are generally worse-off than rural nonmigrants. For example, surveys of reasons for rural out-migration usually reveal such motivations as "rural poverty," "lack of land," or "rural unemployment." However, few of the rural out-migration surveys indicate that, in

general, migrants are poorer than nonmigrants.⁴⁸ A partial reason for this finding is that a certain threshold of funds is needed before migration can be considered as a viable alternative.⁴⁹

A number of empirical studies support Lee's theory by indicating that rural out-migration is bimodal - i.e., out-migration rates are highest for those at the medium-low and medium-high levels of the rural income distribution.⁵⁰ Furthermore, those from medium-low income groups tend to move to nearby rural areas (or perhaps, small towns) while those from the medium-high groups are more apt to move greater distances into larger urban areas. This type of migration flow (Figure 1) has been observed in countries of Africa,⁵¹ Asia,⁵² and Latin America.⁵³ This model of migration flow is intuitively reasonable. Better-off rural income groups are more apt to migrate or send their educated youth to larger cities, in order to take advantage of their higher education levels or modern skills. On the other hand, relatively poor groups can only afford to migrate short distances and are expected to search for either agricultural or unskilled work in nearby areas because they generally lack the education, skills, and information needed to compete in large cities. However, moves to nearby small towns could possibly lead to later migration to big cities after requisite urban skills, education levels, and information are acquired. As mentioned above, the poorest of the poor are not expected to migrate because they lack funds for migration and are too preoccupied with survival. The middle-income rural residents might be less apt to migrate because they are fairly secure as farmers, sharecroppers, or petty entrepreneurs and they lack the urban skills which might motivate migration. Of course, the educated youth of middle-income farmers may migrate to cities while the uneducated youth, without access to land or agriculture employment, may be forced into rural-rural migration.

Conclusions

Empirical studies reveal a number of generalizations concerning internal migration in developing countries. Several of these generalizations are relevant to the issue of the impacts on rural-urban migration of development activities in rural areas.

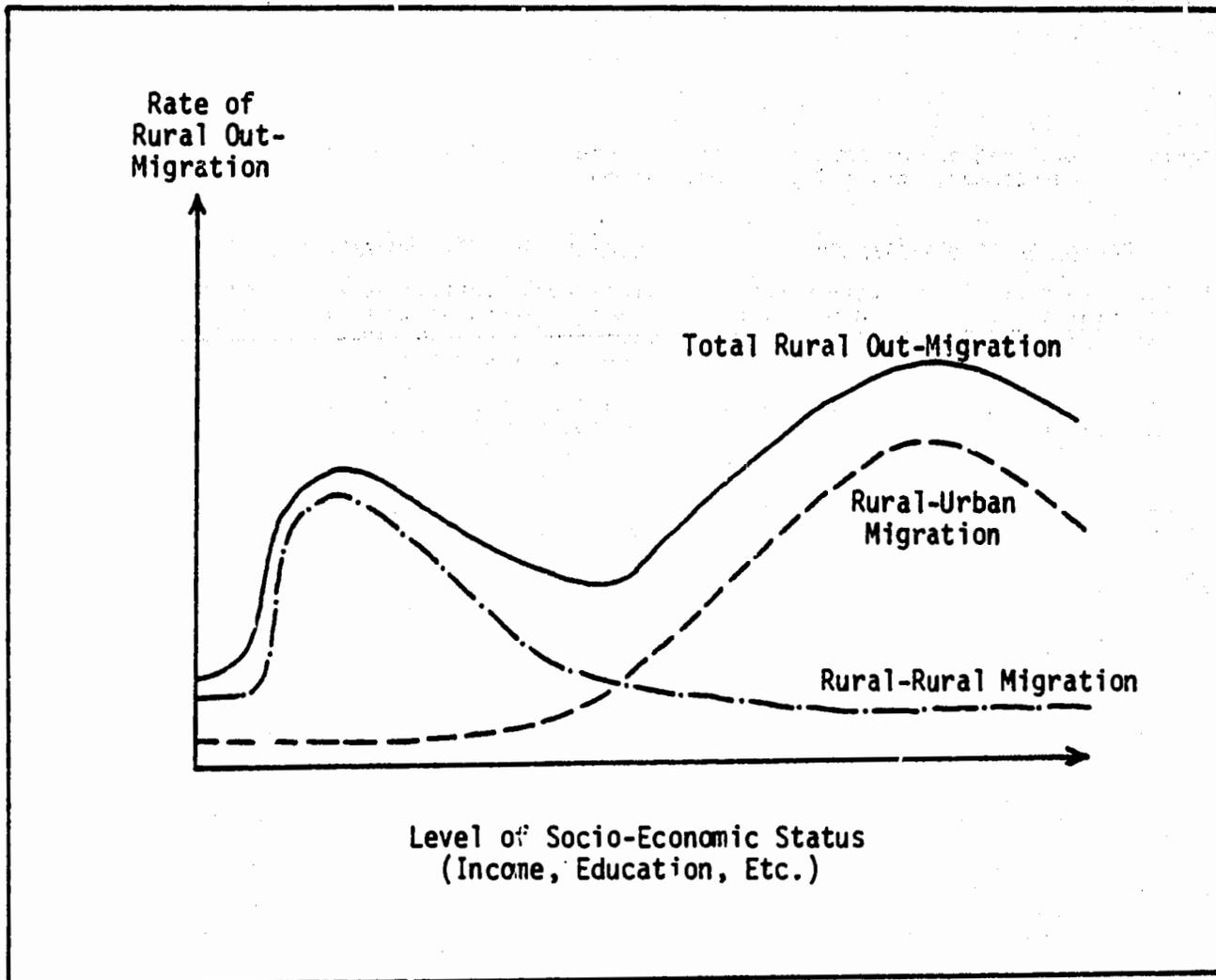


Figure 1. Idealized relationship between rate of rural out-migration and level of individual or family socio-economic status. Source: Author, based on argument and evidence provided by Lipton (1978).

Table 1. Implications of Empirical Studies Concerning Migration Impacts of Development Activities in Rural Areas

<u>Empirical Generalization</u>	<u>Implications for Development Activities</u>
1. Positive correlation between rural out-migration and high population density.	Development activities which reduce population growth or increase cultivatable land should, in the long run, reduce rural-urban migration.
2. Positive correlation between rural-out-migration and unequitable land distribution.	Activities which distribute land more equitably will probably reduce rural-rural & rural-small town migration, ^a and may reduce rural-city migration. ^a
3. Positive correlation between rural-urban migration and access to cities.	Activities which increase rural access to cities will probably stimulate rural-urban migration.
4. Positive correlation between rural-urban migration and rural-urban integration & commercialization of agriculture.	Activities which increase rural-urban integration and commercialization of agriculture may stimulate rural-urban migration. ^a
5. Positive correlation between rural-urban migration and level of formal education.	Activities which raise levels of formal education will almost always stimulate rural-urban migration.
6. Positive correlation between rural-city migration and occupational skill level.	Activities which raise skill levels may stimulate rural-city migration.
7. Unclear, assumed mixed impact on rural-urban migration of development-induced rural income growth.	Activities which raise rural incomes may either increase, decrease, or have no net effect on rates of rural-urban migration. ^a

^a Activities which distribute land more equitably, increase commercialization of agriculture, and raise rural incomes will probably induce growth of urban production and employment through intersectoral linkages. Most of the induced growth will probably accrue to market towns and regional centers; consequently, these urban centers are expected to experience increased in-migration as a result of the development activities.

Relevant generalizations are listed in Table 1. Each empirical generalization in the Table has implications concerning development activities in rural areas. The Table suggests that many development activities may tend to stimulate additional rural-urban migration; however, this conclusion is only tentative. The rural-urban migration impacts of actual development projects depend upon the detailed characteristics of both the specific development activity and the rural area into which it is introduced. The next chapter investigates the potential migration impacts of several types of development activities.

Notes

¹Ravenstein (1885 and 1889).

²Lee (1966).

³Origin and destination factors are important in other migration theories. For example: "push" and "pull" factors in the push-pull approach; rural and urban control subsystems in Mabogunje's systems theory of rural-urban migration (1970); "place utility" considerations in Wolpert's behavioral approach (1965 and 1966); costs and benefits in the human capital approach (Sjaastad, 1962); also see Ravenstein's "laws of migration" (1885 and 1889).

⁴Risk has been considered by several migration theorists: Kunzets, Thomas, et al., as cited in Brigg (1973: 4), Findley (1977: 10), Mabogunje (1970), Shultz (1978).

⁵For a good discussion of rural demand stimulated urban growth see Mellor (1976).

⁶Intervening obstacles are important in several other migration theories. See: impact of distance in gravity (Zipf, 1946) and intervening opportunities (Stouffer, 1940) models, Ravenstein's laws (1885 and 1889), costs in the human capital approach (Sjaastad, 1962).

⁷For reviews of these studies see Findley (1977), Brigg (1973), Yap (1975), Shaw (1975), Todaro (1976), Simmons, et al. (1977).

⁸The availability of information about potential destinations is an important component of many migration theories. See Mabogunje (1970), Wolpert (1965 and 1966), Jones and Zannares (1976), Hagerstrand (1957), Zelinsky (1971), White (1978), Kau and Sirmans (1977), and Skelton (1977).

⁹Lipton (1978); Connell, et al. (1976); Epstein (1973); Abou-Zeid (1963).

¹⁰For reviews of studies relating formal education and migration see Findley (1977), Brigg (1973), Shaw (1975), Todaro (1976), Simmons et al. (1977).

¹¹Personal factors are important in other migration theories; see Mabogunje (1970), Sjaastad (1962), Wolpert (1965 and 1966), Ravenstein (1885 and 1889).

¹²Mabogunje (1970); Connell et al. (1976); Friedmann and Wulff (n.d.); Wilkie (1971); Caldwell (1969).

¹³The relationship between income and migration is relatively complex and discussed more thoroughly in the next section, "Empirical Studies of Migration."

¹⁴Some modern theorists suggest that rural-urban migration is a necessary outcome of development based on the capitalist mode of production (Amin, 1974; McGee, 1978).

¹⁵A number of analysts have suggested that migration selectivity decreases over time (Zelinsky, 1971; Balan, 1969; Simmon et al., 1977:89; Browning and Feindt, 1969; Connell, et al., 1976: 23-24; Skelton, 1977).

¹⁶Lewis (1954); Fei and Ranis (1961).

¹⁷Sjaastad (1962).

¹⁸Todaro (1969 and 1976: 28-46); Harris and Todaro (1970).

¹⁹This is somewhat analogous to the neoclassical general equilibrium model which indicates that labor will migrate from low-wage to high-wage areas until real wages are equalized (Richardson, 1969: 295).

²⁰For a review of critiques and refinements of the model see Todaro (1976: 30-46), Fields (1975), Steel and Takagi (1978).

²¹Creation of employment in the urban formal sector is expected to result in growth of urban unemployment through induced increases in rural-urban migration (Todaro, 1969 and 1976; Fields, 1975). Job creation in the urban informal sector may reduce urban unemployment rates but will induce addition rural-urban migration (Steel and Takagi, 1978).

²²Todaro (1969: 147).

²³Harris and Todaro (1970: 132-135).

²⁴Hirschman (1958); World Bank (1978); Johnston and Kilby (1975: 299-327); Mellor (1976); Bell and Hazell (1978).

- ²⁵ Lluch, et al. (1977); Mellor (1976).
- ²⁶ Findley (1977); Brigg (1973); Yap (1975); Simmons, et al. (1977); Todaro (1976).
- ²⁷ For a listing of studies finding strong economic motivations see Findley (1977: 18-19); Simmons, et al. (1977).
- ²⁸ Findley (1977: 11-13).
- ²⁹ Findley (1977: 21); Simmons, et al. (1977: 51); Brigg (1973).
- ³⁰ Findley (1977); Simmons, et al. (1977); Brigg (1973).
- ³¹ Brigg (1973: 10).
- ³² Todaro (1976: 66); Connell, et al. (1976: 204); Selby and Murphy (1978).
- ³³ Findley (1977: 11, 18); Connell, et al. (1976: 7-14); Lipton (1978): 20-21).
- ³⁴ Connell, et al. (1976: 7-8).
- ³⁵ Connell, et al. (1976: 8); Shaw (1976).
- ³⁶ IDRC (1973); Connell, et al. (1976: 7-18); Simmons, et al. (1977: 47).
- ³⁷ Caldwell (1969); Oberani (1977); Riddell (1970); Byerlee (1974).
- ³⁸ Adams (1969); Conning (1972).
- ³⁹ Connell, et al. (1976); Lipton (1978).
- ⁴⁰ Findley (1977: 13).
- ⁴¹ Caldwell (1969); Adelman and Dalton (1971); Rhoda (1978); Abou-Zeid (1963); Salisbury (1970).
- ⁴² Findley (1977); Brigg (1973); Todaro (1976); Simmons, et al. (1977); Simmons (1975).
- ⁴³ Findley (1977); Brigg (1973); Todaro (1976); Simmons, et al. (1977); Simmons (1975).
- ⁴⁴ Several studies indicate a positive correlation between nonfarm occupations and rural-urban migration: Cardona and Simmons (1975); Hay (1974); Haney (1975); Findley (1977); Simmons (1975). Other studies indicate a positive correlation between farm occupations and rural out-migration (probably rural-rural): Caldwell (1969); Connell, et al. (1976: 22, 203); Yeshwant (1962).

⁴⁵Garst (1978); Jones and Zanaras (1976); Fuller and Chapman (1974); Wolpert (1965 and 1966).

⁴⁶Caldwell (1969); Speare (1971); Adams (1969); Essang and Mabawonku (1974); Simmons (1975).

⁴⁷Browning and Feindt (1964); Balan (1969); Browning (1971).

⁴⁸Abu-Lughod (1969); Romero and Flinn (1975); Scudder (1962).

⁴⁹Brigg (1973: 27, 33); Friedlander (1965); Simmons, et al. (1977: 56); Lipton (1977: 231-32); Connell, et al. (1976).

⁵⁰India (Connell, et al., 1976); Lipton, 1978); Bihar, India (Sovani, 1965); Nepal (McDougall, n.d.); Ivory Coast (Joshi, 1973); San Salvador (Lipton, 1978: 13); Ghana (Caldwell, 1969; Foster, 1965a); Kenya (Todaro, 1975); Philippines (Hart, 1971); North India (Connell, et al., 1976); Egypt (Abu-Lughod, 1969; Abdel-Fadil, 1975).

⁵¹Tanzania (Sabot, 1972); Ivory Coast (Joshi, 1973); Upper Volta (Skinner, 1965); Liberia (Riddell, J. C., 1970); Ghana (Caldwell, 1969).

⁵²India (Connell, et al., 1976; Lipton, 1978); Thailand (Sakdejayont, 1973); Philippines (Hart, 1971).

⁵³Colombia (Haney, 1965); Mexico (Butterworth, 1977); Brazil (Sahota, 1968); Peru (Skelton, 1977).

III. DEVELOPMENT ACTIVITIES IN RURAL AREAS AND THEIR IMPACTS ON RURAL-URBAN MIGRATION

As countries develop their level of urbanization tends to increase. Increased urbanization has accompanied development in western countries, as well as in rapidly developing third world countries, such as South Korea and Taiwan. In fact, some have even defined development as a shift in employment from agricultural to nonagricultural activities.¹ However, this definition is not widely accepted. It appears that in the present context of the third world, long-term development requires increased urbanization. On the other hand, it is possible for countries to experience rapid urbanization without making real development progress. This situation has given rise to concern for "overurbanization" in third world countries.

The question of concern in the present study is whether development activities in rural areas will accelerate or decelerate rural-urban migration. As discussed in the previous chapter, a number of basic factors suggest that migration will be accelerated; these factors include: reduced obstacles to migration, increased levels of urban-oriented skills, acquisition of modern attitudes and values, and urban employment generation through intersectoral linkages. On the other hand, development activities may decelerate migration by making rural areas more attractive in terms of income and amenities. This section attempts to clarify this issue by analyzing many different types of development activities in rural areas; these activities are discussed under three general headings: agricultural activities, off-farm employment, and rural social services.

Agricultural Development Activities

Focus on agricultural development in third world countries is relatively new. In the past development activities have concentrated on urban industrial growth.² Urban-focused development policies and investments have stimulated rural-urban migration and

indirectly contributed to problems of urban poverty. Urban industrialization efforts usually were based on Western, capital-intensive technology. Lack of success with development policies based on industrialization contributed to the growth of attention on agricultural development. Western experience and technology formed the backbone of early agricultural development policies in the same way that it had influenced industrialization policies. The resulting agricultural development policies placed heavy emphasis on Western style, capital-intensive, commercial agriculture. Primary concern was placed on increased efficiency and agricultural production; equity considerations were generally overlooked. Large and progressive farmers were the first (and sometimes only) ones to take advantage of agricultural development programs. Recently, international development agencies have voiced heavy concern for equity; however, most third world countries have continued to put primary emphasis on efficiency and production.³

There are numerous types of agricultural development activities; different activities often are grouped into development packages. For example, the package might include irrigation, new varieties of seed, subsidized credit, increased extension, and improved marketing arrangements. Each different component of a package may have a different impact on rural-urban migration; therefore, an attempt is made in this section to analyze the migration impacts of each specific component.

Land Reform

Land reform is often advocated on the grounds of both equity and efficiency. Rural land ownership is very inequitable, especially in North Africa, the Middle East, Latin America, and in some Asian countries, such as the Philippines.⁴ Land reform can obviously improve the equity of land ownership. The efficiency argument for land reform is perhaps more compelling than the equity argument. Data from a variety of Latin American countries, India, Taiwan, and the Philippines indicate that yields per hectare are significantly greater on small farms than on large farms.⁵ The primary reason for this difference is that considerably more labor

per hectare is used on smaller farms. Land reforms which subdivide large landholdings can result in the creation of many small, labor-intensive, high yielding farms. The increased incomes and labor utilization are expected to have a negative impact on rural out-migration. Empirical studies of India and several Latin American countries provide some support for this expectation by indicating a positive correlation between rural out-migration and inequitable land distribution.⁶

Analyses of actual land reforms are not completely consistent with the notion that land reform reduces rural out-migration. Though there is considerable evidence that peasant incomes and production have increased as a result of land reforms, there are few data available concerning the impact on out-migration.⁷ Evidence suggests that some ex-hacienda areas of Bolivia experienced population growth of 50% to 100% in the decade after the 1953 land reform.⁸ This amount of population growth suggests considerable in-migration. Analyses of land reform programs in Venezuela, Kenya, and Sri Lanka appear to imply that out-migration was slowed.⁹ However, other studies indicate that land reform may accelerate out-migration. Land reform schemes in Peru and Iran broke up large holdings, decreased the demand for hired labor, and stimulated out-migration of landless labor who did not gain from the reform.¹⁰ In an area of Bolivia plots were so small after the reform that many younger family members had to migrate in search of work.¹¹

Land colonialization is a special case of land reform which involves resettling rural populations in frontier areas. Land colonialization is usually very costly and has limited impact on overall rural employment levels.¹² Resettlement areas may provide a viable alternative for some potential rural-urban migrants; therefore, land colonialization may have a slight negative impact on urban migration. In addition, evidence suggests that some of those who are resettled come from urban areas;¹³ this implies that land colonialization may induce a limited amount of urban to rural migration.

Land reform is difficult to implement in some political environments. As a substitute tenancy security measures have been suggested, such as rural rent controls or fixed sharecropping

ratios. Such measures have been criticized on the grounds that they are often ignored or may lead to tenant eviction.¹⁴ Available information suggests that tenancy security measures may have limited positive or negative impacts on rural out-migration depending on the characteristics of the local areas and the tenancy measures utilized.

In conclusion, land reform usually is expected to slow rural out-migration because it normally increases labor utilization in rural areas. However, the migration literature suggests that many of those who might have migrated had it not been for land reform would probably have moved to other rural areas (or small towns). Consequently, the impact of land reform on rural-city migration may be very limited.¹⁵ Of course, actual impacts of specific reforms will depend on the characteristics of both the reform and the rural situation.

Green Revolution

Technology, often referred to as "Green Revolution," has enabled some farmers in certain third world areas to increase yields very rapidly. The technology involves a package of inputs, the most important of which are high yield seeds and fertilizer. Irrigation is often a key component because moisture control is needed for multicropping and full exploitation of the high yield seeds and fertilizer. Though most attention has been focused on Green Revolution wheat production in Pakistan and Punjab, India, the technology has been applied in other areas and to other crops.¹⁶

The distributional impacts of Green Revolution technology have received considerable attention.¹⁷ Though the improved seed and fertilizer technology is inherently scale neutral, in actual practice large landholders have gained most from the Green Revolution. Reasons often given for the inequitable distribution of benefits include unequal access to credit, greater political power of large owners, extension and development agency focus on "progressive farmers," differences in risk-taking propensity, and indivisibilities of related inputs, such as tractors and tubewells.¹⁸

Distributional impacts have been particularly severe for tenants. Several studies of Africa, Asia, and Latin America indicate that the Green Revolution has led to the eviction of former tenants by landlords desiring to operate the land themselves.¹⁹ The evictions were stimulated by the increased productivity and profitability of the land and fears by landlords that tenants might acquire legal claim to the land. It also has been suggested that the Green Revolution may contribute to breakdown of traditional interdependent relationships between peasants and landlords.²⁰

Green Revolution results in rapid increases in the supply of agricultural commodities; consequently, prices may drop precipitously. Small farmers who have not adopted Green Revolution technology are especially hard hit by the price declines. In many cases small farmers have been forced to sell out because of Green Revolution-induced price declines.²¹

The labor implications of the Green Revolution have been studied on numerous occasions.²² Though the evidence is quite mixed, it appears that Green Revolution technology, in the absence of tractorization, is generally labor absorbing. On the other hand, Green Revolution technology involves considerable increases in nonlabor inputs; consequently, the share of labor in the final product is expected to decline. Studies indicate that backward linkages to agrochemicals and other inputs are fairly weak.²³ In contrast rural income growth stimulated by the Green Revolution is expected to generate additional demand for urban goods and services, thus generating increased urban employment.

Relatively limited attention has been focused explicitly on the rural-urban migration implications of the Green Revolution. Though the labor force absorption ability of the Green Revolution might suggest that it is associated with reduced out-migration, empirical evidence in support of this proposition is lacking. Visaria indicates that the Green Revolution in India created a great deal of internal migration of landless workers.²⁴ If tenant eviction is assumed to generate out-migration, then there is empirical evidence linking Green Revolution to increased out-migration in Mexico, Chile, Ethiopia, Ivory Coast, India, Pakistan, Thailand,

and the Philippines.²⁵ However, evicted tenants may be hired as landless labors in the area and, therefore, cannot be assumed to out-migrate.

In conclusion, the existing literature is ambiguous concerning the impact of the Green Revolution on rural out-migration. The migration implications of the Green Revolution seem primarily tied to the demand for agricultural labor; this suggests that the impacts on rural-rural migration are apt to be more significant than the impacts on rural-urban migration. Green Revolution-induced income gains for middle and large farmers may increase or decrease their and their children's propensity for rural-urban migration. In any event the rural income gains will generate some urban employment through intersectoral linkages. Employment associated with handling the increased production is likely to be generated in market towns. The induced demand increases for urban goods and services also will generate employment in market towns as well as in regional centers and primate cities; however, employment growth may be more heavily concentrated on market towns and regional centers. This implies that the Green Revolution may contribute to the redirection of rural-urban migration (to smaller centers) though it may not have an appreciable impact on the overall volume of rural-urban migration. The actual impacts of specific Green Revolution programs will depend heavily on local conditions.

Agricultural Mechanization

Agricultural mechanization implies the replacement of human and animal power by mechanical power in the form of tractors, harvesters, threshers, irrigation pumps, etc. In the past national governments and international agencies have favored mechanization in the general belief that "modern" agriculture is necessary for development.²⁶ Artificially low interest rates, overvalued currency, and other subsidies have enabled many farmers to purchase tractors and other forms of mechanization. For example, due to subsidies tractors in Pakistan could be purchased for about half the price charged in the United States.²⁷ Policies favoring mechanization have been controversial because they tend to replace abundant labor with scarce capital.

Numerous studies have focused on the pros and cons of agricultural mechanization. Arguments in favor of mechanization are based on two premises. First, mechanization is superior to animate forms of power in many situations. For example, tractors can provide more thorough or deeper tillage than bullock plows and tractors can till land that cannot be operated by animate power. Second, mechanization can result in labor absorption.²⁸ Tractors can overcome the severe seasonal peak demand for labor in Africa and other areas; consequently, more land can be cultivated resulting in additional demand for labor (e.g., for weeding) in off-peak times. Tractors are also necessary for multicropping in some environments.

Arguments in opposition to mechanization generally are based on the idea that labor and mechanization are substitutable.²⁹ The use of tractors, threshers, mechanical weeders, etc., can reduce labor demand and exacerbate rural un- and under-employment.

A number of empirical studies have been conducted concerning the relationship between labor utilization and agricultural mechanization.³⁰ Though there are some conflicting results, empirical evidence suggests that use of tractors generally results in labor displacement. Most empirical research on the labor-tractorization issue has focused on Asian countries; though the results are mixed, available data suggest that, ceteris paribus, tractors have tended to reduce labor utilization in Asia.³¹ The result from Latin America is more definite; Abercrombie estimates that 2.5 million jobs have been displaced by the half million tractors operating in Latin America.³² There is limited empirical evidence from Africa and the results are not conducive to broad generalizations.³³ Though in most situations tractors displace labor, it should be remembered that in some cases utilization of tractors can increase demand for labor.

Though numerous studies have focused on tractors, little research has been devoted to the labor impacts of other forms of mechanization. Mechanical irrigation replaces labor used in irrigation but can provide enough additional groundwater to extend acreages and enable multicropping. Existing evidence indicates

that mechanical irrigation has the net impact of greatly increasing the demand for labor.³⁴ Limited evidence concerning other forms of mechanization (threshers, weeders, etc.) indicates a mixed impact on labor utilization.

Little, if any, empirical research has focused on the impacts of agricultural mechanization on rural-urban migration. Discussions of this issue are normally based on the assumption that demand for rural labor is negatively correlated to rural-urban migration. This assumption is not widely supported by empirical evidence; discussion in the previous chapter suggests that demand for agricultural labor is more apt to be linked to rural-rural migration than to rural-urban migration. Based on the mixed labor impacts of mechanization and the unclear relationship between agricultural labor demand and rural-urban migration, it is difficult to make generalizations about the impacts of agricultural mechanization on rural-urban migration. One might speculate that mechanization will eventually displace labor as well as generate urban employment through intersectoral linkages; therefore, mechanization may stimulate rural-urban migration in the long run.

Agricultural Services: Credit and Extension

Credit has been considered a key element in agricultural development. It can accelerate the adoption of new technologies and contribute to the commercialization of the rural economy. To be effective credit, as well as other inputs, must be appropriately utilized. Agricultural extension can contribute to the proper use of agricultural inputs.

Institutional credit is used by relatively few third world farmers; the World Bank estimates that 15% of farmers in Latin America and Asia obtain institutional credit while the percentage is only 5% in Africa.³⁵ Existing evidence indicates that benefits from institutional credit and extension have accrued to large farmers.³⁶ Most institutional credit organizations place conditions on loans which exclude small farmers. Such conditions include time-consuming application procedures, collateral, land title, and

credit references. In addition, small loans have proportionally higher administrative costs and are perceived to entail greater risk of default. It is generally agreed that efficient or successful programs to bring institutional credit to small farmers are very difficult to implement.³⁷

Empirical evidence is unclear concerning the impacts of agricultural credit on rural incomes, productivity, or out-migration. Evidence cited by Findley suggests that in over a dozen different countries production gains have been associated with small farmer credit programs supported by appropriate extension activities.³⁸ In contrast, a review of farm credit by Dately suggests that it is rare that credit has resulted in any significant gains in productivity.³⁹ It appears that no one has empirically investigated the relationship between credit and rural-urban migration, although a study of Brazil implies that a fertilizer loan program may have slowed out-migration.⁴⁰ A number of other studies speculate that unavailability of credit has caused out-migration in several third world countries.⁴¹

In conclusion, it is difficult to make generalizations concerning the impact of agricultural services on rural-urban migration. These services generally have benefited large farmers and may have contributed to labor displacing mechanization; this suggests that out-migration may have been stimulated. On the other hand, services may have enabled expanded activity, increased labor utilization, and greater income generation.

Conclusions

Agricultural development activities may either increase or decrease rural-urban migration; the interrelationships are complex and tend to neutralize one another. Of the different types of agricultural development activities considered, it appears that land reform is the most likely to reduce rural-urban migration. By providing lower income groups with land and increased incomes, land reform can substantially reduce low-income, rural-rural migration and may reduce rural-urban migration of this group. The benefits of Green Revolution technology mechanization and agricultural services have generally accrued to medium and large farmers.

Increased incomes for more well-off farmers may eventually stimulate additional rural-urban migration. On the other hand, to the extent that development activities increase real incomes of the rural poor, they can be expected to reduce rural out-migration and may even slow rural-urban migration flows. In summary, two conclusions are offered:

1. The impacts of agricultural development activities on rural-urban migration are complex and elude broad generalization.
2. In general, agricultural development activities cannot be justified on the grounds that they reduce rural-urban migration.

The net impact of agricultural development activities on rural-urban migration is largely dependent upon the specific characteristics of both the local area and the development project.

Off-Farm Employment

Off-farm activities are an important and often overlooked source of employment in rural areas. Available data suggest that off-farm activities are the primary source of employment for 20% to 30% of the rural labor force.⁴² In addition, off-farm activities are an extremely important secondary source of employment during off-peak agricultural seasons. Small and landless farmers are particularly dependent upon seasonal off-farm employment. Together primary and secondary employment in off-farm activities account for roughly 20% to 50% of the hours worked by rural labor force.⁴³ Not only are off-farm activities a very important source of rural employment, they are growing more rapidly than agricultural activities in all developing areas except Latin America.⁴⁴

Rural off-farm employment includes a variety of activities. Though the sectoral composition of activities varies widely from area to area, the general pattern appears to be approximately 20% - 30% in manufacturing; 20% - 35% in services; 15% - 30% in commerce; 5% - 15% in construction; 5% in transport; and the rest in utilities or other activities.⁴⁵ In almost all cases off-farm activities are closely linked to agriculture; for example, most

manufacturing activities are usually agriprocessing or designed to meet farm demand for agricultural inputs or consumer products. Consequently, growth of off-farm employment is closely linked to growth in agricultural production and income. Demand for nonagricultural goods and services is relatively income elastic; therefore, increased farm income induces rapid increases in demand for these goods and services. The high demand elasticity for nonagricultural goods and services provides an explanation for more rapid growth in rural off-farm employment than in farm employment.

National policies can have important impacts on off-farm employment. Incentives and subsidies to modern capital intensive industry has in some cases enabled large firms to drive small rural enterprises out of business. For example, subsidized modern plastic shoe factories have often had severe impacts on local artisan shoe industries. Enforced minimum wage policies for rural areas have reduced labor utilization in both farm and off-farm activities. Minimum wage laws have tended to encourage the use of labor displacing equipment, thus reducing employment levels. Policies such as these restrict growth of rural off-farm employment and may stimulate migration to big cities.

In this section two types of off-farm employment development activities are discussed: rural enterprise programs and rural public works activities.

Rural Enterprises

Several different types of development activities can be used to assist rural nonagricultural enterprises.⁴⁶ Rural enterprises benefit from such rural infrastructural development as electrification, rural roads, improved water supply, telecommunications, and vocational training. Provision of suitable credit can be particularly important to some types of rural enterprises. Credit for working capital is sometimes more important than credit for capital investment. Development activities can improve trading components of rural enterprises by widening markets, facilitating access to supplies and equipment, improving transport, and handling and marketing of final products. Special training programs for entrepreneurs can be established to improve record keeping,

budgeting, marketing, and production processes. Vocational training programs can be arranged for employees. Rural industrial estates can be established which provide rural enterprises with a full range of infrastructure, including sites, access roads, electricity, credit, technical assistance, and labor training. Unfortunately, rural enterprise development activities have met with mixed success in the past.⁴⁷

The impact of rural enterprise development on rural-urban migration is dependent on definitions of "rural" and "urban." The greatest potential for rural enterprise development is in small towns (sometimes referred to as "rural towns").⁴⁸ Growth of "rural" enterprises, whether stimulated by direct development activities or increased demand from the agricultural sector, is most likely to occur in small towns and market centers. Such growth induces employment generation and, therefore, can stimulate migration from truly rural areas into small urban centers.⁴⁹

Therefore, it appears that "rural" enterprise development may stimulate additional rural-urban migration but focus this migration on small towns and market centers. In the long run, migration to large cities may be accelerated because small centers often act as a staging ground for rural migrants on their way to large cities. Rural enterprises provide employees with nonagricultural skills which can be utilized to gain higher wage employment in metropolitan areas. Empirical evidence suggests that rural residents with nonagricultural occupations are more apt to move to large cities.

Rural Public Works

Labor intensive rural public works have been widely hailed as a solution to both permanent and seasonal unemployment. Public works are perceived as being particularly attractive because they provide both jobs and such needed rural infrastructure as roads, dams and irrigation systems, electrification, potable water, and social facilities (schools, health clinics, etc.). Unfortunately, reviews of previous rural public works projects indicate that they

have had limited success in alleviating problems of rural un- and under-employment.⁵⁰

The impacts of rural public works can be divided into two general types: construction phase impacts and operating phase impacts. During construction projects can absorb considerable skilled and unskilled labor. The immediate impact of labor absorption reduces rural out-migration and may stimulate reverse urban-rural migration. Public works employment can provide workers with occupational skills and experience with work pattern and organization of formal sector employment.⁵¹ The possession of such skills and experience may increase future propensity for rural-urban migration. Spending patterns of public works employees' incomes can stimulate growth of urban-produced goods and services - for example, locally hired labor on Mexican rural roads projects spent about 40% of *its* wages in nearby large towns.⁵²

Operating phase impacts on migration depend on the type of infrastructure developed. Studies indicate that the benefits of infrastructure related to agriculture (rural roads, irrigation etc.) accrue to land owners in proportion to the size of their holdings.⁵³ Thus, large land owners gain most of the benefits; income growth within this group has an unclear impact on rural-urban migration. Improved roads increase rural-urban integration and thus remove an intervening obstacle to rural-urban migration. Evidence from Turkey, Ghana, Mexico, Peru, and Thailand suggest that road construction may have stimulated rural-urban migration.⁵⁴ Though rural electrification and village water supply have been justified on the grounds that they reduce rural-urban migration, there is little or no empirical evidence to support this view.⁵⁵ The impact on migration of social infrastructure is discussed in the next section. An often overlooked point is that infrastructure produced by rural public works generates permanent maintenance employment which can have a small negative impact on rural out-migration. In summary, despite the fact that a number of countries have initiated rural public works programs for the explicit purpose of slowing rural-urban migration,⁵⁶ these activities usually have only a slight, temporary negative impact on migration and in the long run may actually stimulate rural-urban migration.

Conclusions

Development activities which stimulate off-farm employment generation will probably increase migration from rural areas to nearby small towns and market centers. The impact on migration to big cities may be negative in the short run, but positive in the long run. Rural public works account for only a very small fraction of off-farm employment; therefore, rural enterprise (primarily private sector) will have a far greater impact on migration. On the other hand, public works activities are influenced more easily by development agencies.

Development of Rural Social Services

The development of improved social services often is justified on both humanitarian and economic grounds. Better health services, water supply, diet, and education are directly related to the welfare of rural populations. Such services lead to higher levels of productivity and, therefore, can be justified for economic reasons. Attempts have been made to argue that development of improved social services can reduce rural-urban migration by making rural areas more attractive places to live. Unfortunately, this argument is not supported by empirical evidence. This section investigates this issue by analyzing the rural-urban migration impacts of rural education, family planning, and health services.

Rural Education

The most widespread observation of migration studies is the strong correlation between level of formal education and rate of urban migration. Formal education provides youth with skills which are far more applicable in cities than in rural areas; consequently, they move in large numbers to urban areas. Development of improved formal education in rural areas may keep some youth and even their families from moving to towns to attend better schools; however, when education is completed increased rural-urban migration will result. In summary, development of formal

education in rural areas will have a strong positive impact on rural-urban migration; this is perhaps the strongest generalization that can be made concerning the impact on migration of development activities in rural areas.

It is generally agreed that formal education, as traditionally taught, is not relevant to rural conditions. Considerable research has focused on the need for curriculum reform and non-formal education in rural areas.⁵⁷ Many attempts have been made to develop curriculum for rural schools which is relevant and supportive of rural life styles. Programs have been proposed to achieve mass literacy in rural areas through adult education campaigns. Vocational schools are sometimes advocated for rural areas. The idea behind these attempts has been to deliver education in rural areas which improves the quality and productivity of the rural life without stimulating rural-urban migration. The success of rural educational reform has been limited. On many occasions rural parents have demanded academic formal education for their children.⁵⁸

There is no conclusive empirical information concerning the impact of nonformal or reformed education on rural-urban migration. Any education which improves chances of urban employment, such as literacy or vocational training, will probably stimulate additional rural-urban migration. Though rural-oriented education may be essential for rural development, it is not likely to reduce rural-urban migration and will probably increase it.

Family Planning Programs

Family planning programs which result in reduced fertility will probably have a negative impact on rural-urban migration in the long run. Reduction in natural population increase will slow rural out-migration resulting from the growth of population pressure on arable land. Fertility declines may be experienced first in more modern families which tend to have higher rates of rural-urban migration. It also seems reasonable that large families will be among the first to reduce fertility. Evidence from Africa and Asia suggests that large families generally have higher migration

rates.⁵⁹ In summary, there are several reasons why fertility reductions are expected to be associated with lower rural-urban migration in the long run. To the extent that other development activities contribute to fertility decline, they may also make a contribution to long-term deceleration in rural-urban migration.

Rural Health Services

Development of improved rural health is related to a number of factors, including potable water supply, diet, sanitation, disease eradication, and health service delivery. Improved health services can relieve misery as well as improve life quality; therefore, they might possibly reduce the incentive for rural-urban migration. Health services can increase worker productivity and income which may contribute to either increased or decreased rural-urban migration depending on the situation (see discussion in Chapter II). Improved health should reduce mortality and, therefore, increase population pressure on migration. On the other hand, reductions in infant mortality may, in the long run, contribute to fertility decline and thus slow the volume of rural out-migration. In summary, the migration impacts of health development activities are mixed and probably minor compared to the impacts of other development activities.

Conclusions

Development of rural education has made a significant contribution to rural-urban migration. Efforts to improve existing rural education probably will stimulate additional migration. To the extent that family planning efforts can reduce fertility, they may slow rural-urban migration in the long run. Improved rural health developments will probably have little or no impact on migration. There is little empirical support for the belief that the amenity value of improved rural social services will slow rural-urban migration.

Development Projects of International Agencies

Increased agricultural productivity has been the primary focus of most international agency development projects in rural areas. Though some projects have been highly successful, many have had results that are less than expected or desirable.⁶⁰ Often projects have had unintended and unanticipated impacts. This is not surprising given that project interventions are semi-experimental and aim to change the existing socioeconomic system and induce self-sustaining development. It is very difficult to anticipate all the repercussions of induced change. The benefits of agency development projects aimed at increased production primarily have accrued to large farmers. This distributional impact was viewed as undesirable; consequently, during the 1970s the emphasis has shifted to a growth with equity approach. However, efforts to change the distribution of benefits in favor of the rural poor have met with limited success; it appears that more well-off rural residents are still the main beneficiaries of projects sponsored by big international agencies.⁶¹ This may be unavoidable given the operational procedures of these agencies, the lack of enthusiasm for equity on the part of most host governments, and the inevitable "trickle-up" process. The efficiency-equity issue also is influenced by available project analysis methodologies. While benefit/cost, rate of return, and other efficiency techniques are highly developed, methods for evaluation of equity aspects of projects are relatively new and unrefined.⁶² Therefore, it is not surprising that projects tend to be more efficient than equitable.

To date, the primary social consideration of large development agencies has been economic equity. The impact of projects on income distribution is important from a welfare standpoint. Changes in income distribution also have important implications for control over resources, asset formation and utilization, and the basic power structure of rural areas.⁶³ Development projects, if successful in inducing development, are likely to have profound and often unanticipated impacts on local political economy. With the exception

of community development and mass participation projects, few projects adequately consider the full range of potential social impacts. The impacts on local values, attitudes, and behavior patterns (such as migration) are rarely, if ever, analyzed or even explicitly considered.

Recent efforts to measure the indirect or "downstream" effects of projects can provide information about impacts on migration. Bell and Hazell have developed an approach based on a social accounting matrix and a variant of the semi-input-output method.⁶⁴ The approach provides estimates of the activity levels in different sectors both with and without the project. Results from analysis of the Muda River irrigation project in Malaysia indicate that for every additional dollar of value added in agriculture as a result of the project, 67 cents of value added was generated in nonfarm activity.⁶⁵ This growth in nonfarm activity induced through intersectoral linkages implies employment generation and migration to small towns and market centers. Additional utilization and refinement of this methodology may provide a means to assess the migration impacts of development projects.

A considerable proportion of the total activity of international agencies is dedicated to development in rural areas; this is particularly true of U.S.A.I.D. Most of the operating budget which supports rural-oriented activities is actually spent in capital cities. These expenditures include rent, supplies, utilities, and salaries. The direct and multiplier impacts of these expenditures generate considerable employment in cities which undoubtedly stimulates additional rural-urban migration. In addition, much of rural project budget is spent in cities in the form of salaries of agricultural ministry and other intermediary agency employees, consultants' fees, equipment, vehicle operation and repair, supplies, housing, etc. These operating and project expenditures and their multiplier effects are sizeable. It would not be surprising if such expenditures have considerably more impact on migration to big cities than the impacts from agency-induced changes in rural areas (which may also stimulate rural-urban migration). The migration impact of agency expenditures is

probably most important in the small countries of Africa and Central America/Caribbean.

In conclusion, it appears that the rural-oriented activities of international development agencies stimulate additional rural-urban migration. Despite a focus on the rural poor, the benefits of projects often accrue to more well-off rural residents; increased inequity in rural areas may lead to additional urban migration. Development projects which are successful tend to induce such social changes as expanded awareness, more modern attitudes, increased aspiration levels, and additional self-efficacy. Such changes are positively associated with rural-urban migration. Projects which improve rural incomes may induce urban employment generation through intersectoral linkages, thereby inducing migration (primarily to small urban centers). Finally, operating and project expenditures for rural oriented agency activities are made primarily in capital cities. Employment generated by these expenditures and their multipliers provide a significant incentive for additional migration.

Notes

¹Lewis (1954); Fei and Ranis (1961).

²The bias toward urban industrial growth continues in many, if not most, developing countries (Lipton, 1977; Myrdal, 1957; Findley, 1977; Owens and Shaw, 1972). Examples of the bias include: export tax on agricultural products, tariff barriers to protect inefficient import substitution industries, arbitrarily high wages for urban (government and modern sector) workers, government established low prices for food, unrealistic exchange rates which encourage import of industrial capital, and concentration of public investment and services in large cities.

³Frank and Webb (1978: 99).

⁴Griffin (1973: 254-55).

⁵Cline (1978: 282); World Bank (1975a); Shaw (1976).

⁶Shaw (1976); Connell, et al. (1976).

⁷Shaw (1976), in his comprehensive review of the land distribution and migration literature, indicated that the land reform impact on migration had not been addressed empirically.

⁸Burke (1970).

⁹Findley (1977: 80-81).

¹⁰Simmon, et al. (1977: 104-105); Connell (1974).

¹¹Carter (1964).

¹²DeWilde (1973: 87); Cline (1978: 319); World Bank (1975a: 5); Findley (1977: 89); World Bank (1978a).

¹³Standing and Sukdeo (1977).

¹⁴Cline (1978: 295-298); Johnston and Kilby (1975: 165-166).

¹⁵It could be argued that effective land reform will increase mid-level rural incomes, may foster increased investment in education, and eventually contribute to increased rural-urban migration by the children of those benefiting from the land reform. One might also argue that increased incomes from land reform may be spent primarily on urban goods and services, thus generating urban employment and rural-urban migration through intersectoral linkages.

¹⁶Griffin (1973).

¹⁷Cline (1978); Findley (1977); Griffin (1973); Ahmad (1972); Bell (1972); Poleman and Freebairn (1973).

¹⁸Cline (1978); Bell (1972); Findley (1977); Griffin (1973); Gotsch (1973).

¹⁹Findley (1977: 112); Shaw (1974: 123-130); Cline (1978); Ahmad (1972); Thiesenhusen (1972).

²⁰Frankel (1973).

²¹Cornelius (1978: 41-42).

²²Cline (1978); Ahmad (1972); Poleman and Freebairn (1973); Bartsch (1977).

²³Cline (1978: 299); Bartsch (1977).

²⁴Visaria (1972).

²⁵Findley (1977: 112); Cornelius (1978: 41-42).

²⁶Cline (1978: 306); Abercrombie (1972: 31, 36); Owens and Shaw (1972); Gotsch (1973); Barker, et al. (1972: 134); Findley (1977: 77).

- ²⁷Owens and Shaw (1972: 56-57).
- ²⁸DeWilde (1974: 73); Gill (1977); Mellor (1976: 99); Lele (1975: 33-34); Inukai (1970); Johnston and Kilby (1975: 417-427).
- ²⁹Gotsch (1973); Ahmad (1972); Johnston and Kilby (1975: 417-427); Abercrombie (1972); Cline (1978: 306-315).
- ³⁰For an excellent review of empirical evidence see Cline (1978: 306-315). Also see reviews by Johnston and Kilby (1975: 417-427); Simmons, et al. (1977: 80,47).
- ³¹Cline (1978); Binswanger (1976); McInerney and Donaldson (1975).
- ³²Cline (1978); Abercrombie (1972).
- ³³Cline (1978); Lele (1975: 33-38). J. C. DeWilde (1973: 74) indicates that tractors have successfully alleviated seasonal labor bottlenecks in Sudan, Kenya, Mali and Chad.
- ³⁴Johnston and Kilby (1975: 418); Raj (1972).
- ³⁵World Bank (1975b: 5).
- ³⁶World Bank (1975b: 5); Cline (1978: 315); Dately (1978); Lele (1975: 81).
- ³⁷Cline (1978: 315); Dately (1978).
- ³⁸Findley (1977: 114-115).
- ³⁹Dately (1978: 30).
- ⁴⁰Streeter (1973).
- ⁴¹Findley (1977: 113).
- ⁴²World Bank (1978a: 17).
- ⁴³Esman (1978: 36).
- ⁴⁴World Bank (1978b: 20).
- ⁴⁵World Bank (1978b: 25).
- ⁴⁶World Bank (1978b).
- ⁴⁷World Bank (1978b, 4b); Lele (1975: 165-66).
- ⁴⁸World Bank (1978b: 32-35). Enterprise development in larger towns and regional centers is not considered as "rural" in the context of this study.

⁴⁹Rural uneducated and low skilled can be absorbed into apprenticeship and other on-the-job training activities; therefore the rural poor are likely to migrate to small centers with off-farm employment opportunities. "Rural" enterprises may also include jobs for higher skilled groups (both white and blue collar); therefore, some of those who might have moved to large cities will stay in or migrate to smaller centers to take advantage of new opportunities in "rural" enterprises.

⁵⁰Lewis (1978); Burki, et al. (1976).

⁵¹Lewis (1978: 342).

⁵²Secretariat of Public Works of the Government of Mexico (1977: 69).

⁵³Lewis (1978); Burki, et al. (1976).

⁵⁴Turkey (Griffin, 1976: 244-45); Ghana (Caldwell, 1969); Mexico (Secretariat of Public Works of the Government of Mexico, 1977); Peru (Findley, 1977: 82); and Thailand (Edward Jaycox and Charles Murry, 1979, private conversations).

⁵⁵World Bank (1975b); World Bank (1976); Findley (1977: 83).

⁵⁶Rural public works programs explicitly designed to slow rural-urban migration: Morocco, Pakistan, Indonesia, Tunisia (Burki, et al., 1976: 17).

⁵⁷Findley (1977: 84); Coombs (1974); Ahmed and Coombs (1976).

⁵⁸Foster (1965b); Rhoda (1978).

⁵⁹Connell, et al. (1976: 20).

⁶⁰McInerney (1978: 40).

⁶¹McInerney (1978); Frank and Webb (1978); Hartmann and Boyce (1978); Lipton (1978: 53).

⁶²Bruce and Kimaro (1978); Linn (1977); Little and Mirrlees (1974); Squire and Van der Tak (1975).

⁶³McInerney (1978: 7); Frankel (1973).

⁶⁴Bell and Hazell (1978).

⁶⁵Bell and Hazell (1978).

IV. CONCLUSIONS AND IMPLICATIONS

This investigation of the impact of development activities on rural-urban migration provides a number of conclusions as well as implications for development activities, project assessment and analysis, and future research.

Summary and Conclusions

There are a number of misconceptions and incorrect popular beliefs concerning the relationship between rural-urban migration and urban growth and poverty. Many empirical analyses invalidate most of these beliefs. Instead they show that:

1. Rural-urban migration is not the primary cause of urban population growth.
2. The socioeconomic characteristics of urban migrants are quite similar to urban natives; though urban migrants join the ranks of the urban poor, they also join the ranks of urban working and middle classes in almost equal proportion to native urban population.
3. In most cases urban migrants are a minority in urban slums and squatter settlements even though these areas may have a slightly higher percentage of migrants than the total urban area.
4. If rural-urban migration could somehow be halted, urban poverty would persist because most of the urban poor were born in urban areas.
5. Rural-urban migration should not be confused with rural out-migration or with urban in-migration; many, and in some cases most, urban in-migrants come from other urban areas while a large percentage of rural out-migrants move to other rural areas.

The main point of these five statements is that national governments and development agencies concerned with growing problems of urban poverty should not jump to the conclusion that these problems are primarily caused by rural-urban migration. Furthermore, as this study indicates, those who advocate development activities in rural areas as a general means of slowing rural-urban migration are not fully

aware of development-migration relationships in rural areas.

A review of migration theories does not provide a clear-cut answer concerning the impact of development activities in rural areas on rural-urban migration. Economic models, which focus on urban-rural income differentials, imply that development reduces migration. On the other hand, more general social theories, which incorporate a number of other migration factors, suggest that development brings about changes which stimulate rural-urban migration. Development reduces existing obstacles to rural-urban migration and changes the characteristics of rural populations in such a way that they are more able and willing to take advantage of urban opportunities. The intersectoral linkage model implies that rural income growth stimulates increased demand for urban goods and services, thus generating urban employment and rural-urban migration. In an effort to clarify the conflicting predictions of migration theories, empirical studies of migration were analyzed.

Though empirical studies do not provide a clear-cut answer to the development-migration issue they do clarify some of the conflicts suggested by theoretical models. Empirical generalizations which are summarized in Table 1, indicate that different types of development activities have different implications for rural-urban migration. In general, activities which reduce fertility, increase cultivatable land, or act to equalize land or income distribution appear to slow rural out-migration and may possibly slow rural-urban migration. On the other hand, activities which increase access to cities, commercialize agriculture, strengthen rural-urban integration, raise education and skill levels, or increase rural inequalities appear to accelerate rates of rural-urban migration. The relationship between rural income growth and rural-urban migration is perhaps the most crucial and most tenuous. Though a number of studies indicate a positive correlation between family income level and rate of rural-urban migration, the impact of income growth on migration is not known. Because there are good reasons to believe that income growth may increase or decrease rural-urban migration, we have assumed that development-induced income growth has a mixed impact on rural-urban migration.

An investigation was made of the impact of several specific

development activities on rural-urban migration. The findings of this investigation, which are summarized in Table 2 (pp. 60-63), indicate that different types of activities have different implications for migration. Each activity has a set of associated impacts, some of which may accelerate migration while others tend to slow rural-urban migration movements. Because of these counteracting impacts on migration, it is not easy to make broad generalizations. The influence of an actual development project on migration depends in large measure upon the specific characteristics of the project and the area into which it is introduced. With this caveat in mind, the following tentative generalizations based on the information provided in Table 2, are offered:

1. Land reform probably has a moderate slowing impact on rural-urban migration in the short run; long-run impact will be mixed.
2. Land rent ceilings and tenancy controls may have a weak positive impact on rural-urban migration in both the short and long run.
3. Land colonialization and rural resettlement should have a weak slowing impact on rural-urban migration in the short run.
4. Green Revolution probably provides a moderately weak stimulus to rural-urban migration in the short run; the long-run impact may be a moderately strong stimulus to rural-urban migration. Induced migration flows probably focus on market towns and regional centers.
5. Tractors and related forms of mechanization probably result in moderate acceleration of rural-urban migration in both short and long run.
6. Irrigation projects probably have a moderate slowing impact on rural-urban migration in both short and long run.
7. Increased credit and extension services may have a mixed migration impact in the short run while providing a weak stimulus to rural-urban migration in the long run.
8. Development of rural enterprises probably provides a strong stimulus for rural to small town migration and slight slowing of rural-big city migration in the short run. The long-run impact may be a moderate acceleration of migration to both small and large urban centers.

Table 2. Migration Implications of Specific Development Activities in Rural Areas: Some Rough Generalizations Based on Migration Literature and Development Project Experience.

<u>Development Activity</u>	<u>Effects on Rural Population</u>	<u>Impact on Migration</u>
LAND REFORM	Increase rural production, income and equity.	Should slow rural-urban migration of new land owners, in the short run, and perhaps also in the long run.
	Added income may lead to social change, modernity, education of youth.	Can stimulate additional rural-urban migration in next generation.
	Added incomes create demand for additional urban goods and services.	Can generate urban employment and increase rural-urban migration, mostly to smaller nearby centers.
	May reduce demand for hired agricultural labor.	Can increase rural-rural migration of those not obtaining land; may possibly increase rural-urban migration.
Net Impact:	MODERATE SLOWING OF RURAL-URBAN MIGRATION IN SHORT RUN, MIXED IMPACT IN LONG RUN.	
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LAND RENT CEILINGS AND TENANCY CONTROLS	Can lead to mechanization and eviction of tenants.	Can increase tenant rural-rural migration; may also add to rural-urban migration.
	Net Impact:	WEAK ACCELERATION OF RURAL-URBAN MIGRATION IN SHORT AND LONG RUN
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LAND COLONIALIZATION AND RURAL RESETTLEMENT	Provides fresh opportunity for potential small and middle farmers.	Can cause slight reduction on population pressure for rural out-migration. May possibly result in some urban-rural migration.
	Net Impact:	WEAK SLOWING OF RURAL-URBAN MIGRATION IN SHORT RUN.
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GREEN REVOLUTION HIGH YIELD SEEDS AND FERTILIZER	Increased income and modernity for large and middle farmers	Can stimulate rural-urban migration of youth in next generation.
	Added incomes create demand for urban goods and services and modern farm inputs.	Generation of urban employment and rural-urban migration.
	Added land value can lead to tenant eviction.	May increase rural-rural migration unless ex-tenants are absorbed as agricultural labor.
	Increased rural-urban intergration.	Can lead to additional rural-urban migration.
	Increase utilization of labor per unit of land.	May reduce rural out-migration and possibly rural-urban migration.
	Disruption of traditional power structure and local political economy.	Unclear, but may possibly induce additional rural-urban migration.
Net Impact:	ACCELERATION OF RURAL-URBAN MIGRATION: MODERATELY WEAK IN SHORT RUN, MODERATELY STRONG IN LONG RUN. MIGRATION FOCUSED ON MARKET TOWNS & REGIONAL CENTERS.	

Table 2 (continued)

<u>Development Activity</u>	<u>Effects on Rural Population</u>	<u>Impact of Migration</u>
MECHANIZATION-TRACTORS, HARVESTERS, ETC.	May reduce demand for rural labor.	Can stimulate rural-rural migration, might add to rural-urban migration.
	May possibly increase demand for labor by enabling double cropping or increased acreages.	Can slow rural out-migration, might reduce rural-urban migration, can stimulate in-migration from other areas.
	Increased rural-urban integration.	Can stimulate rural-urban migration.
Net Impact:	MODERATE ACCELERATION OF RURAL-URBAN MIGRATION IN SHORT AND LONG RUN.	
MECHANICAL IRRIGATION	Increased production due to double cropping and added acreage, added rural incomes in proportion to land holdings.	Can increase in-migration from other rural areas, may reduce rural-urban migration, in short run.
	Increased demand for urban goods and services.	Generation of urban employment and rural-urban migration to smaller urban centers.
	Net Impact:	MODERATE SLOWING OF RURAL-URBAN MIGRATION IN SHORT RUN AND LONG RUN.
AGRICULTURAL SERVICES; CREDIT AND EXTENSION	Generally benefits large and progressive farmers, increases their incomes.	May reduce migration to urban centers in short term. May increase urban migration of educated youth.
	Increased commercialization of agriculture, modernity of farmers, and rural-urban intergration.	Can stimulate additional rural-urban migration.
	General exclusion of smallest farmers and landless, increases rural inequity and poverty.	May increase or decrease rural out-migration depending on whether poor have sufficient funds to finance migration.
	Net Impact:	MIXED IMPACT IN SHORT RUN, WEAK ACCELERATION OF RURAL-URBAN MIGRATION IN LONG RUN.
OFF-FARM EMPLOYMENT IN RURAL ENTERPRISES	Can increase employment and income levels.	Can reduce rural-big city migration.
	Added employment and economic activity in small towns and market centers.	Will stimulate rural to small center migration. May add to big city migration through stage migration.
	Acquisition of improved and modern management and vocational skills.	May increase chances of employment in big cities thus adding to big city migration.
	Net Impact:	STRONG ACCELERATION OF RURAL TO SMALL TOWN MIGRATION AND SLIGHT SLOWING OF RURAL TO BIG CITY MIGRATION IN SHORT RUN. MODERATE ACCELERATION OF MIGRATION TO BOTH SMALL AND LARGE URBAN CENTERS IN LONG RUN.
RURAL PUBLIC WORKS GENERAL	Can provide immediate employment for skilled and unskilled workers.	Can reduce rural-urban migration and even stimulate urban-rural migration in short run.
	Provides job skills and familiarity with modern sector.	Can stimulate rural-urban migration upon completion of project.

Table 2 (continued)

<u>Development Activity</u>	<u>Effects on Rural Population</u>	<u>Impact of Migration</u>
RURAL PUBLIC WORKS GENERAL (cont.)	Generated incomes are likely to increase demand for urban goods and services.	Can stimulate employment generation and migration to small urban centers.
Net Impact:	STRONG SLOWING OF RURAL-URBAN MIGRATION IN VERY SHORT RUN, MODERATE ACCELERATION OF MIGRATION IN MIDDLE AND LONG RUN.	
RURAL ROADS	Increase rural-urban integration and commercialization of agriculture.	Can stimulate rural-urban migration.
Net Impact:	STRONG SLOWING OF RURAL-URBAN MIGRATION IN VERY SHORT RUN, STRONG ACCELERATION OF MIGRATION IN MIDDLE AND LONG RUN.	
RURAL ELECTRIFICATION	Increased agricultural and rural enterprise productivity & income. Increased awareness and rural-urban integration. May be perceived as an important amenity.	May reduce rural out-migration. May increase rural-urban migration. Might possibly reduce rural out-migration.
Net Impact:	VERY WEAK SLOWING OF RURAL-URBAN MIGRATION IN BOTH SHORT AND LONG RUN.	
RURAL SOCIAL SERVICES: EDUCATION	Formal education imparts modern-urban skills, attitudes & values. Nonformal education also imparts needed urban skills such as literacy, modernity, etc.	Will increase rural-urban migration. Will stimulate rural-urban migration, but not as much as academic formal education.
Net Impact:	WEAK SLOWING OF RURAL-URBAN MIGRATION IN VERY SHORT RUN, VERY STRONG ACCELERATION OF RURAL-URBAN MIGRATION IN MIDDLE AND LONG RUN.	
FAMILY PLANNING PROGRAMS	If successful, fertility declines should occur first in more modern families. May also reduce size of largest families.	Will eventually reduce rural-urban migration. Will eventually reduce rural-urban migration.
Net Impact:	MODERATE SLOWING OF RURAL-URBAN MIGRATION IN LONG RUN.	
POTABLE WATER SUPPLY	May improve health, productivity, and rural incomes.	May reduce rural out-migration in short run.
Net Impact:	VERY WEAK SLOWING OF RURAL-URBAN MIGRATION IN SHORT RUN, MIXED IMPACT IN LONG RUN.	
RURAL HEALTH SERVICES & IMPROVED DIET	Will reduce mortality and increase population pressure in short run. Increase productivity and rural incomes.	Can increase rural out-migration. May reduce rural out-migration in short run.

Table 2 (continued).

<u>Development Activity</u>	<u>Effects on Rural Population</u>	<u>Impact of Migration</u>
RURAL HEALTH SERVICES & IMPROVED DIET (cont.)	Reduced infant mortality can contribute to fertility decline in long run.	Can reduce rural-urban migration in long run.
Net Impact:	VERY WEAK SLOWING OF RURAL-URBAN MIGRATION IN SHORT RUN, MIXED IMPACT IN LONG RUN.	
DIRECT & INDIRECT ACTIVITIES OF INTERNATIONAL DEVELOPMENT AGENCIES	Large operating and project expenditures in cities.	Expenditures and their multipliers stimulate considerable employment and thus will stimulate migration to cities.
Net Impact:	MODERATE ACCELERATION OF RURAL-URBAN MIGRATION WHILE AGENCIES ARE ACTIVE IN THE COUNTRY.	

9. In general, rural public works probably have a strong slowing impact on rural-urban migration in the very short run (during construction phase). After project completion the impact may shift to a moderate stimulus to rural-urban migration.
10. Rural roads projects may have a strong slowing impact on rural-urban migration during construction phase; upon completion, the impact will shift to a strong stimulus to rural-urban migration.
11. Rural electrification might have a very weak slowing impact on rural-urban migration in both the short and long run.
12. Development of rural education might have a slight slowing impact on rural-urban migration in the very short-term; however, upon graduation the stimulus to rural-urban migration should be strong.
13. Family planning programs which reduce fertility probably have a moderate slowing impact on the volume of rural-urban migration in the long run.
14. Potable water developments might possibly have a very weak slowing impact on rural-urban migration in the short run; long-run impact is weak and mixed.
15. Development of improved rural health services may have a weak slowing impact on rural-urban migration in the short run; long-run impact is weak and mixed.
16. Expenditures on rural oriented activities of international development agencies result in a strong acceleration of rural to capital city migration.

Again, it must be remembered that these generalizations are tentative at best; actual migration impacts of specific development activities can only be assessed with any degree of confidence on a case by case basis.

Implications

The findings of this investigation provide a number of implications for development activities, project assessment and analysis, and future research.

Implications for Development Activities

The results of the present investigation suggest that past

development activities in rural areas have not resulted in any appreciable reduction in rural-urban migration. In fact the evidence appears to suggest that rural-urban migration probably has been stimulated by previous development projects in rural areas. It is doubtful that future projects will be much different from past projects with respect to their impact on migration. In almost all cases, development activities in rural areas cannot be justified on the grounds that they slow rural-urban migration. This is one of the most definite and important conclusions of the present study. There are several reasons for believing that existing rural-urban migration flows will not be reduced no matter what types of development activities are undertaken in rural areas. Most development activities tend to have a mixture of positive and negative impacts on migration. Many activities appear to have net positive impacts on rural-urban migration. While a few types of activities might slow rural-urban migration in the short run, the long run impacts of such activities are generally mixed or perhaps even stimulate migration.

It appears that making changes in urban areas is the most promising approach to influencing rural-urban migration. Suggested changes for reducing urban migration include urban wage restraint, elimination of urban minimum wage, removal of subsidies to urban industries, and easing of food price controls and urban food subsidies. These changes might reduce urban migration; however, they are very unpopular politically and, therefore, have little or no chance of ever being implemented. It seems more practical to remove some of the more obvious subsidies enjoyed by urban areas,¹ while accepting the inevitability of rural-urban migration and dealing with development and poverty problems where they presently exist and are expected to exist in the future. Though rural-urban migration seems inevitable, it might be possible to influence the pattern of migration by promoting development activities which stimulate employment generation in regional centers or small cities. Such activities might be more effective in reducing migration to primate cities than development activities in rural areas.

Implications for Project Assessment and Analysis

As mentioned at the beginning of the study, development agencies have allocated limited resources for evaluation of social impacts of their projects such as on rural-urban migration. Though there is considerable knowledge about relationships between social change and migration, this knowledge cannot be used easily to assess the impact of development projects on migration because there is limited information on the types of social change induced by development activities. In other words, if there were better knowledge of the social impacts of development activities, then it would be easier to assess the impacts on migration. The real need, therefore, is to establish improved evaluation of social impacts as a standard practice in every development project. Initial attention should focus on basic needs, such as health, nutrition, and housing, and on attitudes toward self-efficacy, development, and the future. Additional effort should be made also to evaluate more accurately the impact on income distribution of each development project. Impacts on basic needs and on income distribution are more important than impact on migration and, therefore, should receive first priority.

Detailed migration assessments are not practical as standard procedures, although the impact on migration should be considered in the design and analysis of each project. It would be useful to carefully select a few proposed projects for thorough assessment of impact on migration.² Alternatively an investigation could be made of the impact on migration of selected existing or completed projects. Projects which generally are considered to be "successes" could be analyzed because such projects are likely to be replicated in other areas. A careful screening of existing or completed projects might reveal a set of projects which are amenable to ex post facto migration analysis, using census or existing survey data.

Implications for Future Research

Though the migration literature indicates that numerous factors are associated with migration, there is limited knowledge

about the relative strengths of these factors in different situations. It is not difficult to list the impacts on migration for a given development activity. The difficult task is to determine which impacts are dominant for the different types of people affected by the project. This requires very careful and time-consuming empirical research.³

A crucial issue concerns the impact of rural income growth on rural-urban migration. It is usually assumed that, ceteris paribus, as a family's income increases, its probability for rural-urban migration will decline. However, there is little or no empirical support for this assumption. Though ceteris paribus conditions never exist, research could focus on those situations which approach ceteris paribus conditions. For example, suppose an exogenous factor, like a big increase in the price of a key cash crop, produced significant income growth without inducing other changes in rural areas. In such a situation, would probabilities of rural-urban migration increase or decrease? Would increased income by itself foster social changes which stimulate migration? Such social changes include rising expectations; increased consumption of, and desire for, urban goods and services; increased investment in the education of youth; and availability of the resources needed to visit cities or even migrate there. The impact of income growth on rural-urban migration is expected to vary considerably from rural society to rural society. The issue is definitely in need of additional empirical research.

Another important issue uncovered in this investigation is the general lack of attention paid to migration origins and destinations. Too often the implicit assumption is made that rural out-migrants go to cities and that urban in-migrants come from rural areas. Though the importance of rural-rural and urban-urban migration is often mentioned, it still seems to be frequently overlooked. Though there are a number of studies which support the bimodal "worse off rural-rural, better-off rural-urban" migration flow model, additional empirical validation is needed. Such empirical validation could come from secondary analyses of the existing large number of surveys on rural out-migration.

Notes

¹Lipton (1977: 328-52).

²A detailed assessment of the impact of projects on migration should be incorporated into the standard evaluation plan. The assessment might include parallel monitoring of migration from the project area and from a similar control area. To capture adequately the impacts on migration, a relatively large sample would have to be monitored over a lengthy period of time, perhaps five years. Needless to say, this type of evaluation would be expensive.

³Anthropologists, working at the village level, could provide interesting insights into dominant factors and causal linkages between development activities and rural-urban migration. An interesting study might involve two relatively similar villages, one which is subjected to a development activity and the other which is not. This type of study might provide useful information on a whole range of impacts of a development activity, only one of which would be on rural-urban migration. Another approach might be the utilization of survey data (previously collected, if appropriate) in a causal modeling (Blalock, 1964) or other statistical technique which attempts to identify dominant factors and causal linkages. Though these approaches could provide useful insights, they are time consuming and, thus, expensive.

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