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## **Population and Rural Development: A New Approach to an Old Problem with Special Attention to Developing Nations**

### Introduction

RURAL development is ultimately linked to the characteristics of the population which it seeks to serve. Effective planning for rural development cannot be done in a demographic vacuum. If a country or community experience a chronic developmental crisis, social and economic backwardness, ethnic antagonism, deficient health services, widespread dissatisfaction and substandard levels of living, then population parameters are important either as causes or consequences of these conditions or, often, both.

### Background

When policy makers and technocrats lack an understanding of the complex role of population in the interrelationship between population characteristics and rural development, the achievement of their goals is adversely affected. In developing countries the problem is compounded by an insufficient number of professionals with demographic training and of trained demographers. Problems of physical and natural resources often are more readily understood and believed to be more pressing than those of rural development. In combination with a scarcity of personnel having a demographic perspective this situation leads to the neglect of human resource development compounding the difficulties of execution of such rural development plans as may be adopted.

The unsatisfactory state of development of rural areas and rural population is widely acknowledged particularly, but not exclusively, in developing nations. Programs directed at improving the situation of rural population have rarely been given serious and sufficient attention of the demographic dimensions of the problems to be solved and those dimensions are seldom heard and rarely discussed in evaluation and decision-making processes. When

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population is taken into account it is usually as an exogenous variable. The reasons for this are several. Demographic data may not exist, or if they do are defective. Lack of data on the three major components of population change, fertility, mortality and migration, is itself evidence of the underdeveloped condition of demographic statistics in many developing countries.

Technocrats and planners, generally are not sensitized to the need for and utility of demographic data and, therefore, do not use those that are available nor demand that more and better data be provided, perpetuating the *status quo*. Very much the same observations are applicable to the training and utilization of demographers.

Other factors contribute to the neglect of demographic variables in the planning process. In the main, it matters little to the authorities concerned with development planning whether plans are elaborated by specialists or by others. In developing countries plans are often adopted on the basis of claims which are regarded as their merits and not on the basis of their true potential for contributing to the improvement of the quality of life of the people.

In many developing nations rural development is undertaken by bureaucrats with little or no training that prepares them for the task. Political loyalty, personal or family ties and other particularistic criteria seem to prevail with special vigour in filling positions that entail a responsibility for rural development, in many countries rural development projects have a very low priority compared to urban or industrial development projects which are considered more critical to national welfare, resulting in better staffing for projects involving the latter. Often rural development is placed at the service of political propaganda rather than of the people it purports to benefit (Barnett, 1979). The consequences can be summed up in one sentence : development does not occur.

Development plans may include comprehensive objectives that are not translated into action. Or, they may be stated so generally that they are difficult to operationalize and apply. Rational planning requires specific statements about objectives and procedures, benefits and beneficiaries. Political rhetoric serves only to confuse issues and pre-empt objectives.

### **Demographic Data Needs**

When objectives are clearly defined the data needs required for their implementation follow. For example, an objective such as doubling rice production in a given area within three years immediately suggests asking "What is the present level of production ?" "How many producers are there ?" "What is the size of the area cultivated ?" Other data needs follow. Although objectives are not at hand with which to match data needs, we can specify demographic data which are useful in planning for rural development.

### **Household Data**

In developing nations rural households are important in determining social, economic and normative behaviours. They are the cornerstone of the decision-making process in which, in many instances, the male head of the household exercises authority over household policy and affairs. Data on the composition and characteristics of household are important but often lacking. Even when such data are available they are rarely used. For example, families can influence the future of the community through decisions to educate and to migrate. Migration affects the distribution and composition of the population and education, its quality. Both have

important effects on the economy and society. Sound national and local planning and execution must rely on data about the target population.

### **Basic Demographic Processes**

Fertility, mortality and migration are the basic factors which determine the number, geographic distribution and age and sex composition of a population. The analysis of these factors can point to future trends in the rural population. An understanding of the present condition of rural population requires an understanding of these processes as they have affected them.

Rural to urban migration receives most attention because of its large volume in developing nations and of its consequences for receiving and sending areas. The impact of rural to urban migration on urban population is the most spectacular and has received the most attention. Important effects of rural to urban migration are also felt by rural areas. It tends to remove persons from rural areas who are in the most productive ages, leaving behind children and older adults. Rural urban migration may also diminish the human resources of rural population by removing from them those persons who are more skilled, better educated, more ambitious and in better health with negative effects for development.

On the other hand, emigration from rural areas can be an indispensable adaptive mechanism through which rural population adjust to the disparity between population and resources. Government policies can sometimes have unforeseen outcomes. Research has shown that rural schools have often stimulated those who attended them to emigrate to cities.

The return of rural-urban migrants to their areas of origin is an important stimulus for change but is often ignored. These movements tend to introduce into rural areas persons who, by virtue of their experience in the city bring with them points of view and information that can contribute to change in rural areas.

Fertility in rural areas is, with rare exception, higher than fertility in urban areas. Rural population contribute, therefore, out of proportion to their numbers to a nation's population growth. The consequences of this phenomenon are several. Since land is a limited resource, high rates of reproduction tend to increase population density stimulating emigration, the pulverization of land holdings, and the reduction of incomes and levels of living. These phenomena are generally unfavourable for development. A knowledge of fertility levels and of associated measures such as family size and composition are, therefore, useful if not indispensable for development planning in rural areas.

In developing countries the mortality of rural population is generally higher than that of urban population. Mortality during the first year of life or infant mortality is especially revealing of and sensitive to living conditions, educational levels, nutritional levels and well-being. Infant mortality rates can serve as a baseline against which to measure the effects of many rural development projects.

### **Population Characteristics**

The demographic characteristics of rural population reflect their social organization and establish the principal parameters with which social change and development will have to occur and suggest priorities for action.

Schooling is one of the most important population characteristics in relation to development. The availability of schools, school attendance, differences in the number of years of school completed among several sectors of the rural population and other educational variables need to be known and understood in order for rational plans to be devised. The chances for success of the introduction of social and technical innovations in rural areas depend in part on the degree of exposure of the rural population to educational institutions. The most important consequences of this exposure is the development in the individual of the capacity for vicarious cognition (Erasmus, 1961). To elaborate, from the viewpoint of development, schooling has the ability to increase one's earnings and influence. Keyfitz (1982:650-51), shows this in his study on poverty in Burma: "Development is not simple but multiple,... It may be seen as the investments in people that make them more valuable items of human capital"; and "regards it as the diffusion of a certain culture and the dominance of a new class that carries that culture." On the other hand, technology is conceptualized to include "improvements in the quality of capital and the investment in human beings" (Carnoy, 1977:429).

The analysis of demographic processes and characteristics is most revealing when changes over time are examined. Changes in fertility rates, in mortality rates, in migration rates, immigration patterns and in the population's characteristics unfold the past and illuminate the future. Rational planning for rural areas requires a knowledge of these changes. What are the implications, for example, for agricultural extension services of certain migration streams? What are the implications for programs which seek to establish or develop light manufacturing in rural areas of changes in the age and sex composition and in educational attainment? What are the implications of accelerated natural increase, due to a reduction in mortality, for the future of small land holdings? Demographic data reflect social and economic changes. They can contribute to an understanding of the dynamics of social change and, consequently, to the elaboration of rational plans. In summary, meaningful development planning cannot be formulated without a knowledge of the target population which includes demographic processes or the micro-level at which planning to be done.

## **The Model**

A model is proposed as one approach for placing demographic factors in the context of development planning (Figure 1). The proposed model is an "identification" model which structures the major variables associated with population quality and quantity (Christ, 1964; Goldberger, 1964; Schmidt, 1976). Its major purpose is to emphasize the legitimate role of population in any process of development. An explanation of this orientation is provided below in the interpretation of each component of the model.

### *Population*

The successful formulation and execution of a national comprehensive rural development programme requires the identification of the size and characteristics of the target population. By size is meant the number of persons in the population and their distribution among housing units in cities, towns, villages, open country and remote areas. Population characteristics are

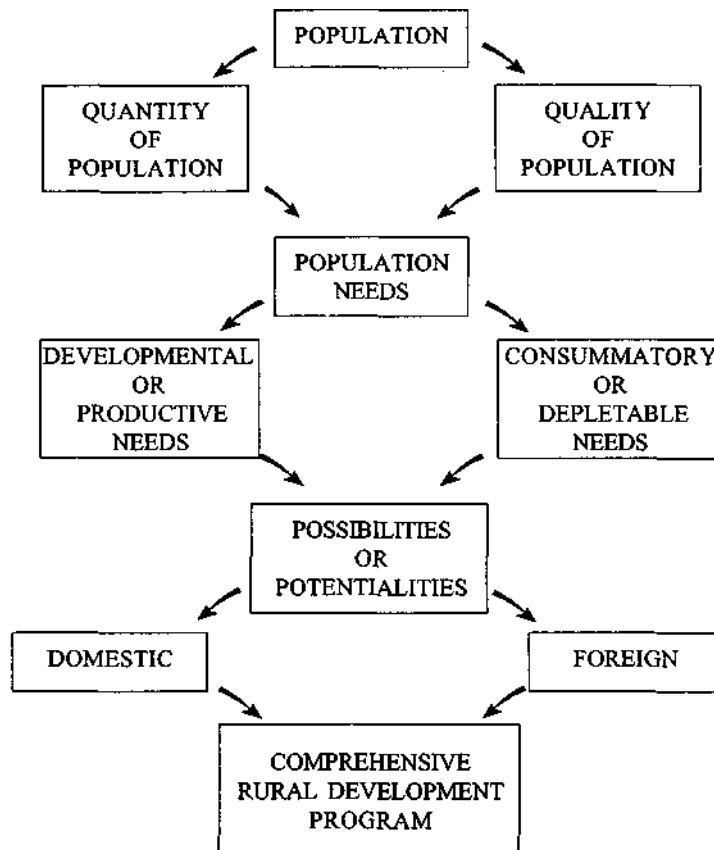


Fig. 1. A Development Planning Model

of three kinds: (1) Innate, such as sex and ethnicity, (2) ascribed such as caste membership and (3) acquired or achieved such as occupation, education and marital status. In operational terms, these characteristics refer to the exact distribution of the population according to its demographic, socio-economic and ethnic traits. Localities vary with regard to these characteristics which affect their development. Developmental strategies should be devised that take them into account. It is important to determine the population parameters of each locality before initiating rural development programs.

### *Human Needs*

In many developing nations basic human needs (adequate nutrition, potable water, satisfactory shelter, basic medical care) are not satisfied. If these biological needs are not met widespread morbidity will prevail lowering productivity (Staning, 1970). An experimental study of semistarvation conducted during the Second World War revealed that "chronic hunger" has adverse effects "upon cognition, feelings and attitudes of men as well as on their behaviour" (Krech, Crutchfield and Ballachery, 1962: 70). The unmet needs of the person

fuse and coordinate the entire matrix of his or her psychological pursuits in a way which hinders the achievement of goals. Needs reflect the individual's learning experience in that they vary over time in the same person. Individual needs also vary from one culture to another. The implications of this diversity of human needs are of significance to the entire process of rural development since they represent two polar forces whose consequences are antithetical. On one hand, there are needs which are consumable or debatable (foods, housing, clothing), and on the other, needs that are developmental or productive (education, public works, productive capacity). Taken together, the two groups of needs determine a community's potential for development.

### *Possibilities and Potentialities*

Almost all developing nations depend on the capital, technology and know-how of the advanced countries for the planning and execution of their development plans. Domestic requirements for development that should be taken into account and anticipated by planners are growing demands for education, housing, health care and improved nutrition. These services must be expanded as a concomitant to national development. Foreign influences on national development include, but are not limited to, multinational influences on the economy and polity which can either favour or discourage foreign investment and technology transfers. Planners need to evaluate population characteristics and strive to enhance those (for instance, vocational education, management skills), that will promote the achievement of desired development goals.

### *Comprehensive Rural Development*

Data on social and economic indicators at the micro-regional level are needed for effective development planning. In addition to population and vital statistics, basic data should include regional internal migration, educational statistics (literacy, educational attainment, attrition, teacher training, teacher-student ratios, course content), health status, nutritional status, status of women, rural industries, capacity of the agricultural sector to absorb labour, level of urbanization, and the major features of the national social structure. Statistics must be of a quality that permits the construction of meaningful development indicators which reflect changes in the institutional structure resulting from the development process: for example, involvement of the female population in productive activities, levels of living, or mortality and morbidity, internal migration, social mobility and urbanization. Indicators should be reviewed from time to time so as to adjust them to changing conditions to better assess the pace of development.

### **Conclusion**

Development planners must be able to spell out what they mean by development. The process of "development requires sustained economic growth, changes in the socio-political environment as well as flexibility in the institutional structure" (Venieris and Gupta, 1983:727). Keyfitz (1977:145) distinguishes between "two sets of offerees—those of competition,... and

those of political decision making and other expressions of power." Attention must be paid to the problems created by over population especially in rural villages. Demographic data are indispensable for accomplishing these ends. Development planners do not often learn from prior experience in their own or in other countries. They must examine the adequacy of the statistical infrastructure of their homeland at the national, regional and local levels. An efficient staff and a reliable data base are more important than capital resources to the planning and execution of a successful development program. Armed with knowledge allied with hope and enthusiasm planners will be able to work effectively toward the betterment of the quality of life of their country people.

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