THE INFLUENCE OF POPULATION MOBILITY ON HUMAN SETTLEMENTS

by
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ABSTRACT

*This paper examines some of the characteristics of world's population
mobility, cultural environment and changing societies. Some of the national
and international problems associated with population data collection and
enumeration are explored including transient and temporary population
movements. In analyzing population mobility and demographic transition,
Zelinky's hypothesis is used as a conceptual framework applicable in both
Developed and Developing countries. The findings of the study focused mainly
on some of government policies and implications essential for rural-orientated
and urban-orientated development programmes. It is emphasized that to
achieve some of the socio-economic development objectives in any nation, it is
important to have a comprehensive understanding of all the processes of
mobility to match the various government policies of the redistribution.*

POPULATION MOBILITY : A CONCEPTUAL FRAMEWORK

The mobility of population is a symptom of its dynamism and persistent pro-
cess of change. Demographers have viewed it alongside natural increase (or decrease)
as a major component of population change; these two components vary temporally
and spatially but affecting each other in many different patterns. However, mobility
has manifold forms and interrelationship with the distributions of population, society
and settlement, the spatial patterns of which are highly varied and constantly evolv-
ing, especially in the context of the great diversity of political units.

Mobility includes all forms of territorial movements of population; but demog-
raphers in particular have mainly confined their studies to migration (a term difficult
to define) but normally considered as movements involving a change of residence of a
specified duration-usually a year. In fact, they have focused more on permanent
movements and hence paid less attention to circulation which includes a variety of
temporary movements (e.g. journeys to work, school, leisure, worship and market)
that do not involve a change in residence; and transient movements (e.g. those higher
education, holidays, military service or seasonal/contractual labour) involving a tem-
porary change of residence. These studies have become the focuse of interest of other

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social scientists including geographers, sociologists and anthro-pologists. Before examining, in a little more detail, the three temporal categories of movement, it should be emphasized that human movements do not neatly fall into permanent, transient and temporary types when considering, for example, the difficulties of categorizing movements of prisoners or employees of multinational institutions (Johnson and Salt, 1980).

On the whole, studies of population mobility have been too macro- orientated. Restriction of the term migration to change of residence has limited studies to a small proportion of the infinite variety of human movement. Analysis of migration have therefore induced myopia about many other forms of mobility that should be seen in a much broader framework. Swindell and Ford (1975) have proposed that the migration process can be more easily understood if it is conceived as a function of places and migrants moving among them assisted by organizations, all in a temporal dimension. These places can be described as a spatial network with different populations and functions, and hence differing socio-economic opportunities. The migrants may be distinguished by : type (i.e. first-time, return, dependent); social feature (i.e. age, sex and social status); objectives (i.e. mainly determined by education, technological and economic stages of development. Organizations such as kinship, ethnic associations or governments also have formal and informal effects upon migrants flow. Mobility should be seen within a wider context since there are interrelationships of many different elements in the process.

Zelinsky (1979a) has referred to some theoritical approaches currently used in studying migration but "none is more than fractionally succesful in accounting for actual events":

(1) the strictly demographic approach limited to various formulation concerning migration, fertility and mortality;
(2) an economic approach treating the potential migrant as a rational decision-maker;
(3) the spatial modelling of migration;
(4) the cultural approach considering its complexities as main determinants of behaviour;
(5) a sociological approach looking at various social factors;
(6) the historical approach treating migration as an evolutionary phenomenon;
(7) the psychological approach;
(8) general systems theory; and
(9) genetic approach dealing only with migration, not the whole mobility, but it highlights unidimensional approaches to aphenomenon that plays an integral part of society.

Zelinsky (1979a) advocated that robust mobility theory should be applicable to all sorts of mobility in all societies, cultures and historical periods; able to describe interrelationships with other spatial and social interaction forms; integrable with demographic theories and a valid general social one capable of anticipating future developments in the research guided by an appropriate conceptual framework.

The objectives of this paper are : First to outline some of the local and international constraints encountered in population data collection and analysis. Second, to examine the transient and temporary circulations or movements of people that may be temporary or permanent in scope. Third, to elucidate mobility, changing societies and cultural environment taking into consideration a conceptual framework on the

hypothesis of mobility transition in both Advanced and Developing countries. Finally, some concluding remarks are provided on population mobility and distribution including government policy implications for rural-urban development programmes.

POPULATION MIGRATION : SOME PROBLEMS OF DATA COLLECTION AND ANALYSIS

Migration studies have become too much conditioned by the nature of aggregate data directly or indirectly derived mainly from official sources. Direct sources include international migration data, national censuses (by comparing place of enumeration with either place of birth or residence one or five years previously), national registration tables available in some countries, and longitudinal social surveys. Indirect methods of analysis include : the vital statistics method (by substracting reproductive population change from total change; the survival ratio method (by substracting the estimated number of people still alive and resident in the same location at the end of an intercensal period from the actual count at the second census); and the national growth method (by comparing the rate of growth in an area with the national average).

Such migration data and estimates are generalized in spatio-temporal terms, and cannot provide a clear picture of the complexity of human movements. Migrations are rarely steady, continuous flows; they are fluctuating, uneven phenomena which may be violent or calm, brief or long-lasting, voluminous or desultory. Data on migrations are also normally available only for areal administrative units such as countries, states, regions, countries and cities or towns. It is therefore examined at a series of aggregate levels: international, inter-regional, inter-urban, rural-urban etc. These units vary greatly in size between the various levels, and this is very important in migration analysis; for the numerical significance of migration relative to natural change of population varies inversely according to the scale : zero at world level, small at continental level, moderate at national level, high at district level and very high at parish or division stage. Additionally, the explanations for human movement vary according to analysis scale; housing and marriage exert a greater influence upon short-distance moves than long-distance ones, where economic motives are usually more important (Clarke, 1976).

Whereas the very large states in area and population, tend to be relatively unaffected by international migration, many of the small states have almost been totally transformed by it. Through immigration they may contain more aliens than nationals (e.g. Kuwait, Libya, United Arab Emirates, Bahamas); through emigration the majority of their nationals may be abroad (e.g. Lesotho). Another problem concerning international migration is that data for border crossings are often inaccurate. The proliferation of states in recent decades has meant that many are incapable of controlling their frountiers. In Africa (the most politically divided continent), there are about 56 countries, 15 with six neighbours or more, and over 80,000 km of international boundaries, often undemarcated. Thus, it evident that despite growing regulation of international movement across the world there is much illegal migration. In fact, it is sometimes more frequent where restrictions are greatest (through the 'iron curtain' has been very effective). Illegal migrants, variuosly termed undocumented, clandes-

tine, illicit, unauthorized and surreptitious (Konsinski, 1979), incorporate those with forged entry permits, those crossing boundaries illegally, those staying too long as workers and visitors and tourists who stay on to work. Estimates of illegal migrants in the world vary from country to another begging for knowledge on numerical significance.

This situation is exacerbated by the involuntary migrants or refugees defying accurate enumeration. Victims of political and environmental hazards and circumtances, cannot easily be distinguished from illegal migrants, as many are economic refugees. 'Freedom fighters' and 'refugees-surplace' (migrants leaving home for non-political objectives but then find it difficult to return for political reasons) and evacuees leaving colonial territories and alien expelees told to leave for socio-econo-mic and political reasons (e.g. the expulsions of British Asians from Uganda and Nigerians from Ghana)are some of the ranks of refugees. In addition, there are refugees not accorded that status, and those claiming to be refugees but are real migrant workers (Rogge, 1982). Moreover, refugees are not all found in camps; they may settle spontaneously in the border areas or in special agricultural schemes (e.g. in the Sudan), diffuse themselves within a country or move on to a third country of asylum. Estimates of their numbers are based more on stocks than flows and are often conflicting. Illegal and involuntary migrations may be only transient or temporary movements, the migrants returning eventually to their place of residence either officially or not. However, repatriation is not easy as refugees and illegal migrants adapt to their adopted countries and are not always persuaded by declarations of amnesty at home.

CIRCULATION, TRANSIENT AND TEMPORARY MOVEMENT

Transient movements are a form of circulation involving a temporary change of residence, and include periodic and seasonal movements lasting up to a few years. Variously termed seasonal migration, return migration and wage labour migration, such movements often end in permanent recolation, wether the migrant is a seasonal nomadic pastoralist finding a more favourable water and pasture environment, a soldier marrying a local girl, a university student settling in a city or a 'guest worker' bringing his family to the country where he has found work.

It has been estimated that there are at least 20 million imigrant workers in the world, without counting their families. But their numbers are difficult to determine because not only do they include illegal and involuntary migrants but also there is a variety of legislation and definitions as well as the effect of mixed marriages. In general, they move from Developing to Advanced countries and are an index of inequality of opportunities and economic disequilibrium (Bohning, 1979). Inevitably, sources and destinations frequently change as economic fortunes fluctuate. Currently, the oil-rich Middle Eastern countries are particularly attractive to workers from many African and Asian countries.

Transient movements cannot therefore be clearly distinguished from permanent migration; nor can they be easily isolated from temporary movements of a shorter duration. Many people in the 'modern' societies of the Western World have second homes and move between them especially in Britain. Others, particularly in the U.S.A. live in mobile homes constantly shifting their place of residence. Retired persons are usually involved in a transient lifestyle moving between homes and rela-

tives. Thus, retirement areas, often associated with tourist resorts, have consequently unusual levels and types of settlements.

Temporary circulatory movements are short-term and generally cyclical thus beginning and ending in the same place. these include, for example, commuting to shopping centres, schools, churches or mosques, friends, services and holidays and are often daily or periodic. Such movements involve the interchange of people between complementary places or situations without substancially altering locational petterns (Chapman, 1983). Temporary movements and patterns of permanent location reflect each other and hence are vital to the satisfaction of social needs and the efficient day-to-day functioning of society. On the other hand, in terms of the residential location of people, the location of workplaces, shops, churches, schools etc. are increasingly inefficient due to changes in population numbers and composition, employment opportunities and socio-economic needs. The evolution of a society with increased private and public transport leads to longer trips and much greater inefficiency in terms of aggregate travel distance.

The patterns of trips are ever changing as employment opportunities become diverse but inadequately matched to population distribution; as dual carrer households become more common; as scholls, colleges and universities are faced by alterations in the age composition of the population; as retailing evolves with the decline of the market; as fridges and freezers become more commonplace and hence people shop heavily but less often; as holidays become more frequent particularly in remote locations, as more and more people fly on pilgrimages to Mecca and elsewhere etc. Such trips would be much more numerous in an advanced society without the massive growth in the number of telephones and even more impresive diffusion of media. Radio, television and newspapers create stock of information on news items, weather, business affairs, car and houses for sale, prices etc. reducing the necessity for many trips. In short, the evolution of communication systems helps to overcome the distance friction varying from the least technological to the most technological societies.

Data on all these forms of circulation are deficient, particularly in Developing countries. Although national censuses of Developed nations usually provide aggregate data of residences and workplaces, means to travel to work and car ownership, such data only provide a very limited view of circulation and very rarely available in Developing countries.

POPULATION MOBILITY: CHANGING SOCIETIES AND CULTURAL ENVIRONMENT

Zelinsky (1971) provided a conceptual framework with his hypothesis of mobility transition that "there are definite patterned regularities in the growth of personal mobility through space-time during recent history and these comprise an essential component of modernization process". A five-phase sequence was proposed during which forms and volume of mobility reflected stages in the modernization of society and these include: pre-modern traditional; early transitional; late transitional; advanced; and future superadvanced. This was a macro-model. The hypothesis was undoubtedly a useful stimulus, but like the theory of demographic transition was criticised during the 1970s as being based too much on Western experience. Pryor (1975) suggested that in Developing Countries it is only relevant if a distinction is

made between innovative and conservative migrations involving differential movements between the economic cores and the periphery.

Later, Zelinsky (1979b) recognized some of the deficiencies in his mobility transition hypothesis, and suggested that to offer a useful insight into the complexities of present and future population redistribution it should be revised to tread certain problems that include: the growing partinence of government decisions; the unexpected turnaround in metropolitan-non-metropolitan migration in certain Developed countries (e.g. decentralization, counter-urbanization and polarization reversal); the special forms of circulation or transient movement common in the Developing countries; and the relationships between mobility and change in the socio-economic and technological structure of a community. These revisions would probably get closer to a general theory of mobility when considering the problem of uniqueness of the great diversity of physical and cultural environments, and forms of government encouraging particular types of human movement; the incidence of historical accidents (e.g. natural hazards, warfare, revolutions) which may cause unforeseen human movements thus reducing further their predictability.

One aspect neglected by the hypothesis of mobility transition towards explaining the so-called turnaround in Developed nations, is the relationship between mobility and cultural environment. As societies evolve, their nodes, networks, hierarchies, surfaces, functions and forms become complex with consequent effects upon the types, distance, duration, direction, volume and selectivity of human mobility. Rather than human movements conditioning spatial patterns of location, those trends increasingly influence human movements. Investment in locations implies that they are not easily abandoned, and the overall population and settlement distribution and movement become largely stabilized despite the high levels of human mobility associated with smaller families, high proportion of adults, increased literacy and education, greater employment in the secondary, tertiary and quarternary sectors etc.

Rowland (1979) emphasized that in Australia and other Developed countries, whereas mobility has played a major role in the long-term patterns of settlement change, at present its role is more in preserving than changing the settlement distribution; that the settlement system maintains itself in a state of dynamic equilibrium through demographic forces of migration, mortality and fertility cancelling themselfs out; migration being an essentially equilibrating mechanism sustaining the dynamic equilibrium in the broad population distribution. The dynamic equilibrium of population distributions is these countries contrast greatly with the dynamic disequilibrium in many of the Developing nations, with simple urban system and marked core-periphery contrasts; they have often experienced considerable polarization, urbanisation and urban primacy with no commonsurate industrialization. Their major human movements are more urban-oriented and towards growing population concentrations, particularly in large cities. By the end of the century three-quarers of the world's 20 largest cities will probably be in the Third World (UN, 1980).

On the other hand, patterns of population distribution in relation to development should not be generalized, because there is great heterogeneity. Indead Richardson (1981) could not find discernible regularity in spatial distribution patterns within groups stratified according to level of development; and that it was impossible to generalize about what kind of population distribution patterns favoured or inhibited development. In fact, the heterogeneity of population distribution and consequently of movement is not confined to Developing countries but is worldwide. Consequently,

although cityward or rural-urban migration are applied universally, the nature and characteristics of that migration vary from one major region to another and from city to another within the same region.

CONCLUSION : POPULATION MOBILITY AND DISTRIBUTION AND SOME GOVERNMENT POLICY IMPLICATIONS FOR DEVELOPMENT

Countries experience very different patterns of population distribution and mobility, and devise very different policies to cope with them in regard to the immense diversity of the world political map. Morrison (1975) has suggested three types of influence affecting population distribution in a national settlement system:
(1) cultural predispositions - i.e. values and aspirations related to society's desired quality of life;
(2) migratory predispositions - i.e. latent or potential population redistributions reflecting the history of past population movements; and
(3) government activities and programmes which have an impact upon population distribution.

Population inquiries during the mid-1970s revealed that very many countries are becoming more concerned about maldistribution of population than fertility and natural increase. Surely, too much credence should not be placed upon the value of these inquiries, as perceptions vary temporally and often based upon subjective evaluations; and governments may not reveal their real views. However, several countries are formulating population redistribution policies, most of which are migration-related as Findley (1970) has noted them is response to three major problems:

(1) rural overpopulation and poverty;
(2) rapidly expanding metropolitan areas; and
(3) uneven regional development.

All these are considered as contraints to the successful achievement of national objectives, such as social integration, economic development, reduction in external dependence, development of underdeveloped areas and national security.

Certainly, to achieve these goals it is significant to have a profound understanding of all the processes of mobility and population redistribution within a nation, and to adopt a multi-dimensional approach (UN, 1981; Gosling and Lim, 1979) matching policies with processes of redistribution. As for explicit policies, they generally involve economic incentives and disincentives affecting individuals, families and employing organizations, and often neglect well-known mobility fea-tures like the gravity rule, information flows and the selectivity of mobility. More-over, they address themselves mainly to a few types of mobility, especially rural- urban migration.

In fact, a wide variety of rural-orientated and urban-orientated population policies are used.

(1) Rural-orientated policies include:
　(a) Frontier colonization, accounting for the bulk of new rural land settlement in the world;

(b) Integrated or comprehensive rural development schemes, aiming at improving rural levels of living and self-sufficiency, wealth, health and education, reducing rural-urban differentials and encouraging people to stay in rural areas or at least in small town; and

(c) Capital-intensive agricultural develpment programmes, technocratic in style and aiming at increased agricultural productivity, but often causing greater regional inequality and further rural out-migration.

(2) Urban-orientated policies include:

(a) Policies to accomodate urban growth, and to accept centralized urban development by improving slums and squatter settlements as well as social welfare;

(b) Closed-city programmes, to prevent incursion of migrants;

(c) Urban rustication or reversal programmes, sometimes to send forcibly (e.g. China, Kampuchea), urban residents to rural areas;

(d) Dispersed urbanization, or the development of dormitory towns and satellite cities (e.g. Britain); and

(e) Medium-sized city and growth-pole strategies, designed to attract migrants, stimulate regional development and to encourage the growth of medium-sized cities.

However, governments often lack sufficient data for the adequate formulation of population redistribution policies, especially in Africa where many small countries are faced with high population and urban growth rates (e.g. Clarke and Kosinski, 1982; Mountjoy and Hilling, 1988). Obviously, the level of intervension varies from one country to another, ranging from the 'free market' to 'planned economy' approaches. But because people are more mobile than fixed resources, there is a general trend towards greater central planning and government intervention in population redistribution. However, development planners know that most carefully-construed plans do not always work aout well particularly in the Third World governments which are extremely finding it difficult to modify the processes and population growth and mobility patterns.

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