CHAPTER 4

IN-MIGRATION IN THE THIRD WORLD

4.1 INTRODUCTION

In this chapter attention will be given to the process of in-migration in the Third World. The Third World as explained by Tomlinson is composed of (1990:12) countries which have not developed with regard to some important areas such as financial markets, transport and communication systems. These countries may also lack a long tradition of effective local government and the administration of urban affairs. The world's population is becoming increasingly urban. In the Third World the pace of urban growth has over the past forty years been truly dramatic. Since 1950 the proportion of the Third World's population living in cities has roughly doubled from its initial 16 percent (Abu Lughod and Hay, 1977:90). Fuelled by high rates of natural increase, rapid in-migration, and changes in rural society, urban areas have grown immensely in most parts of the Third World and South Africa is no exception.

Today large areas of the world are integrated into a single economy. Rural areas and mining centers produce for distant populations and consume products manufactured far away within this world economy, individual cities perform specialised functions and their individual prosperity depends greatly upon their position in the economic system. Nevertheless, in so far as the development of the world economy has created an interlinked economic system, different cities perform the roles allocated to them within that system. If the cities and city systems of Europe and the United States have emerged in less grandiose scale, in-migration in the Third World would have been very different.

Third World societies will still lack major cities. In major parts of America and Africa urban development was superimposed by capitalism on essentially

rural societies. In Peru, Mexico, India, the Middle East, and China, where indigenous urban civilizations had already developed, urban forms were radically altered. The impact of European expansion from the sixteenth century onwards transformed urban structures in the Third World (Gilbert, 1982:12-13).

The cities of contemporary underdeveloped countries South African cities included are hybrid institutions, formed in part as a response of the indigenously developing division of social labour and in part as a response of the indigenously developing division of social labour and in part as a response to the impacts made upon less advanced countries by their integration into the world economy (Hoselitz, 1957:278).

The most obvious effects of European and later United States expansion in the Third World were the creation of new cities, the generation of new urban forms, and sometimes the destruction of existing urban cultures. The present forms of urban development in the Third World can be understood only as an outcome of the historical process of expansion by capitalist powers. At the same time, the effect of that expansion cannot be understood except in terms of the nature of raw-material production and forms of indigenous societies that were incorporated. What Gilbert, (1982:12-13) Cf. Hoselitz (1953:204) said is an indication that European expansion transformed urban structures and impacts made upon less advanced countries is through their integration into the World economy.

4.2   URBAN AGGLOMERATION AND REGIONAL DISPARITIES

Economic development tends to favour certain geographic areas. Certain regions and cities attract economic activity and population more than others. Of course this tendency is more marked in some economic systems; dependent capitalist countries exhibit wider regional disparities than do poor socialist nations, certain governments take more determined action to redress such inequalities than do others.

Today the essential decisions about technology, employment, and economic growth are made in the metropolitan centers of Europe and the United States, and Third World urban functions and form have come to reflect their provincial status. The Third World city forms part of the world economy but its population does not share equal access to the world's resources. For this reason, and despite the countervailing power of government, inequality is being perpetuated to lay with the Third World city.

Harvey's (1973) descriptions of the logic of capitalist expansion in Baltimore, with the parallel development of slum ghettos and affluent suburbs are applicable to a greater or lesser extent, throughout the world. In the Third World city the relative poverty of the black Baltimore slum-dweller is accentuated by absolute material deprivation. Some poor people in the United States suffer from malnutrition, most of the poor South African and Indian cities fall into this category.

Overcrowded tenement slums and too few jobs are abhorrent, but the lack of fresh water, medical services, drainage, and unemployment compensation adds to this problem in most Third World cities, South Africa included. Without wishing to paint Dickensian pictures of squalor, poverty, and crime it is far too easy to sketch the outline of a basically unfair and degrading situation. It is true that more poor people are living in Third World cities than even before, but this is a simple outcome of demographic growth; there are very many more rich people in those cities too; similarly, while levels of unemployment and relative numbers of shanty dwellers have risen in practically all Third World cities, this represents as much a transfer of rural poverty to the urban areas as the creation of a new group of the poor (Gilbert, 1982:25). It is stated that the objective is to describe and explain how major concentrations of population and economic activity have come about.

4.2.1 CONTEMPORARY SPATIAL DISPARITIES

Economic and social change has been associated with the emergence of wide geographical disparities throughout the Third World. These disparities

are linked to the nature of the economic model that underpins development in some of these countries and to the acute personal income disparities that have emerged. In this section it is sufficient to detail three broad patterns of spatial and social differences between urban and rural areas; economic and social disparities between different regions of a country; the degree to which one city dominates the national urban structure.

4.2.1.1   *Rural-urban disparities*

Major differences are apparent in the standard of living in the urban and rural areas with the exception of certain socialist nations, where an effort has been made to reduce differentials. The rural areas of the Third World contain a high proportion of very poor people, are provided with a minimum of social services and infrastructure and offer little in the way of well-remunerated work. **Per capita** incomes are consistently lower than those in urban areas. In Thailand rural incomes in 1970 were only 41 percent lower than those in urban areas, in West Malaysia in 1970, 33 percent, in Indonesia in 1967, 62 percent, in Venezuela in 1961, 40 percent and in Mexico in the early sixties 43 percent (Friedmann and Douglass, 1976:352. Cf. UNECLA; 1971:105).

Similar disparities can be seen in terms of medical provision. In the late sixties there was one doctor for every 200,000 Ethiopians living in rural areas compared to one for every 3,000 urban dwellers; in India one doctor for every 40,000 rural dwellers compared to one for every 500 city inhabitants; in Nigeria the figures were 1:2,800 (OHE, 1972:26). These kinds of differentials can be replicated for most kinds of health provision throughout the Third World (Gish, 1971. Cf. Gilbert, 1974c. cf. Sharpston, 1972. Cf. Bryant, 1969).

4.2.1.2   *Regional disparities*

However measured, regional disparities in Third World countries are extreme. In terms of medical provision, schooling, industrial activity, financial transactions, or the location of high-income groups, certain regions demonstrate a marked superiority over the rest of the country. In Senegal nearly 80 percent of all doctors compared to a mere 16 percent of the

population, nearly 80 percent of industrial enterprises, 66 percent of all salaried employees are concentrated in the Dakar region (Gugler and Flanagan, 1978(a):189). In Pakistan Karachi generates 42 percent of industrial value added and accommodates 50 percent of all bank deposits compared to its 6 percent of the national population (UNCRD, 1976:145). In Mexico the capital contained, in 1975, 46 percent of all commercial sales, 55 percent of service activities, and 52 percent of industrial production compared to 24 percent of the total national population (Unikel, 1976:68).

In general, regional disparities in less developed nations are far wider than those in developed countries. Regional income disparities have two other major characteristics. The first is that there is no tendency towards greater equality in most Third World countries; for every nation in which regional income convergence has occurred there is another in which divergence has been the pattern (Gilbert and Goodman, 1976:119). The second is that there is no relationship between per capita income among low- and medium income countries and the level of disparities. The level of disparities is more a function of national economic organization than of per capita national income.

4.2.1.3   *Urban primacy*

In many Third World countries, most large-scale modern activities, most forms of infrastructure, and most decision-makers are found in one major city. This concentration is mirrored in the urban-size distribution by the way one city dominates all others. Thus Lima-Callao has ten times the population of Arequiipa, Peru's next largest city; Kingston, Jamaica, twelve times population of Montego Bay; Guatemala City, eighteen times the population of Quezaltenango; and Bankok forty times that of the second Thai city, Chiengmai.

It is important to note, however, that twenty poor countries do not have primate urban-size distributions; for example, India, the Yemen Arab Republic, Zambia, and the Republic of South Africa. In addition there are countries in which a situation of dual primacy exists; two cities dominate the

urban-size distribution of Brazil (Rio de Janeiro and Sao Paulo), Ecuador (Quito and Guayaqui D, Syria (Damascus and Aleppo), and Pakistan (Karachi and Lahore).

It is suggested that note has to be taken that while primacy is more prevalent in Third World nations it is by no means confined to them. Rather, eleven of the twenty-eight high-income countries with primate or high-primate, with the dominance of Paris, Vienna, or Copenhagen serving to remind us that primacy is not exclusively a Third World phenomenon. Indeed, various efforts to relate the degree of primacy to levels of urban development or per capita income have proved inconclusive (Berry, 1961; Mills, 1972; Mehta, 1964). If a relationship exists it is of a much more complex form.

In sum, therefore, while primacy is not limited to the Third World nations, it is highly characteristic of them. And if high primacy is not limited to countries with any single characteristic, it is especially common in those that are small, highly centralized, and of medium income. Whether such a phenomenon constitutes the social and economic problem that so many claim, is a theme that shall be explored in the coming sections.

4.2.1.4 *The Export-orientation phase*

Throughout the Third World the growth of major cities was linked to the growth of international trade: Sao Paulo grew on the basis of coffee, Singapore on tin and rubber, Calcutta on jute, cotton and textiles, Johannesburg on gold and Buenos Aires on mutton, wool and cereals; Kimberley on diamonds, Witbank on coal, Cape Town on grapes, Malelane and Durban on sugar. Whether or not export-linked metropolitan development led to urban in-migration was dependent upon the degree to which one or several centers controlled the flow of international trade. In those few cases in which control over the production, transportation, and profits was spread among the variety of centers, non-primacy was the result. More typically, the national capital controlled the flow of exports, the revenues deriving from those exports, and the importation of goods financed by the

export flow. Primacy in the Third World countries, therefore, can be explained in terms of the geographical location of export production, the transport networks which emerged to ship those exports and, most fundamental of all, the location of the main beneficiaries of the profits generated by the international trade. Murphey (1969:79) said it is no coincidence that so many primate cities are major ports. The coastal cities such as Durban and Cape town generally benefited because they were located close to the centers of export production or commanded the main channels of trade.

Given this sea-orientated pattern, Singapore could easily serve the whole of the tin and rubber belt along the west coast of Malaya, as Colombo could for the quite compact plantation areas of Ceylon, Manila for the Philippines as a whole and Batavia for Indonesia, where commercial production was heavily concentrated in Java and along the east coast of Sumatra. In Latin America and Africa rivers were less often the main export channels and railways were built by British, French, and US capital to serve this role (Preston, 1979:16).

By contrast, the overwhelming primacy that developed in Argentina and South Africa was linked to the monopoly of one city over most administrative, commercial, and industrial functions. Buenos Aires just like Johannesburg combined physical proximity to the export areas of the Pampas or KwaZulu-Natal, stranglehold over imports, the ability to attract many of the massive flow of foreign immigrants, and most critically, a monopoly over political decision-making (Rogers, 1982:450).

If symbolically, the provinces gained a capital (in reality Buenos Aires and Johannesburg), seconded by other urban centers, continued to draw upon the resources, talents, and ambitions of the country and then left the other provinces and rural areas drained and depressed. Politicians might come from the interior or the countryside but in Johannesburg or Buenos Aires they quickly forgot their origins and adopted the life and attitudes of Pietersburg (Scobie, 1964:105).

Murphy, (1969:80) states that, in many countries indeed, it can be argued that it is the location of government and the paraphernalia of modernization rather than industrial growth that is the principal source of urban and regional concentration. In most African and Caribbean countries, where industrial growth is limited, expansion of the government bureaucrats constitute an important market for imported manufactured products, and for the shops which sell them for the construction industry and for domestic services. One of the incidental outcomes of modern administration and efforts of planning economic development has been the accentuated growth of urban complexes.

Whatever the level of industrial development, national governments have sought to mobilize savings and to centralize decisions over the allocation of investment. Thus the surplus created in rural areas and in the hinterlands of provincial cities tends to be channeled towards the primate city. As cities become larger, governments attempt to maintain political stability by controlling the prices of basic foods and transportation and by permitting land invasions or illegal urban subdivisions. Middle-income groups receive subsidized public housing and health services. Industrialists are wooed by governments turning a blind eye to environmental pollution; private-sector real-estate interests are allowed to dictate the terms of urban development and land use.

Once under way, urban growth is rarely channeled into directions that will maximize the public welfare. Rather, such growth is allowed to continue under its own implacable logic, whatever the eventual outcome. Bauer's (1954:36) statement is valid in stating that few governments can afford to face the political consequences either of a genuine policy of decentralization or of effective urban planning.

4.2.1.5 *Migrating to urban centers of unemployment and underemployment*

Great masses of rural people are potentially mobile, and they appreciate the gap between rural and urban standards of living. A great many are prepared to move to town if they can be sure of a livelihood there, although the days when migrants found work in town for the asking, are long gone, substantial numbers nevertheless continue to come to face widespread unemployment and underemployment.

Some migrants come with exceptional qualifications or the right connections and can rely on securing a satisfactory income in the urban setting. Many others are not so fortunate. Two interpretations have been advanced to explain migration to cities characterized by unemployment and underemployment. Both argue that the decision to migrate is a rational response to economic conditions. The difference between the two interpretations is accounted for by variations in the structure of urban labour markets.

In tropical Africa analysis focused on migrants coming in search of jobs that offered wages and working conditions regulated by legislation and/or collective bargaining. They would spend several months trying to secure such a job, but, if unsuccessful, eventually return to the village. Thus in Kampala, Hutton (1973:61-2) found a clearly established pattern in the middle 1960's. Of the unemployed men she interviewed, three-quarters planned to leave if they could not find work, typically within less than six months. More than three-quarters of these intended to return to their rural home. Going home, however, was only a temporary measure; only 11 percent of the unemployed surveyed felt that they would stay there. The other people pick up casual work as it becomes available from time to time, whereas others work on their own, perhaps as street vendors, in lines that are open to newcomers, but where competition is fierce and earnings are low.

4.3 THE EXTENT OF IN-MIGRATION IN THE WORLD

At the beginning of the nineteenth century, 3 percent of the world's population lived in urban places. This figure rose to about 15 percent by 1900, to 40 percent by the mid-seventies, and is expected to reach 50 percent by the end of this century (Hay, 1977:71). Davis calculated that if the world's urban population were to continue to rise at the 1950-70 rate, over 50 percent of the world's population would be living in urban places already by 1987, compared to 61 percent by the year 2000 and 100 percent by the year 2031 (Davis, 1972:52). His lowest projection, which indicates that the world will have more than 50 percent of its inhabitants living in urban places by the year 2000, corresponds with Hay's projection. Table 4.1 gives the world's projected population in rural and urban places, 1970-2000, according to the highest constant-rate-projection, while table 4.2 uses the lowest constant-rate projection.

From Table 4.1 and Table 4.2 it can be seen that the rate of increase in the urban population between 1980 and 2000 will be three to four times higher than the increase of the urban population as a percentage of the total population. For example, in the case of the highest constant-rate projection, the increase in the urban population between 1980 and 2000 will be 98 percent, while the increase of the urban fraction will be 60 percent. In the case of the lowest constant-rate projection, the increase in the urban population during the same period will be 72 percent, while the increase of the urban fraction will be 33 percent (Supra, 1972:124).

The projection of the World's total population by the year 2000 in table 4.1 and 4.2 compares favorably with the United Nations' "medium" projection of the total world population of 6200 billion people.

In considering the extent of the world's in-migration, it is advisable to make a clear distinction between the more developed countries, due not only to the different conditions that exist in these two sets of countries, but also to the considerable difference in the purview or in-migration. At present more than

two-thirds of the developed countries are urbanized, compared to about one-fourth of the less developed countries (UN, 1976, Supra, 1972:240). However, the urban populations of less developed countries are increasing at twice the rate of those in developed countries; for example, between 1920 and 1960 the urban population in the less developed countries rose at an annual average rate of 4 percent, compared to a rate of 1,9 percent in the developed countries over the same period. This trend was also visible in the increase in the rate of in-migration during the period 1920-1960, when the rate was 2,3 percent in less developed countries and 1,1 percent in developed countries (Supra,16:1969).

**Table 4.1   Projected population in rural and urban places, 1970-2000
(Highest constant-rate projection)**

	Rural		Urban		Total	
Year	Millions	%	Millions	%	Millions	%
1970	2 229'0	61,4	1 399'0	38,6	3 628,0	100,0
1975	2 321,6	58,3	1 659,6	41,7	3 981,2	100,0
1980	2,400,0	54,9	1 968,8	45,1	4 368,8	100,0
1985	2 458,6	51,3	2 335,6	48,7	4 794,2	100,0
1990	2 490'2	47,3	2 770,7	52,7	5 261,0	100,0
1995	2,436,0	38,4	3 899,3	61,6	6 335,3	100,0
2000	2 436,0	38,4	3 899,3	61,6	6 335,3	100,0

Source: Davis, Kingsley (1972). World In-migration 1950-1970, Volume II: Analysis
of Trends, Relationships and Development, University of California, Berkley,
USA, P 126.

**Table 4.2   Projected population in rural and urban places, 1970-2000
(Lowest constant-rate projection)**

	Rural		Urban		Total	
Year	Millions	%	Millions	%	Millions	%
1970	2 229'0	61,4	1 399'0	38,6	3 628,0	100,0
1975	2 352,8	59,1	1 628,4	40,9	3 981,2	100,0
1980	2 483,5	56,9	1 885,3	43,1	4 368,8	100,0
1985	2 621,5	54,7	2 172,7	45,3	4 794,2	100,0

1990	2 767,1	52,6	2 493,8	47,4	5 261,0	100,0
1995	2,920,9	50,6	2,852,3	49,4	5 773,2	100,0
2000	3,083,1	48,7	3 252,1	51,3	6 335,3	100,0

Source: Davis, Kingsley (1972). World Urbanization 1950-1970, Volume II: Analysis

of Trends, Relationships and Development, University of California, Berkley,

USA, P 126.

Figure 4.1 shows the growth of the world's urban and rural population since 1970 (according to Davis' lowest constant rate projection). From figure 4.1 it can be seen that the world's urban-population will surpass the total rural population in 1997.

Figure 4.1   Growth of the Worlds Urban and Rural Population, 1970- 2000
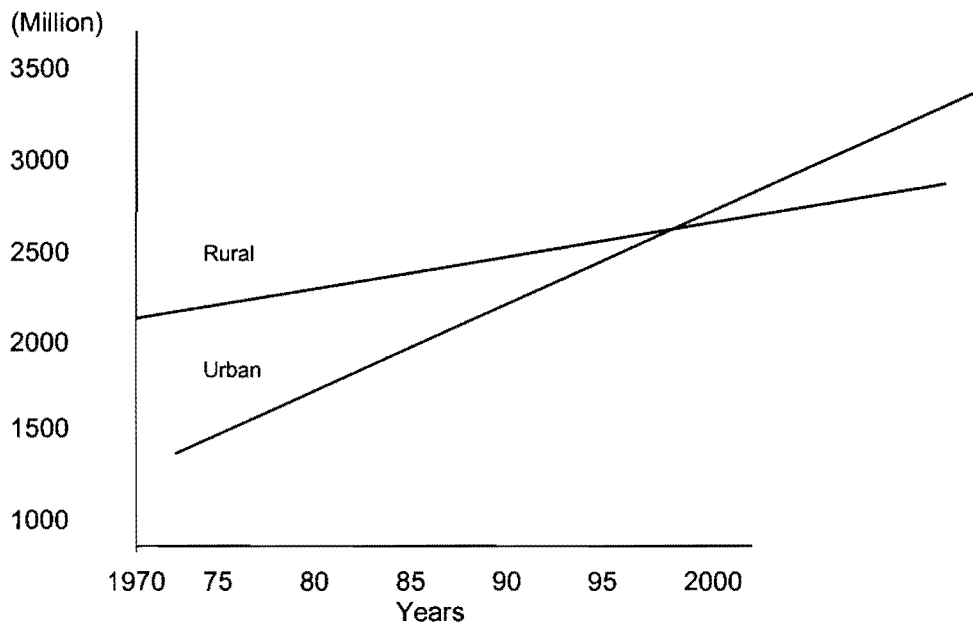
This rapid increase in the urban population of the less developed countries must be seen against the background of the rapid increase in total population in the Third World. Birth rates in less developed countries are twice as high as in developed countries, with the result that the natural increase in the former is far greater than in the developed countries. According to the United Nations population projections, the total population of the more developed

regions may grow by about 20 percent between 1975 and the year 2000, and that of the less developed countries by 75 percent (Supra, 1976:16).

Unesco projections put the probable population of South Africa at the year 2000 as follows:

Tabel 4.3   South African Population Projection at the Year 2000

Blacks	37 293 000	76%
Whites	5 910 000	12%
Coloureds	4 890 000	10%
Indians	1 215 000	2 %
TOTAL	49 308 000	100%

Source : (Cameron and Hurst, eds,. 1983:364).

Currently there is a large gap in the level of in-migration between the more developed regions and the less developed regions of the world (see figure 4.2 and table 4.4). In 1985, 72 per cent of the population of the more developed regions resided in the urban areas. The urban percentage in the more developed regions is projected to increase only marginally to 79 percent in 2025. However a significant and rapid in-migration is projected in the coming decades in the less developed regions. The urban percentage in the less developed regions is projected to rise to nearly 40 per cent by the year 2000 and 57 per cent by 2025.

Figure 4.2   Per cent of population residing in urban areas in the more and less developed regions. 1950-2025
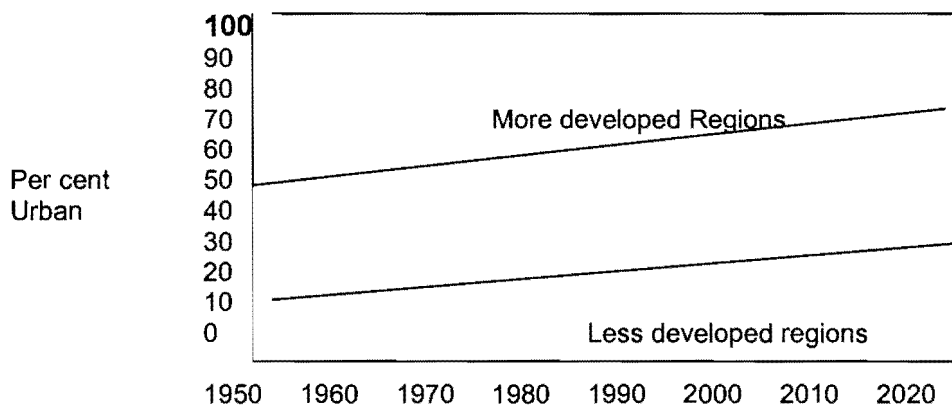
Table 4.4:   Percentage of population living in urban areas, by major area and region, 1970-2025

Percentage Urban												
Major Area and Region	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
World total	73.2	38.5	39.8	41.2	42.7	44.5	46.7	49.2	52.0	54.8	57.7	60.5
More developed Regions	66.6	68.8	70.2	71.5	72.7	73.8	74.8	75.9	76.8	77.6	78.4	79.0
Less developed Regions	25.5	27.3	29.3	31.5	33.9	36.5	39.5	42.8	46.5	50.0	53.5	56.9
Africa	22.9	25.3	28.0	31.1	34.5	37.9	41.3	44.7	48.7	51.4	54.6	57.8
Eastern Africa	10.3	12.4	15.2	18.6	22.4	26.3	30.1	33.7	37.2	40.8	44.4	48.0
Middle Africa	24.8	28.0	31.6	35.6	39.6	43.7	47.6	51.3	54.9	58.4	61.6	64.7
Northern Africa	36.0	38.0	39.9	41.9	44.3	47.0	49.9	53.2	56.4	59.5	62.5	65.3
Southern Africa	44.1	46.8	49.6	52.5	55.6	58.7	61.7	64.6	67.2	69.7	72.0	74.2
Western Africa	19.6	22.6	25.9	29.4	33.1	36.9	40.7	44.5	48.3	52.0	55.5	58.9
Latin America	57.3	61.4	65.4	69.2	72.3	75.0	77.2	79.1	80.7	82.2	83.5	84.8
Caribbean	45.7	49.5	53.2	56.6	59.8	62.8	65.5	67.9	70.0	72.1	74.1	75.9
Central America	54.0	57.4	60.6	63.6	66.4	68.9	71.1	73.2	75.2	77.1	78.8	80.5
South America	60.0	64.5	68.8	72.8	76.1	78.9	81.0	82.7	84.1	85.3	86.4	87.5
Northern America	73.8	73.8	73.9	74.1	73.3	74.6	75.0	75.5	76.1	76.7	77.2	77.9
Asia	23.9	25.3	26.6	28.1	29.9	32.2	35.0	38.2	41.9	45.7	49.4	53.0
Eastern Asia	26.9	27.6	28.1	28.6	29.4	30.7	32.6	35.3	38.6	42.0	45.6	49.0
Southeasten Asia	20.2	22.0	24.0	26.3	29.0	32.1	35.5	39.3	43.1	46.9	50.6	54.3
Southern Asia	19.5	21.3	23.2	25.3	27.8	30.6	33.8	37.3	41.2	45.1	48.9	52.6
Western Asia	43.2	47.9	51.7	54.9	58.2	61.2	63.9	66.7	69.4	71.9	74.2	76.3
Europe	66.7	68.8	70.3	71.7	73.1	74.6	76.0	77.5	78.8	80.1	81.2	82.3
Eastern Europe	53.5	56.8	59.3	61.6	63.8	65.8	67.6	69.3	70.7	72.1	73.2	74.2
Northern Europe	82.4	83.9	85.2	86.3	87.2	88.2	89.0	89.7	90.5	91.1	91.7	92.3
Southern Europe	56.1	58.5	60.5	62.5	64.6	66.8	69.1	71.3	73.6	75.6	77.6	79.4
Western Europe	76.4	78.2	78.9	79.6	80.3	81.1	81.9	82.8	83.7	84.6	85.4	86.1
Oceana	70.8	71.8	71.5	71.1	70.9	70.8	71.0	71.4	72.1	72.9	74.0	75.2
Australia New Zealand	84.4	85.3	85.3	85.2	85.3	85.4	85.8	86.2	86.9	87.5	88.4	89.2
Melanesia 42.0		15.1	17.5	18.8	20.2	21.8	23.7	25.9	28.6	31.7	35.0	38.4
Micronesia	32.1	38.0	43.2	48.4	53.2	57.3	60.8	64.0	66.9	69.6	72.1	74.5
Polynesia	32.4	34.6	35.8	37.0	39.0	41.4	44.4	47.7	51.1	54.4	57.6	60.8
USSR	56.7	60.0	63.1	65.6	67.5	69.4	70.7	71.9	72.7	73.4	73.7	74.1

Corresponding to this rapid rise in the level of in-migration, the absolute number of urban dwellers in the less developed regions is projected in 1950 to over 4 billion in 2025 (see table 4.4 and figure 4.3). During the same period, the rural population will more than double, from 1.4 to 3.1 billion. (The total population in the less developed regions is projected to quadruple in the 75-year period, from 1.8 to 7.1 billion.)

Figure 4.3   **Urban population in the more and less developed regions.**

1950-2025

Population (in millions) vs Year bar chart with legend: More developed regions, Less developed regions.
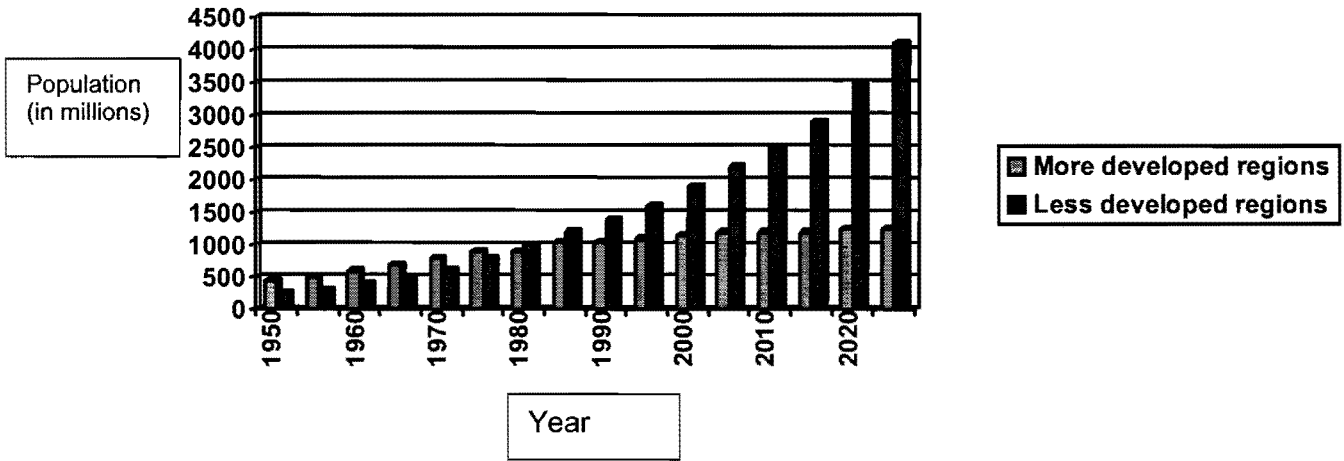
Table 4.5   Total, urban and rural population by major area, 1970-2025

Population Group	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
Population in Million												
World												
Total population	3697	4079	4450	4853	5292	5765	6251	6728	7190	7639	8062	8466
Urban population	1374	1568	1770	1997	2260	2567	2916	3307	3736	4188	4649	5118
Rural population	2323	2510	2680	2856	3031	3198	3334	3421	3454	3451	3413	3347
More developed Regions												
Total population	1049	1095	1136	1173	1205	1234	1262	1286	1307	1325	1340	1352
Urban population	698	753	798	893	875	911	944	976	1003	1028	1050	1068
Rural population	350	341	338	334	329	323	317	310	303	296	290	283
Less developed Regions												
Total population	2648	2984	3313	3680	4086	4531	4988	5441	5883	6314	6722	7114
Urban population	675	815	971	1158	1384	1655	1971	2331	2732	3159	3599	4050
Rural population	1973	2169	2341	2522	2702	2875	3016	3110	3150	3154	3123	3063
Africa												
Total population	362	415	481	557	647	752	872	1005	1148	1296	1441	1580
Urban population	82	105	134	173	223	285	360	449	552	666	787	913
Rural population	279	310	346	383	424	467	511	555	596	629	653	667
Latin America												
Total population	285	322	361	403	448	493	539	585	630	675	719	760
Urban population	163	198	236	279	324	370	416	463	508	555	600	644
Rural population	121	124	124	124	123	123	122	122	121	120	118	115
Northern America												
Total population	226	238	251	264	275	285	294	303	311	319	327	332
Urban population	167	176	186	196	204	213	221	229	236	245	252	259
Rural population	59	62	65	68	70	72	73	74	74	74	74	73
Asia												
Total population	2101	2353	2582	2834	3108	3404	3697	3973	4226	4463	4680	4889
Urban population	502	595	688	796	930	1095	1292	1518	1772	2038	2310	2589
Rural population	1598	1758	1894	2037	2177	2308	2405	2454	2453	2425	2371	2300
Europe												
Total population	460	473	484	492	497	503	508	511	513	514	513	512
Urban population	306	326	340	352	364	375	386	396	404	411	417	421
Rural population	153	147	143	139	133	127	121	115	108	102	96	90
Oceania												
Total population	19	21	23	25	26	28	30	32	34	35	37	39
Urban population	14	15	16	18	19	20	21	23	24	26	28	29
Rural population	5	6	7	7	7	8	9	9	10	9	9	10
USSR												
Total population	242	254	265	276	287	298	307	317	326	335	343	351
Urban population	137	152	167	181	194	206	217	228	237	246	253	260
Rural population	105	101	98	95	93	91	90	89	89	89	90	91

A positive rate of in-migration indicates that urban population is increasing at a faster pace than the total population. In the less developed regions, the rate of in-migration was 1.4 per cent during the 1970's and 1.5 per cent during the 1980's (see table 4.5). According to the present projections, the rate of in-migration at the less developed regions will peak at 1.7 per cent for the period 2000-2025, before declining steadily to 1,2 per cent for the period

2020-2025. These figures indicate that the rate of population redistribution from rural to urban areas in the less developed regions will remain strong for the rest of this century. In the less developed regions, the urban population has been increasing at a very rapid rate of 3.6 per cent per year. It is projected to increase at this pace until the end of the century.

Table 4.6   Average rate of growth of total, urban and rural populations and rate of in-migration by major area or region, 1970-2025 a/

Major Area or Region	Average annual rate of growth (percentage)										
	1970-1975	1975-1980	1980-1985	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025
World											
Total growth rate	2.0	1.8	1.8	1.7	1.7	1.6	1.5	1.3	1.2	1.1	1.0
Urban growth rate	2.7	2.4	2.4	2.5	2.6	2.6	2.5	2.5	2.3	2.1	1.9
Rural growth rate	1.6	1.3	1.3	1.2	1.1	0.8	0.5	0.2	-0.0	-0.2	-0.4
Rate of urbanization	0.7	0.7	0.7	0.7	0.8	1.0	1.0	1.1	1.1	1.0	1.0
More developed regions											
Total growth rate	0.9	0.7	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2
Urban growth rate1.	1.5	1.1	1.0	0.8	0.8	0.7	0.7	0.6	0.5	0.4	0.3
Rural growth rate	-0.5	-0.2	-0.2	-0.3	-0.4	-0.3	-0.5	-0.4	-0.5	-0.4	-0.4
Rate of Urbanization	0.7	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2
Less developed regions											
Total growth rate	2.4	2.1	2.1	2.1	2.1	1.9	1.8	1.6	1.4	1.3	1.1
Urban growth rate	3.8	3.6	3.6	3.6	3.6	3.6	3.4	3.2	2.9	2.6	2.4
Rural growth rate	1.9	1.5	1.5	1.4	1.2	1.0	0.6	0.3	0.0	-0.2	-0.4
Rate of urbanization	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.7	1.5	1.4	1.2
A. Africa											
Total growth rate	2.7	3.0	3.0	3.0	3.1	3.0	2.9	2.7	2.4	2.1	1.9
Urban growth rate	4.8	5.1	5.2	5.2	5.0	4.8	4.5	4.2	3.8	3.4	3.0
Rural growth rate	2.1	2.2	2.1	2.0	2.0	1.8	1.7	1.4	1.1	0.7	0.4
Rate of urbanization	2.0	2.0	2.1	2.1	1.9	1.7	1.6	1.5	1.3	1.2	1.1
A.1. Eastern Africa											
Total growth rate	2.7	3.1	3.0	3.1	3.3	3.3	3.2	3.0	2.7	2.4	2.1
Urban growth rate	6.5	7.4	7.3	7.1	6.6	6.1	5.5	5.1	4.7	4.1	3.7
Rural growth rate	2.2	2.4	2.1	2.1	2.2	2.2	2.1	1.9	1.5	1.1	0.7
Rate of Urbanization	3.8	4.2	4.1	3.8	3.3	2.7	2.3	2.0	1.9	1.7	1.6
A.2. Middle Africa											
Total growth rate	2.7	3.1	2.8	3.0	3.0	3.0	3.0	2.9	2.8	2.4	2.1
Urban growth rate	5.2	5.6	5.3	5.2	5.0	4.8	4.6	4.3	4.0	3.6	3.1
Rural growth rate	1.8	2.0	1.6	1.6	1.6	1.5	1.5	1.3	1.1	0.8	0.4
Rate of Urbanization	2.5	2.4	2.4	2.2	2.0	1.7	1.5	1.4	1.2	1.1	1.0
A.3 Northern Africa											
Total growth rate	2.4	2.8	2.9	2.8	2.6	2.3	2.1	1.9	1.7	1.5	1.3
Urban growth rate	3.6	3.8	3.9	3.9	3.8	3.6	3.4	3.1	2.8	2.4	2.2
Rural growth rate	1.8	2.2	2.2	1.9	1.5	1.1	0.7	0.4	0.2	-0.1	-0.3
Rate of Urbanization	1.1	1.0	1.0	1.1	1.2	1.2	1.3	1.2	1.1	1.0	0.9

Table 4.6   (Continued)

Major Area or Region	Average annual rate of growth (percentage)										
	1970-1975	1975-1980	1980-1985	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025
A.4. Southern Africa											
Total growth rate	2.5	2.3	2.4	2.4	2.3	2.2	2.1	1.9	1.7	1.5	1.3
Urban growth rate	3.7	3.5	3.5	3.5	3.4	3.2	3.0	2.7	2.5	2.2	1.9
Rural growth rate	1.4	1.3	1.1	1.0	0.8	0.7	0.5	0.3	0.1	-0.1	-0.4
Rate of urbanization	1.2	1.2	1.1	1.2	1.1	1.0	0.9	0.8	0.7	0.7	0.6
A.5. Western Africa											
Total growth rate	3.1	2.3	3.2	3.3	3.4	3.3	3.2	2.9	2.6	2.3	2.0
Urban growth rate	6.1	6.0	5.9	5.8	5.6	5.3	5.0	4.6	4.1	3.6	3.2
Rural growth rate	2.3	2.3	2.2	2.2	2.1	2.0	1.8	1.5	1.1	0.7	0.4
Rate of urbanization	2.9	2.8	2.6	2.4	2.2	2.0	1.8	1.7	1.5	1.3	1.2
B. Latin America											
Total growth rate	2.5	2.3	2.2	2.1	2.0	1.8	1.6	1.5	1.4	1.3	1.1
Urban growth rate	3.9	3.6	3.4	3.0	2.7	2.4	2.1	1.9	1.7	1.6	1.4
Rural growth rate	0.4	0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.4	-0.5
Rate of urbanization	1.4	1.3	1.1	0.9	0.7	0.6	0.5	0.4	0.4	0.3	0.3
B.1. Caribbean											
Total growth rate	1.9	1.4	1.3	1.5	1.4	1.3	1.2	1.0	0.9	0.8	0.7
Urban growth rate	3.5	2.8	2.6	2.6	2.4	2.2	1.9	1.7	1.5	1.4	1.2
Rural growth rate	0.4	-0.1	-0.2	-0.1	-0.1	-0.2	-0.3	- 0.4	-0.5	-0.6	-0.7
Rate of urbanization	1.6	1.5	1.2	1.1	1.0	0.8	0.7	0.6	0.6	0.5	0.5
B.2. Central America											
Total growth rate	3.2	2.6	2.5	2.4	2.2	2.0	1.8	1.7	1.5	1.4	1.3
Urban growth rate	4.4	3.8	3.5	3.2	3.0	2.7	2.4	2.2	2.0	1.9	1.7
Rural growth rate	1.6	1.0	0.9	0.8	0.6	0.5	0.3	0.1	-0.0	-0.2	-0.3
Rate of urbanization	1.2	1.1	1.0	0.9	0.7	0.6	0.6	0.5	0.5	0.4	0.4
B.3. South America											
Total growth rate	2.4	2.3	2.2	2.1	1.9	1.8	1.6	1.5	1.4	1.2	1.1
Urban growth rate	3.8	3.6	3.4	3.0	2.6	2.3	2.3	1.8	1.7	1.5	1.3
Rural growth rate	-0.0	-0.3	-0.5	-0.5	-0.5	-0.4	-0.3	-0.2	-0.3	-0.4	-0.5
Rate of urbanization	1.5	1.3	1.1	0.9	0.7	0.6	0.4	0.3	0.3	0.3	0.3
C. Northern America											
Total growth rate	1.1	1.1	1.0	0.8	0.7	0.6	0.6	0.5	0.5	0.5	0.4
Urban growth rate	1.1	1.1	1.1	0.9	0.8	0.7	0.7	0.7	0.7	0.6	0.5
Rural growth rate	1.0	1.0	0.9	0.7	0.4	0.3	0.1	0.1	0.0	-0.1	-0.2
Rate of urbanization	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2
D. Asia											
Total growth rate	2.3	1.9	1.9	1.9	1.8	1.7	1.4	1.2	1.1	1.0	0.9
Urban growth rate	3.4	2.9	3.0	3.2	3.3	3.4	3.3	3.1	2.8	2.5	2.3
Rural growth rate	1.9	1.5	1.5	1.3	1.2	0.8	0.4	-0.0	-0.2	-0.5	-0.6
Rate of urbanization	1.1	1.0	1.1	1.2	1.5	1.7	1.8	1.9	1.8	1.6	1.4

Table 4.6 (Continued)

Major Area or Region	1970-1975	1975-1980	1980-1985	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025
D.1. Eastern Asia											
Total growth rate	2.1	1.4	1.2	1.3	1.3	1.1	0.8	0.6	0.5	0.5	0.4
Urban growth rate	2.6	1.8	1.6	1.9	2.2	2.3	2.4	2.4	2.2	2.1	1.9
Rural growth rate	1.9	1.3	1.1	1.1	0.9	0.5	0.0	-0.5	-0.6	-0.8	-0.9
Rate of urbanization	0.5	0.4	0.4	0.6	0.9	0.2	0.6	1.8	1.7	1.7	1.4
D.2. Southeastern Asia											
Total growth rate	2.4	2.2	2.2	1.9	1.8	1.7	1.5	1.3	1.2	1.0	0.9
Urban growth rate	4.2	4.0	4.0	4.0	3.9	3.7	3.5	3.2	2.9	2.6	2.3
Rural growth rate	2.0	1.6	1.5	1.2	0.9	0.6	0.3	-0.0	-0.2	-0.4	-0.6
Rate of urbanization	1.7	1.8	1.8	2.0	2.1	2.0	2.1	1.9	1.7	1.5	1.4
D.3. Southern Asia											
Total growth rate	2.4	2.2	2.4	2.4	2.3	2.2	1.9	1.7	1.5	1.2	1.1
Urban growth rate	4.2	4.0	4.2	4.3	4.3	4.2	4.0	3.7	3.3	2.9	2.6
Rural growth rate	1.9	1.7	1.9	1.7	1.5	1.2	0.8	0.4	0.1	-0.2	-0.4
Rate of urbanization	1.8	1.7	1.7	1.9	1.9	2.0	2.0	2.0	1.8	1.6	1.5
D.4. Western Asia											
Total growth rate	3.0	2.9	3.0	2.8	2.7	2.6	2.5	2.3	2.1	1.9	1.7
Urban growth rate	5.1	4.5	4.3	4.0	3.8	3.5	3.3	3.1	2.8	2.5	2.3
Rural growth rate	1.2	1.3	1.6	1.3	1.2	1.1	0.9	0.6	0.4	0.2	-0.0
Rate of urbanization	2.1	1.5	1.2	1.2	1.0	0.9	0.9	0.8	0.7	0.6	0.6
E. Europe											
Total growth rate	0.6	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.0	-0.0	-0.1
Urban growth rate	1.2	0.9	0.7	0.6	0.6	0.6	0.5	0.4	0.3	0.3	0.2
Rural growth rate	-0.8	-0.5	-0.7	-0.8	-0.9	-0.9	-1.1	-1.2	-1.2	-1.2	-1.2
Rate of urbanization	0.6	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3
E.1. Eastern Europe											
Total growth rate	0.6	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1
Urban growth rate	1.8	1.5	1.2	1.0	0.9	0.9	0.8	0.7	0.6	0.5	0.4
Rural growth rate	-0.9	-0.6	-0.7	-0.8	-0.9	-0.7	-0.8	-0.7	-0.7	-0.7	-0.7
Rate of urbanization	1.2	0.9	0.8	0.7	0.6	0.5	0.5	0.4	0.4	0.3	0.3
E.2. Northern Europe											
Total growth rate	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.0	0.1	0.0	-0.0
Urban growth rate	0.7	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.1
Rural growth rate	-1.5	-1.4	-1.4	-1.3	-1.3	-1.3	-1.4	-1.4	-1.4	-1.4	-1.4
Rate of urbanization	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
E.3. Southern Europe											
Total growth rate	0.8	0.8	0.5	0.3	0.3	0.3	0.2	0.1	0.0	-0.0	-0.1
Urban growth rate	1.6	1.5	1.2	1.0	1.0	1.0	0.8	0.7	0.6	0.5	0.4
Rural growth rate	-0.3	-0.2	-0.5	-0.9	-1.0	-1.1	-1.3	-1.5	-1.6	-1.7	-1.7
Rate of urbanization	0.8	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.5	0.5	0.5

92

Table 4.6   (Continued)

Major Area or Region	Average annual rate of growth (percentage)										
	1970-1975	1975-1980	1980-1985	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025
E.4. Western Europe											
Total growth rate	0.5	0.2	0.2	0.1	0.1	0.1	-0.0	-0.1	-0.1	-0.2	-0.2
Urban growth rate	1.0	0.4	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.0	-0.0
Rural growth rate	-1.0	-0.5	-0.5	-0.6	-0.7	-0.8	-1.0	-1.2	-1.2	-1.2	-1.2
Rate of urbanization	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
F. Oceania											
Total growth rate	1.8	1.5	1.6	1.5	1.3	1.3	1.2	1.1	1.0	1.0	0.9
Urban growth rate	2.1	1.4	1.5	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.2
Rural growth rate	1.1	1.7	1.8	1.6	1.4	1.1	0.9	0.6	0.4	0.1	-0.1
Rate of urbanization	0.3	-0.1	-0.1	-0.1	-0.0	0.1	0.1	0.2	0.2	0.3	0.3
F.1. Australia-New Zealand											
Total growth rate	1.7	1.3	1.3	1.2	1.0	1.0	0.9	0.8	0.8	0.7	0.6
Urban growth rate	1.9	1.3	1.3	1.2	1.1	1.1	1.0	1.0	0.9	0.9	0.8
Rural growth rate	0.5	1.3	1.5	1.0	0.9	0.4	0.3	-0.2	-0.3	-0.8	-0.9
Rate of urbanization	0.2	0.0	-0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.2	0.2
F.2. Melanesia											
Total growth rate	2.3	2.6	2.6	2.6	2.4	2.3	2.2	2.1	1.9	1.8	1.5
Urban growth rate	5.3	4.0	4.1	4.1	4.1	4.1	4.2	4.2	3.9	3.7	3.3
Rural growth rate	1.7	2.3	2.2	2.2	1.9	1.7	1.4	1.2	0.9	0.7	0.4
Rate of urbanization	3.0	1.4	1.4	1.5	1.7	1.8	2.0	2.1	2.0	1.9	1.8
F.3. Micronesia											
Total growth rate	2.5	2.1	1.9	1.7	1.5	1.3	1.1	1.0	0.8	0.7	0.5
Urban growth rate	5.9	4.9	4.2	3.8	3.0	2.5	2.2	1.9	1.7	1.3	1.1
Rural growth rate	0.7	0.3	0.0	-0.2	-0.5	-0.3	- 0.6	-0.7	-0.9	-1.1	-1.3
Rate of urbanization	3.4	2.6	2.3	1.9	1.5	1.2	1.0	0.9	0.8	0.7	0.7
F.5. Polynesia											
Total growth rate	1.6	1.5	1.7	1.5	1.4	1.2	1.0	0.9	0.8	0.6	0.5
Urban growth rate	2.9	2.1	2.4	2.6	2.6	2.5	2.5	2.4	2.1	1.8	1.5
Rural growth rate	0.9	1.1	1.3	0.9	0.5	0.1	-0.2	-0.5	-0.5	-0.9	-1.1
Rate of urbanization	1.3	0.7	0.7	1.1	1.2	1.4	1.4	1.4	1.3	1.1	1.1
G. USSR											
Total growth rate	1.0	0.8	0.8	0.8	0.7	0.6	0.6	0.6	0.5	0.5	0.5
Urban growth rate	2.1	1.8	1.7	1.4	1.2	1.0	1.0	0.8	0.7	0.6	0.6
Rural growth rate	-0.6	-0.8	-0.6	-0.4	-1.5	-0.2	-0.3	0.0	-0.0	0.2	0.2
Rate of urbanization	1.1	1.0	0.8	0.6	0.6	0.4	0.3	0.2	0.2	0.1	0.1

a/ Rate of in-migration is defined as the average annual exponential rate of growth of the per cent urban. The rate of in-migration equals the difference between the growth rate of the urban population and the growth rate of the total population.

The rate of in-migration in the more developed regions remains at a low level: 0.3 per cent per year during both the 1980-1985 and the 1985-1990 periods. Projections indicate that the rate of in-migration in these regions will remain low through 2025. The growth rate of urban population is also low, under 1

per cent per year. The small rate of growth of the urban population is due not only to the low rate of in-migration but also to the low total population growth rates the regions are experiencing.

4.3.1 *Levels and trends of in-migration at the country level*

Regional averages conceal the large variations among countries with respect to the levels and the rates of in-migration. Table 4.6 shows the level of in-migration in 1985 for those countries with the highest and lowest levels of in-migration. The 22 most urbanized countries exhibit levels of in-migration of over 80 per cent. The 22 least urbanized countries exhibit levels of 20 per cent or less.

Table 4.7   Countries with per cent urban population in 1985 of 80 per cent or more and 20 per cent or less a/

				C
ountry	**Percentage**	**Country**	**Percentage**	
Singapore	100	Viet Nam	20	
Macau	99	Thailand	20	
Belgium	96	Kenya	20	
Kuwait	94	Afghanistan	19	
Hong Kong	92	Botswana	19	
United Kingdom	92	Mozambique	19	
Israel	90	Mali	18	
Iceland	89	Lesotho	17	
Venezuela	88	Lao People's Dem. Rep.	16	
Netherlands	88	Niger	16	
Qatar	88	Papua New Guinea	14	
Germany, Fed. Rep. Of	86	Bangladesh	12	
Australia	86	Malawi	12	
Argentina	85	Ethiopia	12	
Uruguay	85	Kampuchea	11	
Denmark	85	Oman	9	
Malta	85	Uganda	9	
Chile	84	Nepal	8	
New Zealand	84	Burkina Faso	8	

Sweden	83	Rwanda	6
Bahrain	82	Burundi	6
Luxembourg	82	Bhutan	5

a / Countries with populations of 300,000 or more around 1985.

The highest levels of in-migration are found in the city-states of Singapore (100 per cent) and Macau (99 per cent). In five other countries, the percentage of the population residing in urban areas also exceeds 90 per cent, namely Belgium (96 per cent), Kuwait (94 per cent), Hong Kong (92 per cent) and Israel (90 per cent). Of the 22 most urbanized countries, 7 are in Asia, 9 are in Europe, 4 are in Latin America and 2 are in Oceania.

For the 22 countries, under 20 per cent of the population lives in urban areas. Seven of these countries exhibit levels of in-migration under 10 per cent : Bhutah (5 per cent), Burundi (6 per cent), Rwanda (6 per cent), Burkina Faso (8 per cent), Nepal (8 per cent), Uganda (9 per cent) and Oman (9 per cent). Of the 22 least urbanized countries, 12 are in Africa, 9 are in Asia and 1 is in Oceania.

Countries can also be delineated according to their rates of in-migration. Table 4.7 lists the countries with the highest (3 per cent per year or more) and the lowest (0.3 per cent per year or less) rates of in-migration. For the 1980-1985 period, there were 23 countries which exhibited high rates of in-migration. For the 1980-1985 period, there were 23 countries which exhibited rates of in-migration of 3 per cent per year or more. Mozambique and Tanzania exhibited rates of 8 per cent per year; Burundi, Swaziland, Yemen, Chad and Maritiania displayed rates between 5 per cent and 8 per cent per year. Of the 23 countries with the highest rates of in-migration, 18 are from Asia. These countries were characterised by low levels of in-migration, as half were less than 20 per cent urban.

In the period 1980-1985, 25 countries experienced rates of in-migration of 0.3 per cent or less. Of these, 10 are from Europe, 9 are from Asia, 2 are from North America, 2 are from Oceania, 1 is from Latin America and 1 is from

Africa. Negative or zero rates of in-migration were estimated for the United Arab Emirates, Mauritius, Sri Lanka, Mongolia, Australia, Singapore, Myanmar (formerly Burma) and the Netherlands.

Table 4.8   Countries with a rate of in-migration in 1980-1985 of 3.0 per cent or more and 0.3 per cent or less a/

Country	Percentage	Country	Percentage	
Mozambique	7.9	Germany, Fed. Rep. Of		0.3
Tanzania	7.9	Italy		0.3
Burundi	6.0	Iceland	0.3	
Swaziland	5.7	Denmark		0.3
Yemen	5.5	Bahrain		0.3
Chad	5.2	Belgium		0.2.
Mauritania	5.1	United Kingdom		0.2.
Botswana	4.6	German Democratic Republic		0.2
Cape Verde	4.6	Uruguay		0.2
Nepal	4.6	Hong Kong		0.2
Benin	4.5	China		0.2
Malawi	4.4	New Zealand		0.1
Rwanda	4.3	France		0.1
Lesotho	4.2	Sweden		0.1
Niger	4.1	Japan		0.1
Kenya	4.0	United States		0.1
Cameroon	4.0	Canada		0.1
Oman	3.7	Netherlands		0.0
Afghanistan	3.4	Burma (now known as Myanmar)		0.0
Togo	3.3	Singapore		0.0
Lao People's Democratic Republic	3.3	Australia		0.1
Angola	3.1	Mongolia		0.1
Guinea	3.0	Mauritius		0.3
		Srilanka		0.4
		United Arab Emirates		0.9

a / Countries with populations of 300,000 or more around 1985.

In the period 1980-1985, 25 countries experienced rates of in-migration of 0.3 per cent or less. Of these, 10 are from Europe, 9 are from Asia, 2 are from North America, 2 are from Oceania, 1 is from Latin America and 1 is from Africa. Negative or zero rates of in-migration were estimated for the United Arab Emirates, Mauritius, Sri Lanka, Mongolia, Australia, Singapore, Mayanmar (formerly Burma) and the Netherlands.

4.3.2 *Patterns of urban population growth*

In-migration patterns in the more developed and less developed regions indicate a number of regional differentials. In this section, four distinct patterns of urban populations growth are delineated. These four patterns are differentiated according to the level of in-migration (per cent urban) and the rate of urbanization (growth rate of the per cent urban).

4.3.2.1 Regions with a high level of in-migration

One group of regions is more than two thirds urbanized but exhibits urban population growth rates under 1 per cent per year. Europe, Northern America and Australia-New Zealand are examples of such regions. Projections indicate that the rate of in-migration in these regions will continue to decline from the current level, which is already below 0.5 per cent per year. Since the total population growth rate in these regions is also very low and is projected to decline, urban population growth is anticipated to be very low (see table 4.5)

4.3.2.2 Regions with a high level of in-migration and moderate urban growth

The major area of Latin America (including the regions of the Caribbean, Central America and South America) is also two thirds urbanized, but the rate of growth of its urban population remains at about 3 per cent per year. The rate of in-migration in Latin America is expected to continue to decline. However, because the total population growth rate remains moderately high (at around 2.0 per cent per year in 1980-1985), the rate of urban population growth is also moderately high. As indicated in table 4.5, urban population growth rates are projected to decline, corresponding to projected declines in both rates of total population growth and rates of urbanization.

4.3.2.3 A region with a moderate level of in-migration and rapid urban growth

Western Asia is distinguished by a moderately high level of in-migration (55 per cent urban) but a still rapidly growing urban population (4 per cent per year). The high growth rate of the urban population corresponds to the

region's high rate of total population growth. A decline of the region's urban population growth rate is projected, but nonetheless it is expected to remain above 3.5 per cent until the end of this century.

4.3.2.4 Regions with a low level of in-migration and rapid urban growth

In a fourth group of regions, less than one third of the population resides in urban areas. However, in these regions, the urban population is growing at 4 per cent or more per year. These are the five regions of Africa, plus the regions of South Eastern Asia, Southern Asia and Melanesia. The combined effect of rapid total population growth and high rates of in-migration have produced exceptionally rapid urban population growth.

The countries of Africa exhibit the highest urban population growth rates in the world, and these rates are projected to remain high to the end of the century. Afterwards they are projected to decline slowly as both the rate of total population growth and the rate of in-migration decline. Eastern, Middle and Western Africa have had the highest rates of urban growth in the recent past. Eastern Africa reached a rate of over 7 per cent per year in 1975-1980. This high urban growth rate was the result of a combined effect of a rising rate of population growth and a declining, but still high, rate of in-migration. A decline of the urban growth rate to below 6 per cent per year for Eastern Africa is expected after the year 2000 and to 4.5 per cent in 2020-2025. Even then, Eastern Africa is projected to have the highest urban population growth rate in the world. The same pattern, but at a slightly lower level, is projected for Western and Middle Africa.

The rate of in-migration in Southern Asia is expected to remain at a high level: 1:8 per cent in 1985-1990, 1.9 per cent in 2005-2010 and 1.7 per cent in 2020-2025. Nevertheless, since the rate of growth of the total population is projected to slow down, urban population growth is also expected to decline. In Western Asia the rate of in-migration is projected to decline to a much lower level than in Southern and South Eastern Asia, because the level of in-migration in Western Asia has already reached a much higher level. In

Melanesia, Micronesia and Polynesia, the rate of urban growth has also been on the decline, although the growth rate was still very high in Melanesia. Micronesia and Polynesia, the rate of urban growth has also been on the decline, although the growth rate was still very high in Melanesia (4.1 per cent per year during 1980-1985) and will still be high (3.3 per cent) for 2020-2025 (United Nations, 1986:36 and 1989:16).

4.4 TRENDS IN RURAL POPULATION GROWTH

Along with the rapid growth of the world urban population, the increase in the world rural population continues. This increase is, however, projected to end around 2010, when the rural population will have reached 3.5 billion inhabitants (see table 4.4) and figure 4.4). After 2010, the world's rural population is projected to decline.

In some regions of the world, the growth of the rural population remains important (see table 4.5). In Eastern, Northern and Western Africa, and in Malenesia, for example, the rural population is growing at a rate of about 2.2 per cent per year. In the rest of Africa and in Southeastern, Southern and Western Asia the growth rate is expected to stay above 1 per cent in the near future.

In the more developed regions, the rural population began declining in the 1970's as a result of very slow natural increase and a slow, but generally positive rate of in-migration. The projections presented here indicate a continuing decline of rural population size in the more developed regions, from 1985 until at least the year 2025. However, the rural population in Australia- New Zealand is to grow slowly until at least 2020.

**Figure 4.4   Rural population in the more and less developed regions
1950-2025**

Population
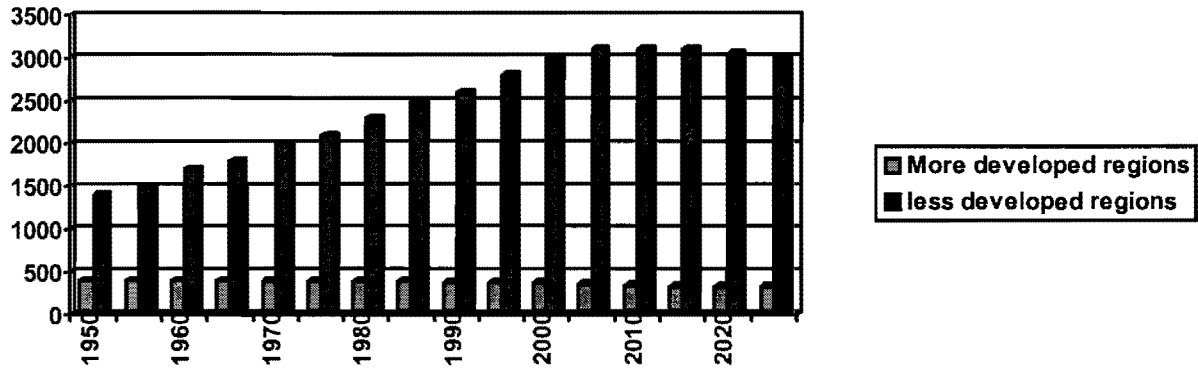
Source: United Nations, 1996:36

4.5   CONCLUSION

For many developing countries, the most remarkable effect of over two decades of deliberate development planning has been the unplanned but striking disparities in living conditions and opportunities in different regions of the country. A large part of these disparities had arisen because of the single minded devotion to the goal of economic growth with little or no concern for the social and spatial consequences of economic decisions. The corresponding growth of urban unemployment and under employment, particularly in the metropolitan centres, the general neglect of the rural areas, and in short, the creation of regional disparities with respect to the distribution of income and welfare have brought with them many unresolved problems of in-migration.

Not unexpectedly, this outcome of the development process set in motion in virtually all developing countries complex streams of population movements. In some countries, particularly those in Africa, the volume of this in-migration

from the rural areas began to create conditions of rural labour shortage and to affect the viability of agricultural production in many families.

At the same time, there is an accumulation of unemployed, underemployed and unemployable persons in the major urban centers, with associated effects on the rates of violence, crime and social insecurity.

It is clear that no one can deny that most governments, by adopting a strategy of planned development and taking decisions that affect many areas of national life, economic and otherwise, are already influencing patterns of population distribution. However, the results are largely unintended and in many countries are considered far from satisfactory.

If life as in society continue, Mears (1991:5) points out that certain conditions are to be met by the administrators of in-migration. From this follows the central importance of policies, which aims to transit societal norms and values, which provide the necessary homogeneity for society's survival.

These message transmitted is that certain policies, economic and social forces are required to fulfil roles in future administration of people coming to settle in a country.

Promotion of policies, social, and economic forces, that is a set of common ideas and sentiments, as pointed out by Mears (1991:37), is considered to be a service to migrants, as it equips them with the tools necessary to fit in friction free with society's demands. The man whom migration should realise in us is not the man such as nature has made him, but as society wishes him to be; and it whishes him such as its internal economy calls for (Stouffer, 1940:845). Individuals are thus molded according to the views held by society, and as a result internalise a regulated world view. Not only is this 'imposed role' passively accepted, individuals (in-migrants) are bound to adapt to the world as is.

Identification and integration occur when in-migrants are influenced such that they identify with the current culture and norms, and therefore 'fit in'. Were assimilation by implication legitimate the norms and values held by society. Demeanor not in line with those policies, norms and values is considered to be a deviant.

CHAPTER 5

POLICIES, ECONOMIC AND SOCIAL FORCES AFFECTING IN-MIGRATION IN GAUTENG PROVINCE

5.1   INTRODUCTION

In-migration and industrialisation are responsible for profound social, political, cultural and economic change throughout the present-day world. Old established values, ideas and practices have to be abandoned or at least re-assessed at a rate unparalleled in recorded history. As a consequence, the future today seems to be even more unpredictable and uncertain than ever before especially in Gauteng province.

If this is true of the world's economically advanced nations, it applies much more to the less advanced peoples – peoples that have only recently emerged from colonial and other rules and are now seeking to free themselves from poverty, ill health, ignorance and superstition, and to become nations in the full sense of the word. In Gauteng province the chasm that separates actual achievement for the goals they are striving for, far from being bridged, in fact appears to be widening. Ominous tensions are building up between the have and the have-not and this should be attended to timeously to avoid conflict.

One cannot meaningfully speak about, for example, the South African black peoples, transition to an urban economy if one ignores this global setting. In no other country can one find a more striking contrast between a highly sophisticated industrial society on the one hand and the persistence of time honoured social and economic patterns on the other. South Africa mirrors the international scene in many crucial respects, and Gauteng province takes the lead.

It is important to recognise that the Gauteng Black people are in the midst of an evolutionary process between a point of departure which is not truly understood and a destination that lies in an unknown future. All we can be

certain of is that there is no way back into tribal pattern and that Western technology will increasingly shape Gauteng Black South African society. Whether we like it or not, the Western way of life in its technocratic guise is the future pattern of living of the Black peoples on the African continent. This applies to an even greater extent to South Africa especially Gauteng province where more than three million Whites are playing a leading role in this process of development. Whoever refuses to acknowledge this and still wants to dream about the evolution of some autogenous culture or other for a Black man, is suffering from a form of romanticism which is simply out of touch with reality (Durand, 1970:2).

5.2 IMPLICIT POLICIES AND THE URBAN BIAS AS FACTORS AFFECTING IN-MIGRATION

The point of departure for the present discussion of the effects of implicit policies and institutional factors on in-migration Gauteng is best indicated by Renaud (1981 6:6) who states that, in practically all developing countries the role of the state is dominant, so that a laissez-faire, do-nothing approach similar to that of most advanced economies at comparable levels of in-migration is in fact impossible. The Gauteng government has an inevitable influence through its policies, the location of infrastructure investment and the public enterprises it controls. In-migration in Gauteng is linked to underlying forces of economic and social change, and these forces are the structural factors that affect in-migration.

Although rates of natural increase can differ between rural and urban areas, the main cause of in-migration is rural to urban migration. This research therefore concentrates on the causes of urbanward migration in Gauteng. As Desmond (1971:77) has stated, individuals, firms, and other decision-makers wishing to maximise income, tend to settle in physical locations such as Johannesburg which they believe to offer the greatest opportunities towards the achievement of this objective. Large cities such as Johannesburg and Pretoria appear to provide the optimum conditions mainly as a consequence of scale factors from both investor and job-seeker points of view. With improvement in communications and transport facilities to increase their

mobility, individuals and firms both exercise income-maximisation objectives by locating in large cities.

An urban-rural per capita income difference is an almost universal phenomenon, and urban-rural income ratios of eight or ten to one are common in developing nations such as those in Gauteng. This pervasive income differential is based, in turn, on another well-established but less obvious economic fact of life – namely, that urban industrial productivity per worker is nearly always considerably higher than rural agricultural productivity per worker. Most households derive most of their income either from the sale of their own direct output or from the sale of their labour services to a production process managed by someone else. In either case, the income the household receives is based on the marginal value product of the labour services. This is an equilibrium condition. In the short run, traditional factors, strong labour unions, or misguided government policies can result in wages higher than the true productivity of labour. But over the long run, unless the economy perpetually receives massive foreign aid, the factor payments cannot exceed the value of output.

Gauteng government policies and programmes affect rural-urban differentials and interactions to the extent that they reinforce the natural tendency of the urban-industrial capital per worker ratio to exceed that of a rural sector. This means that more attention is usually given to urban growth at the expense of rural areas. This includes human capital formation as well as social overhead-type physical capital formation. Gauteng government policies can also create direct subsidies or increments to the income-consumption pattern of urban persons and subsidies not available to rural persons. The pull factor is concentrated towards to cities at the expense of the rural areas. Direct relief payments, subsidised food rations, and range of less tangible amenities all add to urban incomes. These patterns which favour urban people increase the urban-rural income differences arising from the differences in capital per worker and productivity. Public policy experienced by Gauteng province therefore can best be seen as affecting the in-migration process by affecting differentially the capital infrastructure in the urban and rural areas and hence

the relative worker productivities, and also by affecting directly the relative well-being of persons in the two sectors because of the pattern of available public services. The opposite concerning these policies and programmes would at the end benefit the Gauteng as a whole. To reduce significantly the gap requires that considerable resources be made available to a huge rural population. Rural incomes have to be raised directly, for example, through a reduction in taxes, or through an increase in the prices agricultural products fetch.

5.3   THE NEED FOR NATIONAL IN-MIGRATION POLICY

A national in-migration policy is especially important for developing countries such as South Africa especially Gauteng province because the location of new economic activities and the movement of population affect the efficiency of their national economies and the stability of their political systems. The core argument here is that all USA and Japan are better off with a national in-migration strategy that is the outcome of a careful national debate about economic, political, social, and cultural goals. Decentralisation is not always the issue, the USA, Japan and France do not need to work actively at decentralising economic activities from the main urban region. Their level of development makes it not yet an issue or they do not seem to be suffering from excessive urban concentration, however, the spatial effects of current national policies and government practices are never considered in spite of their great influence of patterns of in-migration. Whether these policies systematically accentuate the tendency towards urban concentration should be a matter of public concern, and the realism of various urban expectations should be reviewed carefully.

The need for a national in-migration strategy is much stronger among developing countries Gauteng included that it ever was in the economies that developed earlier. The rate of in-migration of developing countries is much faster than that experienced historically by the developed countries. By the year 2000 the entire world population will be more than 50 percent urbanised (Renaud, 1981:507; cf. Preston, 1989:37-38). Management of the process of in-migration should therefore be of great importance to all human societies. It

is foreseeable that rapid in-migration in Gauteng will cause certain social problems, and therefore local authorities should strive to lessen the impact of in-migration on the community as a whole (Preston, 1989:37-38). Crime will escalate, fertility will be rife and this will impact on the scarce medical resources, requests for formal accommodation will be made and this will ultimately impact negatively on the lifestyle of those already settled in Gauteng province.

To do this, local authorities within the Greater Gauteng Metropolitan areas should be prepared to manage, that is, organise, lead, and control the process of in-migration instead of trying to halt it, and at the end they should evaluate its successes or failures. The best way to manage in-migration is through the administrative tool of policy-formulation. By drafting an in-migration policy, local authorities can use the process of in-migration as an instrument with which communities could be developed (Gilbert & Gugler, 1992:1). In-migration problems usually manifest at local authority level and should therefore be dealt with at that level. It should hence be a priority for all local authorities within Gauteng province to establish a comprehensive in-migration policy for their area of authority. Only through the drafting of an in-migration policy on local authority level can local authorities take informed decisions in their areas of jurisdiction.

In the past ten years the growth in the urban population caused by rapid in-migration could be seen in all South Africa's major cities. This includes the Greater Johannesburg and Pretoria areas. The opinion may be held that in-migration is a national phenomenon, and should therefore be addressed on national government level. This may be true, but it should be realised that the problems caused by in-migration usually manifest on a local authority level and should consequently be dealt with at this level. It should hence be a priority for all local authorities to formulate an in-migration policy for there are of authority (Brynard, P & Smit, T 1999:104-105).

The local authorities within the Greater Johannesburg and other Gauteng areas should strive to combine all current legislation and policies applicable to

the process of in-migration into one policy document. The policy document should then be made applicable to the Gauteng Province as a whole. Only through the drafting of an in-migration policy at local authority level can the local authorities with the assistance of provincial authorities endeavour to bring about structured in-migration in their areas of jurisdiction. To bring about structured in-migration, an in-migration policy should be highly developed and soundly structured. The in-migration policy should therefore comply with certain standards or criteria (Gilbert & Gugler, 1992:1). The in-migration policy to be meaningful and effective it should feature on all spheres of government, from local to national government.

The existence of an organised modern national-state in Gauteng province will in itself be a type of implicit policy encouraging urban growth. The growth of a national capital and the creation of a centralised political, social, religious and economic system have always gone hand in hand. In the most basic sense the existence of a centralised political authority is in itself a policy encouraging in-migration and probably primacy as well. History is full of examples of nomadic tribes who, having conquered wealthy, settled areas and created states, quickly discovered the advantages of a centralised permanently placed administrative capital. Having been created as a center of administrative, fiscal, judicial, and military functions, the capital draws other economic and social functions to itself as well. Where the power resides, there also will everyone want to be. The corollary is that the more efficient and pervasive the political control exercised by the capital, the more the capital will tend to draw other functions as well (Davis, 1955; World Bank 1975:31 and McNeil & Adams, 1978).

Any modern developing country's capital city will inevitably exert an enormous drawing power. Social and economic power will cluster close to the political power, and people will be attracted by all three. Thus, the inherent policy alone may go a long way towards explaining rapid urban growth in the Gauteng province. Implicit in-migration policies arise from some purposeful exercise of government power, through its ability to enact and enforce laws, through taxation and controls, and through expenditures and the provision of

services. These are not explicitly aimed at encouraging rural in-migration and an increase in city size (Lipton, 1977:53).

Implicit pro-urban in-migration policies overlap with but are not synonymous with the often discussed urban bias in the developing world. Many writers have argued forcefully for their importance of this bias. Lipton (1977:54), for example, asserts that the most serious conflict in Gauteng province is not between capital and labour nor between foreign and national interests, but between the rural and urban classes. The rural sector contains most of the poverty and most of the low cost sources of potential advancement but the urban sector contains most of the organisation, articulateness and power, thus giving it the advantage. Lipton claims that a disproportionate share of public-sector spending on services and employment generation has been concentrated in the cities. Keyfitz, 1983:15 cf. Todaro and Stilkind, (1983:xiii) advocate three dramatic and perhaps unpopular steps to eliminate urban bias in development policies. The first is to end the special tax breaks, subsidised interest rates, excessive tariff protection, and other privileges enjoyed exclusively by urban large-scale industry. The second is to modify minimum wages by holding them to the level of average agricultural incomes while simultaneously slowing the growth of urban real wages at all levels in both the public and private sector. Third, governments such as Gauteng must curtail the expansion of urban public services and instead provide for them in rural towns and small-city service centers.

Analysis of validity of this bias by other authors (Yap, 1977; Jones, 1983; Renaud 1981a; Linn 1982, 1983a) can be summarised As follows. Two general sorts of urban bias have implicitly pro- in-migration effects. First are national economic policies, which have the effect of changing relative prices, including wages, so as to shift the intersectional terms of trade against agriculture, to widen the gap in rural-urban wage rates, and to decrease investment and technological advancement in agriculture. Second are policies regarding the placement and availability of public services, which discriminate in favour of urban households and productive enterprises.

Several specific policies which should be taken into consideration in Gauteng province:

(i)   Tariffs and controls on the import of industrial goods have the goal of stimulating a local import-substituting industry. Whatever their impact on industrial growth, they increase the price of the inputs to agriculture. Such policies are widespread in developing regions such as Gauteng (Rhenberg, 1978; Renaud 1981).

(ii)   Use of multiple exchange rates so as to provide a bonus to manufactured exports again have the goal of encouraging industrial growth. This reduces relative profitability of agriculture and tend to drain investment from agriculture in industry. The famous "export bonus" scheme of Pakistan provides a classical example, but there are many other as well (Stern and Soligo, 1965).

(iii)   Subsidisation of urban food (and other basic commodity) prices through fixed-price retail sales of imported commodities or local output obtained by the government through quasicoercive means has the effect of increasing the real urban wage rate over the comparable rural rate (Robinson, 1978 and Rhenberg, 1978).

(iv)   Setting urban minimum wages for industry, paying government servants a higher than market rate, and allowing trade unions to set wages in particular industries or occupations above comparable rural levels are all measures that drive urban wage rates above the rural rates (Renaud, 1981b).

(v)   In practice access to credit is frequently restricted to urban dwellers, even if this is not the stated intention of monetary policy. Banks are typically government owned and private financial intermediaries none existent in rural areas except for traditional moneylenders. Branches of the regular banks rarely solicit loans in the countryside. Even when they do, the complex paperwork required for applying, lack of collateral

(including a clear title to land when it is owned), and the risking of agriculture tend to limit loans to small rural households. Thus most credit and money created by financial intermediation benefits the urban-industrial household or business.

(vi)   Government controls and regulations adopted for consumer protection, quality control, or to promote more detailed economic planning can make it impossible for an enterprise to operate anywhere except in the urban center because they require numerous face-to-face consultations with officials.

Such regulations and interference's with normal market processes often have the effect of restricting entry of new firms and creating market rents for existing firms. National economic policies affecting relative prices, wage rates, and real standards of living, rural and urban, all have the effect of increasing the economic attractiveness of urban places by creating higher industrial-urban productivity's and wages and better prospects for employment, regardless of the availability or lack of public services. Thus they undoubtedly encourage rural-to-urban migration. These policies also have a kind of mirror-image counterpart in ineffectual or non-existent rural development policies, which lessen the relative attractiveness of rural life. The policies in cities that encourage rural-to-urban migration will not necessarily discourage it if put into practice in the countryside.

There is growing consensus in the development literature that such policies are usually counterproductive and pernicious. Adding the in-migration consideration reinforces this conclusion. Such policies persist largely because planners think in sector-specific terms. Encouraging exports, for example, is set as a goal and the spatial or economy-wide implications are ignored. This tendency is not likely to change.

The second category of implicit policy is more straightforward. The public sector raises money (from taxes, the sale of commodities and services, or borrowing) and uses these funds to create a flow of services for some part of

the population. These services include education, health, sanitation and water supply, electricity and telephone, roads, public transport services, housing, and recreation and leisure facilities. There is no debate that a disproportionate share has gone to the large urban areas (World Bank 1975). These services are almost always supplied free or below cost because it is technically difficult or impossible to collect a user free (roads, park); because they are judged to be meritorious goods, with great social spillovers, which should be freely available (health, education); or because the services are part of the infrastructure vital to the public sector itself (transport, electricity, telephone). Even when charges are made for such services, they are usually based on some type of average-cost pricing principle, not on the true marginal cost of supplying the services (Riew, 1973).

When these services are concentrated in the large urban areas such as Gauteng, they constitute a direct subsidy-in-kind to all urban households that widens the rural-urban income gap, and a subsidy to an urban-base enterprises, lowering their cost of production in relation to enterprises in small towns or rural areas.

Urban policies and programmes most likely to attract population to Gauteng are those that assist the individual to acquire income or consume, in the present or future, including opportunities to acquire skills and investments in human capital. The migration literature provides support for this generalisation since better education for the children is always an important reason given by migrants for moving to urban areas (Davounzo, 1981. Cf. De Jong & Gardner, 1981).

It is easy to assert that these policies affect in-migration by making the perceived standard of living or the income or employment prospects in the urban areas more attractive. The logic is straightforward, but how much they affect in-migration in Gauteng poses a more difficult question.

5.4 URBAN GROWTH AND THE FERTILITY TRANSITION

Rapid urban growth may well be a necessary part of the overall process of economic development and structural transformation. According to Rogers and Williamson (1982:464) population growth is attributable to the *vital revolution*, the process whereby societies with high birth and death rates move to a situation of low birth and death rates. In-migration is attributable to the *mobility revolution*. These two revolutions occur simultaneously and jointly constitute the *demographic transition*.

The historical record suggest that rural-to-urban migration has played a vital role in the modernisation of agriculture, which is so necessary to the creation of a viable base for overall development. The productivity of the rural labour force remains low as long as agriculture remains swamped with excess labour. The traditional work-sharing ethic and labour intensive methods are a response to persistent high fertility. It can be shown logically that even a totally work-sharing, income-sharing approach reaches a limit when the total output level is threatened by further labour intensification and finer subdivision of tasks (Robinson, 1971).

Thus, what must occur in Gauteng province is an easing of demographic pressure in agriculture so that new technologies, cropping patterns, tenure arrangements, and factor proportions can be employed to increase labour productivity and ultimately the yield per unit of land.

At some stage, then, an industrialising province such as Gauteng must, if it follows the sequence common to the history of the now industrialised regions, look to the non-agricultural sector of the economy for the provision of employment opportunities sufficient for the whole increase in labour force. It is a reasonable, almost an essential, objective that within a generation or two most countries should plan to provide non-agricultural employment for the whole of their additions to the labour force. How greatly eased is the task if fertility is reduced rather than allowed to remain at current high levels (Coale (1969:82-84).

Rural natural increase is the fountainhead of demographic growth during the transition process. Except in rare cases, rural fertility remains higher than urban fertility until late in the development transition. Rural-to-urban migration is not much the depopulation of the countryside as it is a process of exporting surplus rural population, the surplus being created either by labour's having become too redundant to allow further work and income sharing or by the beginnings of productivity increasing technical change. Treating the problems created by migration-induced in-migration is treating the symptoms, not the ailment. The alternative policy approach is to keep the population in the Gauteng province through both positive rural industrialisation programmes and bans on further urban growth.

In most of the developed countries, the rural natural-increase tap shut itself off and this will only come about if the nations involved had become overwhelmingly urban and only after a structural and technological transformation had occurred in the rural areas. In the United States, for example, the convergence of rural and urban fertility occurred after World War II. As late as 1940, rural fertility was one-third higher than urban fertility. The great United States migration stream from the rural south to the urban upper Mid-west and Northeast did not finally end until the 1950's, nearly one hundred years after it had begun (Coale, 1969:84).

Policymakers are now coming to understand that any policy aimed at making the cities such as Germiston better places to live also probably involve an open-ended commitment to an ever-increasing volume of public expenditures on such services. They must also come to understand that policies aimed at redirecting urban growth into new centers or at providing large-scale, rural make-work schemes involve similar open-ended public sector fiscal commitments. Unless the policies of Gauteng province are linked to parallel policies to reduce rural fertility, there will be no real solution to the problem of excess in-migration.

In Asia, the structural and technological transformation of the countryside seems advanced enough so that one can hope that the tap of rural fertility will

be shut off in the near future. These countries are also the ones in which a clear, vigorous public policy supporting fertility decline exists. In other countries of the region, however, the rural outflow continues without notably decreasing population pressure in the rural areas. The necessary technological transformation of agriculture remains distant, and so does any sustained decline in rural fertility. There, any effort to construct an urban policy seems futile (Fuchs, Jones & Pernia, 1987:178-181).

5.5 LINKAGES BETWEEN EFFICIENT SECTORAL POLICY AND SPATIAL OUTCOMES

It is useful to examine sectoral policies across countries and to reflect upon the spatial outcomes that might follow the modification of such policies, purely on macroeconomic grounds. Such reviews help to support the proposition that one condition for nudging cities towards their efficient size, is the adoption of sectoral policies that ensure a macroeconomic environment supportive of broadly based growth, backed by an orderly expansion of interregional investments in transport, communications, power generation, and education. Cities should be free to grow and develop with as little central regulation as is consistent with a sober assessment of national goals. This requires that local communities in Gauteng province take on a larger share of financing, planning, executing, and maintaining local public services, freeing the central government to use its scarce resources to intervene more selectively to shape the future of the country. Reform of sectoral policies involving national management of local government relations is therefore critical (Garn, 1984:2-3).

Public policies need not be explicitly spatial to have major impacts on the location of economic activity (Ruane, 1982). Sectoral policies can favour the economic development of some locations over others. Where these implicit spatial policies go unrecognised, their effects can create unanticipated barriers to goals of decentralised urban growth. These effects are difficult to measure with precision. The data involved are substantial, and the eventual impact of implicit policies depends on how factors of production (labour, capital, land) adjust to them (Tyler, 1983).

Looking across subsectors and across cities of Gauteng province, it is clear that the input requirements of different production processes vary widely, as do the supplies of inputs at different locations. Some inputs, such as easy access to an international airport, to government officials, or to economies of scope, may be available to only a few locations. Moreover, individual subsectors differ in the emphasis they place on such variables. Under these circumstances, policies promoting subsectors that feel location bound will result in long-term subsidies for particular urban areas. If the individual sectoral policies are ill-advised on macroeconomic grounds, the differential urban impact is one more reason to consider reforms. Should the promotion policies be justified but the economic environment is such that economic agents, in urban centers other than those benefited, are denied equitable access to resources with which to solve locational deficiencies, then the public sector in Gauteng province can act to remedy the matter. Whenever subsector promotion policies are reasonably efficient and there is no cost-effective way to attenuate the impact of severely location-bound factors, then the Gauteng government has little option but to remain passive to the spatial consequences of such policies. On balance, it appears that in countries such as South Africa, China, India, Indonesia, the Philippines, Brazil, Thailand, South Korea, Nigeria, Mexico and Zaire, there is considerable room for improving sectoral policies whose spatial impact would lead eventually to more decentralised and more efficient human settlement patterns (Hamer 1986 and Fuchs, et al 1987:205-206).

5.6   TERRITORIAL ENTITLEMENTS

5.6.1 The in-migration equity argument

Considerable confusion surrounds the issue of how best to promote equity objectives in national policymaking. A popular definition of equity includes the notion of providing low-income households with access to services that are defined as basic needs. The problem then becomes not whether to assist these households but how to fulfil these goals. Equity-oriented policies cannot be developed in a macroeconomic vacuum. All countries, especially developing ones, South Africa included, especially Gauteng province, must

confront the resources constraints that exist at each stage of development. If one looks across a wide cross-section of developing countries, certain propositions suggest themselves. This could be allowed if resources are budgeted for, applied or used correctly and increased as the demand prevails.

First, subsidies invariably threaten the fulfilment of equity objectives. With subsidies, the coverage of any programme is limited by the resource haemorrhage involved, making mass coverage unlikely. At best, some deserving households are made better off while most get nothing, this is the case in Gauteng province as well (Fuchs, Jones & Pernia 1987:206).

Second, the fact that subsidies are distributed by Gauteng government officials means that access to services in the open market is replaced with access through bureaucratic goodwill. This results commonly in the subversion of subsidy programmes by the better-connected middle- or upper-income households. All too often, housing subsidies go to civil servants and subsidised loans benefit large landowners and influential businessmen.

Third, since so many services are potential for inclusion in the basket of basic needs, it behoves the policymaker to be very careful in selecting services for subsidisation, introducing, where possible, unsubsidised but affordable solutions. For most basic needs there is a range of service standards, each with a different price tag. By providing low-quality services with cost recovery where none would otherwise be possible, the public sector fulfils its obligation to alleviate the social debt while husbanding scarce resources for all other competing claims. The only exception to this approach are likely to be services with enormous positive externalities, such as programmes for minimum literacy and certain health services, such as vaccinations (Fuchs, Jones & Pernia 1987:206-207).

An appropriate concern with providing basic needs to low-income households will mean that certain investments, including education or health subsidies, are targeted to some locations more than to others. But this location focus is incidental to helping particular households. The average income who live in a

metropolis that has high income are as deserving of access to basic services as the poor in an undeveloped rural hinterland. Conversely, there is nothing inherently equitable about providing subsidies to prosperous households simply because they happen to live in one area of Gauteng province the country as opposed to another.

5.6.2 The in-migration minimisation argument

One of the more popular justifications for territorial entitlements is to control in-migration, especially between rural areas and metropolitan centers. Stripped of rhetoric, this approach appears to advocate providing each square kilometre of national territory with a minimal level of population or output, understood to be higher than that predicated on a continuation of existing trends. The approach usually calls for curtailing in-migration. Policies are suggested that would exempt selected regions from the consequences of investment decision rules applied to the rest of the Gauteng territory. In its crudest form, this approach would pour resources into an area even if it had limited potential in the long term.

As a token effort to earn political goodwill, this argument for territorial entitlements within Gauteng province is repeatedly overturned by macroeconomic imperatives. If nothing more is involved but special pleading, then any sizeable commitment of resources diverted to such efforts will be attacked both for its cost in output foregone in other areas or uses, and for its untenable assumption that people who vote with their feet in search of wider opportunities should somehow be bribed into staying in one place. In practice, the macroeconomic decision makers are not long swayed by attempts to prevent the very structural dislocations that are an inevitable part of economic modernisation. Territorial entitlements argued for on these grounds are therefore doomed to tokenism (Fuchs, 1987:207. cf. Lee 1985 & Murray, 1982:212).

5.6.3 The in-migration efficiency argument

(Fuchs, Jones & Pernia, 1987:207-208) states that some who would agree with this line of argument might nevertheless support subsidies targeted to a

region such as Gauteng for the sake of promoting latent economic potential. Territorial entitlements are then championed on a long-term efficiency grounds rather than out of concern about poverty.

In this scenario, the public sector might try to anticipate future spatial patterns of comparative advantage by shifting resources towards disadvantaged or undeveloped areas. The rate of return on investments, public or private, would now include an infant region premium. This premium would allow investment decision makers to compute the rate of return to include a margin for moving forward the time when deserving locations could attract a wide spectrum of activities and thus become self-sustaining. Unfortunately, accurately predicting future outcomes is much more difficult for infant regions than it is for infant industries, where the record is also poor. Beyond certain token levels, such investment subsidies should be reviewed as rigorously as other proposals for special favours.

5.7 MANAGING CITY SIZE AND IN-MIGRATION

There is widespread concern in developing countries, South Africa included, especially Gauteng province about their rapid rates of in-migration, the increased size of large cities, rural-to-urban migration, the increase in crime, and urban unemployment. Management of the scale and pattern of in-migration is an important issue, but those who would stem the tide of in-migration should bear three points in mind.

First, in-migration in itself is not bad for development but rather an integral and probably essential part of it. Moreover, large cities such as Pretoria are not necessarily more costly and less efficient than smaller cities from a social standpoint (World Bank, 1979. Cf. Linn, 1983b). Therefore, measures to control the speed and pattern of in-migration in Gauteng should deal with clear manifestations of inefficient spatial development and their underlying causes, rather than be generalised efforts to slow down urban growth.

Second, in-migration policies are a matter of national or regional/provincial concern and rarely lend themselves to effective treatment at the level of a

particular city such as Johannesburg or Pretoria. Many of the forces driving the pace and pattern of in-migration are related to such national policies as import substitution favouring industrial over agricultural growth or investment incentives favouring large-scale, capital-intensive development. These forces cannot be curbed by particular cities, but need to be dealt with at the national level (Renaud, 1981). It is reasonable to hypothesise that the national development pursued in East Asian countries, which are more efficient than those of many Latin American countries and South Africa, have contributed to more efficient in-migration in the former region.

Third, one important area in which city-level policies can contribute to efficient and equitable in-migration in Gauteng province is in the costing and pricing of urban services. If urban service prices are set at levels reflecting the social costs of those services (either directly through user charges or indirectly through appropriate forms of taxation that assign the costs of urban development to the individual firm or household), then a major cause of inefficiency in in-migration can be eliminated at its root. Appropriate pricing of urban services is also an important element in the successful internal management of cities.

Rural-to-urban migration is one aspect of in-migration that is often singled out for special concern by policymakers because of its supposedly detrimental aspects, and some East Asian countries have experimented with measures to curb in-migration. For example, in 1970 authorities in Jakarta introduced a system of identity documents that was designed to help enforce a limit on in-migration to the city.

According to a World Bank review (World Bank, 1984a), this and other measures, including physical removal of in-migrants to surrounding rural areas, appear to have had little effect on the pace of in-migration to the capital city. Many people are streaming into the capital cities South Africa included because of war, hunger, illiteracy and other factors which are driving them to cities such as Johannesburg, Pretoria, in search of protection, wealth and better standard of living. In contrast, the more rigorous restrictions on in-

migration imposed in the People's Republic of China appear to have substantial limited growth of urban areas in that country.

There, however, direct controls on in-migration were combined with measures designed to decentralise the location of employment opportunities. These experiences lead to the conclusion that in the market-oriented countries direct controls on urbanward migration alone are not likely to be effective and that indirect means have to be found to limit in-migration, if indeed this is an appropriate goal of urban management.

Cities are burdened with uneducated, unskilled, and unmotivated migrants is mistaken, as many surveys have shown is not fully supported. In South Africa it is true and worse still too many incidents of crime, drug traffic, rape, and the other related factors are experienced. The migrants tend to be younger, better educated, and more highly motivated than the population of origin, and they generally respond to the superior employment opportunities of the cities rather than to illusory city lights (Findley 1977).

This statement may be suitable to East Asian countries but not to South Africa where the unemployment figures are high, illiteracy being rife, and most of the people in South Africa are generally demotivated and discouraged by promises such as better education, health and housing facilities from government not being fulfilled. The problem of in-migration may lie more in rural areas of origin, where the departure of migrants may prevent the building up of a diversified labour supply.

Without such labour force, rural areas and smaller towns cannot attract private sectors, increase their productivity, or improve their management and public administration.

The main conclusions about success and failure of managing city size, migration, and urban employment in Gauteng province can be summarised as follows:

The undistorted national economic policies generally followed in East Asian countries have probably contributed as much to efficient in-migration patterns in the region as have direct interventions designed to affect in-migration. Gauteng province policies designed to limit in-migration and city growth, if they are to be effective, have to affect the location of employment opportunities; however, such measures are likely to be quite costly and not likely to be effective.   Attempts to limit rural-to-urban in-migration through direct controls are not likely to be successful, and it is not clear that in-migration is much of a burden on the urban economy as is frequently presumed. Misplaced efforts to limit informal-sector employment have been common in cities of East Asia; appropriate support for such employment has been rare. Investments in essential urban residential services should not be delayed for fear of attracting an excessive flow of in-migrants; instead, emphasis should be place on recovering the investment and operating costs of urban services.

5.8   CONCLUSION

The urban centers of Gauteng province are an essential part of the structural change since innovation, change, and technology all emanate from these centers.

Here are some several conclusions regarding policy: Urban policy must be part of an overall development policy that aims at effecting industrialisation, structural-technological change, and reduced population growth as quickly as possible. The most basic and important public programmes are those that create   public   infrastructure   needed   to   improve   transportation, communications, and technological change throughout the Gauteng province – specifically   roads,   communications,   electrification,   and   efficient administration of law and order. Efforts to build human capital – education and health systems especially – should not be confined to urban areas but created in rural areas also. Such efforts are entirely feasible and not at all akin to rural industrialisation or new cities as a policy. Allowing such services to be offered only in urban areas probably increases rural-to-urban migration needlessly. The effect on rural-to-urban migration of urban policies to provide

local services – water, sewers, and so forth, has probably been overemphasised. Such services nearly always lag behind population growth and needs rather than create them. The most powerful implicit policies encouraging in-migration have probably been economic policies favouring industry over agriculture. Experience has shown that they are largely ineffective and even pernicious to real growth since they distort market prices and protect inefficiency. Such policies are losing favour and should be discontinued for these reasons, but their possible effect on rural-to-urban migration may have been their most positive accomplishment (Fuchs, Jones & Pernia; 1987:181-182).

Finally, Simmons (1982:165) states that one should not lose sight of the fact that in-migration is an intervening process linking a wide range of social and economic transformations affecting regions, amenities, households and individuals in developing countries such as South Africa especially Gauteng province. In-migration from a village such as Mohlakeng to a city such as Johannesburg is both a cause and consequence of wider social and economic changes. Study of its effects is one way of gaining an understanding of these changes, so urgently needed by policy makers.

The World Population Plan of Action places emphasis on the negative effects of rural-to-urban migration (United Nations,1975:Chap.1). The material reviewed here, however, shows that in many circumstances the externalities associated with such migration are, on balance, beneficial. That governments such as Gauteng that seek to reduce urbanward migration across the board may be basing their decisions, in the words of the United nations Secretariat (1984:34), on value judgement rather than on hard analysis.

The following chapter will be focussed on population growth and the impact of in-migration projections, trends and spatial transformation in Asia, which will act as an eye-opener for a country like South Africa, more especially Gauteng province.

CHAPTER 6

POPULATION GROWTH AND IN-MIGRATION WITH SPECIAL REFERENCE TO ASIA

6.1   INTRODUCTION

This chapter first summarises in-migration trends, urban population growth, city size, and urban concentration in Asia, then turns to the projection of these trends. A brief exercise illustrates the potential errors that can occur in both in-migration and urban growth projections over a twenty-year period. Not surprisingly, the errors seem sensitive to changes in economic development indicators. The process is then examined in a review of the determinants of in-migration, from which conclusions are drawn about the factors that will influence the future of in-migration. In-migration is economic growth and capital accumulation, and these processes are global in their compass (Harvey, 1975:101). The major aim of this chapter is to assist in searching for better methods, ideas, and issues which will assist South Africa especially Gauteng province to manage in-migration successfully. The similarities and differences will be shown. The lessons South Africa is exposed to will be fully discussed at the end of the chapter.

6.2   TRENDS IN IN-MIGRATION, URBAN POPULATION GROWTH, AND CITY SIZE

Levels of in-migration in Pacific Asia, with notable exceptions in Japan, South Korea, and Taiwan, are low by global standards. The estimates presented in Table 6.1 are based upon definitions of urban areas designated by the individual countries, rather than upon a uniform set of classification criteria. One justification for this practice is that national statistical offices are in the best position to distinguish between urban and rural areas in their own countries (United Nations,1980:9).

The different urban definitions can cause problems, however, inferences may be sensitive to the inconsistency in urban definitions among countries and to definitional changes over time. It is important to note that the United Nations

figures are adjusted whenever changes in national urban definitions between censuses occur. The average level of in-migration for the world in 1980 was approximately 40 percent. Europe and North America average 71 and 74 percent urban respectively. The Soviet Union and Latin America had roughly 65 percent of their population urban. Africa was low with 29 percent. The least urbanised region was Asia, at 26 percent (United Nations,1985).

Asia's low average, however, masks considerable sub-regional and international heterogeneity. Whereas South Asia and Southern Asia were only approximately 23 percent urban, East Asia was highly urbanised by 1980, at 71 percent. In-migration levels within South Asia ranged from 10 percent in Bangladesh to 28 percent in Pakistan. In Southeast Asia, Thailand was 17 percent urban while the Philippines was 37 percent urban. In East Asia, South Korea was 57 percent urban. The in-migration levels of centrally planned Asia were generally low, though also heterogeneous. North Korea had achieved a level approximately 60 percent, while the levels for China, Vietnam, and Kampuchea ranged from 20 to 14 percent. The increase in Asian in-migration levels over time can also be seen in Table 6.1. (Fuchs, Jones and Pernia, 1987:14)

The pace of in-migration, defined here as the average annual absolute change in the percentage urban, has not been high by historical standards, though in South and South-eastern Asia it increased during the 1970s. (Table 6.2). There is considerable variation by subregion and country. During the 1960s the pace for South Asia (0.20) and for Southern Asia (0.26) was below the world average (0.33). East Asia urbanised rapidly (0.89). The pace in centrally planned Asia (0.27) was also low, except for North Korea (0.99). During the 1970s the pace in South Asia increased to (0.35) and in Southeast Asia to (0.37). The pace in East Asia declined to (0.74), conforming to a commonly observed logistics pattern of in-migration over time. Ledent (1982) states that at high level of in-migration, the pool of potential migrants to urban areas declines as a proportion of the total population, and the pace of in-migration therefore declines. The pace, however, has also declined in centrally planned Asia, at relatively low levels of in-migration.

Table 6.1: Actual and projected percentages urban: Selected countries and years, by region, 1960 – 2000

Table 6.2: Actual and projected pace of urbanization: Selected Asian countries, by region: 1960-70, 1970-80 and 1980-2000

Table 6.1: Actual and projected percentages urban: selected countries and years, by region, 1960-2000					Table 6.2: Actual and projected pace of urbanization: selected Asian countries, by region: 1960-70, 1970-80, and 1980-2000			
Region	1960	1970	1980	2000	Region	1960-70	1970-80	1980-2000
World total	34	37	40	48	World	0.33	0.29	0.41
South Asia	17	19	23	33	South Asia	0.20	0.35	0.50
Bangladesh	05	08	10	18	Bangladesh	0.25	0.28	0.39
Burma	19	23	27	41	Burma	0.36	0.43	0.69
India	18	20	23	34	India	0.18	0.37	0.54
Sri Lanka	18	22	22	24	Sri Lanka	0.39	-0.03	0.13
Pakistan	22	25	28	38	Pakistan	0.28	0.32	0.49
Southeast Asia	17	20	24	37	Southeast Asia	0.26	0.37	0.66
Indonesia	15	17	22	36	Indonesia	0.25	0.51	0.71
Thailand	12	13	17	23	Thailand	0.07	0.38	0.31
Philippines	30	33	37	49	Philippines	0.26	0.44	0.58
Malaysia	25	27	29	42	Malaysia	0.18	0.24	0.61
East Asia	55	64	71	80	East Asia	0.89	0.74	0.41
South Korea	28	41	57	81	South Korea	1.30	1.62	1.18
Taiwan	58	-	77	-	Taiwan	0.95	0.95	-
Japan	63	71	76	79	Japan	0.87	0.50	0.15
Centrally planned Asia	17	20	21	27	Centrally planned Asia	0.27	0.12	0.33
China	17	19	20	27	China	0.99	0.96	0.66
North Korea	40	50	60	73	North Korea	0.14	0.22	0.49
Kampuchea	10	12	14	24	Kampuchea	0.36	.010	.039
Vietnam	15	18	19	27	Vietnam	0.36	0.10	0.39

SOURCE: UNITED NATIONS (1985:16).

Although the rates of in-migration in developing countries are not exceptional, the growth rates of urban populations in developing countries are unprecedented (Preston, 1979:126). South African and Asian countries are no exception (Supra 6.3). World urban population growth averaged 2.95 percent annually during the 1960s, whereas the urban growth rate for developing countries averaged 4.1 percent. Growth rates in South Asia ranged from 3.4 percent in India to 6.5 percent in Bangladesh. Southeast Asia rates ranged only from 3.5 percent in Malaysia to 3.8 percent in Indonesia. In East Asia, Japan's rate was low (2.3 percent), whereas South Korea's was high (6.3 percent). The rates for centrally planned Asia ranged from China's 3.6 percent to North Korea's 50 percent (United Nations,1985. cf. Fuchs, Jones and Pernia, 1987:16-18).

Urban population growth rates remained high during the 1970s. Although the rates dropped in many countries, they actually increased in some. In South Asia the rate increased slightly in India (to 3.9 percent) and Pakistan (4.0 percent), whereas it declined slightly in Bangladesh (5.9 percent). In Southeast Asia the growth rate increased substantially in Indonesia (4.9 percent) but declined marginally in the rest of the region. The rates in East Asia declined. The most dramatic declines occurred in centrally planned Asia, where China's rate dropped to 2.4 percent, Vietnam's to 2.9 percent, and Kampuchea's to 0.9 percent.

These growth rates have resulted in sizable Asian urban population. Between 1960 and 1980, for example, the urban population increased from 77.5 to 161.4 million in India, from 11.1 to 24.5 million in Pakistan, and from 14.0 to 33.5 million in Indonesia. Overall, the urban population of countries as could be seen in Table 6.3 almost doubled, growing from 309 million to 597 million (United Nations,1985).

Table 6.3: Actual and Projected urban populations growth rates

Table 6.3: Actual and projected urban population growth rates (average annual percentage rates): selected Asian countries by region 1960-70, 1970-80, and 1980-2000			
Region or group	1960-70	1970-80	1980-2000
World	2.9	2.7	2.5
Developing countries	4.1	3.8	3.5
South Asia Bangladesh	6.5	5.5	5.3
India	3.4	3.9	3.6
Sri Lanka	4.3	1.6	2.3
Pakistan	3.9	4.0	3.9
South East Asia Indonesia	3.8	4.9	4.0
Thailand	3.6	3.3	4.2
Philippines	3.8	3.8	3.5
Malaysia	3.5	3.3	3.7
East Asia South Korea	6.3	5.1	3.0
Japan	2.3	1.8	0.7
Centrally planned Asia China	3.6	2.4	2.5
North Korea	5.0	4.3	3.1
Kampuchea	3.7	0.9	4.9
Vietnam	4.4	2.9	3.6

SOURCE: UNITED NATIONS (1985:18)

The low levels of in-migration in South, Southeast, and centrally planned Asia resulted from high rural growth rates rather tan from the failure of cities to reach substantial sizes (Hackenberg, 1980). Eight of the world's largest agglomerations in 1950 were located in Asia. By 1975 Asia's share had risen to twelve. The number of cities with populations over one million in South, Southeast, East, and centrally planned Asia tripled, from twenty-three in 1950 to sixty-nine in 1980 (UN,1985). The population of the fifteen largest urban agglomerations in the selected countries appear in Table 6.4. The growth rates between 1950 and 1980 varied for these large cities, but their urban populations increased on average by a factor of 2.3.

Table 6.4: Actual and projected populations of the largest Asian urban agglomerations

Table 6.4 Actual and projected populations of the largest Asian urban agglomerations: 1950, 1980, and 2000			
	Populations (in millions)		
City	1950	1980	2000
Tokyo-Yokohama	6.7	17.0	17.1
Shanghai	10.3	11.8	13.5
Calcutta	4.4	9.5	16.6
Beijing	6.7	9.1	10.8
Bombay (Greater)	2.9	8.5	16.0
Seqoul	1.1	8.5	13.5
Osaka-Kobe	3.8	8.0	7.7
Tianjin	5.4	7.7	9.2
Jakarta	1.8	6.7	12.8
Manila	1.6	6.0	11.1
New Delhi	1.4	5.9	13.3
Karachi	1.1	5.2	12.2
Bangkok-Thonburi	1.4	4.6	9.5
Madras	1.4	4.4	8.2
Dacca	0.4	3.4	11.2

SOURCE: UNITED NATIONS (1985:19)

Table 6.5 presents the percentages of urban populations in cities of more than 1 million and more than 4 million inhabitants. The percentage of the urban population living in cities of over 1 million remained fairly constant in Far East Asia (37 percent) between 1950 and 1980, but it increased from 22 to 35 percent in Southern Asia and from 16 to 29 percent in South Asia.

Changes in the estimated percentages of urban populations in cities of 100,00 or more inhabitants between 1960 and 1980 (Table 6.6) have not been uniform, nor have they been dramatic except for the large declines in Vietnam and, to a lesser extent, in China, Sri Lanka, and Indonesia.

Table 6.5 Actual and projected percentages of urban populations in cities of more than 1 million and more than 4 million

Table 6.5: Actual and projected percentages of urban populations in cities of more than 1 million and more than 4 million: Three Asian regions, 1950,1980 and 2000						
	> 1 million			> 4 million		
Region	1950	1980	2000	1950	1980	2000
Far East Asia	37	37	38	24	20	19
Southeast Asia	22	35	37	0	20	23
South Asia	16	29	45	6	18	25

SOURCE: UNITED NATIONS : (1985:20)

Table 6.6: Percentages of urban populations in cities of 100,000 or more

Table 6.6: Percentages of urban populations in cities of 100,000 or more selected Asian countries, by region: 1960 and 1980		
Region and country	1960	1980
South Asia		
Bangladesh	75	74
Burma	43	41
India	60	61
Sri Lanka	50	38
Pakistan	55	64
Southeast Asia		
Indonesia	76	64
Thailand	65	69
Philippines	53	58
Malaysia	45	43
East Asia		
South Korea	100	98
Japan	54	60
Centrally planned Asia		
China	68	55
North Korea	42	42
Kampuchea	70	64
Vietnam	90	55

SOURCE: UNITED NATIONS : (1985:20)

Primary increased in eight out of twelve Asian countries between 1960 and 1980 (Table 6.7). The index of primacy for South Korea increased rapidly during the 1960s, then declined slightly in the 1970s. India, China, and North Korea experienced slight drops in primacy, while Sri lanka's decline was more dramatic. (The estimates in Table 6.7 are from 1980 and have not been updated with results from the 1980-81 census round.)

Despite the varied urban experiences of individual Asian countries, regional trends can be summarised as follows. In-migration has increased slowly in South, Southeast, and centrally planned Asia, while East Asia has urbanised more rapidly. Consequently, the levels of In-migration in South Asia (33 percent), Southeast Asia (24 percent), and centrally planned Asia (21 percent) were still rather low as of 1980. East Asia, on the other hand, has achieved a high level of in-migration (71 percent in 1980). Although the pace of urbanisation in South and Southeast Asia has not been rapid, it accelerated during, the 1970s. East Asia's high pace has declined somewhat. Centrally planned Asia's pace is low and declined during the 1970s.

Despite the slow pace of in-migration for Asia as a whole, Asia urban populations have been growing at very high rates, and the proportions of urban populations in the large cities has been increasing. These trends are expected to continue. Before turning to urban projections, however, we will discuss briefly the demographic determinants of past trends.

Urban population growth rates can be attributed to three causes: natural increase of urban areas, rural-to-urban migration, and a real reclassification. The major determinant of rapid urban growth in developing countries seems to be urban natural increase. Sixty percent of their urban growth has been attributed to natural increase (Preston 1979:198). The relative importance of natural increase and migration varies by region. In-migration is more important, for example, in ASEAN countries than elsewhere in the developing world.

At some periods during a nation's in-migration transition its urban population may grow primarily as a consequence of net urban in-migration, whereas at other periods natural increase is the major contributor. A sharp increase in the rate of rural-to-urban migration temporarily raises the urban population growth rate. However, "its ultimate effect is to urbanise the population more rapidly and thereby to depress the urban growth rate to a lower level than it would have reached in the absence of the increase" (Rogers 1982:505).

Whereas urban natural increase largely determines urban-growth rates, the principal effect of migration is to determine the levels of in-migration. Since rural rates of natural increase are slightly higher than urban rates in most parts of the world, this point is intuitive. This occurs because there is no proper control of birth rate and there is no law which prescribes to the people how, when, and how many children they should have (Ledent 1982). The estimated contribution of migration to urban growth will vary according to whether a narrow annual accounting procedure or a broader approach is used. Todaro (1975) has argued that high rates or urban natural increase are largely the result of high fertility among migrants. Keyfitz and Philippov (1981), noting the difference between the immediate and ultimate effects of migration, assert that the ultimate effect results from the births to migrants and their children.

Table 6.7 Percentages of urban populations in the largest city and index of primacy

Table 6.7: Percentages of urban populations in the largest city and index of primacy: selected Asian countries, by region: 1960, 1970, and 1980						
	% of urban populations					
	in largest city			Index of primacy		
Region and country	1960	1970	1980	1960	1970	1980
South Asia Bangladesh	20	25	30	0.8	1.0	1.2
Burma	23	23	23	1.6	1.8	1.9
India	07	06	06	0.7	0.6	0.5
Sri Lanka	28	20	16	4.8	2.2	1.9
Pakistan	20	21	21	0.9	1.0	1.0
Southeast Asia Indonesia	20	22	23	1.1	1.3	1.5
Thailand	65	68	69	B	B	B
Philippines	27	29	30	3.6	3.7	3.7
Malaysia	19	23	27	1.0	1.0	1.2
East Asia South Korea	35	42	41	1.1	1.5	1.5
Japan	18	20	22	1.2	1.3	1.5
Centrally planned Asia China	6	6	6	0.7	0.7	0.7
North Korea	15	13	12	1.0	0.9	0.7

SOURCE: WORLD BANK (1980:21).

6.3   NATURAL INCREASE AND MIGRATION

The varying impact of natural growth and migration on population distribution makes it particularly important to analyse their respective contributions to urban growth.   In its intensive analysis of patterns of urban and rural population growth, the United Nations attempted to identify the components of urban and rural population change.   In contrast to the experience of more developed countries, the bulk of urban growth in the less developed countries is attributable to the natural increase of urban population and South Africa is no exception. (United Nations, 1980a:23).   Based on the most recent observations for the 29 less developed countries for which data were available, 61 percent of the growth was attributed to natural increase, compared to only 39 percent to migration.   This contrast sharply with experience of more developed countries where the proportions were almost the reverse, 40 and 60 percent, respectively.   The difference is largely a function of much higher rate of urban natural increase in the less developed countries.   Over four fifths of the difference in urban growth rates between the two groups of countries is accounted for by differentials in average rates of natural increase.   Thus, in the less developed countries, only 15.8 percent of the differential in urban growth rates is attributable to the higher rates of urban in-migration in less developed countries (United Nations, 1980a:23).

In a number of countries, the urban populations are growing at rates of between five and seven percent a year; the rates in the big cities of these countries are even higher.   As a result, even if migration contributes only 40 to 50 percent to such growth, such migration carries major responsibility for the exceedingly high growth rates of urban places.   Moreover, this contribution to total growth is compounded by the fact that some of the natural increase occurring in the urban location is attributable to the fertility of the migrants themselves.   The same scenario is experienced by South Africa, which is having an inflow of migrants from neighbouring countries affected by wars such as the Democratic Republic of Congo, Ethiopia, Eritrea and Angola (Fuchs, Jones & Pernia, 1987:76).

6.4   PROJECTED TRENDS OF IN-MIGRATION

Although a steady, general increase in Asian in-migration levels is projected for the year 2000, the levels will remain low by global standards (Supra 6.1). The projected levels for South Asia (28 percent) are below the protected world average of 48 percent. The expected continued increase in East Asian in-migration, on the other hand, will result in populations averaging 80 percent urban. Intraregional heterogeneity is projected to continue. In South Asia, for example, projected in-migration levels range from Bangladesh's 18 percent to 41 percent for Burna. The pace of in-migration is projected to increase in South Asia (0.50), Southeast Asia (0.66) and centrally planned Asia (0.33) between 1980 and 2000 (see Table 6.2). The pace of East Asian in-migration is projected to decline. The projected urban population growth rates (Supra 6.3) remain generally high and are projected to increase in many countries.

The urban population of the region as a whole is projected to increase by 471 million (Supra 6.8). The urban populations of South and Southeast Asia, according to the projection, will increase by a factor of 2.2. Centrally planned Asia's urban population will increase by a factor of 1.6, while East Asia's will grow by a factor of 1.3. Trends in city growth are also projected to continue. The number of Asian cities with populations of more than 1 million is projected to increase from 69 in 1980 to 148 by the year 2000 (United Nations 1985). The percentages of urban population living in the largest cities, will continue to increase, except in Far East Asia (Supra 6.5).

Table 6.8: Projected increases in urban populations

Table 6.8: Projected increases in urban populations: selected Asian countries, by region, 1980-2000		
Region and country	Absolute Population increase (In thousands)	Proportional Increase
South Asia	216,447	2.1
Bangladesh	17,428	2.9
India	167,722	2.0
Sri Lanka	1,851	1.6
Pakistan	29,446	2.2
Southeast Asia	72,811	2.2
Indonesia	41,045	2.2
Thailand	8,653	2.3
Philippines	18,609	2.0
Malaysia	4,504	2.1
East Asia	30,503	1.3
South Korea	18,170	1.8
Japan	12,333	1.1
Centrally planned Asia	151,450	1.7
China	129,992	1.6
North Korea	9,180	1.9
Kampuchea	1,461	2.6
Vietnam	10,817	2.0

SOURCE: UNITED NATIONS (1985:23).

6.5   EVALUATION OF THE PROJECTIONS

Assessing the reliability of these projections is probably an impossible, and possibly a trivial, pursuit.   Demographic projections of urban and rural populations merely describe the implications of current demographic trends. Since the conditions assumed in the projections are likely to change, the likelihood that the projections will be realized is small (Goldstein and Sly 1975:14-15; Tekse 1975:89).   Migration, for example, is liable to large and unexpected variations, influenced by policies and economic conditions (Tekse 1975:60).   In one sense, therefore, the reliability of these projections is not at issue.   The magnitude by which in–migration trends can change, however, seems worthy of investigation.

Two basic approaches can be taken in demographic projections of urban population growth, the macro-approach and the micro-approach.   The macro-approach uses existing national populations and derives projections of urban and rural populations independently.   The global, simple component and cohort methods are examples of the micro approach.   (See Tekse 1975 for a detailed discussion of the various projection techniques.).

The United Nations method of projection is a ratio technique that uses existing projections of total populations.   It then redistributes the projected populations into urban and rural sectors by extrapolating into the future the most recently observed urban-rural growth differential, calculated from past census results.

Table 6.9 presents the results of a simple evaluation exercise for this projection technique.   Five Asian countries were selected, and the urban-rural growth differentials between 1950 and 1960 calculated.   These growth differentials were then used to project the urbanization levels for the selected countries to 1980.   Reclassification of rural areas was not explicitly taken into account in the projections.

Table 6.9: UN method and modified UN method projection of in-migration levels

Table 6.9 UN method and modified UN method projection of in-migration levels: selected Asian countries, 1960-80							
	Projections				Deviations		
	Urban-rural Growth Differential, 1950-60	Projected % urban, 1980: UN method	Projected % urban, 1980: modified UN method	Actual % urban, 1980	UN method Absolute deviation-a	% Deviation-b	Modified UN Method Absolute Deviation	% Deviation
Country	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
India	.00767	20.3	24.2	23.4	-3.1	13.2	0.8	3.4
Indonesia	.01868	19.9	21.9	22.2	-2.3	10.4	-0.3	1.4
Philippines	.01550	37.2	39.9	37.4	-0.2	0.5	2.5	6.7
South Korea	.03449	43.3	43.2	56.9	-13.6	23.9	-13.7	24.0
Japan	.04986	81.8	79.3	76.2	5.6	7.3	3.1	4.1

SOURCE: FUCHS, JONES & PERNIA (1987:25)

The in-migration trends during the 1950s are embodied in the calculated urban-rural growth differentials. The exercise merely gives some indication of how dramatically trend can change, causing deviations of the projected levels of in-migration from the actual levels in 1980. Since a projection is not a forecast, these deviations are not to be thought of as forecast errors.

The projections are given in column 2 of Table 2.9, and the actual percentages urban for 1980 are given in column 4. The absolute projection deviations range from 0.2 to 13.6, with an average of approximately 5, and the percentage deviations range from 0.5 to 23.9 percent, with a mean of 11.1. The projected in-migration level for South Korea has the largest deviation (columns 5 and 6).

In a modification of this projection technique (United Nations 1980,1985), urban-rural growth differential is permitted to change over time. As urban proportions increase, it becomes more difficult to sustain a particular growth differential because the pool of migrants declines as a fraction of the urban population. Therefore, urban-rural growth differentials tend to decline as urban proportions increase (see United Nations 1980-11). The most recently observed growth differential for a country is allowed to approach the expected differential based on a regression of urban-rural growth differential on the initial proportion urban in a cross-national sample of 110 countries.

The evaluation exercise was repeated for this modified United Nations method, and the projections appear in column 3 of Table 2.9. The modification generally reduces the projection deviations associated with the United Nations method. The average absolute deviation drops from approximately 5 to 4, and in percentage terms from 11.1 to 7.9. However, the substantial underestimation of South Korea's 1980 in-migration level remains (columns 7 and 8). The definition of urban in South Korea did not change during this period.

These urbanization projections can easily be translated into urban population projections. Gable 2.10 presents these projections using the modified UN method, based on a 1963 set of UN projections for the total populations of the selected countries (UN 1966). The absolute deviations range from 77 thousand to 4.2 million, and in percentage terms from 0.2 to 23.3. There is guarded evidence that projections of total populations are improving (Keyfitz 1981). Unfortunately, they do not necessarily generate more precise urban population projections. The 1980 urban populations for selected countries were estimated by applying the urbanization levels projected by the modified United Nations method (Table 2.9) to the actual 1980 total population figures, thus removing the component of the deviation associated with imprecise projections of the total population. The projection deviations change but are not reduced on average (Table 6.11).

Table 6.10: Projections of 1960 urban populations to 1980

Table 6.10 Projections of 1960 urban populations to 1980: selected Asian countries				
Country	Projected 1980 urban population (in thousands)	Actual 1980 urban population (in thousands)	Absolute deviation (in thousands)	% deviation
India	164,980	161,426	3,554	2.2
Indonesia	33,437	33,514	-77	0.2
Philippines	22,250	18,052	4,198	23.3
South Korea	18,738	21,678	-2,940	13.6
Japan	88,096	88,909	-813	0.9

SOURCE: UNITED NATIONS (1985:27)

Table 6.11: Estimates of 1980 urban populations using actual total populations

Table 6.11 Estimates of 1980 urban populations using actual total populations: selected Asian countries				
Country	Estimated Population (in thousands	Actual urban Population (in thousands)	Absolute deviation (in thousands)	% deviation
India	165,678	161,426	4,252	2.6
Indonesia	32,129	33,514	-1.385	4.1
Philippines	19,196	18,052	1,144	6.3
South Korea	16,176	21,678	-5,502	25.4
Japan	92,852	88,909	3,943	0.9

SOURCE: UNITED NATIONS (1985:27)

The results of these exercises are not surprising. Deviations from in-migration projections can be quite large. The modification of the UN method seems to improve the projections, but deviations from urban population projections can remain large in absolute and percentage terms even in cases where total population projections are precise.

The GNP growth rates during the 1950s (Table 6.12) influenced the urbanization trends in that period. Since these trends were extrapolated to 1980 in the projection exercises, we would expect that a dramatic change in GNP growth rates after the 1950s would generate projection errors. The most dramatic change in GNP growth occurred for South Korea, and this may well explain that county's exceptional unanticipated acceleration in urbanization. In general, where GNP growth declined, the projections underestimated the actual urban population. The projections thus appear to be quite sensitive to changes in economic trends. It is not rapid economic growth per se that leads to the deviations, rather the dramatic change in economic growth rates.

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Table 6.12: Average annual growth rates in real GNP

Table 6.12 Average annual growth rates in real GNP: selected Asian countries, 1950-60 to 1970-80				
Country	1950-60	1960-80	1960-70	1970-80
India	3.9	3.7	3.6	3.7
Indonesia	4.0	5.6	3.9	7.3
Philippines	6.3	5.8	5.1	6.4
South Korea	5.0	8.7	8.7	8.7
Japan	6.3	7.5	10.4	4.6

SOURCE; WORLD BANK (1980d, 1983d)

6.6   CITY POPULATION PROJECTIONS

Population projections for specific urban areas are especially important for planners. The United Nations method for projecting city populations is similar to the method used to project the aggregate urban population of a country. The projections begin with the calculation of the city - non city growth differential-that is, the difference between the growth rate of a particular city and the growth rate of the rest of the country. This growth rate differential is used to project a city's population in the same way that urban-rural growth rate differentials are used in the aggregate urban population projections described earlier. Allowance is mad for the fact that larger cities tend to grow less quickly than the general urban population.

The sensitivity of projections to changes in trends, with focus on city populations, is highlighted by the projected populations in the year 2000 for the fourteen largest Asian urban agglomerations (Table 2.13). The 1980 United Nations projections, made before the 1980-81 census round results were available, are in most cases much higher than the 1985 United Nations projections, using the identical methods. The differences between the projection are attributable mainly to the new estimates for the city populations in 1980 provided by the recent census rounds. Evidently, most of the large urban areas grew less rapidly than was anticipated during the 1970s. In the

case of Shanghai and Beijing, a second source of the much higher 1980 projections was the lower estimated for city populations before 1980. The 1980 estimate for the 1950 population of Shanghai, for example, was 5.8 million, whereas the 1985 estimate for the same population was 10.3 million. The estimated 1950 population of Beijing increased from 2l2 million (United Nations 1980) to 6.7 million (United Nations 1985). These upward adjustments resulted from including the surrounding rural counties in the 1985 estimates.

Table 6.13: **Population projections for the fourteen largest Asian urban agglomerations**

Table 6.13 Population projections for the fourteen largest Asian urban agglomerations: United Nations (1980 and 1985)			
	Population in year 2000 (in millions)		
Agglomeration	United Nations (1980)	United Nations (1985)	% difference
Tokyo-Yokohama	24.2	17.1	34
Shanghai	22.7	13.5	51
Beijing	19.9	10.8	59
Bombay	17.1	16.0	07
Calcuta	16.7	16.6	01
Jakarta	16.6	12.8	26
Seoul	14.2	13.5	05
Madras	12.9	8.2	45
Manila	12.3	11.1	10
Bangkok-Thonburi	11.9	09.5	22
Karachi	11.8	12.2	-3
New Delhi	11.2	13.3	-17
Tehran	11.3	12.7	-12
Osaka-Kobe	11.1	07.7	36

SOURCE: UNITED NATIONS (1980. 1985)

6.7   DETERMINANTS OF IN-MIGRATION

The association between per capita General National Product an in-migration is very strong. Per capita income can be used, with considerable success, to predict levels of both urbanization and rural-to-urban migration (Renaud 1979; Mason and Suits 1981; Mohan 1984). This association is generated largely by increases in productivity (Suits 1985; cf. Suits and Ogawa 1985). Increases in per capita GNP, reflecting rising levels of productivity generated by technological change and the accumulation of physical and human capital,

generate structural shifts in the economy. The composition of employment thus shifts in favor of nonagricultural occupations, and this shift has spatial implications. Although a one-to-one relations does not exist between the change in employment structure and rural-to-urban migration, the change is a major force behind urbanisation. Historically, this process has usually been triggered by an initial increase in agricultural productivity (Mohan 1984:2-3).

Labor flows in response to its demand in the agricultural and non-agricultural sectors. Labor demand is determined by the value of labor's marginal product. This value is determined by the worker's physical output and the price at which the output is sold. Rising productivity can raise or lower the value of marginal product in a given sector. The effect of rising productivity depends upon the elasticity of demand for agricultural and nonagricultural output. An increase in the productivity of agricultural workers for example, increases their physical output, which lowers the price of agricultural goods relative to nonagricultural goods. Moreover, since the demand for agricultural output is relatively inelastic, the decrease in price is large. This drop in price more than offsets the increase in physical product, reducing the value of the marginal product of farm labor. Simultaneously, the relative price of nonagricultural goods rises, increasing the demand for labor in the secondary and tertiary sectors and drawing labor out of agriculture. This argument assumes that prices are determined domestically (Fuchs, cf. Jones & Pernia, 1987:30).

An increase in nonagricultural productivity also increases the demand for labor in the secondary and tertiary sectors. Again, output prices fall, but the demand for nonagricultural goods is relatively elastic. The small price change only partly offsets the increase in productivity, and the net effect is to shift labor out of agriculture.

Productivity growth generates increases in income. The effect of rising income on the composition of demand is a crucial force driving labor out of agriculture. As productivity increases income, a grater proportion of income is spent on nonagricultural output (Clark 1957:493-94). As demand

proportionally shifts away from agricultural goods, labor follows. Preston (1985) notes that if food production can be exported, some of the influence of low income elasticity of demand can be averted. For example, New Zealand, because of agricultural exports, jas a higher proportion rural than its national income would indicate.

Increases in productivity in either the agricultural or the non-agricultural sector raise income, but the magnitude of the effect upon aggregate income depends upon the share of employment in the sector experiencing the productivity increase. For example, an increase in agricultural productivity has a small effect on income in the United States, where only a small proportion of employment is in agriculture. The effect would be larger in many Asian countries (Suits and Ogawa 1985). Suits and Ogawa (1985) estimate the effects of increasing agricultural and nonagricultural productivity on the shift of labor out of agriculture in the United States, Japan, South Korea, Thailand, and Indonesia. The results they report are consistent with the theory.

This view of the role of productivity and income growth stands in contrast to the view that rural deprivation spurs in-migration. As Preston (1979:179) has stated, poorer countries in general have not only more deprived rural areas but also more deprived urban ones. The net effect of poverty seems to be to hold population in rural areas. Sovani (1964) and Kamerschen (1969) find little correlation between levels of in-migration indices of rural push. The lack of pull factors in rural areas such as job creation, housing, water, electricity developments and other factors have always pushed people to the urban areas and South Africa is no exceptions.

Rural push factors could become more important in the future, however, Mohan (1984), for example, concludes that agricultural stagnation in India's poorer states is likely to have contributed to the acceleration of their in-migration during the last decade. Although rural push factors may be come more important, Preston (1985) asserts that the example of Bangladesh should make us think twice about this hypothesis. Bangladesh was one of the poorest and most densely populated countries in 1950. Since then its

population has more than doubled, landlessness has risen, and real wages have fallen. Yet Bangladesh continues to have a very low and slowly growing urban percentage. In commenting on an earlier draft of this chapter at the Conference on Population Growth, Urbanisation, and Urban Policies in the Asia-Pacific Region, Samuel Preston stated. There is simply no reasonable urban wage opportunity for the rural sector to push its population to. Urban people stick to their present working environment in the urban areas because there is no pull factor which will attract them or push them towards rural areas. The most important reasons being the lack of work, wages, accommodation, resources such as schools, hospitals and others.

The prospect for labour absorption in agriculture is an important issue. Expansion of cultivated areas is not possible in many parts of Asia (Jones 1983:2). Labour demand will be determined largely by multiple cropping, government-sponsored irrigation and other development schemes, the use of labour-saving technology and mechanization, land tenure systems and the concentration of holdings, and biological and chemical innovations (McGee 1982:11-12; White 1979: Young 1978). Certain of these developments will make some agricultural labour redundant, displacing workers. The extend to which they do so depends upon their effects on the marginal productivity of both labour and land. Mechanization, for example, raises the marginal productivity of agricultural labour. Several studies have provided evidence of the labour-displacing effects of mechanization (e.g., Squire 1981). Irrigation, on the other hand, raises both land productivity and average and marginal labour productivity in agriculture. Therefore, for a given increase in output, irrigation would retain a larger labour force in agriculture than would mechanization (Preston 1985).

The adoption of labour-saving technology has varied from country to country, reflecting the availability of labour. The experiences of Taiwan and Japan during the past few decades illustrate this point. In Taiwan the continued growth until recently of the agricultural labour force has tended to obviate the need for labour-saving technology. Japan's agricultural technology, in

contrast, has been labour-saving (Squire 1981:157-63; Hayami and Ruttan 1983).

Presentation of the occupational transition as the force behind urbanisation has been done but have said little about the pattern of this transition in Asia. Two aspects merit mention. The occupational transition in developing countries does not conform perfectly to Clark's (1957) generalization and the relation between the occupational transition and in-migration varies among countries and over time.

The occupational transition in developing countries differs from the historical experience of the developed countries in two respects (Squire 1981:11-14). Agriculture accounts for a larger, although declining, share in developing countries than it did in developed countries when they experienced comparable levels of in-migration. And within the nonagricultural sector, services have consistently accounted for a larger proportion of employment. The smaller employment share of industry has been attributed to high levels of technology and high capital-labour ratios in manufacturing, the importance of trade, the size of the public sector, and rapid population growth (Squire 1981:3-5; Jones 1983; Mior 1976:125; McGee 1982; Hackenberg 1980).

Hoselitz (1957), noting that developing countries have smaller proportions of their labour forces in industry than was the case for European countries at similar levels of in-migration, concluded that there was over-urbanization in developing countries. This bias against the service sector led to the hypotheses that rural push factors influence in-migration.

The service sector is larger and its role in the in-migration process of developing countries is more important than was the case earlier for today's developed countries (Jones 1983; Moir 1976). Thus the service sector, and the urban informal sector in particular, has received attention (Hankenberg 1980; cf. Squire 1981; cf. Jones 1983; Fishlow 1972; cf. Bellante 1979; cf. Yap 1976; & Mohan 1980). But our knowledge of the urban informal sector remains limited, and additional research is needed.

Nevertheless, urban growth in developing countries, including Asian countries, has not been associated with a decline in the industry-urban ratio-that is, the ratio between the percentage of the labour force in industry and the percentage of the population in urban areas (Preston 1979). Although the industry-urban ratios for Asian countries have fluctuated over time, increasing for some and declining for others, no general trend of decline has emerged (Jones 1983). This finding is consistent with the view that industrialization has been the engine of in-migration over the past two decades in developing countries.

Another interesting point is that Asian industry-urban ratios assume a wide range of values among countries (Jones 1983). Apart from problems of data comparability, several factors may cause the ratios to vary. Changes in occupational structure can occur without residential shifts, depending upon transportation and communication infrastructures, efforts at decentralized industrialization, the importance of rural service sectors, investment in agriculture, and the importance of small-scale industry, which is more easily located in rural than in urban areas (Jones 1983; cf. Renaud 1981; cf. Ho 1979; & Richardson 1977). Some Asian governments have tried industrial location policies and population policies to slow the growth of urban areas. These policies have had generally limited success. An exception is the rustication programs in some centrally planned countries. Ten to fifteen million urban secondary school graduates in China, for example, were resettled in urban areas between 1969 and 1973. The population of Ho Chi Minh City in Vietnam was reduced by 700 thousand between 1975 and 1977 (Fuchs 1983).

In-migration will be determined by future trends in economic development, government policies, and demographic behavior. This section has provided a framework for organizing these relationships. The list of factors thought to influence in-migration is bewilderingly varied; it includes technological change, productivity change, agricultural development policies, biological and chemical innovations in agriculture, capital intensity in manufacturing, mechanization in

farming, investment, interest rate and exchange rate policies, foreign capital flows, foreign trade, urban bias, decentralized industrialization, and population growth. Their influences operate through the channels we have discussed. They affect the occupational transition from the primary to the secondary and tertiary sectors through effects upon agricultural and nonagricultural productivity and prices. They affect per capita income and thus the sectoral composition of demand. Finally, they might also influence the relationship between the occupational and the urbanization transitions, determining the spatial implications of the shift from agriculture. With many factors influencing urban trends, the next logical question is, which factors are most important?

6.8   SENSITIVITY OF URBAN TRENDS

One method for gauging sensitivity of urbanization trends to various parameters is to develop a set of equations quantifying the interaction of economic and demographic variables, then pose counterfactuals, altering the parameters, and examine the net effect on variables of interest.

The first generation of demo-economic models is credited to Coale and Hoover (1958). A second generation includes the models of Bachue; Suits and Mason; FAO; Tempo-II; Simon; and Kelley, Williamson, and Chetham. Rural-to-urban migration is endogenous in these models, responding to intersectoral wage differentials, output-labour ratio differentials, or per capita income. A new demo-economic generation comprises the computable general equilibrium models. Migration represent the flow of resources between rural and urban sectors. This flow responds to sectoral demand and supply forces, which operate in general equilibrium models.

In These models, sectoral demand for and supply of factors of production and output determine relative prices, sectoral demand for and supply of factors of production and output determine relative prices, sectoral outputs, and the allocation of capital and labour throughout the economy. In the computable versions, supply and demand functions are generated by the somewhat arbitrary choice of specific functional forms for production and utility functions.

Producers are assumed to maximize profits and consumers to maximize utility.

Values for the parameters in these functions are determined by a process of calibration, in which the parameters are set so that the model reproduces a given data set. The data, however, do not usually identify a unique set of parameter values, and therefore some values are taken from other research. This places a heavy reliance on some sparse studies that sometimes present contradictory parameter values. Key parameters include elasticity of labour supply, savings, and commodity demands. The major weakness of the models is the difficulty in obtaining appropriate parameter values and in choosing between alternative model structures. Inferences are often sensitive to model configuration and parameter choice.

Two dynamic general equilibrium models of in-migration deserve brief discussion here. One, developed by Kelley and Williamson (1982, 1984a, 1984b), models the experience of a "representative" developing country. The other, developed by Mohan (1982), models India's in-migration.

The Kelley-Williamson model, with eighty-six variables and thirty-nine parameters, includes five urban sectors (manufacturing, modern services, informal urban services, "squatter" urban housing, and high-quality urban housing) and three rural sectors (agriculture, informal rural services, and rural housing). It neglects manufacturing in rural areas. Factors of production identified in the model include capital, skilled and unskilled labour, rural and urban land, dwellings, and imported fuels and raw materials. The growth in productivity of the factors is permitted to vary by sector. Land stock growth is included to assess the role of farmland scarcity as a rural push factor.

Migrants are assumed to move in response to expected earnings, adjusted for cost-of-living differentials. The limited land in the urban sector is allowed to affect rents and thus slow in-migration. Savings are edogenously determined and are allocated to physical capital, human capital and housing accommodation. Exogenous variables driving development are the values of

foreign capital and aid, size of the total unskilled labour force, sectoral rates of growth in productivity, prices of imported raw materials and fuels, and international terms of trade. The model's database is from forty developing countries.

Kelley and Williamson (1982) vary the parameter values, examining the sensitivity of urbanization to various factors. Rural land scarcity and net foreign capital inflows are found to have only minor quantitative effects upon urban growth. The effect of population growth is also found to be small. A simulated dramatic decline in the population growth rate (from 2.54 percent to 0.9 percent) produces only a small drop (of 0.2 percent) in the urban population growth rate for the 1960-73 period.

The terms of trade (relative prices) between agricultural and manufactured goods is found to be important, and urban growth is found to be very sensitive to productivity changes. Technical progress, in the sense of an economy-wide increase in total factor productivity growth, has a noticeable effect. The largest effects in the model, however, arise from the unbalanced productivity increases among sectors. A rate of total factor productivity growth of 1.0 percent instead of 1.8 percent between 1961 and 1973 would have resulted in an urban growth rate of 4.14 percent rather than 4.86 percent. If the 1.8 percent rate of total factor productivity had been maintained, but sectoral imbalances in productivity growth removed, the urban growth rate would have dropped from 4.86 percent to 4.32 percent. In fact, the average annual growth rate of labour productivity, for developing countries as a group between 1960 and 1970, was 3.7 percent – 21 percent in agriculture, 4.6 percent in industry, and 2.4 percent in services (Squire 1981:table 6).

Finally urban growth is found to be sensitive to employment conditions and rents in the urban squatter housing sector. Rising rents, for example, retard urban growth. This finding seems to have implications for the growth of very large cities (Jones 1983:3-4). It has been shown that growth rates of large urban agglomerations are influenced by each city's size, by whether or not it is the country's capital or largest city, and by the rates of population and

economic growth in the country as a whole (UN 1980). The growth of these cities is closely linked to industrial development, since most major manufacturing plants in developing countries are located in or near the primate cities (Richardson 1977). The reasons why plants are so located include the availability of skilled labour pools, accessibility to suppliers, proximity to the central government, existence of the necessary infrastructure, scale economies, openness of the economy, and location of markets. Kelly and Williamson point out, however, that counterforces limit urban growth. One counterforce is the scarcity of urban land, mentioned above. Another is the increasing level of unproductive investment in the housing sector, which reduces the pool of savings available for capital accumulation and thus retards economic growth.

The results from the Kelley-Williamson model are important. According to Preston and Greene (1985), they must be viewed with caution, however. An underdeveloped demographic component of the model makes the population growth rate results especially suspect. The model blurs the distinction between the urban growth rate and the in-migration level. It does not explicitly recognize of the separate roles of urban natural increase and net in-migration as sources of urban growth, nor does it provide for reclassification of urban areas.

When Kelley and Williamson use their model in a projection exercise, they project to the year 2000 a more rapid rate of in-migration than occurs in the United Nations projections, resulting in an in-migration level of 68.4 percent versus the United Nations projected level of 50.9 percent for the same countries. Preston and Greene (1985) claim that no convincing explanation of this more rapid in-migration is offered and note that the model produces too fast a rate for the 1960-73 test period. Kelley and Williamson acknowledge that the model is better suited for simulating what would happen under various conditions than it is for projection. The problem is that, in projecting in-migration, one has to forecast the demo-economic environment that generates it. Trends in relative prices, agricultural and urban land stock growth, foreign capital inflows, labour force growth, and total factor

productivity growth over two decades must be postulated for the model to project in-migration trends, and making these postulations can be hazardous.

Mohan (1982) developed a general equilibrium model of India's in-migration experience, in which changes in the composition of demand, rapid rates of agricultural productivity growth, and higher rates of investment are found to spur in-migration. Preston (1979) has shown that national rates of population growth exert a strong positive influence on the growth rates of cities. The rate of in-migration, however, does not necessarily depend on overall population growth, for declining population growth rates increase per capita income, which can generate more rapid in-migration (Mohan 1982).

6.9 A MULTILEVEL FRAMEWORK OF IN-MIGRATION

It is important to begin by outlining a multilevel framework for the structural analysis of in-migration in both its economic and its spatial terms. At least three levels of analysis must be recognized: global, national, and regional. The point is not that in-migration may be studied at each of these levels, for this is obviously possible and has already been done, usually at the national level; the important issue is that in-migration can be meaningfully analyzed only be examining the impact of the interplay of forces at and between the different levels.

At the global, or world, level we must recognize two structural processes that have considerable implications for in-migration within the developing countries of Asia. First is the changing international division of labour involving the redeployment of industry to the periphery of the world economy, particularly to the so-called newly industrializing countries (NICs). Although this redeployment implies the rationalization of industry in advanced countries, new technological developments, and the deskilling of labour, it has enabled some of the more developed countries in Asia to begin to export lower-order manufactured products to the advanced countries. The second structural adjustment that is occurring at this level and, arising from the global division of

labour, is the emergence of a new regional division of labour within Asia. This development involves a complex pattern of relations between Asian and Pacific countries that will have implications for in-migration in this region (McGee, 1948b).

At the national level it is valuable to recognize different types of structural relationships and restructuring as each national economy deals with its external and internal economic relations. It was previously posed this issue in terms of a macrospatial framework that recognizes four models of national integration into the world economy and their implications for spational integration into the world economy and their implications for spatial transformation of the national economy, including its experience (Lo, Salih, and Douglas 1978).

The Southeast Asian model is a tow-tailed approach involving, on one hand, import-substitution through capital-intensive industrialization, which reinforces urban primacy, and, on the other, resource export promotion, with forward linkages to the advanced country. These two processes can not yet be integrated to enable internalization of the multiplier. Urban growth rates may be U-shaped with respect to size, but the tendency is toward the primate city.

In the East Asian model, a changing comparative advantage has enabled countries of this region to shift to export-led industrialization, owing to redeployment processes. At the same time, they have policies to improve agricultural productivity through institutional reform and technological improvements. Thus agricultural-industrial integration and internalization of multiplier effects exist at both the local and global levels.

The South Asian model involves a limited capacity for surplus generation relative to population size. Industrialization is circumscribed relative to gross national product (General National Product), and the import or export component is small. Agriculture is stagnating. Expansion with little structural change.

The china model is characterized by delinking from the world system, although under its Open Door Policy there has been a gradual opening. It is based on socialization of production and centrally planned consumption, in-migration is dictated by ideology, although the usual urban problems still prevail (Rogers, 1982:485).

These processes at the national level, articulated with the international level structures, have further impacts on subnational or regional patterns of transformation. At the regional level in East Asia, efficiency and metropolitan decentralization are primary issues; higher industrial labour absorptive capacity permits a higher in-migration rate, a balanced urban system, and the achievement of demographic transition and the turning point in employment. In the Southeast Asian case, decentralization from the primate regions is the major concern, involving the search for new growth centers and, at the same time, the promotion of resource frontiers and propulsive regional development.

The effect is spatially limited because of the problem of linkage. In South Asia, where much of the population will remain in the rural areas the urban future is best seen as a regionalization of the in-migration experience with pockets of rapid urban growth throughout the system owing to the development of propulsive regions.

It is within this multilevel framework that in-migration should be broadly reviewed. Policy prescriptions can be made more realistic when structural limits as well as conjunctural considerations are taken into account.

6.10 TRENDS IN ASIAN URBANIZATION

The available data are presented from Table 6.13. It is evident that, except for a few countries, Asian in-migration between 1960 and 1980 tended to conform with the world average and that this pattern was induced largely by the profile of industrialization and the level of development. Over the twenty years the national urban growth rates appear to have been converging to the 4 to 5 percent level per annum, with South Korea's growth decelerating, and

that of Indonesia, the Philippines, Thailand, and, to a certain extent, Malaysia, accelerating. The South Asian situation appears to be stable, with only Bangladesh showing a rate much higher than the rest of Asia.

Overall, however, Asian urbanization levels are still low, particularly among South Asian countries. In Southeast Asia, Thailand and Malaysia are particularly underurbanized in relation to their per capita GNP on the Chenery-Syrquin line, a fact that reflects their land-based resource development strategies. The acceleration of in-migration in Malaysia and Thailand between 1975 ad 1980, however, is impressive and may suggest the impact of recent changes in their industrialization strategy. In contrast, Indonesia's economic development over the past decade has enabled it to shift from a slightly overurbanized situation toward the world norm. South Korea's situation is approaching the Japanese experience, largely because of a low natural growth rate and a high rate of urbanization during the 1960's.

In general, despite urban growth rates of 4 to 5 percent per annum in most of the low-income countries of Asia, the in-migration process outside the newly industrializing countries is slow owing to the low level of urbanization itself. This point can be made clearer by looking again at Table 6.13, which shows that rural-to-urban migration contributed roughly 30 to 60 percent to urban growth during the period 1970-80. In other words, between 40 to 70 percent of in-migration was due to natural increase. As a corollary, only about 0.5 to 1 percent of the rural population moved from rural to urban areas, except in South Korea and Japan, where the proportion was roughly 3 percent. For this reason, growth rates of the rural population moved from rural to urban areas, except in South Korea and Japan, where the proportion was roughly 3 percent. For this reason, growth rates of the rural population have tended to be nearly as high as the rate of natural increase in the rural areas.

TABLE 6.14: Urban growth attributed to migration and reclassification

Table 6.14 Urban growth attributed to migration and reclassification: selected Asian countries, 1970-80				
Country	Average Annual Population Growth Rate (%) 1970-80	Average annual urban growth rate (%) 1975-80	% of urban growth attributed to migration	% of rural population migration to urban areas
Bangladesh	2.6	6.9	61	0.52
Nepal	2.5	5.2	58	0.16
India	2.1	4.0	50	0.56
Sri Lanka	1.6	4.1	59	0.89
Pakistan	3.1	4.7	34	0.63
Indonesia	2.3	4.5	60	0.68
Thailand	2.5	4.5	39	0.28
Philippines	2.7	4.4	39	0.96
Malaysia	2.4	4.0	33	0.55
South Korea	1.7	4.6	59	3.33
Japan	1.1	1.9	39	2.66

SOURCE: WORLD BANK, WORLD DEVELOPMENT REPORT (1980-1983)

Cities with populations exceeding 500,000 grew at an average rate of 5.7 percent per annum, compared with 3.1 percent per annum for cities with smaller populations. All countries in Asia share this general trend. It must be emphazised, however, that the growth rates shown in the second to last column (500,000+ cities) are higher than the average growth rate of individual cities in the 500,000+ category because they include the effect of cities moving into this category by surpassing the 500,000 population cutoff point. For the same reason, the last column (<500,000 cities) understates the growth rates of individual cities in this category.

6.11 REGIONAL SPATIAL TRANSFORMATION IN ASIA

To shed further light on the relationship between structural economic change and in-migration within the context of spatial transformation, here we briefly consider some of the major trends in Asian regional development since 1960. As a product of the various processes already discussed, these trends have important implications for in-migration in the respective countries. The regional development experience has not been fully documented, especially to take into account policy developments during the 1980s. Three basic trends in Asian regional development are discerned. The first in line with the tail end of the paradigm shift in regional-planning thinking (Friedmann and Weaver 1979:163-85), is a polarization reversal involving attempts to deflect development from the center to the less-developed, peripheral regions. This form of decentralized development is typified by the growth center strategy, which was in vogue in the 1970s (Lo and Salih 1978). On reflection, the growth centre strategy proved successful in countries already undergoing accelerated industrialization, such as Japan (Lo 1978:25-51), where diseconomies in manufacturing industries had set in the Tokaido megalopolis, and South Korea (Kim 1978:53-77), where industries in the Seoul region were decentralized to Ulsan. It is not yet known, however, what the effect will be of applying the growth pole concept to the diversion of industries from already developed areas to lagging regions, including resource frontiers, in Malaysia, Thailand, the Philippines, and Indonesia (Salih et al. 1978:79-119). But the experience of Malaysia in the 1980s is already evident: the growth center strategy has not been successful (Malaysia 1984P181-85), mainly because of the hastiness with which the concept was applied (Higgins 1982). It highlights Higgins's point (1978:229-42) that for the growth pole to succeed the region must be able to generate and transmit economic activities, which in turn must be transformed into new economic activities.

The successful attempts at decentralization have also strengthened the existing major centers. The development of intermediate cities, or "diffused in-migration (Hackenberg 1980), in Southeast Asia has involved major

investments in infrastructure as well as government sponsorship of incetives, made possible by hinterland growth. One important result of this policy is metropolitanization, as in Metro Manila, Klang Valley, the Bangkok Metropolitan Area, and the conurbation of jakarta-Bogor-Tangalang-Bekasi. This pattern of development in Southeast Asia is demonstrated by the high growth rates of the major city (except in Malaysia, where primacy is irrelevant), in contrast to the more industrialized East Asian countries of Japan and South Korea.

The second major trend in Asian regional development is propulsive development in which the quasi-agglomeration economies produce urban responses and trowth of the lower-order centers (Taylor 1981). These towns perform essentially central place functions and their economies are based either on resource frontier development or Green Revolution activities. Resource frontier development usually involves the exploitation of resources, such as oil in Trengganu and North Sumatra, oil and gas in East Malaysia, and timber in East Kalimantan. In some cases the multiplier effects are leaked out, often to the regional center – for example, Singapore – and this for excample reinforces its regional and international role.

Meanwhile, the immigration and importation of workers into these resource exploitation regions is a form of population redistribution that not only increases the total population in grontier areas but also makes it overwhelmingly male. Other examples of propulsive regional development are Green Revolution areas such as the Punjab (Bose 1982) and major agricultural development regions, such as the FELDA schemes of Malaysia, the latter typifying regional development authorities (Salih and Lo 1975). These regions are causing structural shifts in Asian economies' capital formation and patters of labour absorption, especially for off-farm employment and the formal sector. Another effect of propulsive regional development is thegrowth of lower-order centers around metropolitan regions.

This brings the issue to the third major trend in Asian regional development, the growth of lower-order centers that I initiated by development not just from above, but mainly from elow. The bottom-up strategy, in contrast to the top-

down strategy, marks a new era in regional development (Friedmann and Weaver 1979:186-211; Lo and Salih 1981: Stohr and Taylor 1981).

The emphasis is now on rural industrialization and infrastructural development leading ultimately to Friedman and Douglass's (1978) idyllic vision of cities-in-the-fields or agropolitan development. This change to a local-level development and to smaller-scale, more labour-intensive industries has contributed to the importance of off-farm employment to family income and has certainly restrained potential rural-to-urban migration in the short run. Such aspects of this type of regional development as attention to basic needs, self-reliance, and people's participation to varying degrees are evident in many of the Malaysian rural development authorities' policies. The point to stress here, however, is that these patterns reflect not only economic structural changes within subnational, national, and international economies, but also independent spatial strategies.

6.12 CONCLUSION

Much has been said about the one-to-one relationship between national development and in-migration. Relationship by direct, though limited, statistical evidence of Asia were shown. Causal interconnections at the national level reflect not only international linkages, but also structural changes that are occurring in the countries themselves. Analysis has led to several propositions about Asian in-migration and its relationship to structural shifts during the last two decades of national development. The same scenario could be applied to the province under investigation.

Asian in-migration is low in comparison with the rest of the world, and rural-to-urban migration has as yet contributed little to it or to population redistribution in general. In-migration in Asia, particularly in densely populated South Asia and still unurbanised countries of Southeast Asia, is yet to come.

The particular experience of in-migration has varied among Asian countries over the last two decades, depending on the nature and speed of structural shifts in each economy. The estimates of the world avarage by chenery and Syrquin (1975) have helped to interpret the various Asian situations.

In-migration and population redistribution in Asian countries, which vary among the regional types above, are a consequence of disparities in development. In-migration and population redistribution result not merely from disparities in development between the urban-industrial sector and the rural-primary sector, which, as we have seen in the analysis of relative labour productivity, have been diverging in most Asian countries over the past two devades.   This divergence has been the product of capital-intensive industrialisation in the relatively underdeveloped Asian economies, which has generated limited labour-absorptive capacity in the industrial sector.

Although the gap between the industrial sector and other sectors has grown, massive in-migration does not seem to be the cause. The case of poorer South Asian economies, however, is different because the urban industrial sector is still very small in those countries, the absorption of excessive rural-to-urban migration, in absolute numbers if not in relative terms, tends to quickly reach a limit defined by the saturation of the urban labour market even in the urban informal sector. A process of income equilisation then sets in between urban and rural areas, in some cases inducing the return of migrants to their source areas. This has been the case in Bangladesh and India, and in parts of Java.

In conclusion, it can be said that in-migration is a consequence of industrial development. A high level of in-migration can be expected only when an economy has experienced a major shif in its industrial structure Gauteng province is no exception. The contributions of industrial and nonfarm sources to rural towns are included in the calculation. The experiences of Taiwan and Japan suggest that rural industrialisaton and off-farm employment will be critical to the solution of rural problems in the rest of Asia, particuarly the low income countries, and this will have important implication for the in-migration process.

Projections of in-migration levels and the urban populations merely extrapolate recent trends. These trends, however, are sometimes subject to substantial changes as economic condition change.

Economic development draws labour out of agriculture and into the manufacturing and service sectors. Increases in labour productivity tend to make labour demand in the secondary and tertiary sectors higher than in agriculture. Increases in income levels alter the composition of demand in favour of nonagricultural goods. Economic models, including recent computable general equilibrium models, have ateempted to estimate the imprtance of these factors. Because future demographic and economic trends in the Pacific Asia region are difficult to predict, in-mgration, a concomitant of these trends, is projected with difficulty.

South Africa, especially Gauteng province should copy the good examples from Asian countries by conforming with the World urban average, by the utilisation of industrialisation and level of development directed toward neglected areas such as rural areas. There should be an acceleration of national urban growth rates which have to be converged towards an world acceptable 4 to 5 percent level per annum. The Gauteng province situation concerning in-migration should be driven towards stability. South African in-migration levels should be kept low particularly in Gauteng region with its smallest area of land. The industrial strategy should be well managed and changed to make it as impressive as Thailand and Malaysia. The levels of in-migration in Gauteng should be low by global standards as it also applies to places such as Japan, Taiwan and South Korea (Info: 122. 6.2).

Gauteng economic development should in the coming millenium be able to shift from overurbanised situation toward the world norm. Levels of in-migration in Gauteng should be kept low by having proper control of the movement of people and by decreasing both illiteracy and birth control. The pace of in-migration in Gauteng should decline by having centrally planned control systems which work harmoniously with all levels of government, starting from local to national government. Controlled in-migration should not

only be promoted in Gauteng but to other provinces within the South African Government.

The areas which needs accelerated population growth rate should be given a chance of increasing their numbers and this could only be achieved if the South African government could shift most of the resources to those areas which are less populated, this will encourage a decline in heavily concentrated areas such as Gauteng area of land (1.4%) and people will willingly move toward Northern Cape (29.7%) with the biggest area of arid land with sparce population. The important reason with the suggestion is to encourage equal distribution and sizable urban population like in Asia (Infra:6.2).

The low levels of in-migration experienced in Asia should motivate South Africa to encourage its systems to implement policies which will encourage high rural growth rates rather than from failure of cities to reach substantial sizes. As a result even if migration contributes a fraction to such growth, such migration carries major responsibility high growth rates of urban places. Moreover, this contribution to total growth is compounded by the fact that some of the natural increase occuring in the urban location is attributable to the fertility of the migrants themselves.

South Africa should learn from countries which are experiencing population explosion such as East Asia which was in 1980 one of the poorest and most densely population countries with 71% in-migrants. Since then its population has more than doubled, landlessness has risen, and real wages have fallen. Yet areas such as Bangladesh continues to have a very low urban percentage of 10%. The prospect of labour absorption in agriculture is an important issue. Expansion of cultivated areas should be made possible in many parts of Gauteng Labour demand will be determined largely by multiple cropping, government-sponsored irrigation and other development schemes, the use of labour-saving technology and mechanisation, land tenure systems and the concentration of holdings, biological and chemical innovations. The pace of in-migration should decline like centrally planned Asia which experiences low levels of in-migration (Infra:123).

South Africa, especially Gauteng province should learn from the experiences of other countries such as Taiwan and Japan with the former having continued growth until recently of the agricultural labour force which tended to obviate the need for labour-saving technology and the latter's agricultural technology, in contrast, has been labour saving.

From this chapter it will be clear that a tremendous effort will have to be made to accommodate the future population of Gauteng province because it will directly affect in-migration process of the whole country. The economic consequences of the present strategy in Gauteng, their agents and other institutions involved seem not to focus on this problem of in-migration at large, but rather to focus on for example housing problems in the officially proclaimed towns only, where much capital, energy and work will required to accommodate the refugees, and the inhabitants of proclaimed townships.

The present policy of developing many smaller urban places should be replaced by a co-ordinated in-migration strategy, concentrating on the development of some rural areas and a few selected smaller towns. Such a policy will provide South Africa with a framework for the development of an in-migration structure which will be capable of absorbing the projected in-migration explosion.

The implementation of a policy directed at the promotion of healthy urban development in Gauteng will need political commitment and adoption of an population programme to bring the existing high population growth rate into line with he economic capacity of the country, region, because of the interdependence of different regions. This will require the development of an in-migration strategy which will have to be linked to a national in-migration strategy for South Africa.

South Africa, in a similar way to other developing countries, is experiencing rapid in-migration, resulting in the growth of slums and squatter settlements where people live under appalling conditions of poverty and deprivation. The

opposite is experienced in centrally planned Asia, because Ledent (1982) states that at high level of in-migration, the pool of potential migrants to urban areas declines as a proportion of the total population, and the pace of in-migration declines.   In South Africa people in above mentioned settlements live in substandard housing with inadequate water supply, sanitation and other basic necessities.   Associated with this lack of services is an increase in disease and ill-health of these growing peri-urban environments.

The most widely observed and acutely felt urban problem in developing countries is the large number of the poor and unemployed people in the cities. These countries account for tow-thirds of the total (world) population and well over three-fourths of the population living in poverty.   It is forecast that by the end of the 20th century, the urban poor may represent a quarter of humanity (Harpham: Lusty & Vaugham, 1988).

The actual projected populations of the largest Asian urban agglomeration should guide Gauteng province not to have the same experience like cities such as Calcutta, Seqoul, Karachi, New Delhi and Dacca.   Cities such as Johannesburg should follow the gradual population increase such as those experienced by cities like Shanghai and Tianjin (Infra: 127:6.4).

CHAPTER 7

IN-MIGRATION THEORIES AND MODELS

7.1 INTRODUCTION

This chapter discusses a number of in-migration theories. These theories fall into two broad categories. The first category comprises theories which analyse the forces determining the nature, scope and direction of in-migration. Ravenstein's laws of in-migration and Lee's theory of in-migration are specifically dealt with. The second category comprises theories which analyse in-migration as an equilibrating or disequilibrating process in changing economy. The following theories are discussed: The dual economy model of development; Sjaastad's human investment theory; Todaro's model of rural-urban in-migration; the radical or dependency theory and its computer models which are used to analyse and determine in-migration. The model of Kelley and Williamson is outlined as an example.

7.2 RELATIONSHIP BETWEEN MIGRATION AND URBANIZATION.

An increase in the urban population, as a whole, can be the result of natural population growth, a redefinition of geographical boundaries, or of rural-urban in-migration. Increased in-migration is the process that follows when these causal factors lead to an increasing percentage of the total population taking up residence in urban areas. The high rates of urban growth currently experienced, especially in developing countries such as South Africa, are attributable only in part to rural-urban in-migration. According to World Bank (1984:97) estimates, rural-urban in-migration on average accounts for only one-quarter to one-third of the increase in the urban populations of most developing countries, and South Africa is no exception. Natural population increase accounts for about 60 per cent of the urban population growth in both developed and developing countries, while approximately 8 to 15 cent may be attributed to the reclassification of rural areas to urban status. In a

study of 26 large cities in 20 developing countries between 1960 and 1970 the United Nations Population Division (1985c) found that 37 per cent of urban population growth was due to in-migration and 63 per cent to natural increase, and the latter implies high fertility rate.

Migration is the primary term used to describe a rural to an urban change in an individual's or group's place of residence. However in-migration is a term used to describe a similar process. It is used to describe the phenomenon whereby population growth leads to an increasing percentage of the total population taking up residence in urban areas. Since it is generally accepted that the natural population growth rate (births minus deaths) is higher in rural areas than in urban areas, this would lead to a decrease in in-migration, all other things being equal. If no rural-urban migration takes place the in-migration rate will therefore decrease because of the rural population's higher natural increase relative to urban areas. The main contributor to in-migration is therefore rural-urban migration.

The above estimates of the World Bank refer to absolute increases in the urban population. This should not be confused with urbanisation which is the process whereby an increasing percentage of the total population takes up residence in urban areas. Although it is accepted that migration an in-migration are not 100 per cent the same thing, this thesis concentrates mainly on rural-urban migration. Thus, differences in the natural population increase between rural and urban areas and the redefinition of geographical boundaries, are not explicitly considered. For this reason the term migration is assumed to be tantamount to the term in-migration resulting from rural-urban migration, unless stated otherwise. These terms are used interchangeably in this thesis to describe the process of rural-urban movement of people. Although intra-urban migration is also analysed it does not contribute to new in-migration, but only to changes in the character and distribution pattern of existing in-migration.

In South Africa the term migration is often used for workers who temporarily take up residence near the place of their work, that is migratory labour. In this

thesis the term in-migration is used to mean the difference between permanent immigration an emigration.

7.3   THEORIES OF IN-MIGRATION

There is no generally agreed definition of a migrant, or of in-migration. Neither has a definition yet been agreed upon that is independent of the measurement process.   The phenomenon of territorial human mobility is usually referred to as in-migration.   In this sense the term embraces four elements, namely space, residence, time and activity changes (Oberai, 1988:17-18).   An understanding of the process of human or population mobility (in-migration) may be hindered by the tendency to condense, collapse or even ignore important distinctions in each or any of the four elements. Thus, an inherently heterogeneous process is sometimes treated as a homogeneous one by calling all processes pertaining to one or more of these variables of in-migration (Bilsborrow, Oberai & Standing, 1984:32).   This is often inevitable as in-migration essentially means the movement of people from one location to another, that is one region to another.

In-migration theories may be divided into two broad categories namely those which analyse the forces determining the nature, scope and direction of migration, and those which analyse in-migration as an equilibrating or disequilibrating force in a changing Political, Socio-cultural and economy (Truu, 1971:170).

7.3.1 Theories which analyse the forces determining the nature an scope of in-migration.

The first application of the gravity concept to social phenomena, developed as an analogy to Newtonian physics of matter, has been attributed to H.C. Carey towards the middle of the 19th century (Isard, 1966:499).   Theoretical explanations of rural-urban migration have a long history, dating from at least the 1880's when Ravenstein (1885 and 1889) first proposed his laws of migration.

7.3.1.1 Ravenstein's laws of in-migration

Ravenstein's laws of in-migration may be summarised as follows:

a. The number of migrants between a place of origin and a place of destination is inversely proportional to the distance between the two places;

b. In-migration is a diffused process which advances in stages from remote rural districts to the great centres of commerce and industry, until it affects all regions within a country;

c. Each mainstream of in-migration produces a compensating counterstream;

d. The residents of urban areas are less prone to in-migration than those of rural areas;

e. Over relatively short distances, females migrate more often than males;

f. Technological progress serves to increase the volume of in-migration; and

g. Migrants are primarily motivated by economic factors.

Most subsequent in-migration models tend to be modifications or elaborations of Ravenstein's laws. However, they do not adequately allow for the selectiveness of in-migration, which is implied in laws d and e above.

Ravenstein's macro laws are usually expressed in the following general mathematical form (Isard, 1966:68):

M_{ij} = P_j divided by d_{ij} multiplied by $f(z_i)$ where,

M_{ij} = volume of migration to destination I from origin j;

F (zi) = some function of zi which measures the attractive force of destination I;

Pj = population at origin j; and

Dij = distance between destination I and origin j.

The emphasis placed on the basic elements in the above formulation by different migration models, varies. For example, Zipf's well-known p^1p^2 divided by D hypothesis may be regarded as a general statement of the principle of least effort in human behaviour (Zipf, 1949:386-409; Heide, 1963:56-76). The hypothesis states that the volume of in-migration between two places is directly proportional to the product of the populations of those places, and inversely proportional to the distance between them (Truu 1971:171). The attraction of a given place of destination, relative to those at a place of origin, becomes reduced as the ratio of opportunities at intervening places to opportunities at the place of destination, increases. Stouffer (1940:846) postulates that the number of persons going a given distance is directly proportional to the number of opportunities at that distance and inversely proportional to the number of intervening opportunities. Stouffer not only concentrates on Ravenstein's second rather than first law, but also suggests that the gravity of a region should be represented by a variable denoting opportunity rather than the size of its population.

A disadvantage common to any gravity model is that it tends to be descriptive rather than analytical in its content. Obvious difficulties remain in the identification, qualification and weighting of the relative variables. This is especially true with regard to the forces of attraction and repulsion at places of destination and origin, as well as at intervening places (Truu, 1971:171). Information is not only the necessary condition for migration to take place at all, but the information problem as such has a number of ramifications pertaining to the decision to migrate.

Based on Ravenstein's laws, Lee (1969) developed a general scheme into which a variety of spatial movements can be placed.

7.3.1.2 Lee's theory of in-migration

Lee divides the forces exerting an influence on migrant perceptions into so-called push and pull factors. He divides the theory of in-migration into the following four related parts (Lee, 1969:283; Truu, 1971:172-174).

7.3.1.2.1 Factors which influence the decision to migrate

These are factors which either attract or repel migrants and which create regional interaction or cause friction. They consist of a mix of positive and negative factors at both the place of origin and the place of destination and include a set of intervening obstacles. In general, a person is motivated into migrating when he believes that the balance of positive factors at the place of destination exceeds the sum of the balance of positive factors at the place of origin, the intervening obstacles and the weight of normal human inertia. In-migration can also be caused by certain crucial events in an individual's lifecycle, which may be largely independent of Pull-Push considerations, for example attaining adulthood, joining the labour force, retirement, and so on.

A rural push in general may result from any, or a combination, of the following factors: population growth outstripping the carrying capacity of the land in the subsistence sector of the economy; mechanisation in commercial agriculture; the alienation of land; measures such as taxes or fines imposed, which force the households of subsistence farmers to engage in wage labour to earn the required cash; the extension of modern, urban-based education; cultural values and consumption patterns in the rural areas (Dewar, et al., 1982:9; cf. Beier, et al., 1975:1-2; cf. Sandbrook, 1982:50-52; cf. Mazumdar, 1987:1100). All these, as well as the migration flow itself, are facilitated by the expansion of transport and communication links between the urban and rural areas.

In general, urban pull factors may include the increasing demand in urban areas for labour which keeps urban wages above subsistence levels of income; unionisation which enforces high wages; the concentration of

services and the greater social opportunities and freedom offered in urban areas (Dewar, et al., 1982:9). As migration and urbanisation proceed, the presence of family or friends in an urban area is an important factor in the decision to migrate. Established contacts and informal information networks become increasingly important in obtaining urban employment (Sandbrook, 1982:44-45. cf. Gilbert & Gugler, 1983:77-80).

Mazumdar (1987:1105) criticises Lee and states that step-wise migration is likely to be the prevalent pattern if there is a well-developed hierarchy in terms of the size of urban centres. When large principal or dominant cities play a significant role in the distribution of the urban population, short-distance in-migration may not be the dominant form of rural-urban movement. Large cities may develop their individual catchment areas from which migrants are drawn. These are not necessarily concentrically distributed in terms of distance.

7.3.1.2.2 *Factors which determine the volume of in-migration*

These factors are largely determined by the power of the factors set out under the previous point. Intensified specialisation and growing economic diversification tend to raise the general propensity to migrate. Moreover, a high degree of social and occupational mobility increases the force of attraction of specific regions. Industrialisation and continued economic progress therefore promote in-migration. Uneven rates of economic progress within a country tend to entrench and magnify the factors of attraction and repulsion in different localities. The passage of time itself, if accompanied by technological improvements and the spread of information, will encourage in-migration. In-migration tends to become a cumulative process, the volume of further in-migration being a function of the degree of movement already reached.

7.3.1.2.3 Streams and counterstreams of in-migration

These streams are developed where people proceed along well-defined routes towards specific destinations. The flow of information from the place of destination back to the place of origin induces more migrants to join the stream. A counterstream may come about for various reasons. For instance, the positive factors at the place of destination may disappear or lose some of their power of attraction. Migrants may also become aware of untapped opportunities at their place of origin and return to exploit these with their newly acquired skills. The efficiency of a in-migration stream is defined by Lee (1969:292) as the ratio of stream to counterstream, that is, the net redistribution of population effected by the opposite streams. Efficiency tends to be high if negative factors at the place of origin are primarily responsible for the development of the stream, if the intervening obstacles are great, and/or when general economic conditions are good. Efficiency tends to be low if the places of origin and destination are similar and/or when economic conditions are depressed (Truu, 1971:173). Any of these factors could apply and they may be influenced by each other.

7.3.1.2.4 Selectiveness of the in-migration process

Different individuals react differently to positive and negative factors at the places of origin and destination. People also have different abilities in overcoming the intervening obstacles. In consequence, in-migration is inevitably a selective process. Migrants who respond primarily to the positive factors at the place of destination are positively selected. Those who respond primarily to the negative factors at the place of origin are negatively selected. The degree of positive selection tends to increase with the increase in difficulty of the intervening obstacles. The concurrence of certain life-cycle events and the act of migration makes migration an age-selective process (Truu, 1971:173-174). Moreover, the characteristics of migrant in general tend to be a blend of those of the populations at the places of destination and origin.

Lee's approach is not so much a theory as a conceptual framework for classifying factors in taking in-migration decisions (Oberai, 1988:38). Gravity models do not readily lend themselves to empirical testing as far as the motivational elements are concerned (Kok, 1990:15). Furthermore, any predictions resulting from such models tend to presuppose a degree of regularity that is normally not encountered in human behaviour. As such they are prompted by many forces and it is impossible to reduce the variety of forces in operation to a simple analytical model (Lachmann, 1970:5). Attempts to represent in-migration merely as a response to a finite number of seemingly relevant causes therefore invariably mask the real complexities of genuine human action and social behaviour (Truu, 1971:177).

7.3.2 *Theories which analyse in-migration as an equilibrating or disequilibrating process in a changing economy*

The dichotomy which prevails between the Classical and Keynesian viewpoints in Economics in general, is also found in the theory of migration as an interregional process (Truu, 1971:174). The Classical approach suggests that interregional deviation in real personal income levels tends to be self-correcting in consequence of the migration of labour and capital which they engender. The Keynesian approach again suggests that such deviations will be amplified by labour and capital migration. Converging regional income patterns would also tend to bring different regions into greater conformity in terms of general economic performance, while diverging income patterns would act to increase the economic inequality between regions.

The original Neo-classical models of rural urban in-migration are premised on the assumption that the migration process helps to establish spatial equilibrium in the earnings of the factors of production. In-migration thus occurs from low income (rural) areas to high income (urban) areas (Thompson & Coetzee, 1987:32). Moreover, the individual migrant is motivated by both push and pull factors.

The following statement by Ohlin (1967:116) may be regarded as a fairly representative classical viewpoint: As factors move from regions where their prices are relatively low to regions where they are dear, their scarcity and therefore their rewards in the former are increased, whereas their prices in the latter fall, unless there is at the same time some counteracting tendency. Interregional mobility tends to make prices more uniform in the regions concerned. The belief in ultimate regional convergence appears to be deeply ingrained in the classical viewpoint.

The Keynesian viewpoint, however, leads to a theory of regional divergence, rather than convergence. In Keynesian dynamics, the price (wage) adjustments brought about by the respective labour markets are too slow to compensate for the interregional differences in real income (or employment) which tend to become cumulative with the passage of time (Truu, 1971:175). Consequently there is no tendency towards an interregional equalisation of real wage levels. On the contrary, initial regional imbalances tend to become greater in the course of time.

The difference between the Classical (equilibrating) and Keynesian (disequilibrating) theories is due to the assumptions made about the adjustment behaviour of the two systems. In the short term, the Classical system adjusts to changes in money expenditures by means of price-level movements while the Keynesian system adjusts primarily by way of real income movements (Leijonhufvud, 1968:51).

As with gravity models, the Classical and Keynisian theories are also liable to provide an inadequate prognosis of human migration. Although economic factors may often predominate, they do not necessarily represent the only reason why people migrate (Kuroda, 1965:506). The economic causes of migration are themselves deeply embedded in a more general social environment. The economic models appear to have limited value in evaluating questions about economic causes and effects of in-migration (Kind, 1969:77). Moreover, the causes of in-migration patterns are more complex than, and not necessarily related to, employment.

7.3.2.1 The dual economy model of rural-urban development

The economic model of development devised by Lewis (1954) and later extended by Fei and Ranis (1961), was the first to include, as an integral element, the process of rural-urban labour transfer. The model is based on the concept of a dual economy. This comprises a traditional rural subsistence sector characterised by zero marginal labour productivity and underemployment and a modern urban industrial sector with high employment. Labour from the subsistence sector is gradually transferred to the urban sector (Todaro, 1989:69-73). Oberai (1988:38) considers in-migration as an equilibrating mechanism in this model. Wage equality in the two sectors is eventually brought about through the transfer of labour from the labour surplus to the labour deficit sector.

In terms of this model the marginal productivity of labour is either zero or very low in the subsistence sector. Moreover, wage rates exceed marginal products and workers are paid wages equal to their cost of subsistence. By contrast, wages in the modern urban sector are much higher because of higher productivity and/or labour union pressures. The difference in wage rates leads to migration from the subsistence to the industrial sector. Increased industrial production and profit which are reinvested in the industrial sector lead to further demand for labour from the subsistence sector. This process continues as long as surplus labour exists in the rural areas (Oberai, 1988:38). This may also continue while the population growth rate in the rural sector either exceeds or equals the rate of labour out-migration.

The dual economy model has a number of limitations. Firstly, in-migration is not induced solely by low wages and underemployment in rural areas. Secondly, the assumption of near-zero marginal productivity and surplus labour in agriculture has been widely criticised on empirical grounds. Thirdly, the model assumes a high expansion rate of employment opportunities through continuous investment of rural human capital surplus in the urban sector. In the modern industrial sector of developing countries, the

employment growth rate has generally not been sufficient to absorb the increasing labour supply resulting from both natural population increases in the urban sector and from net rural-urban in-migration. In-migration has instead caused a shift of underemployment from the rural to the urban sector (Oberai, 1988:39). Nevertheless, the analytical value of the model is that it emphasises the structural and economic differences between the rural and the urban sectors, as well as the central importance of the process of labour transfer between them (Todaro, 1989:275).

The postulated tendency towards regional disequilibrium in a changing economy was raised by Gunnar Myrdal (1963:6), to the status of a general principle of Circular Causation. This had positive spread-effects in prosperous and negative backwash-effects in backward regions. The combined result is to increase regional imbalances and inequalities which are regarded to be of a greater order in the developing than in the developed countries. Once spatial competition gives one area an advantage over another, an accumulative process of mutual interaction sets in whereby a change in the one factor will continuously be supported by the reaction of the other factor. Even if the original push or pull factors were to cease after some time, both factors will be permanently changed (Mabogunje, 1980:59). The process of interacting changes seems to continue without any sign of neutralisation.

Myrdal (1956:49) sees a circular cumulative causation in both ways between the relative lack of national economic integration and relative economic backwardness. A low level of economic development is followed by low levels of social mobility, communications, education and national sharing in beliefs and values. This implies greater impediments to the spread-effects of expansionary momentum for developing communities (Meier, 1989:385). For much the same reasons internal inequalities in the level of in-migration prevail in developing countries such as South Africa.

7.3.2.2   Sjaastad's human investment theory

Sjaastad (1962) advanced a theory of migration in which he sees the decision to migrate as an investment decision involving an individual's expected costs and returns over time.   During resource allocation the market mechanism creates external costs and benefits which prevent the spontaneous attainment of a general equilibrium (Truu, 1971:176).   Costs and returns comprise both monetary and non-monetary components, the latter including changes in psychic benefits as a result of location preferences.   Monetary costs include transportation, disposal of property, wages foregone while in transit, and any form of training for a new job.   Psychic costs include leaving one's familiar surrounding, adopting new dietary habits and social customs, and so on (Oberai, 1988:39).   Since these returns and costs are difficult to measure, empirical tests in general have been limited to income variables.   Sjaastad's approach assumes that people desire to maximise their net real incomes during their economically productive period.   It further assumes that they can at least compute their lifetime income streams in the present place of residence as well as in all future destinations (Oberai, 1988:39).

7.3.2.3   Todaro's model of rural-urban migration

Todaro (1989:278-280) suggests that the decision to migrate is stimulated primarily by rational economic considerations of relative benefits and costs. In-migration proceeds in response to urban-rural differences in expected rather than actual earnings.   This includes a perception by the potential migrant of an expected stream of income which depends both on prevailing urban wages and on a subjective estimate of the probability of obtaining employment in the modern urban sector, which is assumed to be based on the urban unemployment rate (Mazumdar, 1987:1100).   Todaro's model is basically an extension of the human capital approach of Sjaastad (Oberai, 1988:39).

The simple economic theory of supply and demand should lead to a reduction in wage differentials, both in areas of emigration and in points of immigration. However, such an analysis is not realistic within the institutional and economic framework of most developing nations. Todaro (1989:280) argues that developing countries face significant unemployment with the result that a typical migrant cannot expect immediately to secure a highly paid job. In making his decision to migrate, the individual must balance the probabilities and risks of being unemployed or underemployed for a considerable period of time, against the positive urban-rural real income differential.

In-migration rates exceeding the growth of urban job opportunities are not only possible bur also rational and probable in the face of expected large positive urban-rural income differentials. High levels of rural-urban migration can continue even when urban unemployment rates are high and known to the potential migrants (Oberai, 1988:40). The Todaro approach therefore offers a possible explanation of a common paradox. Moreover, rural-urban migration acts as an equilibrating force which equates rural and urban expected incomes in Todaro' model.

Oberai (1988:400) argues that a major weakness of the Todaro model is its assumption that potential migrants are homogeneous in respect of skills and attitudes and have sufficient information to work out the probability of finding a job in the urban modern sector. Both the Todaro and the human investment models do not consider non-economic factors and abstract from the structural aspects of the economy. An analysis of the macro-economic and institutional factors that generate rural-urban differentials is also required. For example, a distinction needs to be made between socio-economic structural factors and the specific mechanisms, such as unemployment and wage differentials, through which the structural factors operate. Todaro's model analyses migration theory at the micro level by focusing on the individual as a decision-making unit (Theron & Graaff, 1987:34).

7.3.2.4 The Harris-Todaro model

The basic Todaro model and its extensions by Harris consider the urban labour force to be distributed between a relatively small modern sector and a larger traditional sector (Harris & Todaro, 1970:127). Wage rates in the traditional sector are determines competitively and considered not to be subject to the non-market forces, such as trade unions, that serve to maintain high wages in the modern sector. Wages in the traditional sector are therefore substantially lower than those in the modern sector. The higher wages in the urban formal sector cause people to migrate from the rural areas. Most urban in-migrants are assumed to be absorbed by the traditional or informal sector of the economy while they seek employment in the modern sector (Oberai, 1988:40).

Thompson and Coetzee (1988:35) criticise the Harris-Todaro model on a number of grounds including the role it assigns to the informal sector, its neglect of the importance of family and other networks in urban areas, and its overemphasis on "pull" factors. Initially the model also failed to take into account the employment opportunities available in the urban informal sector. Moreover, both the Todaro and the Harris-Todaro models focus on the motivational factors of the individual migrant, and have as such been criticised from a neo-Marxist perspective (Thompson & Coetzee, 1987:32).

7.3.2.5 Radical or dependency theory

The neo-Marxist school has not developed alternative models, but views the process of in-migration as explicable only within the specific social, political and economic context within which it occurs (Dewar, et al., 1982:12). Radical writers do not develop theories to predict migration (infra f below). They concentrate rather on analysing and criticising the development of rural-urban migration within its politico-economic context. The essence of their views can be deduced from their criticism of the neo-classical explanations of in-migration.

According to dependency theorists the two economic sectors, that is, the industrial-monetary and traditional-subsistence sectors, are not independent but closely intertwined. The modern sector forcefully imposes its demands on the subsistence sector, keeping it in a position of functional underdevelopment (Dewar, et al., 1982:13). The subsistence sectors differ sharply from their respective modern sectors in respect of income levels, quality of life, social values, technological achievement and political power. They serve only to supply cheap labour, raw materials and a reserve army of labour to the modern sector. The highly modernized sector of developing countries has far closer links with developed countries than with their own subsistence sectors (Theron & Graaff, 1987:10).

The issue which divides the two theoretical streams is inequality. This includes inequality of access to material and non-material scarce resources at both international and national levels, and in both spatial and intergroup dimensions (Theron & Graaff, 1987:1). Radical or dependency theorists analyse economic concepts mainly at the macro level and reject prices and wages in the market or push and pull variables as explanatory factors (Theron & Graaff, 1987:15). The framework in which these factors operate is itself structured by political class struggles.

Neo-classical or modernization theories predict that a country's developing process will take it to a situation of relative equality in the distribution of income and wealth following a period of inequality. The radical theory of in-migration, by contrast, foresees that inequality will be maintained or will increase over time (Theron & Graaff, 1987:1). The radical writers maintain that persistent inequality is necessary for the growth of a capitalist economy.

According to radical theorists the neo-Classical approach to in-migration is based on the following six basic premises, all of which are questioned by them (Theron & Greeff, 1987:2-3):

a. In-migration is a rational response to prevailing political, cultural and socio-economic conditions. This implies a parallel assumption that reasonable knowledge of alternative conditions exists;

b. Political, cultural and Socio-economic development follows a more or less inevitable path or progression and the broad features of the progression repeat themselves internationally;

c. A dualistic process of development occurs within any developing country;

d. The direction of the progression or path of development is towards equilibrium in the price of factors of production and in living standards;

e. In-migration is consequently a self-correcting or self-balancing process; and

f. Theories may be developed to predict levels and rates of in-migration.

The mainstream radical theorists start with a critique or the Rostovian and dual economy assumptions listed under points b and c above. Dependency theorists view developing countries as a mirror image, rather than a parallel, of development in the older industrialized countries. The needs of capital accumulation in developed economies are imposed on developing countries and actively serve to underdeveloped them (Theron & Graaff, 1987:10). Moreover, they emphasize the surplus drain from the periphery or poor countries to the centre or rich countries (Todaro, 1989:104). Likewise, the surplus drain applies within countries from developing to developed communities.

The radical thinking can be criticized mainly on the assumption of universal applicability of political policy and on the overemphasis of economic factors. Radical writers assume that the parts of a social system are useful to the whole, irrespective of either time or place. Thus, they develop a political

policy based mainly on Marxian theory which they apply to arrive at their political, social, economic and in-migration policies. Due to the poverty and large unemployment rate in most developing countries, a strong economic growth rate with the emphasis on equal opportunities for all people may be more efficient (Mears, 1988:54). This is the Classical view, in contrast to the Marxian view of social and economic equality. In terms of the radical perspective, migrant labour is seen to have been useful to various capitalist sectors over considerable periods of time in South African history. However, circulating migration (infra 4.7 below), is not the same as migration as these people did not have a free choice of location. Radical writers see state policy merely as the outcome of the dominant alliance of ruling class interests. As Yudelman (1983) argues, this excludes the possibility of any independent influence by the state where policy might be based on political rather than economic considerations (Theron & Graaff, 1987:14-15). From an opposing point of view the aim of the migrant labour system in South Africa may have been to deny migrants access to political rights in the modern sector rather than to ensure cheap labour. Therefore, economic factors were not the only considerations of the migrant labour system, other factors such as political, social, economic and others played an important part.

7.3.2.6   *Computer models to determine in-migration*

Many computer models exist whereby in-migration can be estimated or predicted. One such computable general equilibrium model was developed by Kelley and Williamson (1980, 1982, 1984 and 1987:33). A distinctive feature of the model is that it can analyse the past and the present as well as predict the future growth of cities in the developing world. The model is in the neo-Classical general equilibrium tradition.

The model provides for eight sectors distinguishing between tradable goods and non-tradable goods or services. This is not the first multi-sectoral model to recognize non-tradables, but it is the first spatial development model to emphasize the importance of non-tradables (housing and services) as an

influence on spatial cost-of-living differentials, on in-migration behaviour, and thus on the urban growth rate (Kelley & Williamson, 1987:33).

Furthermore, the model is savings-driven with the aggregate savings pool generated endogenously from three sources. They are retained after-tax corporate and enterprise profits, government savings and household savings. This savings pool is allocated competitively and endogenously to three uses, namely, investment in physical capital (productive investment), investment in human capital (training), and investment in housing (unproductive investment). Some exogenous variables have helped to drive the economy over time and are alleged to have influenced city growth. These variables include the nominal value of foreign capital and aid available each year to help finance the development effort and forestall balance of payments problems; the total unskilled labour force as determined by earlier demographic events; the sectoral rates of change in total factor productivity, which favour modern sectors and are labour saving; prices of imported raw materials and fuels; and the terms of trade between primary exportables and manufactured importables, which are distorted by domestic price policy and the political economy of protectionist and liberal industrial nations (Kelley & Williamson, 1987:35).

From the approximately one hundred endogenous variables used by the Kelley & Williamson (1987:37) model, in-migration city growth and rural-urban migration are the most important. The urban population, city growth rates, net rural out-migration rates, and net urban in-migration rates are the four key aspects of urban development used. Urban land use and density, land and housing scarcity and cost-of-living differentials are other urban indicators generated by the model. In addition to land scarcity, excess demand for housing units in the short-term and rising costs of housing construction the long-term and rising costs of housing construction in the long-term may inflate the cost of city life.

According to the model the major determinants of urban growth can be divided into three parts: The size of the past and future changes in the

exogenous variable (in-migration) and its influence on endogenous rates of urban growth; the short-term comparative static impact of that exogenous variable; and the long-term forces set in motion by the short-term comparative static impact (Kelley & Williamson, 1987:38). To understand urban growth, the short-term comparative static elasticities and the impact on urban growth of some key macro-economic events, such as the oil price increase, are also explored.

The short-term elasticities of unbalanced productivity, world market conditions and price policy, investment, demographic change, and land scarcity, reflect the full general equilibrium impact of the exogenous variables in question, based on the initial conditions in the economy. Labour markets adjust through in-migration while urban land markets are severely constrained in the short-term analysis because old capital cannot migrate and new capital goods and newly trained skilled workers are not added to capacity (Kelley & Williamson, 1987:38). Investment responses are also ignored in the short-term analysis. It is thus assumed that recent historical experience with sectoral investment allocation will guide entrepreneurs who are slow to adjust to the new, unexpected and shock-distorted rates of return. From the above explanation it is noted that this is a comprehensive and complicated model.

A long-run general equilibrium model such as that of Kelley and Williamson cannot be expected to account adequately for the short-term trends that developing countries have undergone since 1979. The model predicted that exogenous economic and demographic conditions would have a powerful impact on in-migration in developing countries during the 1970's. The model indicated that rapid population growth rates are not the central influence behind rapid urban growth in developing countries. Capital transfers to developing countries and rural land scarcity have also played a relatively modest role. The most potent influence of urban growth appears to have been the rate and imbalance of sectoral productivity advances. Technological progress and prices which have favoured the urban modern sectors contributed most to city growth. Thus, Kelley and Williamson (1987:43) predict that trade policy in the industrial countries and price policy in

developing countries are likely to have the most important impact on city growth in the next two decades.

Virtually all economic theory, as well as the above model, has been developed with the concept of equilibrium at its core. Movements or changes in any variable are viewed as returns to equilibrium following some exogenous change. It is very difficult to break out of this method of comparative statics to the kind of theory needed to explain the continuity of successive rises and falls in economic activity resulting in cyclical behaviour (Dauten & Valentine, 1978:95). Moreover, a satisfactory theory of economic fluctuations, in which in-migration is one exogenous variable, has not yet been developed. Furthermore, in-migration models including the Kelley and Williamson one, are only as reliable as the data and assumptions on which they are based. Each assumption made can be criticized on the grounds that it may be static and therefore does not conform to the dynamic real world.

7.4 LESSONS LEARNT AND IMPORTANCE OF IN-MIGRATION THEORY

Migrant activity is far too complex to be incorporated into a single universal model that can be applied to every historical period. However, a great deal can be learnt from existing theory that may be relevant to the present situation. A comprehensive understanding of the in-migration processes should also adopt an interdisciplinary approach. In-migration models should ideally include inputs from fields such as Economics, Sociology, Social Psychology, Geography and Anthropology (Theron & Graaff, 1987:31) A variety of existing disciplinary approaches purport to explain how in-migration decisions are made. Traditionally the study of in-migration belongs to the domain of Sociology to a much greater extend than to other disciplines, dating back to the early work of Ravenstein (1885, 1889; cf Oberai, 1988: 35-36).

In-migration is a dynamic process of which the overall implications for national development cannot be stated a priori. It is necessary to analyse empirically the process of socio-economic change as it is taking place, as well as its

interrelationship with in-migration, to determine these implications (Oberai, 1988:70). It is also true that most positive conclusions on in-migration are contested by several other studies. For example, it is difficult to state unequivocally whether in-migration worsens or improves rural income distribution. A study conducted in Western Colombia, found that work skills acquired by migrants outside the village had little relevance for the local economy (Taussig, 1982; cf Oberai, 1988:62). Oberai (1988:65) also found some empirical support for various possibilities. For example, although in-migration may reduce overall fertility, migrants who are socialized in an area of high reproductive norms and high fertility behaviour are still likely to have higher birth rate.

Development does not reduce the impetus of migration but increases it in the short term. The transformation process from a predominantly rural to urban situation is essentially revolutionary and highly disruptive. It displaces many people from traditional livelihoods and past ways of life (Massey, 1980:384). On the positive side rural-urban migration and the growth of cities play an important role in the development process.

The magnitude of population movements make it increasingly important to understand the causes and consequences of migration in order to formulate appropriate policies for checking or channeling in-migration in socially desirable ways and for harnessing its potential role in development (Oberai, 1988:2). All development policies affect and are affected by in-migration.

An adequate knowledge of the causes and consequences of in-migration is vital to any attempt to determine the role played by in-migration in the development of the origin and destination areas, or to change the direction or magnitude of future migration streams in ways that are consistent with long-term development goals (Oberai, 1988:35). Without sufficient knowledge of specific characteristics the formulation of appropriate policies is severely handicapped.

The magnitude of population movements makes it increasingly important to understand the causes and consequences of in-migration. Real world conditions, however, differ from the hypothetical framework of the economists' development scenario (Oberai, 1988:11). In both market and centrally planned economics the factors that influence in-migration often change with a community's level of development. Transportation and communication systems, for example, not only reduce the cost of in-migration but also lessen the psychological and cultural gap between the origin and destination areas, thereby facilitating in-migration (Oberai, 1988:45). For example, most recent studies based upon survey data have shown that migrants are able to increase their welfare as a result of in-migration in spite of adjustment difficulties and urban unemployment (Oberai, 1988:51).

An integration process has started to take place within the national boundaries of the highly advanced industrialized countries. At a very high level of economic development expansionary momentum tends to spread more effectively to other localities and regions. In these developed countries inequality has also been mitigated through intervention in the play of market forces by organized society. In the highly advanced countries the national integration process has led to a relatively high level of equality of opportunity for all their inhabitants. In contrast to this small group of highly developed and progressive countries, all other countries are in various degrees poorer and generally less progressive economically. In a rather close correlation to their poverty these developing countries experience internal economic inequalities. Furthermore, these inequalities tend to weaken the effectiveness of their democratic systems of government (Myrdal, 1956:47-51; cf. Meier, 1989:385). In-migration theory should take cognizance of any changes that may effect or facilitate their validity in a changing world.

According to Oberai (1988:2) the problem arises when in-migration exceeds the income-earning opportunities available in urban areas. Large concentrations of people and economic activities in a few cities may involve greate social costs, and may lead to a breakdown of urban services.

7.5   CONCLUSION

In-migration embraces four elements namely space, residence, time and activity changes.   Understanding the process of population mobility is hindered by the tendency to condense, collapse or even ignore important distinctions in each of these elements.   Thus, an essentially heterogeneous process is treated as a homogeneous one by calling it in-migration.

A disadvantage common to theories which analyse the forces determining the nature, scope and direction of in-migration, is that they tend to be descriptive rather than analytical in their content.   It is difficult to identify, qualify and assign weights to the different variables by means of gravity models, especially with regard to the forces of attraction and repulsion at places of destination and origin.   Any predictions resulting from such models therefore tend to presuppose a degree of regularity that is normally not encountered in human affairs.   Attempts to represent in-migration merely as a response to a finite number of seemingly relevant causes invariably mask the real complexities of genuine human action and social behaviour.

Theories analysing in-migration as an equilibrating or disequilibrating process provide an inadequate prognosis of human in-migration.   Although economic factors may often predominate in both the Classical equilibrating and Keynesian disequilibrating theories, they do not necessarily represent the only reasons for the in-migration of people.   The economic causes of in-migration are themselves deeply embedded in the social environment.   Equilibrating economic models appear to be of little assistance in the evaluation of questions about economic causes and effects of in-migration because they overemphasize employment.   In developing countries in-migration has shifted underemployment from the rural to the urban sector.

Long-term general equilibrium computer models cannot account for short-term fluctuations in economic activity.   They view movements or changes in any variable as returns to equilibrium following some exogenous change. Moreover, the factors that influence in-migration often change with a

community's level of development. Furthermore, in-migration models are only as reliable as the data ad assumptions on which they are based. Each assumption made can be criticized on the grounds that it may be static and does therefore not conform to the dynamic real world.

Migrant activity is far too complex to be incorporated into a single universal model that can be applied to every historical period. However, a great deal can be learnt from existing theory that may be relevant to the present situation. A comprehensive understanding of the in-migration processes also requires an interdisciplinary approach. Thus, in-migration models should include inputs from fields such as Economics, Sociology, Social politics, Psychology, Geography culture an Anthropology.

All development policies affect and are affected by in-migration. Thus in-migration is a dynamic process of which the implication for national developments is not easy to identify or predict. It is necessary to analyse empirically the process of socio-economic change as it is taking place, as well as its interrelationship with in-migration to determine these implications. In-migration differs in the various countries and regions within countries, resulting in most positive conclusions on in-migration being contested by several other studies. In developing countries the magnitude of population movements consequences of in-migration. Reliable statistics and empirical studies are therefore the only way to reconcile the theory and practice of in-migration.

Chapter 8 will describe the analysis and interpretation of several factors affecting in-migration in South Africa.