

The Task Ahead for the Cities of the Developing Countries

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Between 1975 and the year 2000 the cities of the developing countries will be expected to absorb 70 percent of the projected population increases - 1.3 billion people - most of them poor. By any measures this is a gargantuan task. This paper examines the causes for the unprecedented growth of urban areas, the magnitude of this growth, and where it is occurring. Although cities are absorbing large numbers of people, they are doing so in a manner that is both inefficient and inequitable. Few cities are prepared for the vast increases that are clearly foreseeable in the next two decades. Unless there are changes in national, regional, and urban policies, the growth of urban areas will not make its maximum possible contribution to social well-being.

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Chapter II discusses the growth, size, and distribution of urban areas in developing countries. Large cities are growing relative to smaller cities and this trend is likely to continue, fueled by high rates of natural population growth in cities combined with migration from rural areas. This may not be undesirable and in any case may be impossible to change. Serious problems exist in accommodating this growth and the potential for political and social unrest is large.

Chapter III focusses directly on the problems of inequity and poverty in the city. Rapid urbanization is likely to increase inequality in the distribution of income although it should raise incomes absolutely. Urban poverty is a complex phenomenon that cannot be divorced from the inequities and inefficiencies of the urbanization process and the links to rural areas. The role of the household is a critical one in the understanding of urban poverty.

The cities of the developing world have an enormous task ahead in absorbing the large increases in population expected over the next two decades. Chapter IV examines the absorptive capacity of cities. It concludes that although the cities have absorbed and are continuing to absorb large numbers, the process is anything but efficient or equitable. National policies - monetary, fiscal, tariff, and credit policies - all have a major role in determining the absorptive capacity of cities. Many of the inequities of city growth have to do with the provision of services. The poor are excluded from access to many public services, from water supply to education, through a combination of economic and administrative measures. Unrealistic standards are a particularly important form of exclusion. Lack of access to these services has detrimental effects on the productivity of the poor.

In Chapter V the main recommendations of the paper are summarized with the priorities outlined for the typology of countries developed in Chapter I.

The views expressed in this paper are those of the authors. We have benefited from many helpful comments and discussions with our colleagues. In particular, we would like to thank Al Berry, Harold Dunkerley, Ravi Gulhati, Helen Hughes, Kim Jaycox, Doug Keare, Raj Krishna, Callisto Madavo, Dipak Mazumdar, Guy Pfeffermann, and Marcelo Selowsky, for much of their time and encouragement. Of course, none of this would have been possible without the assistance of the secretaries who laboriously typed this manuscript. Not all of them will agree with all that we have said, but on a subject as complicated as that addressed in this paper some measure of controversy is desirable.

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CHAPTER I

THE CURRENT PATTERN OF URBANIZATION IN LDCs AND THE PROSPECTS FOR THE PERIOD 1975-2000

A. AN OVERVIEW

Patterns of population settlements are heavily dependent on both the initial conditions at the early stages of urbanization and the subsequent interaction of socio-economic forces. The European urbanization experience occurred over centuries during which population growth was low, incomes higher, and the diffusion of innovations relatively slow compared to what is occurring today. These conditions permitted a more gradual emergence of economic, social, and political institutions which could regulate patterns of growth and specialization. Growing trade between and within countries permitted an increasing division of labor within a steadily expanding work force. The major changes occurring before World War I expanded the per capita supply of economic resources available to sustain urbanization. Cases of population pressure for land, food, or jobs, as in Ireland, Italy, Lebanon, Portugal, or Sweden often led to overseas migration.

Urbanization in LDCs is occurring under different circumstances. Four important differences have resulted in dramatic and rapid urban growth:

- (1) rapid population growth;
- (2) decline in some countries of available agricultural land area per capita at low levels of rural income;
- (3) decline in costs of transportation and communication;
and
- (4) fixed territorial boundaries and barriers to international migrations. 1/

The increase in population growth of the 20th century is the single most important factor distinguishing present from past urbanization. In the period of rapid urbanization in Europe, national population growth rates were typically of the order of 0.5 percent per year. In contrast, the rates for developing countries today are usually between 2.5 percent and 3.0 percent

1/ In some African countries, particularly those in the Sahel, international migration remains significant - probably because of the difficulty of enforcing national boundaries.

per year. 1/ These much higher rates of population growth have resulted in both larger absolute population movements to cities and natural increases of populations within cities. The consequent pressure to absorb large numbers of people through the provision of employment and services has led to a qualitatively different type of urbanization requiring different policy responses.

The second factor, the declining availability of agricultural land at low levels of rural incomes, has also served to increase population pressures on the cities in most countries. 2/ The ratios of population to agricultural land in most developing countries far exceed those found in Europe or North America during their period of rapid urbanization. Increases in areas available for cultivation have slowed down in recent years: many countries have reached the practical limits to expanding acreage. This suggests that most future increases in agricultural output will have to come from more productive cultivations of existing land. This constraint is not absolute, given the experiments with sea-farming, jungle clearance, desert reclamation through irrigation, and double-cropping, but the cost of overcoming it are often prohibitive. Thus, even where absolute limits of cultivable area are not immediately reached, it may be economically too expensive to expand acreage. In addition, this expansion may require more manpower in terms of man-hours but not a greater number of workers. A constrained supply of productive land will thus contribute to more rapid increases in population/land ratios and pressure to migrate to urban areas as limits to agricultural output are approached.

Another factor contributing to rapid urbanization is the widespread diffusion of modern communications and transportation which, in the first instance, encourages population movement by providing information concerning urban opportunities, and in the second, permits relatively cheap movement from place of origin to the city. The costs of movement of goods and people have been drastically reduced with the application of motive power to the wheel. Even as recently as in 19th-century Europe, migration to urban centers was limited to some degree by the horse-drawn technology of the times.

A fourth factor distinguishing LDC urbanization from the European and North American patterns is the effect of relatively fixed territorial boundaries which do not allow, on any realistic short- or medium-term political assumptions, for major adjustments in national living space, natural resources, or the free migration of surplus populations.

1/ IBRD, World Bank Operations: Sectoral Programs and Policies (Washington: IBRD, 1972), p. 295.

2/ Low levels of rural income limit the extent to which capital-intensive alternatives are available.

Taken together, these four factors suggest that LDCs are facing a larger absolute task of urbanizing more people within a shorter period of time than did developed countries:

Table I-1: RURAL AND URBAN POPULATIONS, 1950-2000 (in millions) /a

	<u>1950</u>		<u>1975</u>		<u>2000</u>
<u>Less Developed Countries</u>					
Urban	273	+546	819	+1,334	2,153
Rural	1,382	+693	2,075	+864	2,939
Total	1,655		2,894		5,092
<u>More Developed Countries /b</u>					
Urban	429	+302	731	+317	1,048
Rural	402	-40	362	-95	267
Total	831		1,093		1,315
<u>World Total</u>					
Urban	701	+850	1,551	+1,649	3,200
Rural	1,784	+653	2,437	+770	3,207
Total	2,485		3,988		6,407

/a U.N. Population Projections, medium tempo, medium variant.

/b Europe, N. America, Soviet Union, Japan, Australia, and New Zealand.

In the next 25 years, the developing countries will add 1.3 billion inhabitants to their urban populations; that is, almost twice as many people as presently inhabit the cities of the developed countries. In 1975 there are 90 cities in the developing world with populations of over a million; by the year 2000, there will be close to 300 cities. In this period, the urban populations of these countries will grow from 28 percent (21 percent in 1950) of the total population to over 42 percent. For the first time in history, the increase in the urban population of the developing world will exceed that of the rural population. Approximately two-thirds of the total increase in population will be located in urban areas.

Almost two-thirds of the increase in the urban populations of the developing world by the year 2000 are likely to occur in Asia where two countries, India and China, between them will account for nearly 60 percent. In Latin America the urban population will grow to 75 percent of the total population; that is, the increase in the urban population alone will be more than twice the rural population of today. In Africa the urban population will

grow from 25 percent of the total population to 38 percent which means a more than tripling of the urban population in 25 years.

Although experience will vary considerably from country to country, about half the newcomers to the cities will be migrants and the other half will be native born. Many cities have already a large enough population base to insure that they will become "megapolises" by today's standards - even if no further migration occurs. Mexico City, for example, would have a population of nearly 25 million by the year 2000 on the basis of natural increase alone; Calcutta 14 million.

The vast majority of the newcomers (migrants and native born) will be relatively poor. Most will have little more to offer than unskilled labor. The degree to which national aspirations for economic development are reached will increasingly depend on the way in which these newcomers are absorbed and made productive members of society. This will not be an easy task. Few countries or cities are prepared for the large absolute numbers of inhabitants that will be seeking employment and a place to live in the urban areas of today.

B. URBANIZATION IN LDCs: A TYPOLOGY OF COUNTRY EXPERIENCE

Variations in the process of urban growth among LDCs and even within LDCs require policy approaches sensitive to individual country circumstances. The basic factors that will determine the future growth of urbanization, however, are similar in all countries: it will depend on the present level of urbanization, population growth, and the availability of natural resources.

Countries that have increased their productivity and incomes over time have become increasingly urban. Productive urban growth, reflected in high urban incomes, has encouraged rural-urban migration and led to high levels of urbanization and large urban sectors. Despite high income inequality during urban growth, large population movements to cities have limited the rise in population/land ratios in rural areas and undoubtedly reduced the proportion of total population that would have remained in rural poverty. Where urban productivity has not grown significantly (for reasons analyzed in later chapters), the level of urbanization has remained static. These countries have remained predominantly rural with sizeable shares of total population in either rural or urban poverty. Resource constraints, reflected in either per capita GNP or land scarcity, interact dynamically with population movements in the development of urban centers.

The outcome of these interactions is heavily influenced by the rate of population growth. Rapid urban population increase, through the combination of natural increase and migration, reflects the changes in the distribution of productive activity within the country. The concentration of population generates employment and a demand for urban services within an institutional framework usually unable to respond in sufficient quantity and time. A condition of changing disequilibria is established, whereby supply

and demand of resources of all types - land, labor, and capital - never quite come together in the most efficient or equitable combination. 1/ Population growth influences the rate and magnitude of these changes and discontinuities and thus determines the character of individual cities at any point in time. In looking ahead over the next twenty-five years, four categories or types of urbanization patterns in the LDCs can be clearly discerned:

Type I. Those countries in which the process of urbanization is well underway. The population is already more than half urban, incomes relatively high and there is little pressure of population on arable land and natural resources. The end of the urbanization process will occur before the turn of the century when most of the population will be in urban areas and rural areas will begin to experience absolute declines.

Type II. In these countries the urbanization experience is more recent. Over half the population is still in rural areas. Population pressures exist on the land and incomes are at relatively low levels. If population pressures can be eased and resource constraints overcome, this group of countries by the turn of the century should obtain levels of urbanization similar to those found in the Type I countries today.

Type III. This group of countries is predominantly rural but urbanizing rapidly. Even so, by the year 2000 they will still be predominantly rural with high rates of growth of the rural population. The outcome of the race between population growth and resources (and the resulting growth of per capita income) is uncertain.

Type IV. These countries are dominated by severe pressures on the land in largely rural, subsistence-level-income societies. If the projected population growth rates are sustainable they will still be characterized in the year 2000 by large and growing rural populations living in absolute poverty.

This typology is a convenient way of grouping the growth paths likely to be followed by most LDCs. There are, of course, a few countries which do not fit easily into one category or the other. These tend to be the exception rather than the rule and this typology, if used with discretion, provides a useful framework of analysis and policy prescriptions. No attempt

1/ David Harvey, "Social Processes, Spatial Form and the Redistribution of Real Income in an Urban System," in The Colston Papers, Regional Forecasting, London, Butterworth, 1970.

has been made to fit all countries of the world into this framework; rather a representative sample has been selected within each of the four types of countries. These are shown in Table I-2.

Table I-2: URBANIZATION PATTERNS IN A SAMPLE OF LESS DEVELOPED COUNTRIES

Country	Per Capita GNP Level In 1972 US\$	Size of Population (in 000's)				Percentage Of Urban Population		Compound Urban Growth Rate		Compound Rural Growth Rate	
		1975		2000		1975	2000	1970-75	1995-2000	1970-75	1995-2000
		Urban	Rural	Urban	Rural						
<u>Type I</u>											
Argentina	1,290	20,293	5,091	29,288	3,573	79.9	89.1	2.19	1.11	-2.46	-1.66
Mexico	750	37,349	21,855	103,287	28,957	63.1	78.1	4.86	3.60	1.19	0.82
Colombia	400	15,938	9,952	40,115	11,349	61.6	78.0	5.24	2.96	2.58	0.13
Brazil	530	65,128	44,602	161,604	50,903	59.4	76.1	4.72	3.13	1.67	0.31
<u>Type II</u>											
Algeria	430	8,432	8,455	27,205	11,199	49.9	70.8	6.78	3.85	1.52	0.94
Egypt	240	17,822	19,546	42,716	23,726	47.7	64.3	4.20	3.24	1.15	0.49
Korea	310	16,074	17,875	36,019	15,979	47.4	69.3	6.66	2.26	-1.36	-0.68
Philippines	220	15,837	29,468	46,068	47,956	35.0	49.0	4.25	3.66	3.02	0.99
Malaysia	430	3,641	8,666	9,888	12,589	29.6	44.0	3.34	3.28	2.09	0.58
<u>Type III</u>											
Senegal	260	1,262	3,190	3,740	5,013	28.4	42.7	3.89	4.18	1.83	1.47
Ivory Coast	340	994	3,891	3,718	5,899	20.4	38.7	7.02	4.46	1.51	1.54
Nigeria	130	11,419	51,511	40,953	94,008	18.2	30.3	4.67	5.10	2.07	2.36
Sudan	120	2,400	15,782	9,438	31,704	13.2	22.9	6.10	5.43	2.57	2.69
Kenya	170	1,483	11,625	6,458	24,743	11.3	20.7	6.48	5.61	3.38	2.83
Upper Volta	70	502	5,556	1,827	9,828	8.3	15.7	5.01	4.87	1.84	2.10
<u>Type IV</u>											
Pakistan	130	18,939	53,418	65,357	93,170	26.2	41.2	4.45	4.28	2.42	1.53
India	110	132,367	488,742	354,872	748,834	21.3	32.2	3.62	3.92	2.09	1.27
Indonesia	90	26,232	110,284	78,433	171,519	19.2	31.4	4.54	4.01	2.32	1.29
China (Mainland)	170	207,510	630,406	478,404	673,555	24.8	41.5	4.31	2.75	0.84	-0.07

Sources: U.N., Urban-Rural Projections from 1950-2000, October 1974 (medium tempo with medium variant).
 World Bank Atlas, 1974.

Type 1: High Income, Urban countries - Latin America ^{1/}

Country	Per Capita GNP Level In 1972 US\$	Size of Population (in 000's)				Percentage Of Urban Population		Compound Urban Growth Rate		Compound Rural Growth Rate	
		1975		2000		1975	2000	1970-75	1995-2000	1970-75	1995-2000
Type I											
Argentina	1,290.	20,293	5,091	29,288	3,573	79.9	89.1	2.19	1.11	-2.46	-1.66
Mexico	750	37,349	21,855	103,287	28,957	63.1	78.1	4.86	3.60	1.19	0.82
Colombia	400	15,938	9,952	40,115	11,349	61.6	78.0	5.24	2.96	2.58	0.13
Brazil	530	65,128	44,602	161,604	50,903	59.4	76.1	4.72	3.13	1.67	0.31

In this first category of countries it is convenient to include most of the Latin American countries. These countries have experienced urban growth for over a century and are now largely urban, with a diminishing share of their population in rural areas. Productive activities in Latin American cities have grown steadily since 1900, with high incomes and employment accompanying the growth of industry and commerce. High urban incomes have encouraged rural-urban migration and the growth of many large cities in countries like Mexico, Brazil, and Colombia. In some cases, urban growth has been concentrated in a single urban center, as in Argentina, Chile, and Peru.

Accompanying the evolution of this highly urban pattern of spatial development has also been great inequality in, first, the distribution of land in rural areas, and later, in the distribution of urban incomes. Differential access to employment and urban services, high protected modern sector wages, and government policies excluding large portions of the urban population from the benefits of urban productivity, have resulted in large numbers of poor households in Latin American cities. High population growth, particularly in the next two decades, will exacerbate this situation until a stable low level of population is reached in rural areas. After this period, urban growth will slow down dramatically, being limited to natural population growth. This growth, on the basis of historical experience, should decline as the population becomes largely urban, i.e., before the turn of the century.

^{1/} For analysis of countries in this category, see Robert Daland, Comparative Urban Research (Los Angeles: Sage, 1969), and F. Rabinowitz and F. Trueblood, Latin American Urban Research (Los Angeles: Sage Publications, 1971).

Type II: Medium Income, Urban Countries 1/

Country	Per Capita GNP Level In 1972 US\$	Size of Population (in 000's)				Percentage Of Urban Population		Compound Urban Growth Rate		Compound Rural Growth Rate	
		1975		2000		1975	2000	1970-75	1995-2000	1970-75	1995-2000
<u>Type II</u>											
Algeria	430	8,432	8,455	27,205	11,199	49.9	70.8	6.78	3.85	1.52	0.94
Egypt	240	17,822	19,546	42,716	23,726	47.7	64.3	4.20	3.24	1.15	0.49
Korea	310	16,074	17,875	36,019	15,979	47.4	69.3	6.66	2.26	-1.36	-0.68
Philippines	220	15,837	29,468	46,068	47,956	35.0	49.0	4.25	3.66	3.02	0.99
Malaysia	430	3,641	8,666	9,888	12,589	29.6	44.0	3.34	3.28	2.09	0.58

A second group of countries is found in the semi-industrialized countries of Asia and North Africa. These countries have become increasingly urban with the growth of manufacturing centers. The productivity of cities in Type II countries has led to a rapid growth of cities, reflecting both rural-urban income differentials and in some countries the absolute scarcity of arable land for agriculture. This growth has reached an annual rate of 5 percent for the urban sector as a whole, with the result that the size of the urban sector will be 3-4 times larger than at present by the year 2000.

Despite the fact that rapid urban growth has meant both open unemployment and some underemployment in countries such as Malaysia or the Philippines, Type II countries have been relatively successful in generating employment and rising incomes. Inevitable lags in satisfying the need for many urban services occur. Careful policy measures could alleviate the magnitude of these problems in most of these countries. Given the limited natural resource base in most of these countries, control of the population factor is a precondition for continued successful development.

1/ For analysis of countries in this category, see Bertrand Renaud, "The Evolution of the Urban System in Korea, 1910-1970," Bulletin of the Population and Development Studies Center, Vol. III, September 1974; Takeo Yasaki, Urbanization in Japan, 1972; Monroe Berger, The New Metropolis in the Arab World (New York: Octagon Press, 1974); and Janet Abu-Lughod, Cairo: 1001 Years of the City Victorious (Princeton: Princeton University Press, 1971).

Type III: Low Income, Rural Countries - Africa ^{1/}

Country	Per Capita GNP Level In 1972 US\$	Size of Population (in 000's)				Percentage Of Urban Population		Compound Urban Growth Rate		Compound Rural Growth Rate	
		1975		2000		1975	2000	1970-75	1995-2000	1970-75	1995-2000
<u>Type III</u>											
Senegal	260	1,262	3,190	3,740	5,013	28.4	42.7	3.89	4.18	1.83	1.47
Ivory Coast	340	994	3,891	3,718	5,899	20.4	38.7	7.02	4.46	1.51	1.54
Nigeria	130	11,419	51,511	40,953	94,008	18.2	30.3	4.67	5.10	2.07	2.36
Sudan	120	2,400	15,782	9,438	31,704	13.2	22.9	6.10	5.43	2.57	2.69
Kenya	170	1,483	11,625	6,458	24,743	11.3	20.7	6.48	5.61	3.38	2.83
Upper Volta	70	502	5,556	1,827	9,828	8.3	15.7	5.01	4.87	1.84	2.10

The third group of countries is found in Africa, south of the Sahara, where urban growth is a relatively recent phenomenon in all countries. The African states remain predominantly rural, despite the fact that large rural-urban incomes differentials have stimulated massive rural-urban migration. The urban sectors in these countries remain small, with the majority of population still living in rural villages. Land in most countries is not yet scarce, so agriculture can continue to absorb growing numbers of people with increases in productivity. Manufacturing and other productive activities in the cities are in the incipient stages.

The major characteristic of this urbanization experience is the present unpredictability of its eventual outcome. The African states have the opportunity to determine the basic pattern of urban growth likely to emerge in the next decade, through policies affecting the location and costs of employment and services. Adoption of high standard infrastructure and protected modern sector activity will lead to the eventual impoverishment of their urban population, given the low level of national economic resources. More realistic, low-cost solutions could avoid the extremes of inefficiency and inequity. The relatively small size of the urban sectors in these countries suggests that these problems are more manageable than those found in other LDCs. Yet if unrealistic policies are adopted, the African cities will be unable to absorb future rural-urban migration likely to result when limits to increasing rural incomes are approached.

^{1/} For analysis of countries in this category, see Hilda Kuper, ed., Urbanization and Migration in West Africa (Los Angeles: University of California Press, 1965); Kenneth Little, Some Contemporary Trends in African Urbanization (Evanston: Northwestern University Press, 1966); Akin Mabogunje, Urbanization in Nigeria (London: Oxford University Press, 1971); and John Hutton, ed., The Urban Challenge in East Africa (Nairobi: East African Publishing House, 1972).

Type IV: Low Income, Rural Countries with Large Urban Sectors - Asia ^{1/}

Country	Per Capita GNP Level In 1972 US\$	Size of Population (in 000's)				Percentage Of Urban Population		Compound Urban Growth Rate		Compound Rural Growth Rate	
		1975		2000		1975	2000	1970-75	1995-2000	1970-75	1995-2000
<u>Type IV</u>											
Pakistan	130	18,939	53,418	65,357	93,170	26.2	41.2	4.45	4.28	2.42	1.53
India	110	132,367	488,742	354,872	748,834	21.3	32.2	3.62	3.92	2.09	1.27
Indonesia	90	26,232	110,284	78,433	171,519	19.2	31.4	4.54	4.01	2.32	1.29
China (Mainland)	170	207,510	630,406	478,404	673,555	24.8	41.5	4.31	2.75	0.84	-0.07

The fourth urbanization pattern is found in the large countries of Asia: India, Pakistan, Bangladesh, Indonesia, and China. These countries are predominantly rural and have low incomes, yet the absolute size of their urban populations is very large. Cities in these countries have grown steadily with large absolute numbers of people crowding into already difficult circumstances. The level of urbanization (the percentage of the total population in urban areas) is low, 20-25 percent, and in the case of India and Indonesia, is projected at still being low by the turn of the century.

The potential urban growth of this group of countries, however, is substantial. Intense pressures on the land - the rural population per square kilometer of arable land is expected to double in the next 25 years - which, even if it leads to a small percentage of outmigration from rural areas, will lead to massive growth in the cities. India's increase in the urban population, for example, is estimated at 223 million (vs. an increase of 260 million in the rural areas) without allowing for any substantial push out of rural areas.

Understanding of this pattern of urbanization is sharpened when the experience of the People's Republic of China is contrasted with that of the other countries in this category. China appears to have been able to achieve noticeably lower rates of population growth within a generation while at the

^{1/} For analysis of countries in this category, see Ashish Bose, ed., Studies in India's Urbanization; and L. Jakobson and V. Prakash, Urbanization and National Development: South and Southeast Asia (Los Angeles: Sage, 1971). For an analysis of urbanization in the People's Republic of China, see John W. Lewis, ed., The City in Communist China (Stanford: Stanford University Press, 1971).

same time increasing incomes and improving their distribution. 1/ By combining migration to urban areas with declining national rates of growth, China appears to be avoiding the growth of a low productivity rural population. China is thus becoming increasingly urban, but at a pace permitting the generation of employment and provision of services for the growing urban population without the resource constraints generated by a large and growing rural population living in absolute poverty.

C. THE ESTIMATES OF URBAN POPULATION GROWTH; THEIR MAGNITUDE AND RELIABILITY

The absolute scale of projected urban growth in the next quarter century is unprecedented. What grounds are there for accepting such estimates? How sensitive are they to common sense changes in the assumptions underlying them? Would economic variables introduced into the determinants of the projections produce different results?

The standard methodology for projecting urban population growth used in the UN estimates is simply to project the differences between urban and rural growth rates by five-year intervals where the base period for this growth rate difference is the last observed or projected five-year period. The method is not founded on any social or economic model, but depends primarily on fairly stable demographic variables. The result of this methodology is that the difference between urban and rural growth rates will increase up to a point where 50 percent of the population is urban and decrease thereafter (see Annex). Hence the urban growth estimates are greater for rural countries and smaller for urban countries than would be the result of a linear projection of urban growth. A few examples illustrate the slight quantitative difference in the period up to 1985:

-
- 1/ The data here need to be treated with caution. There is no way of checking the official estimates (used in the U.N. series). Observations and estimates made by a variety of observers would appear to support the propositions:
1. Population growth is being restrained.
C. Djerassi, "Birth Control in the People's Republic of China," Bulletin of the American Academy of Arts and Sciences, May 1974.
 2. Cities are growing rapidly.
Peter Wilsher & Rosemary Righter, The Exploding City, Deutsch, London (1975), Ch. 16.

	UN Estimate				Constant Urban Growth (1960-70 Base) /1			
	Growth Rate 1970-85		Population 1985		Growth Rate 1970-85		Population	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Mexico	4.5%	1.3%	57.8	24.9	5.0%	0.1%	62.0	20.8
Egypt	3.8%	0.9%	25.6	21.5	4.2%	0.4%	27.4	19.7
India	3.9%	2.1%	195.6	595.2	3.5	2.2	183.6	607.2

/1 That is, the rate of growth of the urban population between 1970 and 1985 is assumed to be the same as occurred between 1960 and 1970.

Eventually the simple linear projection of urban growth would result in nonsense results - urban growth exceeding total growth. For the period to 1985, however, the linear projection seem as plausible as the more complicated UN estimates for the highly urban countries such as Mexico and Egypt, even though they imply very low rural population growth.

An extreme assumption of no net migration, i.e., urban growth rate equals population growth rate, would produce the following comparative results, using 1975 base data and UN total population (in millions):

1970 Urban Population	UN Estimate	1985 Urban Population		Difference
		No Migration Estimate	Difference	
Mexico	29.8	57.8	49.1	8.7
Egypt	14.7	25.6	21.0	4.6
India	109.6	195.6	158.0	37.6

Thus even for rural countries like India, nearly 50 percent of the increase in projected urban population (UN) is due to the natural growth in urban population, shading up to about 70 percent for a country as urban as Mexico. There is very little ground to argue against this portion of the urban growth projection; the discussion of migration from the countryside is confined to a discussion of less than half of the total growth projected. /1 No "migratory avalanche" or "mindless urban drift" is, therefore, implied in the huge urban population increases for the rest of the century. Any increase in migration trends would produce somewhat higher projections for the more urban economies, and much higher projections for the poorer, more rural economies, where the rural base for migration is much greater in absolute and relative terms.

1/ Rates of natural increase are assumed to be relatively stable even over a 25-year period. Dramatic changes in fertility are highly unlikely in this time period.

The estimates of the growth of the urban population for the more rural economies may be too low. These are, by and large, very poor countries, with intense pressure on land, expected rapid population growth and little likelihood of large increases in cultivated areas. In India and Indonesia, rural population is projected at growing by over 2 percent a year until the middle of the next decade; in Pakistan until about 1995. There may be strong pressures to migrate out of agricultural areas if per capita rural earnings fail to increase fairly rapidly, particularly if there is at the same time a rapid growth of income in urban areas. In order to estimate the potential migratory pressures, given the rural population growth that is projected, the following table shows the per capita incomes that would result if total rural incomes grow at 2.6 percent, the average for the 1960s for all LDCs, and at 4.0 percent, a rate of growth half again as great as that of the 1960s.

Table I-3: POTENTIAL RURAL INCOMES
(US\$ 1970 prices)

<u>Country</u>	Rural Per Capita Incomes In Early 1970s (US\$) <hr/> (1)	Rural Per Capita Incomes in 2000 If Total Rural Income Grows (US\$)	
		@2.6% (2)	@4.0% (3)
<u>Type I</u>			
Mexico (1970)a/	219	334	437
Argentina (1971)	463	1,260	1,867
Brazil (1970)	141	260	340
<u>Type II</u>			
Egypt (1973)	101	163	204
Algeria (1970)	48	106	141
Korea (1972)	171	393	499
Malaysia (1970)	122	162	212
Philippines (1970)	68	79	119
<u>Type III</u>			
Nigeria (1970)	82	87	113
Ivory Coast (1972)	143	184	234
Senegal (1970)	92	115	150
Kenya (1971)	58	52	67
<u>Type IV</u>			
India (1971)	62	78	100
Pakistan (1972)	43	47	60
Indonesia (1971)	47	60	77

Source: Income data, World Bank, adjusted to 1970 prices and estimated as follows: total agricultural value added, plus 15 percent to take rough account of non-agricultural rural incomes divided by rural population. Population data, UN, 1974 estimates, medium tempo, medium variant.

a/ Year of observation.

Consider first the higher growth rates. 1/ All of the Type IV economies, plus the Philippines and Kenya would still have rural incomes of \$70 per capita or less in the year 2000 in spite of the migration included in UN projections. With no net migration, projected rural incomes would be much lower, e.g., for India, the 4 percent rural income growth assumption with no migration would produce year 2000 rural incomes of \$82. Unless there is substantial rural urbanization in these economies in general so that urban absorption at reasonable rates is impossible, it appears unlikely that rapid (4 percent) rural growth will improve rural incomes enough to reduce migration below the UN estimates.

This does not mean that rural development is not important for migration flows, only that it is already implied in the estimates. Consider the results of a rural income growth rate like that of the 1960s. Rural income per capita for the projected year 2000 population would be very little above that of the early 1970s; it is highly doubtful that such long-term growth is a realistic possibility without really massive desertion of the rural areas. At this 2.6 percent growth rate, India could reach \$100 per capita incomes in the year 2000 in rural areas only if the urban areas absorbed an additional 170 million people. Similar results are obtained for all of the poor, primarily rural economies. Slow rural income growth would in each case imply that urban absorption must be 50 percent to 100 percent greater than the UN estimates in order to reach rural incomes in the neighborhood of \$100 per capita per year by the year 2000. It is quite conceivable, considering the low urban income base and the massive numbers to be absorbed, that urban incomes of the relatively poor - the industrial laborers, petty traders, and craftsmen - may be low enough to preclude absorption of such large migrant flows. Indeed, this seems to be happening in rapidly growing India, where, despite low rural incomes, the rate of rural urban migration is lower than for any other major nation.

In Type I countries, the level of urbanization is already high, so that in spite of continuing rapid population growth the natural increase in the rural population is small in absolute terms. Rural incomes are fairly high, so small incremental rural population will share income changes that come from a high base. Partly as a result of urbanization, the population growth in these societies should slow down markedly before the year 2000. The net result of these factors is that, from the point of view of absolute poverty, there is only a weak push factor operating to induce rapid migration. The most obvious possible reason for more rapid migration is the attraction of growing high-income urban areas. Given the present differences between urban and rural incomes, it is unlikely that even very rapid rural income growth would change these attractions significantly in the short run. Since

1/ Much higher growth rates could be postulated, but this did not seem realistic. Sustained 4 percent annual growth over decades, in historical experience, has seldom been achieved from an entire nation. Mexico (1950-1970) is one of the few countries that has done better than this.

most of the urbanization pressure will take place in the next decade, after which these economies will be heavily urbanized, future rural income growth will be an unimportant determinant of migratory pressures.

Type II countries have lower levels of per capita rural incomes ranging from \$50 to \$170; the rural population increases will share increments to income from a medium-low base. The growth of the rural population is expected to decline rapidly in most of these countries as the combined result of lower natural growth rate, the high level of rural-urban migration and the fact that the societies are already highly urbanized. Malaysia and the Philippines start with net rural population growth rates of over 2 percent per year, but these are projected to decline to less than 1.0 percent before the year 2000. Korea is presently experiencing a negative net rural growth rate. Algeria and Egypt still have relatively high natural growth rates but are expected to bring them under control and, with the contribution of migration, the rural growth rate is expected to fall below 1.0 percent during the period before 2000. As a result of these factors, these countries, if they achieve agricultural output increases only similar to those of the developing countries as a group for the decade of the sixties (2.6 percent per year), will realize rising rural incomes throughout the entire period. By the year 2000, only the poorest of the rural populations in this group, the Philippines, would have a per capita income below US\$100. Countries in this category are therefore not expected to experience a massive, poverty-induced migration out of agriculture.

Type III. In this category (generally African economies) experience can be expected to vary a great deal. Many have arable or potentially arable land sufficient to absorb expected population growth at rising incomes with modest increases in land productivity. Since, with a few exceptions, the development of agriculture is not far-advanced in these countries, the potential rural-urban push will depend upon the success, or lack of success, of rural development. An assumption of 4 percent growth might, indeed, be too conservative, if modernization and acreage expansion accompany one another. For some of the countries, particularly in the Sahel region, the agricultural land and the urban industrial bases are limited. The distribution of the poor between the rural and urban areas in all of these countries cannot be accurately predicted. For a few countries - Botswana, Zambia, and perhaps, Zaire - resource-based exports could provide the potential for fairly rapid urban growth, although the latter two countries have considerable potential for rural development as well. Finally, a very few countries - Rwanda, Burundi - are nearing the crowding situation that characterizes the Type IV countries and similar arguments would apply. Overall, it seems reasonable to postulate that, starting with a low urban base, the growth rate for African cities will continue to be the highest in the world for several years.

The timing of the population pressure on the land and hence the period of most rapid urbanization obviously varies dramatically among categories. For Types I and II, the most rapid urbanization rates are probably in the past although large migration flows will continue in the next decade.

Since natural rural population growth is expected to decline and the rural base is declining relative to the urban, urban growth will fall toward its natural growth rate by the end of the century. Eventually the spread between even modest rural productivity growth rates and population growth rates promises relief from the rural poverty problem even in the poorest of the Type II countries. In Type IV countries, because of the large rural base and the slower decline in the birth rate, the decline in rural population growth rates will be slow, even if heavy migration occurs. As a result, even in the year 2000, these economies will still be mostly rural and, in the absence of very rapid growth in agricultural productivity, severe push pressures will probably persist into the next century.

From the limited examination discussed above, the conclusion would appear to be that the UN forecasts do not overstate urban population growth:

- (a) Over 50 percent of projected urban growth in most cases (and up to 70-80 percent in the more urban economies) is non-migratory, i.e., the result of natural growth rates.
- (b) Very rapid (a sustained 4 percent per year) rural income growth would still leave the predominantly rural economies with very poor rural sectors in the year 2000. Lower growth (at historical rates) would produce rural per capita income stagnation in these countries. Migration as low as the UN estimates would appear to make economic sense only if rural income growth is high.
- (c) The UN formula produced projections of decelerating urbanization when a country is over 50 percent urban. The timing of this deceleration could be questioned in cases like Mexico and Brazil where dynamic urban income growth has produced wide urban-rural income differences.

On balance it can be concluded that the rough and demographically based projections of urban growth are not unreasonable and that, if there is systematic error, it is probably on the side of underestimating urban populations.

CHAPTER II

GROWTH, SIZE, AND LOCATION OF LDC CITIES

A. THE GROWTH OF LDC CITIES: SIZE AND DISTRIBUTION

The rapid pace of urbanization of the past 25 years has resulted in the explosive growth of the cities of the developing countries. Many of these cities are already as large as the major cities of the developed world; in a few years they will be considerably larger. Within a decade the largest cities in the world will be in the developing countries. The frontiers of city size will be continually expanding but in an environment that is significantly different from that which existed when the rapid expansion of the cities of the developed world took place.

Can the cities of the developing world continue to double in size every 10 to 15 years? Are present growth rates sustainable? The following table is illustrative of the size that many cities will approach if present demographic trends continue for another one or two decades (see Table II-1 on the next page).

Table II-1: POPULATIONS OF SELECTED URBAN AREAS 1950-2000, IN MILLIONS

<u>Country</u>	<u>1950</u>	<u>Average Annual Rate of Growth</u>	<u>1975</u>	<u>Average Annual Rate of Growth</u>	<u>2000</u>
<u>Type 1</u>					
Mexico City	2.9	5.4%	10.9	4.4%	31.5
Buenos Aires	4.5	2.9%	9.3	1.5%	13.7
Sao Paulo	2.5	5.7%	9.9	3.9%	26.0
Rio de Janeiro	2.9	4.4%	8.3	3.4%	19.3
Bogota	0.7	6.5%	3.4	4.2%	9.5
<u>Type 2</u>					
Cairo	2.4	4.3%	6.9	3.6%	16.9
Seoul	1.0	8.3%	7.3	3.8%	18.7
Manila	1.5	4.4%	4.4	4.3%	12.8
<u>Type 3</u>					
Kinshasa	0.2	9.7%	2.0	5.6%	7.8
Lagos	0.3	8.1%	2.1	6.2%	9.4
<u>Type 4</u>					
Shanghai	5.8	2.8%	11.5	2.6%	22.1
Peking	2.2	5.8%	8.9	3.7%	22.0
Jakarta	1.6	5.1%	5.6	4.7%	17.8
Calcutta	4.5	2.4%	8.1	3.7%	20.4
Bombay	2.9	3.7%	7.1	4.2%	19.8
Karachi	1.0	6.2%	4.5	5.4%	16.6
<u>Developed Countries</u>					
New York	12.3	1.3%	17.0	1.3%	22.2
London	10.2	0.2%	10.7	0.7%	12.7
Paris	5.4	2.1%	9.2	1.2%	12.4
Tokyo	6.7	3.9%	17.5	2.0%	28.7

Source: UN, City Projections, medium tempo, medium variant. (December 1974)

If the major cities of the developing world grow to the sizes indicated above, it will mean that more and more of the world's population will be concentrated in very large urban agglomerations. 1/ This tendency for large cities to grow or maintain their position relative to small and medium cities is a strongly established historical trend (see Table II-2). The following table showing the distribution of the urban population in a group of Latin American countries (Brazil, Mexico, Venezuela, Peru, Argentina, and Chile) is illustrative of the general trend:

Distribution of the Urban Population by City-Size Category
in Latin America, 1960, 1970, and Projected to 1980

City-Size Category (thousands)	Number of Inhabitants			Percentage 1960	Distribution 1970	1980
	1960	1970	1980*			
20-50	7,876	11,878	15,206	13.1	12.1	10.2
50-100	6,493	8,523	12,945	10.8	8.7	8.7
100-250	7,532	12,014	17,225	12.6	12.2	11.5
250 and more	12,192	25,886	46,565	20.4	26.4	31.1
Capital cities (5) & Rio & Sao Paulo	25,824	39,869	57,546	43.1	40.6	38.5
	59,917	98,170	149,487	100.0	100.0	100.0

Source: R.W. Fox, Urban Population Growth Trends in Latin America, I.D.B., 1975, p. 14

* Includes the population of cities projected to increase from fewer to more than 20,000 inhabitants in the 1970-1980 interval.

In Latin America by 1970, 79 percent of the urban population already lived in cities of more than 100,000. This proportion is expected to rise 81.1 percent in 1980. In India where the urbanization process is less advanced and less rapid, the trend is not so dramatic, but nonetheless very persistent.

1/ The increasing concentration of the population in these large urban agglomerations is also the dominant trend in the developed countries. See for instance Jerome P. Pickard, "U.S. Metropolitan Growth and Expansion, 1970-2000, with Population Projections" in Commission on Population Growth and the American Future, Research Reports, Volume V, Population Distribution and Policy, U.S. Government Printing Office, 1972.

Distribution of Urban Population by City Size in India

<u>Year</u>	<u>1901</u>	<u>1911</u>	<u>1921</u>	<u>1931</u>	<u>1941</u>	<u>1951</u>	<u>1961</u>	<u>1971</u>
<u>City Size Category</u>								
Below 20,000	48.8	47.2	45.4	41.8	35.1	30.4	21.2	16.5
20,000-50,000	16.5	17.7	16.9	18.8	17.7	16.7	18.5	16.3
50,000-100,000	11.8	10.9	12.4	12.0	11.8	11.1	11.9	11.5
100,000 and over	22.9	24.2	25.3	27.4	35.4	41.8	48.4	55.7
<u>Total</u>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: A. Bose, Studies in India's Urbanization, 1901-1971, Tata-McGraw Hill, New Delhi, 1974, p. 373.

Table II-2: DISTRIBUTION OF THE WORLD POPULATION BY CITY SIZE
 (in 1,000)

	<u>Below 100</u>	<u>100-199</u>	<u>200-499</u>	<u>500-999</u>	<u>1,000+</u>	<u>Total Urban</u>	<u>Rural</u>	<u>Total</u>	<u>Level of Urbanization</u>
A. Less Developed Regions									
1950 actual (percent)	133,259 (48.95)	24,211 (8.89)	33,171 (12.18)	28,453 (10.45)	53,137 (19.52)	272,231 (100.0)	1,381,946	1,654,177	(16.46)
1970 actual (percent)	280,958 (42.51)	50,165 (7.59)	78,181 (11.83)	57,512 (8.70)	194,055 (29.36)	660,879 (100.0)	1,912,287	2,573,158	(25.68)
B. More Developed Regions									
1950 actual (percent)	183,482 (42.74)	36,983 (8.62)	50,837 (11.84)	39,715 (9.25)	118,251 (27.55)	429,268 (100.0)	402,348	831,616	(51.62)
1970 actual (percent)	245,065 (36.56)	59,519 (8.88)	85,427 (12.74)	65,872 (9.83)	214,494 (32.00)	670,379 (100.0)	377,509	1,047,888	(63.97)
C. World Total									
1950 actual (percent)	316,741 (45.15)	61,194 (8.72)	84,008 (11.98)	68,168 (9.72)	171,388 (24.43)	701,499 (100.0)	1,784,294	2,485,793	(28.22)
1970 actual (percent)	526,023 (39.51)	109,684 (8.24)	163,608 (12.29)	123,384 (9.27)	408,549 (30.69)	1,331,250 (100.0)	2,289,796	3,621,046	(36.76)

Source: UN, City Projections 1950-2000, Medium Tempo with Medium Variant, December 10, 1970.

Note: Argentina, Chile, and Uruguay have been shifted from the more developed regions to the less developed regions.

To complete this picture the worldwide situation is presented in Table II-2. Between 1950 and 1970 the share of the urban population living in large metropolitan areas of more than one million inhabitants grew from 19.5 to 29.3 percent in developing countries. In 1970 large metropolitan populations in these countries were almost as important numerically as those of developed countries and already 30.7 percent of the world population lived in cities of more than one million inhabitants. By the year 2000 large metropolitan areas in developing countries will be much more frequent than in developed countries.

Even though the historical evidence in both the developing and the developed economies indicates that the concentration of population in the big cities is a strong and pervasive trend, it is nonetheless legitimate to question whether or not there is some absolute limit beyond which cities cannot grow; that is, is there a point where the diseconomies of scale of urban agglomerations engender internal collapse. Current empirical analyses are still too limited to rule out urban catastrophes but they all point in the other direction and indicate that there is no rationale for assigning an arbitrary upper limit to city size.

It is unlikely that a maximum city size exists because the measurement of city size exclusively in terms of population numbers does not provide any indication of the internal structure of a metropolitan area. When their populations grow, cities expand through annexation of new territory. While large metropolitan areas of the world typically include at their center the old historical core of the original city, they are becoming multinodal zones of urbanization. If the urban agglomeration of Mexico City, for example, is to reach 30 million, it will not be in the area presently occupied by the city but rather will cover much of the central valley of Mexico. It could very well have lower density than exists today, but one thing is certain, the city name will refer to a very different urban reality.

Large cities exist because of their competitive advantage and the economies of scale in production attached to increasing urban size. These economies of scale might be generated within each industry both for locally consumed goods and export goods production. Whether they are resource-oriented, market-oriented or labor-oriented industries one would expect diseconomies of scale to set in within each industry at a given location as the supply cost of local inputs rises. But, in addition to these economies of scale within each industry which contribute to the expansion of a city's population, there are economies external to each industry generated by the clustering of suppliers and customers within the same urban area leading to substantial savings in transportation and communications costs. 1/

1/ See Bergsman, Greenston and Healy "The Agglomeration Process in Urban Growth," Urban Studies, Vol. 9, 1972.
Harry W. Richardson, The Economies of Urban Size, Lexington Books, Mass. 1973.

Economies of scale due to indivisibilities in the supply of public and private services indicate that there are minimum threshold sizes for efficiency. In the case of infrastructure costs and the supply of 12 different types of public services in 18 cities of India, significant economies of scale have been found for cities of population size up to 150,000 people. 1/ Other studies in the U.S. and elsewhere indicate that many components of the public sector do not exhibit economies of scale while others do (particularly sewer services, sanitation services, fire protection, gas and electricity). 2/

Another powerful influence in favor of large urban areas is that they provide large labor markets, a finer division of labor and a better match between skills and vacancies, thus lowering production costs. This greater division of labor allowed by urban scale is matched by a greater variety of output on the product side. New products can find markets more easily in large urban areas because of the high density of demand. It has even been argued that variety per se is an external benefit of residence in large urban areas; other economists have taken a more restrictive view, claiming that the products themselves and not the option of choosing among them are the significant source of satisfaction.

A final advantage of large cities is the positive relationship between city size and a greater rate of innovation. While this relationship has been established for the United States, 3/ it is easy to see how the distribution of innovation is even more biased in favor of the largest cities in developing countries where many of the new ideas are imported from the outside. The general implication of that relationship would be to favor large cities in order to encourage high rates of innovation.

There are also disadvantages to large city size. As the scale of a city increases commuting costs, land prices, and housing costs increase because it takes more time and resources to reach different parts of an expanding urban area. While the average population density of the entire metropolitan area may not necessarily increase with total population, there will be strong incentives to build higher structures and to economize on space in many parts of the city. The cost of living increases with city size but one should not conclude that larger cities are inefficient and that

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- 1/ Stanford Research Institute, Costs of Urban Infrastructure for Industry as Related to City Size in Developing Countries, Indian Case Study, Menlo Park, California 1968.
 - 2/ Hirsch, Werner, The Economics of State and Local Government, New York, McGraw-Hill Co., 1970.
 - 3/ Pred, Allan, The Spatial Dynamics of U.S. Urban and Industrial Growth 1800-1914, Cambridge MIT Press 1966, esp. pp. 106-112. Pred, Allan, Systems of Cities and Information Flows: Two Essays, Lund, Sweden. University of Lund, Studies in Geography, Series B, No. 38, 1974. Sanuki, Toshio, "The City in Informational Society" Area Development in Japan, No. 3, 1970, Tokyo, Japan Center for Area Development Research.

there is an upper economic limit to the physical design of a city. All the empirical evidence in developed countries converges and shows that large cities are more efficient and that the real wage level (net of the cost of living) increases with city size. 1/

The dominant problem with respect to the expanding size of urban areas is one of urban management. Many large cities of the developing world appear to be accumulations of small cities side-by-side and not integrated and differentiated functional systems. But the proximity of these numerous loosely connected urban units affects the urban ecological system and the social environment. Much of the evidence available so far concerns developed countries, but increasingly frequent surveys in developing countries confirm that occurrences of air pollution, noise levels, congestion, crime and social disturbances, health problems and climatic changes tend to increase more than proportionately with city size. 2/

Often the appropriate corrective measures are available. For instance, the Greater London Council in Great Britain has been quite successful in correcting its environmental problems and has been able to clear its air and its rivers. The issue is whether large cities in developing countries will have the organizational strength and the skills necessary to enforce the right measures. Given the evidence that large urban agglomerations are economically more efficient, the appropriate management of urban ecological and social systems would be very likely to lead to even larger cities. Unfortunately, in some countries, city management does not seem able to cope even with urban sizes which are found quite tractable in other countries.

Location

The rapid growth of the world's urban population is unlikely to generate many new cities. Most of the growth will occur through the expansion of existing centers. This is because urban centers already exist at most choice locations and the expansion of these centers is a less costly alternative than the creation of new centers.

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- 1/ Mera, Koichi, "On the Concentration of Urbanization and Economic Efficiency," I.B.R.D., Economics Department Working Paper 14, 1970. Alonso, William, "Urban and Regional Imbalances in Economic Development," Economic Development and Cultural Change, October 1968. Hoch, Irving "Income and City Size," Urban Studies, October 1972. Mera, Koichi, "On the Urban Agglomerations and Economic Efficiency," Economic Development and Cultural Change, Vol. 21, No. 2, January 1973.
- 2/ Hoch, Irving, "Urban Scale and Environmental Quality," in G. Ridker, ed., Resources and Environmental Implications of U.S. Population Growth, Resources for the Future, Baltimore: Johns Hopkins Press, 1973.

Topography and past physical and social investments and innovations in transportation have crystallized the patterns of urban settlements. Although the structure of the transportation system is not completely determined by topographical or economic constraints, once it has been established, cumulative benefits accrue to a limited number of locations. Past innovations in water, rail, road, and air transport have all lowered the cost of movement of goods and people thus extending the economic hinterland that could be reached from a given city. This has given a powerful impetus to the growth of large cities, where, by removing natural resource constraints - that is, the access to materials - it becomes possible to exploit the economic advantages of concentration.

Some new cities will be established, but their growth is unlikely to accommodate more than a small fraction of the increases in the urban population. New cities are likely to grow at locations where newly discovered resources are located, for example, Selibe-Pikwe, near the copper mines in Botswana. Their size and growth rates will depend on the pace of development of the natural resource rather than the general growth of urban areas.

In a few cases new cities may be established based on political rather than economic considerations. The costs of this type of development are sufficiently high to suggest that resource constraints will limit their growth. The high costs of development of Brasilia, for example, have been well documented - yet the total population of Brasilia is only marginally greater than the annual increase in the population of Sao Paulo. 1/ The experience in such diverse environments as India and the U.S. reveals a similar pattern of high costs relative to the population absorbed. 2/ Thus, in all countries the expected pattern of urbanization is one in which most of the population will be absorbed in cities that already exist.

1/ The Sao Paulo metropolitan region grew from 3,950 to 7,838 thousand people between 1960 and 1970, an average growth of 389 thousand people a year. Brasilia's total population was 538 thousand in 1970, see Fox, *ibid.*, Table 27, p. 63.

2/ See W. Alonso "What are New Towns for?" Urban Studies, Vol. 7., 1970. Ved Prakash, New Towns in India, Duke University Monograph on Southern Asia, No. 8, 1969.

B. MIGRATION: THE EFFECT ON THE SIZE AND DISTRIBUTION OF URBAN AREAS

In most developing countries population is growing rapidly in both urban and rural areas, with urban population at rates generally double those of the rural areas. Rural to urban migration thus accounts for a significant part of urban growth. Its importance, however, varies considerably from country to country and from one period of time to the next. For those countries with a large percentage of their populations already in urban areas (e.g., Latin America) the impact of migration on urban growth rates should decline rapidly, probably in about another decade. In the predominantly rural countries (e.g., Africa) migration patterns will still dominate urban growth for some time to come.

Evidence on the determinants of migration is abundant and consistent: migrants relocate because it is rational for them to do so. 1/ Migrants move from low-income areas to high-income areas; that is, the main attraction is economic opportunities. By and large the expectations that generate these moves are met.

"Not surprisingly, we also find that migrants who stay in cities do seem to be better off, on average. Not everyone is employed immediately, but a large fraction of migrants find jobs in a reasonably short period. Incomes are higher, even for the unskilled; and many who start out in relatively undesirable jobs manage to find better ones in time. Over time, in fact, there seem to be few employment-related differences between migrants and non-migrants of the same sex, age, and education level in metropolitan areas." 2/

In spite of often considerably different social and cultural environments, there are remarkable worldwide similarities among migrants and migration flows. Generally migrants are young, typically under 30, and although not highly educated have higher average education than those not migrating. Where the migrants go is determined by distance (cost of movement) and contacts. Most emigrants have friends and relatives or similar contacts in the cities to which they migrate.

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- 1/ Recent reviews of the debate concerning migration include Lorene Yap, "Internal Migration in Less Developed Countries: A Survey of the Literature," Urban Poverty Task Force, IBRD, November 1974; Michael Greenwood, "Migration Research: A Survey of the Findings," draft; Bertrand Renaud, "The Specification and Estimation of Economic Models of Internal Migration," draft 1974; and Pamela Brigg, "Migration to Urban Areas," IBRD Working Paper No. 107; and Connell, Dasgupta, Laishley, and Lipton, "Migration from Rural Areas: The Evidence from Village Studies," Institute of Development Studies Discussion Paper No. 39, January 1974.
- 2/ Yap, ibid., p. 3.

One of the reasons large cities are growing relative to small and medium size cities (see p. 20, above) is the uneven distribution of migration flows. In the early stages of urbanization, migration is often a two- or three-step move, from rural to small, local city and from small city to large urban area. The eventual movement to large urban areas is a logical consequence of higher incomes and greater opportunities for employment in these areas. A migrant moving to a large urban area, for example, may have access to potentially several hundred thousand jobs. In a small town there may be only a few potential jobs.

It is increasingly evident, however, from the more rapid growth of large urban areas and the slow growth of smaller towns as urbanization increases that this migration is increasingly bypassing any intermediate stops. Aside from the better opportunities to be found in the larger centers, two other factors have helped to accelerate this direction of movement. One is the decline in the costs of transportation and communications. The extension of the road network into rural areas has significantly decreased the costs of movement of people. In many countries the major urban centers are now a short and inexpensive bus or truck ride from even the remote rural areas.

Perhaps more important than just the reductions in the costs of physical movement are the resulting improvements in communications. Migrants no longer are faced with an unknown destination; many have already visited the areas where they will eventually settle. Gross movements from rural to urban areas and vice versa exceed by considerable margins the net flow of migrants. It is not unusual to find that for every migrant who settles permanently, five came into the city and four left. ^{1/} This large movement back and forth from rural and urban areas improves information and lowers the risks of movement.

The other factor that contributes to the dominance of the major urban centers as recipients of the migratory flows is the importance of the presence of relatives and friends. These contacts provide both information and support for the newly arrived migrant. When an urban center has grown to the point where it contains 15-20 percent of a country's population, it is likely that almost every potential migrant will have a relative or friend in the big city, thus continuing the pattern of concentration of the population.

^{1/} See, for example, A. Speare, "Urbanization and Migration in Taiwan," University of Michigan, Taiwan Population Studies, Working Paper No. 11, March 1971 and A. Udall, "Migration and Employment in Bogota, Colombia," unpublished Ph.D. dissertation, Yale University, 1973.

C. REDISTRIBUTING URBAN GROWTH

The shift of the world population from rural to urban areas and the relatively rapid growth of large urban areas are clearly revealed in the historical trends. Projecting these trends under any reasonable set of assumptions produces urban population estimates similar to those discussed in Chapter I and cities of the size shown in Table II-1. There appear to be few arguments that would support the thesis that this cannot happen. It is happening, and in all likelihood will continue to happen, unless there are substantial changes in the economic, political, and social structures that motivate the patterns of growth and settlement.

Many would regard these developments as undesirable and fear that the resulting costs in economic, political, and social terms will be excessive. Can these costs be estimated? Is it possible to divert population growth away from urban centers and in particular away from the larger urban centers?

The Costs

It is not possible to abstract the costs of urbanization from a specific country context. Costs if they are to have any economic relevance have to be stated in terms of alternatives. The basic question to be asked is where is the best location for an additional job and residence (and all the services that go with it) in order to produce the largest income at the lowest cost. In some cases this location will be in the town, in others, in the rural areas. Since most decisions about location are private decisions in response to a perceived set of economic and other conditions, the question is not so much one of what are the costs, but whether the signals given to producers and consumers accurately reflect social costs. Many of these signals are influenced by public policy and the suspicion is that this policy is generally biased in favor of urban locations and against rural locations.

There is a good deal of evidence to support this contention. Many countries, for example, through policies of industrial protection, turn the terms of trade against agriculture. A large percentage of tax revenues is collected and spent in urban areas. Urban areas receive more and higher quality of public services than do rural areas. All these and many more actions of government, by making urban areas more attractive, it is argued, have encouraged migration to the towns to the point where the social costs exceed private gains.

This bias in favor of urban areas (or perhaps more accurately, the neglect of rural areas) undoubtedly has a real economic cost, but whether simply correcting the biases inherent in many of these policies would change (or would have changed) significantly the rate and pattern of urbanization cannot be stated with any degree of confidence. The fact that the growth of urban areas - and in particular large urban areas - is to be found in all countries whether they have high or low levels of protection or terms

of trade for and against agriculture suggests that the impact of such policies may be marginal. Expanding educational or transportation investments in rural areas may raise incomes in rural areas but it is also just as likely to encourage migration. Removing protection from industry could encourage a different type of industry, perhaps more labor-intensive ones which would improve the absorptive capacity of cities and encourage their more rapid growth.

The bias in favor of large urban areas is a more difficult one to discern and analyze. Economies of scale and urban agglomeration are obviously important and it is not possible to distinguish the strength of this factor from the biases inherent in various policy measures. This is particularly true in small countries. The feeling, for example, that Kuala Lumpur with a population of 639,000 1/ is "too big" in comparison with other cities has to be viewed in two different contexts. It may be dominant in size with respect to other cities in Malaysia, but by world standards it is still a relatively small city and not necessarily out of proportion with its surrounding economic hinterland. Small countries do not have large enough populations and/or cover enough area to be able to have (or afford) a wide dispersion of the urban population.

There are, however, a number of measures which do tend to encourage the centralization of urban activities. Most of these have to do with government or public policy. In many developing countries, the government has been assigned a critical role in the development process. Government usually requires the centralization of decision-makers and their supporting staffs. Since it is this group that determines the direction and level of a significant part of the country's economic activities, it is not surprising to find that producers of goods and services prefer to locate close by, that is, in or around the capital city. Poor communications and transportation systems in the rest of the country make location in the capital city even more desirable.

Once the tendency for centralization of activities is established, it tends to become self-reinforcing. Economic activity becomes concentrated in one location and it always appears easier to add to it rather than locate elsewhere. The economies of scale are such that the individual production unit always sees its demands as marginal on such things as water supply or financial services. It is in the big city where labor, both skilled and unskilled, is available; where spare parts can be obtained; where money can be borrowed; and where the necessary official approval can be obtained. The fact is that once a city establishes its position in the urban structure, it tends to retain it over very long periods of time.

1/ At the 1970 population census, the total population of the Kaug Valley, which defines the larger metropolitan region, was 1,268,300 when the total population of West Malaysia was 9,118,000 and the total country population was 10,945,000.

The Magnitude of the Task

Discouraging further growth of urban areas or diverting the growth to smaller cities may be difficult to justify in purely economic terms. Indeed, a number of studies have shown that the attempt to change the regional patterns of growth in a country may be excessively costly in terms of loss of output - presumably from the loss of scale and agglomeration economies.^{1/} Regional equity "balance" is regarded, however, as a desirable goal by many planners and politicians. It is sometimes expressed as a policy for decentralization or regional development and interpreted to mean that the capital city or other large urban centers should not grow as fast and that the more backward regions should develop faster; that is, rather than the people moving, economic activity should move to the people.

Regardless of how desirable the goal, serious doubt must be expressed about the ability of most governments to have anything but a very marginal impact on the movement of people. The task is too big and the changes are occurring too rapidly to hold out much hope for success of such decentralization efforts.

Rural to Urban Movements. The migration from rural areas is, for the most part, fueled by average income differentials of at least two to one - though at the margin of the poorest groups, it may be ten. Given these large differentials and the apparent responsiveness of migrants to economic incentives, the existing rates of migration are unlikely to indicate an equilibrium situation. Poor information, lack of knowledge of risks, and perhaps, the conservative nature of the rural population help to insure a slower rate of migration than would prevail in the absence of some of these barriers. Thus marginal changes in the rural-urban income differentials are unlikely to have a significant effect on this migration. The changes would have to be large and over a short period of time (i.e., less than ten years) to have any impact.

^{1/} See, for instance, Koichi Mera, 1973, op. cit., who studied forty-six prefectures of Japan. "For the forty-six prefectures, clear relationships were observed between social overhead capital and labor and private capital inputs. The density of either of the two private capital inputs is very much related to the density of social overhead capital..... Policies to develop less developed regions tend to reduce the economies of concentration ... when labor and private capital respond to the distribution of social overhead capital ... an experiment to equalize per capita incomes) for the forty-six prefectures gave a drop of national income of about 15 percent from the current observed level". (pp. 318-319).

Population growth in the cities is becoming a major determinant of city growth. Migration is important but even without any migration many of today's cities will grow to a large size on the basis of the population growth rates of their present inhabitants. In Peru, it is projected that on the basis of natural population growth alone, the urban population will increase by 3.8 million between 1970 and 1985 - an increase of 53 percent over the urban population of 1970. This situation is similar in all but some of the Type III (African) economies. Urban centers are large and their continued growth is increasingly a function of natural growth rates rather than a function of rural-to-urban migration.

Urban-to-Urban Movement. Movement out of rural areas will be difficult if not impossible to slow down in any significant way within a time horizon sufficiently short to slow the rapid urbanization of most countries. There still remains the possibility of diverting this growth from the larger to smaller urban settlements. Here again income differentials are important but probably of lesser magnitude than in the case of rural-to-urban movements. Considerable potential for this type of diversion may exist in the countries that are still predominantly rural or that do not yet have large urban centers. In those countries that are already largely urban (Type I) or are well on the way to becoming urban, it will be more difficult. Most of these countries have large primate cities several times the size of the second largest city. Consider the example of Mexico where the capital (Mexico City) is five times the size of the second largest city.

	Population /1 1975	Increase in Population, 1975-85		Population /1 1985
		Natural Migration /2	Total	
Mexico City	10.9	4.1 + 2.4 =	6.5	17.4
Guadalajara	2.0	0.6 0.5	1.3	3.3
Monterrey	1.6	0.7 0.3	1.0	2.6
Puebla	0.6	0.2 0.1	0.3	0.9
Juarez	0.6	0.2 0.1	0.3	0.8
Total, 5 largest cities	15.6	5.8 3.4	9.4	25.0

/1 Based on UN estimates, op. cit.

/2 Estimated as a residual. Natural growth rate of the city is assumed to be equal to the national growth rate.

The growth of Mexico City is estimated to be 6.5 million in the next 10 years, 63 percent from natural population growth. Distributing this 6.5 million over the remaining four large cities would increase their populations from 4.7 million in 1975 to 14.1 million in 1985 - an implied rate of growth of 11.6 percent per year. This would present an impossible task as far as the absorptive capacity of these secondary cities. Taking the population increase of the five major cities and distributing it over all remaining urban centers would almost double their rate of growth from an average of 4.2 percent to 7.0 percent. Again a task of unprecedented proportions to be accomplished in 10 years.

There are obviously other options. Only net migration could be redistributed or the increase in Mexico City's population diverted to all other cities. Regardless of the permutations and combinations that could be tried, Mexico City would still remain large and all other cities would still be doubling in size every 10 to 15 years. Similar results are to be found in such diverse countries as Korea and Colombia.

Such a mechanical exercise in redistributing the growth of the urban population is only indicative of the magnitude of the problem. How it could be done in practice, assuming it were desirable, cannot be stated with any certainty. A number of countries, including Mexico and Peru, have explicit policies of decentralization. Generally they take the form of incentives for industries to locate outside the major urban area and/or increasing the volume of public expenditures on infrastructure in the smaller urban centers. These incentives by and large appeal to the protected capital-intensive industries and it is doubtful they will increase the absorptive capacity of the secondary cities.

Part of the problem with many packages of decentralization policies is that they attempt to decentralize in a haphazard and unrealistic way. The effort and funds of the public sector are spread over too many cities or regions with the result that no one city receives sufficiently large investments, either public or private, to achieve a critical minimum scale sufficient to overcome the pull of the capital. Many of these policies perpetuate the inefficiencies of existing industrial policies and are not really constructive responses to the problem of improving the absorptive capacity of cities.

CHAPTER III
POVERTY IN THE CITY

A. THE DISTRIBUTION OF INCOME IN URBAN AREAS

The city is a place where economic and social activity can be organized to take advantage of the economies offered by close proximity. The division of labor and the gains to specialization are the keystones to these advantages. As an economy grows and specializes, it develops a greater diversity of occupations and skills, most of which will be located in urban areas. In rural societies the scope for specialization and thus for a more varied occupational and income structure is limited. Ownership of assets, particularly land, is a more dominant determinant of the structure of income distribution. The very poor in rural areas tend to be the landless, who work at an approximately uniform and very low wage. Barring land reform, little can be done to intervene in the continued household poverty of this group. In urban areas where the opportunities for developing a variety of individual skills or a person's natural intelligence are greater, access to these opportunities for learning and skill development is a more important factor than ownership of assets. Formation of human capital through on-the-job training or formal training can take a poor household some way up the scale from absolute poverty.

Leaving aside the question of asset distribution, the more varied occupational structure of urban areas would suggest a wider range and more uneven pattern of income distribution among the part of the population that does not own productive assets. The combination of low productivity in agriculture and the migration of labor to the cities is likely to continue to depress the wages of the poorest members of the urban group because much of the increased supply of labor through migration is at the lower end of the skill levels and would compete in the market for basically unskilled, usually unprotected, labor. On the other hand, the rapid growth of city (or economy) implies an increased demand for higher skilled manpower and consequent increases in the remuneration of those with these skills. Similarly, entrepreneurial incomes are likely to increase with city size.

On the low end of the income scales, employment in petty trade, services, or artisan activity, ease of entry and the sheer numbers of competitors have reduced value of output at the margin to low levels. At the extremes, the urban poor are performing services (e.g., minor additions to the convenience of purchasing semi-standard hawkers' items) on which society places a low value. The total remuneration for the activity is low, even though the poor capture both entrepreneurial and labor shares. The same type of competitive pressure can bid down the "wages" of urban artisans and service workers in crowded fields. In industrial or construction activities that are characterized by competitive labor markets, the wages of labor are again likely to be low, whatever the condition in the goods

market, in situations of labor surplus. Thus, for example, industrial wages in India or Pakistan for the unskilled are fractionally higher than wages of farm workers; in Pakistan a money income differential of around 50 percent seems quite stable over time and across cities indicating that the poor are all part of a connected labor market for unskilled labor. The 50 percent wage differential appears to be about equal to the differential in living costs and a small differential to overcome market frictions.

Industrial wages are sometimes raised by a combination of restrictive practices in the labor market (minimum wages, union rates, etc.) which shield even the low-skilled industrial employee from the potential competition of the mass of urban poor who are working for lower incomes. This can move the fortunate into a separate income class, usually well above the absolute poverty line. In effect they join the middle-income groups in the city. In principle, these higher wages can be either a larger labor share in total output, or simply the ordinary labor share in a production which, in the goods market, is favored by special protection and hence unusually profitable. The latter situation is often observed; a heavily protected industry shares out a portion of its profit with a labor force which benefits from some restriction in the labor market. The scope for increasing incomes of the working poor through protection and market restriction is obviously limited. The primary effect is to reduce the overall labor demand and hence depress the wages of those not favored by a special market arrangement (an extended discussion of this point is contained in Chapter IV).

On the upper end of the scale of earned income, the city provides opportunities for scale economies in services, hence entrepreneurial income to the organizers of services, and opportunities for advanced labor skills to earn high wages in productive industries which themselves benefit from economies of agglomeration. The more rapid the pace of development and growth, the greater will be the demand and price of special skills and organizational talent. Rapid urbanization and growth of income is thus likely to increase in the short run and the inequality of earned income within urban areas, particularly if low levels of productivity and high population growth rates are characteristics of the rural areas. 1/ The Type I countries (Latin America) exemplify this situation. High growth rates and high rates of urbanization have been accompanied by increasing inequality of income. This increasing inequality is likely to persist until declines in the rural population eliminate the pressures of large migrant flows on the remunerations of unskilled labor. For many of the Latin American countries this should occur in the next one or two decades. 2/ Alternative policies which attempt

1/ The inequality of distribution of income at the national level may also increase but this is uncertain, because earned-income classes, as a group, may gain relative to property-income classes.

2/ In Argentina, this has already occurred. The largely urban society already has a more equitable distribution of income than is found in the other Latin American countries.

to slow down urbanization and growth in order to achieve a more equitable distribution of income may simply prolong the process and be self-defeating. 1/

In the Type IV countries (India, Sri Lanka, Bangladesh, etc.) the low productivity of the large population in agricultural employment, combined with extreme pressures on the land, tend to depress the urban wage rate of the unskilled. The distribution of income in the urban areas appears to be about the same as that of rural areas. Since the urban population is growing relatively slowly it is unlikely that this will change.

In the Type II countries the distribution of income on a nationwide basis is mixed. In those countries where there is a fairly even distribution of national income (e.g., Korea), both the rural and urban distributions show similar patterns of equality, or where national income is unevenly distributed (e.g., the Philippines), inequality. To the extent that economic growth is rapid, the increased urbanization should improve the national distribution of income. Income disparities in urban areas are likely to increase until some scarcity of labor is experienced in the rural areas, leading to reduced migratory flows and less downward pressure on the urban wages of the unskilled.

For the remaining countries (Type III) data are insufficient to draw any conclusions. There are in many countries obvious inequalities of incomes in urban areas, but whether this is different from that of the rural areas is difficult to say. Growth of urban areas will tend to accentuate the already sharp differentials between urban and rural areas.

B. IDENTIFYING THE URBAN POOR

Urban consumption usually depends upon earning money incomes and buying in relatively sophisticated markets or consuming public services. In all of these factor markets, goods markets, and service markets the urban poor are "price-takers" with no practical influence over market forces. While household satisfaction and progress depends on access to a mix of goods and services affordable within income earnings, the patterns of access in urban areas are quite complicated. Urban poverty, therefore, demands sophisticated treatment, comparable indeed to the rural requirements for land reform, agricultural extension, and so forth.

Disposable cash income is not the sole criterion of urban welfare, and cash transfers are almost certainly the wrong handle for welfare redistribution. Rather, welfare depends upon the combination of benefits from items purchased with money income, plus earnings from assets (shelter, utilities), plus direct consumption of services (schools, clinics). This

1/ See S.A. Morley and J.G. Williamson, "Demand, Distribution, and Employment: The Case of Brazil," Economic Development and Cultural Change, October 1974, Vol. 23, No. 1, for a more complete examination of the effect of different policy alternatives in the case of Brazil.

view of poverty emphasizes the inter-relationships of economic and social processes in urban areas. Percentile definitions of poverty based on disposable cash income can miss critical determinants of welfare: access to service income from assets and access to required services.

Comparative urban analysis has stressed the difficulties of using minimum standards to measure poverty. 1/ Standards which apply in some cities are irrelevant in others and frequently such standards differ significantly within cities. For example, households may decide to occupy less space in a more costly location to gain access to informal sector earnings. Definitions of minimum acceptable living space must therefore be considered in relation to the price and quantity/quality of other resources to which a household must have access in order to earn a living in that location.

The complexity in defining inter-relationships between components of household welfare is compounded when the distinction between household and individual income is explored. The differential participation in the labor force of household members, varying consumption patterns, and changing status and access to future opportunities resulting from the overall household situation, emphasize the limitations of using either household or individual income as an indicator of personal poverty. Total income must be considered in terms of the needs it is supposed to satisfy, reflecting the size and composition of the household. 2/ This is further complicated by the rural-urban distribution of wealth within extended families or households. In many cases, urban income may be a poor proxy for total wealth, which may include rural land holdings or other rural assets providing the security for urban residence, particularly during a period of job search.

Failure to secure any one of the important income streams in an economical way and at a reasonable standard (earnings, service streams from housing and other household assets, or government-provided public services) can frustrate efforts to improve a household's welfare. If water, for example, is not provided efficiently, then it will be procured inefficiently, at excess social cost and probably in suboptimal quantities from the health point of view. Great variations exist in terms of access to these resources both across and within cities. Malnutrition in Dacca has no counterpart in Abidjan, where food is so far available to all who need it. Extreme cases such as pavement dwellers in Calcutta contrast sharply to residents of the bustees, who may still be poor, but for

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- 1/ IBRD, Housing Policy Paper, Background Paper on Housing, Urbanization Sector Working Paper, and Report on the Urban Data Needs of the IBRD. Ford Foundation, International Urbanization Survey. United Nations, World Housing Survey.
 - 2/ Anna M. Sant'Anna, "Household Composition, Secondary Earners, and Urban Poverty: Some Preliminary Results," Urban Poverty Task Force, November 1974.

different reasons. Levels of household deprivation change according to season, luck, fluctuating exchange rates, and the health conditions of the household. These shifting patterns complicate the application of absolute or relative criteria of poverty and emphasize the need to examine conditions in individual cities before identifying the poverty population. The stress must be on a careful assessment of the actual bottlenecks and inefficiencies in the situation of the poor.

C. THE CHARACTERISTICS OF THE URBAN POOR

No description of the urban poor will fit all poor households in all countries. Nonetheless, the poor share many demographic, reproductive, educational, locational, nutritional and health, and political characteristics. They combine to create the consumption and capital formation disadvantage described as urban poverty.

1. Demographic Characteristics

The age structure determines the supply of labor that a family of a given size has to offer. Having more than one income earner per household increases the likelihood that a family will have sufficient income to provide the food, lodging, and other services necessary for continued productivity; a high dependency ratio places great strain on the economic stability of the family group. Age distributions of urban populations show that low-income groups usually have the lowest median age and highest dependency burden within the total population.^{1/} Since younger workers are likely to have less education, training, experience, and job seniority, and therefore are likely to have lower paying jobs than other people in the same occupational category, the disproportionate number of young workers, in addition to the high dependency rate, hinders advancement.

2. Reproductive Characteristics

Fertility rates and family size affect the well-being of every member of a household. In its starker terms, an additional mouth to feed may be too much for a household budget to bear. Studies of Santiago, Malaysia, Thailand, Calcutta, Delhi, and other parts of India found that the highest birth rates are usually found among low-income families, e.g., households unable to afford additional children have the highest fertility rates within the urban population. Culturally, high fertility is associated with the fact that daughters of the poor marry earlier than the better educated women of higher income levels. Negative effects of high birth and dependency rates on asset formation and hence on future earnings from wealth and human capital investment are well documented.

^{1/} Robert Hackenberg, "The Poverty Explosion: Population Increase and Income Decline in Davao," Davao Action Information Center, 1974; and Pravin Visaria and Bonnie Newlon, "Differentials in Fertility, Mortality, and Family Planning Acceptance by Economic Status," Urban Poverty Task Force, December 1974.

3. Educational Characteristics

The distribution of education is positively correlated with both individual and household income. Education, whether for credential purposes or vocational training, increases the opportunities of individual workers within industries and firms. Worker productivity is often linked to educational background. Studies in Lima, Caracas, Asuncion, Maracaibo, Bogota, Medellin, Barranquilla, Cali, Montevideo, Hong Kong, Manila, and Bangkok show that the education of household heads is strongly linked to higher income. 1/ Studies in Caracas, Montevideo, Panama City, Colon, Rio de Janeiro, Guanabara, and Sao Paulo show that individuals with primary education earn from 33-50 percent more than people without schooling. 2/ Individuals with secondary education earn from 40 to 70 percent more than those with only primary education. 3/ While education means higher lifetime incomes, earnings differ over time depending on the occupational and industrial categories of workers. Those who receive secondary education have been justly described as "the fortunate few." 4/

Analysis of school attendance patterns shows that the poor have the highest proportion of household heads with only primary education. 5/ Low household incomes force high-school-age children to seek employment rather than seek secondary education. The result is that the lowest high school enrollment is found among poor households. 6/ The opportunity cost of employment during school age years is thus very high, extending throughout the years of possible productive employment. Prospects for increased permanent income from human capital are thus diminished.

4. Locational Characteristics

As discussed in Chapter IV, in the absence of affordable transport, physical location determines access to real income-earning opportunities. Because land costs usually increase with proximity to the central business district or other nodes of economic activity within the city, the poor are unlikely to legally occupy affordable locations assuring access to employment. Their alternatives include illegal squatting, which permits access

1/ Carmel Chiswick, "Income Distribution in the Cities of Asia and Latin America: Some General Patterns," paper presented to the ECIEL Working Group on Income Distribution, January 1975, Guatemala City.

2/ Ibid.

3/ Ibid.

4/ Remi Clignet and Philip Foster, The Fortunate Few: A Study of Secondary Schools and Students in the Ivory Coast (Evanston: Northwestern University Press, 1966).

5/ Hackenberg, op. cit.

6/ IBRD, Education Sector Paper, December 1974.

but inhibits fixed asset formation, or residence on the urban periphery. The latter sometimes offers more secure opportunities for investment in housing, but more costly access to services and employment.

Studies of LDC cities show myriad examples of squatter settlements on the periphery, far from income-earning opportunities. In some cities, it is possible to identify a concentric theory of income distribution: "The further you live from City Hall, the lower your income will be." This might be modified to say that: "If you are poor, the further away from City Hall, the poorer you are likely to be." 1/ Location determines opportunities for increased household incomes through secondary employment.

5. Nutritional and Health Characteristics

Health and balanced nutrition are essential for human productivity. Studies of the effects of disease and malnutrition demonstrate the importance of health and diet in utilizing opportunities from school to work place to recreation. 2/ Even though health facilities are more available in urban than in rural areas, they are often unsuited to the needs of the mass of urban population. University teaching hospitals and highly trained specialists serve only a few. While untreated disease is more prevalent in rural areas, new health threats grow from the crowded, unsanitary urban residential neighborhoods and contaminated water supply. 3/

A second aspect of urban health problems is childhood mortality and disease linked to malnutrition. The benefit of a full supply of breast milk to rural children is often lost to urban offspring, away from their lactant mothers, who are in the labor force to supplement household incomes. Studies in Guatemala, Indonesia, Taiwan, The Gambia, Jamaica, Brazil, and Panama show major rural-urban differentials in the quantity of breast milk provided to infants. 4/ Estimates in India, the Philippines, and Mexico show that 50 percent of potential breast milk is lost because of labor force participation by women. 5/ While household disposable income may increase, children are deprived of essential nutrients; this has long-term implications for educability, productivity, and earnings. 6/

The incidence and impact of these problems are felt most severely among low-income groups. Health problems are found most often in squatter

1/ Hackenberg, op. cit.

2/ IBRD, Health Policy Paper and Background Paper on Health.

3/ Frederick Golladay and Caio Koch-Weser, "Health and the Urban Poor," Urban Poverty Task Force, December 1974.

4/ See Shlomo Reutlinger and Marcelo Selowsky, "Malnutrition and Poverty: Extent of the Problem and Discussion of Some (Domestic) Policy Options," Urban Poverty Task Force, December 1974.

5/ Ibid.

6/ Ibid.

settlements and inner-city tenements, in part resulting from the lack of potable water and effective sewerage disposal occurring at high residential densities. Undiagnosed and untreated problems then lead to more debilitating problems which can result in temporary loss of income, permanent disability, or death.

6. Political Characteristics

A major dimension of economic status is the ability to influence decisions taken by others which affect individual, household, group and jurisdictional welfare. Participation in the decision-making process within neighborhood, local, regional, or national arenas is essential if economic, social, and political interests are to be represented and pursued within the society at large. Those not represented during the process of resource allocation rarely receive their fair share. Group interest, therefore, can only be safeguarded by the particular group concerned.

Poor households suffer serious political disadvantages in LDC cities. They are rarely represented in formal political institutions, such as municipal councils or political parties. Their internal organization, while it may be effective in their neighborhoods, does not guarantee their sharing in the benefits of city-wide resource allocation patterns. They are excluded (marginalized) by the political process.

D. POVERTY AND THE HOUSEHOLD: DIFFERENTIALS IN IMPACT AND OPPORTUNITY

Studies of poverty and income distribution have increasingly focussed on the household rather than the individual as the unit of analysis. Individual opportunity is often determined by the economic and social experiences of other members of a household in securing employment and improving their well-being, because transfers of income between household members augment or diminish the income of individuals over time. Poverty, therefore, can have differential effects on individuals according to their position in the life cycle and their role within a household. Factors influencing the allocation of resources within the household are therefore central to explaining why poverty persists and how points of intervention can be identified in specific circumstances.

1. The Importance of Secondary Employment

The major finding from studies of household income is that low-income groups have fewer earners than higher income groups. 1/ In many cases, households relying solely on the income of the primary earner are poor. The role of secondary earners for the household economy is thus critical for household well-being. The location disadvantage mentioned earlier often inhibits secondary employment, thereby keeping households living on the urban periphery at a lower standard of living than they

1/ Sant'Anna, op. cit.

might otherwise enjoy. At the lower end of the income distribution, the larger size of households worsens dependency ratios by the lower labor force participation of poor households. In Belo Horizonte, Brazil, for example, higher income groups had 1.1 dependent per earner in contrast to 3.9 for poorer groups. 1/ A heavy family burden is felt by the primary earner.

The need for secondary employment if household well-being is to be improved, or at least not worsened, focusses attention on the profile of secondary earners. This profile suggests the importance of intra-household allocation of resources and opportunities. Although profiles vary considerably across cultures and cities, several important generalizations can be made which have direct policy implications:

- a. The income from secondary earnings is a significant supplement to primary earner income and changes the overall household income distribution within a city.
- b. Secondary earners are both men and women in more equal proportions than primary employment. They are usually young, and work in both the formal and informal sectors. Assertions that secondary employment is confined to informal sector activity are disproven by studies which show high formal sector participation.
- c. Depending on the industrial structure of the city, there may be sharp differentials in secondary earnings in the formal and informal sectors. Workers in informal activities in Belo Horizonte earned 58 percent less than their counterparts in formal employment. 2/
- d. The high participation of women confirms the importance of location for secondary earnings. Studies which indicate low female participation attribute this to the high cost of access to employment, as reflected in transport costs.

2. The Distribution of Resources within the Household

The process of seeking multiple employment opportunities has significant consequences for household members. The loss of potential breast milk to infants is one example. Support for education aspirations is another. Households may perceive themselves to be too poor to "afford" the education of even one of their members, although they understand that education might lead to higher long-term earnings for the unit as a whole. In such cases, immediate needs are seen as so great that the household is

1/ Ibid.

2/ Ibid.

unable to "invest" in developing its own human capital. Adults who work long hours must consume enough of their earnings to maintain their own health and productivity. The remaining income may be used for dependents, but even in the unlikely event of complete adult altruism and no wastage, this is often not enough to secure minimum human capital for the advancement of the next generation. High parental aspirations may be frustrated by multiple forces outside the household, from wage rates to building codes.

The previous discussion emphasizes the importance of attacking poverty on many fronts. Some poverty problems must be resolved at the household level, particularly those relating to inter-generational income transfers; escapes from poverty status show that some households do pursue strategies which liberate their children from poverty. But other essential elements of an urban poverty strategy are truly national and may be summarized as programs to improve labor productivity in general. Still a third set of inputs into the solution must be provided by government, in the form of improvement and rationalization in the provision of some crucial services. The public sector has an apparent comparative advantage in providing some services, e.g., education, water supply, sanitation, preventive medicine, etc., on a mass scale at inexpensive standards. This role, however, must be clarified by policy reform which in fact directs resources into mass-oriented rather than high-standard services, for example, clinics rather than hospitals. While this intervention does not assure that the poor will find productive employment generating sufficient income, it does represent a necessary precondition for productivity, particularly as it affects capital formation in children. Therefore, these services at some standard are probably appropriate at all levels of country and household income. Other services, such as provision of infrastructure for a well-ordered expansion of the urban area, are necessarily public. To the extent that the poor are treated fairly in these investment decisions, they have a better chance to help themselves and thus contribute to the prosperity of the city.

CHAPTER IV

THE ABSORPTIVE CAPACITY OF CITIES

The unprecedented rate of migration and city growth presents an overwhelming challenge to LDC cities to absorb newcomers in a productive and equitable manner. Cities doubling in size every decade would strain the capacity of the most developed countries; in the developing countries this has been occurring for several decades in an environment of low and strained resources - human, physical, and financial.

Two crucial elements affect the capacity of cities to absorb the newcomers. First, absorptive capacity cannot be dissociated from general development policy. In many cases national policies are inimical to the healthy development of the city: they impart a strong tilt to the rural-urban balance against the rural sector and at the same time unduly distort the pattern of city growth. Second, taking into consideration the interaction between social and spatial change within a rapidly growing city, it appears that spatial urban growth processes are often inefficient, biased against the poor, and limit absorptive potential.

National economic planners are generally concerned with monetary, trade, fiscal, and employment policies. On the other hand, urban planners are concerned with spatial structure and design and have a limited capability and/or opportunity to analyze socio-economic processes. These two strands of analysis must be brought together. The absorption of new residents into urban life is a national policy problem, and the internal organization of a city has crucial implications for national development. Virtually all national policies have territorial consequences.

A. NATIONAL DEVELOPMENT POLICY

National policies covering such diversified areas as rural development or the structure of tariff protection have obvious impacts on the process of urbanization. In some cases many of the problems of urban development can be traced to the application of inappropriate policies at this level, that is, the solutions to some major urban problems are to be found in solutions to the national problem. The main variables at the national level which affect urbanization patterns are:

(1) Economic Growth

Urbanization and economic growth are strongly correlated. Countries that are growing rapidly are also urbanizing rapidly. Similarly, countries that are stagnating have a low growth rate of urban areas. The lack of economic growth can exacerbate the problems of urban areas. The failure to absorb a large number of newcomers to urban

areas in productive employment can set in motion potentially disruptive political, economic, and social forces. It gives the poor the frustrating choice between growing rural poverty, as the per capita land base shrinks, or eking out a miserable urban livelihood.

(2) Population Growth

Rapid population growth will always put pressures on limited resources. The rate of population growth combined with the agricultural resource base will determine both the strength of the push out of rural areas and the ability of urban areas to productively employ the outflow. In slowing down the population growth rate, the concentration of the population in urban areas does present certain advantages. Education, extension, and service provision for family planning become increasingly feasible within the confines of urban areas. Many of the inhibiting forces such as religious and social traditions are weakened. Economic sanctions are reversed; an additional child can be a clear economic liability in the city and a long-term asset to the social security system in rural areas. However, because migration is demographically selective, the urban group will have a greater concentration of the target group - the young and the fecund and this means that the demographic transition will appear to be delayed.

(3) Industrialization

Policies governing trade protection, exchange rates, tax policy, etc. all have obvious impacts on the pattern of spatial development in a country. Investment incentives (pricing and tax policy), for example, can accelerate the concentration of production in urban areas and at the same time discourage expansion of the agricultural base.

(4) Income Distribution

The uneven distribution of resources in either the urban or rural areas can distort the pattern and efficiency of the urbanization process. Poorly distributed land in rural areas can result in a premature or excessive movement of the population to urban areas. Similarly the concentration of assets in urban areas can distort the demand for and production of urban goods and services.

(5) Institutional Structure and Spatial Balance

Institutional structure responds to the concentrations of political and economic power. The tendency of institutions

to respond slowly and often inappropriately to change can greatly complicate a situation in which rapid change is the main characteristic. Thus there are examples of urban elites in politically powerful urban concentrations who distort the pattern of investment and pricing at the expense of both the urban and the rural poor as well as rural elites who absorb both land resources and agricultural investment and government services to an inordinate degree. Both militate against an orderly process of urbanization.

Although all of these variables play a significant role in the process of urbanization, their strategic importance varies considerably from one country to the next.

Urban Consequences of National Policies

Rural Neglect

Many urban problems in LDCs can be traced to the import substitution strategy and its underlying assumptions that modernization and development required a forced industrialization; that there was nothing wrong with policies strongly biased against agriculture, since this was not a "leading sector"; and that manufacturing industries would provide sufficient employment opportunities. It is now clearly realized by most national planners that the development of manufacturing industries does not preclude the development of agriculture but, on the contrary, that they are interdependent. Unfortunately, the cluster of reinforcing trade, monetary, fiscal, licensing, and labor policies based on these misguided policies is difficult to change. Established pressure groups stand to lose from a policy which would lead to a better balance among different sectors of the economy.

The implicit anti-agricultural bias in most import substitution policies has had a significant impact on urbanization patterns. Protection, by producing the distortions in prices in favor of manufacturing, stimulates these activities. This policy often leads to an import-dependent industrial structure. Because of protection, the real contribution of manufacturing activities, especially large-scale ones, has often been small. After correction for the effect of protection, there have been cases where the contribution of value added of a particular industry was actually negative. A dramatic example is that of Pakistan in 1963-64 where the average annual subsidy to large-scale manufacturing and the corresponding implicit tax on agriculture represented 6.6 percent of total domestic expenditures. The conventional contribution of industry was measured as 7.0 percent; its actual contribution after allowing for protection was estimated to be a dismal 0.4 percent of domestic value added. 1/ The implications for growth

1/ This analysis was performed by Little, Scitovsky, and Scott, in their influential book, Industry and Trade in Some Developing Countries, London: Oxford University Press for the OECD Development Center, 1970 (see Table 2.12, page 73).

in the economy and consequent labor absorption from the next round of investment need hardly be labored. If the import substitution sector is producing little value added, the growth effect of the funds invested in it are effectively sterilized and when apparent savings (i.e., part of the financial gains to owners of protected industry) are reinvested in similar industries, they merely perpetuate the cycle.

Protection of the large-scale manufacturing sector penalizes agriculture in two ways. First, it raises the price of industrial versus agricultural goods in the domestic market. Second, the artificially high exchange rate which is part of the protection package reduces the receipts in terms of domestic currency from a given volume of agricultural exports thus discouraging agricultural expansion. Little, Scitovsky, and Scott note that during the postwar period "the price of manufactures in relation to farm prices, over much of the period, has been twice as high on the average as the world market prices would be." 1/ They note that "the general pattern though not unambiguous suggest that domestic terms of trade have moved too greatly against agriculture." In this pattern of discrimination, they emphasize the importance of the squeeze on the production side where the terms of trade between agricultural output and inputs should be more favorable. This is more important in terms of supply response than the terms of trade between agricultural output and the consumer goods which farmers buy from the manufacturing sector. 2/

There would be extensive benefits to the urban sector from encouraging agriculture to a greater extent, particularly in the more rural economies. As discussed in Chapter I, only with rapid agricultural growth can the rural sector absorb a large share of the population increases at reasonable income levels. Non-agricultural rural incomes, transport, processing, trade, and the like, are also linked directly to agricultural output. If rural incomes grow, it might be expected to inhibit migration, at least to some extent, although counter-examples abound, such as the high rate of urbanization in Mexico during its agricultural growth period and the historical urbanization of the now developed countries. What is more certain is that the level of rural poverty and the consequent downward pressure that migration and potential migration exerts on urban wage rates would be lessened. Dynamic urban sectors would still attract people - perhaps just as many or even more - but only to the extent that they could compete for labor against the higher earning opportunities in rural areas. The urban growth problem, per se, might remain largely unchanged, but the urban poverty problem would be relieved.

A dynamic agriculture will also stimulate local demand for urban-produced goods and services, leading to greater absorption of labor. Although the evidence is inconclusive, rapid agricultural growth might have a decentralizing effect on the pattern of urban growth, because agricultural

1/ Ibid, p. 42.

2/ Ibid., pp. 347-348.

incomes are spread over a wider space. This may noticeably stimulate the growth of smaller towns to cater to local rural demands. The import substitution industries have tended to be large in scale and geographically concentrated.

Another aspect of trade policy which has not been extensively explored is the fact that being controlled and/or influenced by the large manufacturing sector in the main urban centers, it will discriminate against the sectors found in the peripheral regions of a country. This pattern has been analyzed in two recent analyses of the exchange rate and trade policy of Brazil in the late fifties and sixties. 1/ It would be reasonable to expect such patterns to prevail in other countries as well with the result that the peripherally related towns have artificially low absorptive capacity.

The Capital-Intensive Bias within the Urban Sector

The paradox of the import-substitution type of development strategy is that while it discriminates severely against the agricultural sector and appears to be partly responsible for the fast growth of large urban centers (together with high population growth rates), it has led to excessive patterns of dualism within the urban sector and has made the absorption of the new urban dwellers more difficult, not easier.

The traditional views that the path which maximizes the growth of output will also maximize the growth of employment and that there is an inevitable positive relationship between the growth of output, employment, and labor productivity are no longer held as self-evident. Inappropriate exchange rate policies, imperfections in the capital markets, misguided monetary policies, investment licensing, and legislation, which by nominally protecting labor have made capital-intensive projects more desirable to entrepreneurs are the common features of the import-substitution strategy. They result in capital-intensive projects with high capital costs making heavy demands on foreign exchange and low capacity to generate foreign exchange. They make heavy demands on the real savings of the economy

1/ Barret, R.N., 1972, "The Brazilian Foreign Exchange Auction System: Regional and Sectoral Protective Effects," unpublished Ph.D. dissertation, University of Wisconsin; and Reboucas, O.E., 1974, "Interregional Effects of Economic Policies: Multi-Sector General Equilibrium Estimates for Brazil," unpublished Ph.D. dissertation, Harvard University, December 1974. To quote Barret: "These regional disparities in the impact of protection are the result of differences in the structure of the regional economies. Protection tended most consistently to drive down the output of agriculture and non-tradeables and to stimulate the output of manufacturing industry. Since the latter generated a much smaller proportion of income in the Northeast than the Center-South, even if the relative output changes in each sector had been the same in both regions, income would have risen more (or fallen less) in the latter." (p. 125)

and do not generate real savings. Therefore, they do not contribute to self-sustaining cities, whose growth is autonomous, in the sense that they pay their way, but rather they have produced cities that are highly vulnerable to disruption; e.g., balance of payments problems typically lead to gross underutilization of capacity. The enclaves of capital-intensive, relatively automated, large-scale industries with advanced technologies isolated from the small-scale crafts industries with their more traditional methods are thus not contributing sufficiently to stable and reliable employment growth.

When exchange rates are left unchanged at overvalued levels for long periods of time, they lead to balance of payments problems and corrective measures and a pattern of behavior on the part of investors which create a vested interest in capital-intensive manufacturing. As Little, Scitovsky, and Scott indicate:

"Sometimes exchange rates are left constant for long periods of time while the price of labor was rising more or less in step with inflation - and in the modern sector faster. This by itself must have particularly stimulated excessive purchases of imported capital goods in anticipation of the next, eventually inevitable and big, devaluation." 1/

Because of the presence of influential investors who benefit from it, the typical answer to the balance of payments difficulties created by overvalued exchange rates is to adopt corrective measures of restriction of imports through physical controls, tariffs, and licensing instead of a better policy of borrowing, reduction of reserves, and changing exchange rates which will control the balance of payments.

Overvalued exchange rates artificially lower the price of imports, stimulate a demand for imports which cannot be fully satisfied and lead to domestic prices for imports much higher than world prices. This excess demand for imports offers high profit opportunities to investors in import-substitution industries who have managed to obtain a license (typically not sold by auction). 2/ Because the size of the license is geared to the volume of investment, there will be a strong incentive to expand capacity over desirable limits, and devaluation and removal of exchange controls will be strongly opposed. New capital will always be preferred over the maintenance of the existing one. There will be a tendency to select labor-saving, complex processes. It will also be to the benefit of the investor to try to reach the highest possible ratio of imported to home-produced capital investment. Under such circumstances, there develops a pattern of high levels of capital investment per worker, excess capacity, and low rates of employment growth with the result that the urban sector has a greatly reduced capacity to absorb more workers.

1/ LSS, Ibid., p. 176.

2/ Winston, G.D., "Overinvoicing, Underutilization, and Distorted Industrial Growth," Pakistan Development Review, Winter 1970, Vol. 10, No. 4.

in productive employment. This pattern is typical for most LDC cities. They are doubling in size and population every 10-15 years but at the same time are managing to employ most of the entrants to the labor force.

The process of absorbing the increases in population in productive employment is, however, far from efficient. The rapid growth of cities, combined with the constraints on resources, would result, in the best of circumstances, in disruptions and delays in placing labor in its highest valued occupation. The circumstances found in most cities are far from ideal. The labor markets are often fragmented by a combination of market forces, institutional arrangements, and public policies. This fragmentation leads to an inefficient utilization of labor resources. While some households compete in a relatively free market, others are able to obtain returns above those which would be paid in a more competitive situation. As noted earlier, capital market distortions usually reinforce those operating in the labor market. Organized and restricted labor markets raise the price of labor, encouraging the substitution of capital for labor in the production process; at the same time, these are generally the activities with privileged access to the capital market and those which benefit from industrial protection policies. At the other end of the scale, where the labor market is unrestricted, the efficient combination of labor with capital is made difficult by lack of access to capital markets.

This fragmentation of the urban labor market has often been characterized as dualistic in structure. Distinctions are made between the "modern" and "traditional"; between the "formal" and "informal"; and the "productive" and "service" sectors. 1/ These dualistic characterizations oversimplify and obscure many important differences within and between sectors. They tend to be descriptive in nature and they are not helpful in suggesting policies and actions required to improve the efficiency of labor markets. 2/

A more useful way of examining the efficiency and fragmentation of urban labor markets is in terms of the restrictions on supply and use of labor, that is, the extent to which labor markets are restricted by various

1/ Dipak Mazumdar, "The Urban Informal Sector," Urban Poverty Task Force, November 1974; International Labor Office, Employment, Incomes and Equality: A Strategy for Increasing Productive Employment in Kenya, 1972; and IBRD, The Ivory Coast: Special Report on Employment; and Heather Joshi, Harold Lubell, and Jean Mouly, Urban Employment and Urban Development in Abidjan (Geneva: ILO, World Employment Programme Working Paper, October 1974); and Lisa Peattie, "The Informal Sector," report on Bogota, Colombia, 1974.

2/ See, for example, J. Friedman and F. Sullivan, "Labor Absorption in the Urban Economy: The Case of the Developing Countries," Economic Development and Cultural Change, 1974, Vol. 22, pp. 385-413.

Even when better methods are used to control the balance of payments, monetary and fiscal policies tend to discriminate in favor of capital intensity. In addition to the advantages provided to large-scale manufacturing firms through licensing, artificially low rates of interest on capital have stimulated labor-saving procedures in that sector. Income tax concessions have tended to depend on the scale of fixed capital investment.

The insufficient level of development of domestic capital markets also has adverse effects on the small-scale sector in urban areas. First, because financial intermediaries are absent or extremely undeveloped, savings and investment are closely related. "Savings often end up in the form of luxury housing, foreign assets, or in 'economically dubious activities' where high profits are due to high protection." 1/ Much of the effort goes to developing

"the upper end of the capital market, particularly to specialized institutions such as investment trusts, development banks, and stock exchanges which serve the very large-scale manufacturing, mining, and in some cases, construction industries. But the rest of the capital market, on which small-scale unit lending and intersectoral mobility depend, is largely neglected." 2/

Attempts to modernize financial institutions often result in a systematic funnelling of private savings into large-scale activities and the starvation of the small-scale sector which must continue to rely on non-institutionalized money lenders and suffers from much higher interest rates than the large-scale sector.

B. THE URBAN LABOR MARKET

Despite all these incentives which have discriminated against the small-scale industries and have restricted the growth of entrepreneurship, cities have provided opportunities for employment to large numbers of people. They have absorbed and are continuing to absorb large numbers of people in activities that yield incomes well above those found in the countryside. The city of Jakarta, for example, had a labor force of 1.0 million in 1961; by 1971 an additional 400,000 were added to the labor force. It is estimated that in the decade 1971-1981 the city will absorb an additional 1.0 million

1/ Healy, "New Thinking about Development Policy," Journal of Economic Literature, September 1972.

2/ Helen Hughes, "The Scope for Labor-Capital Substitution in the Developing Economies of Southeast and East Asia," in L.J. White, ed., Technology, Employment, and Development, 1974.

types of regulations. It refers to any measures - usually involving the coercive powers of government - which restrict the supply or use of labor. Some of the most common forms of restriction are minimum wage legislation, which is usually only enforceable in certain activities; the rationing of public sector jobs; and irrelevant credential requirements for certain jobs, such as excessive licensing controls and excessive educational prerequisites.

Despite problems in rigorously distinguishing the restricted from open labor markets, the former can generally be characterized in terms of the following conditions:

- (1) full-time contractual employment
- (2) low labor turnover
- (3) difficulty of entry
- (4) capital-intensive production functions
- (5) large-scale organization
- (6) subject to public regulation.

These conditions are maintained by market forces and institutional arrangements. 1/ Workers in restricted sectors enjoy better fringe benefits, working conditions, social security provisions, and job security than their counterparts in open sectors. 2/

The existence of dualism in the form of different technologies operating within the same urban market is not by itself an indicator of a dysfunctional economy. In a technologically changing economy it is unavoidable to have a wide range of scales and technologies. The problem in countries with restricted labor markets is that it becomes a discontinuous form of dualism. The two segments of the economy are isolated from one another, the possibility of stepwise adjustments and of movements of labor, capital, and innovations between sectors is blocked, both are made more inefficient than they would otherwise be.

1/ See Peter Gregory, "Wage Structure in Latin America," The Journal of Developing Areas, 1974.

2/ Some of these benefits need not be attributed to protection. Employers may be willing to pay a premium in order to attract a more stable work force and to capture benefits resulting from their training of this labor force. This is one important factor which makes it difficult to characterize labor as a homogeneous factor. The implications of this for income distribution are discussed above.

The protected sector and its usually restricted labor market stands in approximately the same relationship to the unprotected sector with its open markets as it does with agriculture. Relative to the protected sector, the capital, labor, and entrepreneurship in the unrestricted sector are undercompensated and hence discouraged. Whatever its productivity in real terms, it competes poorly in financial terms with the protected sector; hence, it is a stepchild in the capital market and often a stepchild of the government as well. The goods and services produced in the unrestricted markets seldom receive the benefit of technical assistance. Few programs aim at their upgrading. Little systematic attention is paid to their service needs. If this is still the most dynamic of urban labor absorbers, it is mainly in spite of conscious policy.

Part of the growth of the "informal" sector can be explained by the importance of service industries in the process of urbanization. These are generally the most labor intensive and traditionally have accounted for a large proportion of employment in urban areas.^{1/} As a matter of fact, the composition of employment or occupational structure appears to show little variation from city to city or from one time period to the next.

Poor households rely on both the restricted and open labor markets for employment. The inefficient operation and fragmentation of the urban labor market affects the poor most by artificially restricting the growth in demand for relatively unskilled labor. This exerts a downward pressure on wage rates and limits employment opportunities.

Unemployment and the Urban Poor

The correlation between unemployment and poverty is not as strong in the developing countries as it is in the more developed industrial societies. Open unemployment is a poor guide to the extent and severity of poverty in LDC cities. In contrast to industrialized societies, only a rather small fraction of the openly unemployed represents the most disadvantaged members of society. This does not mean that open unemployment is less of a social waste than in industrialized countries, but that the distributive implications of unemployment are different in LDC cities. The lower the per capita income level, the less likely it is that the openly unemployed represent the poorest of the poor.

In evaluating the extent of the urban employment problem and its incidence on poverty, there are three categories of people:

- a. The very poor who simply cannot afford to remain unemployed and will accept any activity. They cannot afford to forego earnings even for a relatively short time while searching for a better job.

^{1/} In the US during its period of rapid urbanization (1870-1910), approximately 50 percent of urban employment was in the service sector.

Table IV-1: OCCUPATIONAL STRUCTURE OF SELECTED CITIES
(in percentages)

Sector	<u>1/</u> Seoul (1970)	<u>2/</u> Kuala Lumpur (1970)	<u>3/</u> Manila (1970)	<u>4/</u> Abidjan (1970)	<u>5/</u> Tunis (1972)	US Small MLM <u>6/</u> (1960)	US Large MLM <u>7/</u> (1960)	<u>8/</u> Bogota (1972)
Agriculture and Mining	2.3	7.0	3.5	4.6	1.8	7.1	1.0	1.0
Manufacturing	22.7	20.5	22.1	22.5	18.9	25.1	30.2	28.5
Construction	7.1	6.0	6.5	10.4	5.9	6.0	4.8	9.5
Transport	4.3	6.6	9.7	10.1	6.0	3.9	4.6	12.1
Commerce	28.9	17.6	13.8	18.6	17.5	28.4	32.6	23.5
Public Utilities	1.5	1.4	0.8	1.0	1.4	1.4	1.3	-
Services	33.0	35.5	37.3	42.8	39.2	28.8	24.8	30.8
Others	-	5.3	6.2	-	9.3	3.1	5.3	2.2

1/ Seoul Statistical Yearbook 1971

2/ Urbanization and Employment in Kuala Lumpur, WEP-ILO paper February 1975.

3/ Manila, Urban Sector Report, Vol. 1 page 21, 1975.

4/ Urbanization and Employment in Abidjan, WEP-ILO paper 1974.

5/ Tunis, Public Finance Report, 1975.

6/ & 7/ Stanback, T.M., and Knight, R.V., The Metropolitan Economy, (New York: Columbia University Press, 1970).

8/ Bogota Urban Development Study, IBRD-UNDE, September 1973.

- b. The openly unemployed who tend to be the young and relatively well educated entering the market for the first time. They want to find jobs in that sector of the urban market with relatively high and downwardly inflexible wages. For them the expected total earnings in this type of employment, less the cost of job search, exceed the expected total earnings if they accepted low value work immediately.
- c. The passively unemployed for whom the going wage they could presently consider is less than the sum of the reserve price of their labor and the cost of job search.

Since the reserve price of labor varies very significantly with age, education level, sex, and marital status, estimates of the extent of unemployment are most helpful when disaggregated over these categories. In the case of Tanzania in 1971, the open unemployment rate was only 8 percent of the "labor force" narrowly defined. 1/ The introduction of the passively unemployed and the change in the definition of the labor force that it implies raised the figure by 50 percent to an unemployment rate of 12 percent. This figure included those who were producing goods for home consumption and barter, but may have been actively or passively looking for paid work. Excluding them would reduce the unemployment rate to 9.9 percent. The categories most affected are the young, uneducated, and unmarried males. The extent of passive unemployment is also strong among female workers. In the case of Malaysia, where incomes are much higher, the cost of job search is higher and the duration of unemployment is extraordinarily long. Nearly half of those unemployed for the first time had been unemployed for one year or more. 2/ The largest group of openly unemployed tended to be young with either a primary or lower/middle secondary education. They had a strong non-agricultural bias and in looking for their first employment they were trying for clerical jobs. In this period of search they were often supported by other family members. A second group, much smaller and older, was made up of people who have been employed before and have more diversified expectations than the first group, placing much less emphasis on technical and clerical positions. Finally, a third group of "hard core" unemployed, older than 25, who had experienced long unemployment was rather small. Thus, the chief characteristic of the urban poor is not unemployment but rather employment in low-productivity occupations. Poor migrants to Bombay, for example, find employment within a few weeks of arrival. These low-productivity occupations can be found in both the restricted and non-restricted sectors.

1/ Richard Sabot, "The Meaning and Measurement of Urban Surplus Labor," The Economic Journal, 1975.

2/ Dipak Mazumdar, "The Problem of Unemployment in Peninsular Malaysia," draft, January 1975.

However, the evidence available suggests that the income earned in these low-productivity occupations is higher than that of correspondingly low-skill-level jobs in rural areas. 1/ Even in those cases where the urban-rural wage difference is less significant, the probability of a restricted sector job or employment opportunities for other family members enhances the attractiveness of low-income urban employment.

C. THE INSTITUTIONAL FRAMEWORK

The amount of talent directed to solving problems in all developing countries' cities is woefully inadequate. The attention of policy-makers is elsewhere. The planning going into ameliorating urban problems is negligible. It is not unusual, for example, to find at most a dozen trained professionals in the planning office of a city of 5 million inhabitants which is adding to its population at a rate of 300,000 persons a year. 2/

The inadequacy of human resources is matched by the administrative structure. In virtually all cities, the public resource picture is grim, with the result that investment resources are not locally generated. This results in subservience to outside decision-makers, most of whom have little information about city needs. In many cities the urban administration is confined to garbage collection and similar maintenance chores. Whatever the theoretical structure of power, the real decisions are removed from the city level and tend to be taken where budget funds originate. Decisions on industrial location, water supplies, power, housing development, etc. are therefore taken at more centralized levels of government. Generally, cities do not have the power to increase taxes or user charges in order to increase their generation and control of investment funds. Many of the policies governing these sectors of central decision have a vital impact on the urban area. Yet because they are made in response to stimuli which do not take into account their urban impact, their results can degrade the economic and social environment. Expanding a port, for example, may displace poor residential areas or increase the congestion on city streets. Industrial policies may be inconsistent with the availability of water supplies or housing needs, urban expressways with the needs of public transport. Inevitably, it is the poor who are most affected.

Without changes in their administrative structure, few cities will be able to handle adequately the problems of the coming decades - even if sufficient resources are available. Administrative structures must be made more responsive to the needs of the large numbers of poor people being added to the urban population. The exact form of administrative organization will have to vary widely from city to city. Differing economic, cultural, and social conditions will require flexibility and diversity. It

1/ Peter Gregory, "The Impact of Institutional Factors on Urban Labor Markets," The Urban Poverty Task Force, November 1974.

2/ In contrast, the British new towns, designed to accommodate 200,000 persons over 15 years, have staffs of over 400.

is not clear, for example, that the area-wide form of municipal government that is beginning to predominate in the developed countries will be the most appropriate form. The present deep involvement of provincial or central governments in the affairs of major cities cannot be withdrawn without leaving a vacuum, but they must, in general, either inform themselves better about the true priorities of the city, or devise some way to make the city a more responsible part of the decision process. This problem cuts across cities in all countries.

The Use of Land

One of the first problems to be faced is where in the city to settle this vast and growing human avalanche. At present some of these so-called marginal populations are to be found in the centers of older cities, but increasingly they are located on the periphery of settlements and/or on poor land within existing settlements, e.g., in gulleys, the sides of hills, swamps, etc. It is not unusual to find people living in gulleys while at the same time coffee trees grow on the flat land within a few minutes of the city center. Large tracts of land are underutilized within existing settlements; much of it held for speculative purposes or its use restricted by zoning regulations.

Even if land within present urban areas were made available, it would be insufficient to accommodate all of the expected increases in population. This means that more and more of the poor will still have to be accommodated on the periphery. In many cities this land is simply "occupied" or its use leased through various quasi-legal or traditional systems of usufructuary. Security of land tenure is almost non-existent. The patterns of land settlement that emerge make the task of future improvements difficult, if not impossible. Settlements on poorly drained land, for example, may make it too expensive to provide adequate sanitation; scattered settlements may increase transportation costs.

Gaining control of land and disposing of it in the public interest is perhaps the single most important factor in improving the absorptive capacity of cities. Without some control of land and its use, existing patterns will be perpetuated to the point where they will threaten the political and social stability of many cities. All too often, however, this control of the land is exercised in ways that exacerbate the problem. Land is zoned to exclude the poor rather than to accommodate their needs, or public land is disposed of in favor of the well-to-do.

In virtually all of these cities of the developing countries, the numbers of the population living in "uncontrolled" settlements or slums are large and growing. The present squatter population of Mexico City is estimated at over 4 million; Bogota, Seoul, and Calcutta at over 2 million. These slum populations are being added to at the rate of several hundred thousand a year in each city. Few cities are able to recognize and accept the fact that they will have to accommodate anywhere from 2-10 million additional poor people in the next two decades.

D. THE PROVISION OF SERVICES

The process of urbanization has as its economic base the improvements in communication and exchange of goods and services that result from the economies of agglomeration. The efficiency of a city depends on the way in which it performs these functions of communication and exchange. Within a city, the welfare of the inhabitants depends on the degree to which they are able to gain access to and use of the network of exchange and communication and hence become efficient producers of goods and services that are valued in the market. In many cities the organizational framework is such that it biases access to these services in favor of higher income groups. It is difficult, therefore, for the poor to improve their productivity at a rapid rate and the absorptive capacity of the city is to that extent limited.

The key role is played by the public sector in the provision, organization, and control of many critical services (water supply, transportation, education). In rural areas these services are often non-existent or provided within self-contained units. To take advantage of economies of scale in urban areas, these services are provided by large units, generally monopolies under public ownership and control. This control often has been exercised (intentionally or unintentionally) in ways that benefit those most able to articulate their demands on the public sector. The poor are usually not to be found in this group.

1. Biases in the Provision of Services

Investment Bias

There are a number of ways in which the provision of public services reinforces the disadvantages under which the poor live. Perhaps the most important of these, particularly under conditions of rapid growth, is the way in which investment decisions are made. The growing demand for services has resulted in strains on the institutional and financial capacity for providing urban services and created a shortage situation in which some form of rationing takes place. Those in a position to exercise political and economic power are first in line. Thus, public funds are invested in roads for the cars of the rich and universities for their offspring.

Within a particular service category, moreover, the poor are the most likely to be excluded. In Latin America, for example, only 59 percent of the urban population is served by piped water and another 17 percent by public standpipes. Studies in Bogota, Cartagena, and Mexico City show that variations in neighborhood income explain most of the variation between neighborhoods in piped water supply. In Libreville, Gabon, only one-fourth of all households have piped water, but only 5

percent of the total water supply is available to other, presumably the poor, households. Similar results were obtained for sewerage and electricity. 1/

This form of investment decision-making is supported by pricing policies which tend to reinforce the need for rationing. Services may be "free" or sold at prices well below cost so that expansion becomes dependent on public subsidies and is constrained by the general public budget. High prices on services that are in excess demand would greatly improve the chances for an adequate supply in the longer run. Public transport, for example, is often subsidized to such a degree that it becomes financially difficult to expand services to the growing areas of the city being settled by the poor. Public streets and roads in cities are almost universally grossly underpriced, so that meeting an artificially high demand for road space becomes a common target.

Quality Bias: Exclusionary Standards

The quality or standards of these services has to be viewed from the ability of the recipients to pay for the services. Attempts to establish unrealistically high standards will be self-defeating and will exclude a larger portion of the population from access to the service. In the case, for example, where incomes are insufficient to pay for individual water connections, public standpipes have to be considered as an alternative. Failure to do so on the part of the public sector may result in more expensive and perhaps less healthy private solutions.

Pricing Bias

Alternatively, the structure of prices (distribution of costs) can be in such a form so as to price the services out of reach of lower income groups. High connection charges as opposed to use charges for the provision of water supply or electricity are an inappropriate way of raising capital and discriminate against those facing high costs of borrowing unless some provision is made to space out the payment for connection. Declining block tariffs (electric power) and quantity discounts also discriminate against those with limited purchasing power. Poor households often pay higher unit charges for services under these arrangements. The following table gives an example from each of the country categories:

1/ Kenneth Hubbell, "The Provision and Pricing of Public Utilities for the Urban Poor in Less Developed Countries," The Urban Poverty Task Force, November 1974.

Table IV-2: ELECTRICITY CHARGE PER Kwh (US\$)

<u>Income Group</u>	<u>Addis Ababa</u>	<u>Bangkok</u>	<u>Bombay</u>	<u>Mexico City</u>
Lowest 20%	.076	.038	.010	.039
Highest 20%	.052	.028	.008	.033

Source: Hubbell, op. cit.

The same bias in rates in favor of higher income groups is found in water supply in several cities studied (Addis Ababa, Lima, Manila), although for water prices regressivity is less common.

Administrative Bias

The poor can also be excluded through use of administrative measures which can either be in the form of outright exclusion (e.g., zoning regulations) or in the form of standards which result in costs that place the service beyond their reach. The problem of appropriate standards is a widespread one and covers all aspects of urban services. Public low-cost housing, for example, is often built to standards that, if the poor are to live in them, require large subsidies. Inevitably this results in a limited program with the bulk of the poor left to their own devices. Similarly regulations that require all dwellings to have piped water or a minimum plot size exclude the poor from "legal" settlements and thus from access to the services provided by public institutions. 1/

Planning and Financing Shortfalls

When the public sector fails to provide the quality and quantity of services demanded by the urban poor, alternatives, albeit imperfect ones, are provided by the private sector. If the public authorities do not provide a water supply, street vendors undertake this function. If public transport does not enter the area, pedicabs, illegal taxis, trucks, etc. may fill the vacuum. The economic cost of these services may be higher and the quality lower than that which could be provided by the public sector taking advantage of the economies of scale. The result is the poor wind up paying more than the rich for lower quality services. In Manila, for example, the lower 20 percent pay 13 times more for water than the top 20 percent.

1/ In San Salvador, for example, many well-established, low-income neighborhoods that could afford electricity and public water supply cannot obtain them because the public utilities are unable to service areas that do not conform to certain administratively determined legal requirements.

The failure to provide public services is perhaps most dramatic in the area of land supply for housing. In city after city, the housing of the very poor is built on sub-marginal land without the possibility of regularization, drainage, water supply, and transport supply. Casual inspection shows that a large part of the savings of the poor, their effort, and their hopes are tied up in housing that cannot be improved easily. To have simply zoned, laid out, and subdivided land in a better area - at almost zero capital cost - could have prevented this waste of resources. The resource loss implied in the ultimate loss of housing in sub-marginal locations, borne exclusively by the poor, is not a result of overall resource scarcity, but rather a result of poor planning and inadequate city government.

2. Land Use and Transportation 1/

The function of urban agglomeration is to facilitate exchange of goods and services, that is, they exist because transportation and communications are costly. The large cities of today could not exist without modern communications and transportation. The predominant forms of urban transportation have all been developed in countries where incomes are higher than those typically found in the LDCs and rates of growth are much less rapid. Much of the emphasis has been in trading off more space for living and work against longer and costlier transportation. Thus the typical pattern that has emerged is the central business district (CBD) with its concentration of economic activity and the suburban fringes with their primarily residential functions. This requires a high-capacity transport system to handle the peak periods of movement.

The growing cities of the LDCs are following a similar pattern of development. Business and industrial activity tends to be concentrated and the residential areas widespread. As cities grow in size, the length of journey tends to become longer. In a city of one million, for example, the average journey to work is approximately three miles; in a city of five million, seven miles. 2/ Distance alone will increase the costs of transportation as city size grows.

Once commuter distances exceed two miles, walking becomes a less feasible mode of transport. There are examples, however, of low-income groups in Asia and Africa walking two to three hours (five to seven miles) to reach their place of employment. These would appear to be the extreme limits of walking distance.

1/ See IBRD, The Urban Transport Sector, May 1975.

2/ Y. Zahavi, Travel Characteristics in Developing Countries, IBRD, mimeo, May 1974.

If present patterns of land use and settlement continue, longer journeys to work will be inevitable. The cost of these journeys will be prohibitive to the very poor who cannot afford to locate near the center as land prices rise, thus placing them at a locational disadvantage vis-a-vis job opportunities. The cheapest form of mass transit is the urban bus - approximately 2 US cents per passenger mile under conditions found in many developing countries. A ten-mile, round-trip commute to work would cost 20 US cents per day, 5 percent of income where the daily wage is US\$4.00 and 20 percent where the daily wage is US\$1.00. Many poor households are dependent on the income of more than one member. Often these members hold low-productivity jobs, such as domestic services and petty trade, where salaries are so low that even minimal transport costs will effectively exclude their participation in the labor market.

These minimal bus cost figures are likely to increase as traffic congestion worsens with city growth. As more and more street space is taken up by the unrestrained growth of private cars, mass transit costs increase until eventually expensive underground systems are required.

Even in those cities where reasonable bus transportation is possible, the poor are often denied access to the system by a combination of physical and financial factors. The haphazard growth of slum settlements often on hillsides or in gulleys excludes them from connection with the city street network; so does the unregulated patterns of housing which do not allow sufficient space for a street network.

In a rapidly growing city, the expansion of the transport system into the newly settled areas is of prime importance to the lower income groups settling at the periphery. Many public systems are badly managed and heavily subsidized so that financial constraints prevent expansion at a rate rapid enough to accommodate the growth of the city. In many cities private, "informal" systems have developed to overcome some of the shortcomings of the public system. "Dolmishes," "peseros," "jeepneys," and other forms of for-hire vehicles are to be found in most major cities. Unfortunately, the cost of these alternatives is often higher than could be provided by an efficient mass transit system.

There are no simple solutions to these problems and the solutions required have to be individually tailored to the specific environmental and economic status of each city. However, it is abundantly clear that the already large and rapidly growing cities of the poorer countries cannot afford to follow the spatial patterns of the cities of the richer countries. Job and residential locations will have to be more contiguous spatially to reduce transport costs to the point where lower income groups have access to employment opportunities for more than one family member.

The "megapolises" or large urban agglomerations of the poorer countries are thus likely to have quite different patterns than are common in the large cities (Tokyo, New York, London, Paris) of the developed

countries. Calcutta, Bombay, Jakarta, Mexico City, Manila, Seoul, Shanghai, Peking, all of which will have populations in the order of 20 million or more in another 25 years, will occupy much more space. Distinct urban centers (e.g., similar to Manhattan) will not be possible because the implied cost of the mass transit system that would be required is beyond the resources of the countries. Rather, the pattern may well be one of multi-centered cities within cities with more movement of goods but less of people.

The development of an appropriate transport system for these emerging megapolises is critically important and cannot be delayed if these cities are to accommodate their expected growth in population in a reasonably equitable and efficient manner. The temptation to resort to expensive capital-intensive solutions such as subways and expressways, without tackling the politically difficult problems of land use, road pricing, and industrial and commercial location will only compound the difficulties in the very near future.

Housing and Public Utilities 1/

The critical centerpiece in land use and transportation is housing and its related service components - water, power, sanitation, etc. Housing typically constitutes 15-20 percent of household expenditures and is a major vehicle for capital accumulation even by very poor households. The quality of housing varies enormously and needs to be tailored to a wide range of individual preferences and income levels. The conditions under which the poor are housed in the cities of the developing countries need to be examined from this perspective.

The high visibility of crowded and unsanitary slums and squatter settlements often leads to their outright condemnation, followed by the bulldozer or other similar urban "renewal" schemes. The point is missed that the poor can only afford to live in such conditions and in a low-income country, transferring resources for example, through public housing schemes is not a feasible alternative. In many cases conditions in these settlements are better - or at least no worse - than the rural areas from which the settlers came.

Conditions, however, are a great deal worse than they need to be. The combination of a lack of understanding of the problems and misguided policies has added to an already difficult situation. Too often the problem is seen as one of simply raising standards to a preconceived level of acceptability. This usually results in public housing programs where a select few benefit from access to subsidized housing. The bulk of the poor are left to fend for themselves. This may mean squatting "illegally" on land where the risks of eventual eviction are sufficient to discourage

1/ See IBRD, Housing Policy Paper and Housing Background Paper for a more detailed discussion.

any upgrading beyond the minimum shelter requirements. The temporary or illegal nature of the settlements also means the denial of public services such as water supplies or schools. In some cases, unrealistic zoning regulations and building codes may further inhibit the efforts of the poor to help themselves.

Public services are an important component in any housing or settlement pattern. It is essential that the services provided meet the residents' needs and ability to pay.^{1/} At present, needs for the type of services are determined independently of each other and without due consideration of the overall needs of the community. The power company, for example, may expand its network into particular peripheral settlements because it has the funds or the institutional capacity to do so, although the priority of these settlements may be for a better water supply system or schools. Decisions are made in a fragmented manner by institutions working independently of each other.

Social Services

The most critical social services for the urban poor are those which relieve particular human capital disadvantages: education, health care, and family planning services. The proper mix of services within each category as well as the level of all of them will vary from one type of country to the next. In the richer countries the provision of appropriate education services should be a priority service for the poor. No other single service offers such good prospects for prevention of inherited poverty, and by and large, their poor can afford to support children through a relatively long education period. The growing complexity and diversity of employment opportunities argue that such educational inputs would have a high return. For the poorer countries, priority of other than very basic education is less certain. Opportunity costs are probably higher for other city expenditures; many of these cities lack the most basic level of services in other fields. Households are much poorer and they must necessarily give top priority to directly remunerative activities, in many cases, even for children. Similarly, the returns to skill are likely to be less in the comparatively less sophisticated labor markets.

Health services vary considerably by country type, but probably all would benefit from a decisive shift from curative to preventive strategies, including basic education in nutrition and hygiene which is relevant to the limited means of the poor. For basic preventive medicine and health education, no country is so poor that higher productivity uses of funds would have to be foregone.

^{1/} In some of the wealthier countries, an element of subsidy may be possible if financial conditions permit.

Population control programs could have an immediate impact on household poverty and a still more important impact on inter-generational transfers of poverty. By reducing the dependency ratio, it increases the formal and informal educational opportunities for the fewer children and releases adults from child care to become secondary earners; by improving household prospects for nutrition and even for savings, the delay or prevention of a single birth in a household could make the difference between household progress or stagnation, in economic and social terms. It is hard to exaggerate the importance, at the household level, of the knowledge and instruments for allowing choice of household size.

From the city's point of view, population control is a highly productive investment in the case of the more advanced countries, and an absolute necessity for the poor countries. The cities in Type IV countries in particular face massive population inflows for longer periods than do other cities. One might argue that before population control has any appreciable effect on the labor supply in Type I countries, they will be largely urbanized and the flow of migrants will have slowed to a trickle. This is emphatically not the case for Type IV countries and some of the countries in Type III. Children born now in the slums of those cities, acquiring little human capital because of household poverty and family size, will be competing in 15-20 years with a flood of migrants that has not yet crested. It is clearly in the city's collective social interest to make this group of competing, unskilled labor market entrants smaller.

Toward a Plan of Action

The core of a program to improve the absorptive capacity of cities will be a program to increase their efficiency. If they are to grow and provide reasonably high incomes, cities must export to pay for raw materials and food; they must provide services and non-tradeables efficiently, at low resource cost; and they must put their labor and savings to best use. This implies more than reducing protection and labor market restriction and getting prices right in the provision of services. A positive program is needed for stimulating efficient utilization of labor: e.g., technical assistance to improve small-scale goods or service industries; development of land-use plans and necessary infrastructure that will allow even the poorest part of the private sector to get on with the job of turning their labor and savings into investment in shelter; and an investment program for public services, based as much as possible on proceeds from reasonable charges or on borrowing against future reasonable charges. It will remain true that cities in very poor countries will have a much more binding set of constraints and will face the need for more difficult decisions to forego or postpone desirable services. But to shortchange the cities on the requirements for absorption of the great population increase that can clearly be foreseen would invite tremendous social waste in a short time.

CHAPTER V

URBAN GROWTH AND NATIONAL DEVELOPMENT -

THE PRIORITIES

In this paper the rate and magnitude of urban growth in the developing world have been examined. With a few exceptions, this process is a strong and healthy part of the process of economic development and an inevitable result of rapid population growth. Whether the process is as productive as possible - in terms of the political, social, and economic well-being of the present and future inhabitants of these cities - will depend on the extent to which national and city governments are prepared to recognize and to take positive measures to accommodate this growth. All too often the response is either to ignore the problems of the future or to hope that somehow they will disappear. In either case the result is neglect, a neglect that if continued will threaten the social fabric of many societies in the not-so-distant future.

The typology of countries and the analysis of the urbanization processes developed in this paper have been prepared to provide a framework for analyzing the broad strategies to be followed in alleviating some of these problems. In particular, the focus has been on those most rapidly growing and seriously affected groups: the urban poor.

It is obvious that policies directed towards the problems of urbanization must have as a starting point the ways in which the productivity of the poor can be increased. The urban poor are too numerous and their numbers growing too rapidly even in the wealthier countries to permit any other alternative. The poor are basically sellers of labor. In order to increase their real income, the value received for labor must increase and/or they must be able to purchase or have access to more goods and services in return for their wage income. This suggests two main points of intervention in the urban economy. The first would aim to increase the value of labor by increasing the demand for labor and/or by upgrading the quality of labor. 1/ The second would aim at improving the quantity and quality of services, particularly public services, available to the poor within existing resource constraints.

Where and how this intervention is to take place is not easy to answer and will vary considerably from country to country. It depends initially on the time frame and resource availability within which the changes can be undertaken. Not all programs to combat urban poverty will

1/ Quality is used here in a general way, not just the level of skills/intelligence/strength but also improvements in the availability (in the "proper" place at the "proper" time) and mobility of labor.

be located in urban areas or specially directed at the urban poor. The diversity of the problems and the complexity of their causes suggest a broader framework than one which encompasses only poor households. What is happening in urban areas is closely linked to what is happening in rural areas. Tackling all of the problems - employment, housing, social services, etc. - on a broad front obviously would be the most desirable strategy. Unfortunately, the resources of management and government are as scarce as any other resource. Priority must be attached to different problems in different countries. Where, how and for what purpose to intervene with changes in policy and additional investments are the critical questions to be answered.

In the context of these questions, a realistic time frame is essential. Most of the problems of urbanization and of the urban poor are long-term problems and can only be ameliorated marginally in the short run. (This perhaps accounts for the general lack of political appeal of the necessarily long-run solutions.) Where a large percentage of the urban population lives near the border lines of subsistence, the difference between the relatively poor and the rest of the population is too small to make it worthwhile considering them as a separate objective of policy. Increasing the productivity of the poor can be equated with economic growth. Without this growth sustained over long periods of time in both rural and urban areas, there is little that can be done specifically to alleviate the problems of the poor. Well-meant but inappropriate programs would dissipate extremely scarce resources necessary for national growth.

A. TYPE I COUNTRIES

In these countries, a large part of the population is already urban, average urban incomes are relatively high, and a small percentage of the urban population is very poor. Rural incomes are high by international standards, although low by comparison with urban incomes. Most of these countries will not have large-scale absolute poverty in rural areas. The contribution of migration to urban growth will continue to decline, relative to natural growth of cities, but will remain significant for the next one to two decades in most countries. Thus the bulk of the remaining urbanizing task is comparatively short run - solving present urban problems and handling a large but rapidly declining influx.

In these countries, the cities have absorbed and are continuing to absorb large increases in population at rising levels of income. The continued migration of the unskilled labor force from rural areas has, however, depressed urban wages for those who have only unskilled labor services to offer. The gap between this group and those who have acquired the skills and other assets essential to an urban society has continued to widen. Only when urban population growth starts to decline as a consequence of the decline in rural-to-urban migration will these pressures be eased from the labor supply side.

These countries will continue to see a concentration of their populations in a few very large cities such as Mexico City and Sao Paulo, projected

to reach 31.5 million and 26 million respectively by the year 2000. Concentrations of this size have never been experienced before and they will undoubtedly present difficult social and political problems.

As discussed in Chapter IV, some relief from the urban problems of labor absorption is to be sought in improvement in national economic policy, but for most Type I countries, cities are already functioning reasonably well as production units. Many are either important exporters of embodied labor or are on the edge of becoming important exporters. Brazil, Argentina, Colombia, Venezuela, Mexico and Chile, for some examples, already absorb a significant percentage of their labor force in production for export. Improvements in the labor market are required, however, to correct distortions caused by restrictions. In general there has been little effort to promote the informal sectors in these countries, and credit rationing, among other problems, hampers this part of the market unnecessarily.

The main policy improvements, however, appear to be needed at the city level. High priority must be given to improving the ability of cities to manage the difficult periods ahead. These countries will contain some of the largest cities in the world and without the development of responsive institutional capacity to handle the problems of these vast urban agglomerations, tremendous social waste will be inevitable.

Most of these countries need to take fairly drastic action to improve urban land use and to expand the area served by urban infrastructure. Speculatively held land, widespread illegal squatting, and truncated service infrastructure which does not serve a large part of the poor population are all common features of land misuse in Type I countries. These countries can look forward to a period of continued rapid urbanization with this backlog of land problems. It is unnecessary and inequitable to allow the problem to continue to build until rural-to-urban migration abates. The resources are available to absorb more than the new migrants, cutting into the backlog problems in the fairly short run.

Security and legality of tenure, to replace squatting for the incremental population and eventually to regularize the present squatter areas, are of first priority for several reasons. Politically, it is potentially explosive to have a large and growing portion of the population housed against the law. Administratively, the illegality of these residences is often a legal barrier to extend, and always a good excuse not to extend, social infrastructure to serve them. Economically, it is obviously more beneficial to have long-run security, which should lead to greater savings and higher service incomes from housing, and to have rationally arranged site development on improvable or improved sites.

Elimination of biases in provision of public services is also required. Investment in housing and public utilities has taken place at a rapid rate in all of the Type I countries, but very little of it has been directed toward the urban poor. In those cases where an attempt has been made to reach the poor through public housing, it has failed because inadequate

emphasis was given to the problems of pricing, location, and standards. In Rio de Janeiro, Brazil, for example, where massive in-migration has resulted in the development of squatter settlements or favelas, the attempt has been made to move the people out of these areas which have developed into viable communities with a high degree of social and economic cohesion. The people were relocated to apartments or conjuntos on the outskirts of the city. The result (achieved at a high rate of public subsidy) was to break up viable communities, impose higher transport costs on primary earners, and reduce opportunities for secondary earners.

In most cases the poor of these cities can and are prepared to pay for the costs of many public services. In Lima, Peru, for example, residents of the barriadas pay almost ten times more for water from private water trucks than do residents of neighborhoods connected to the public system. What has failed are the delivery systems for many of these services. Reaching the poor is not so much a question of resource constraints as it is a question of policy and institutional constraints which do not permit a supply response - in terms of investment, pricing, and standards of services - to meet the needs of lower income groups. In many cities over half the population is now in "illegal" settlements and therefore excluded from the reach of public services. The legitimacy of these settlements needs somehow to be established and steps taken to provide them with the services; for the most part, they can afford to pay full cost for services supplied at the appropriate standards; and for the small portion of the population in absolute poverty, minimal services could be supplied on subsidized terms.

Most cities in Type I countries have a commitment (sometimes on the national level) to improve the social services needed for human capital formation, particularly health care and education. It is generally recognized that health care must be more concentrated on preventive care and simple and inexpensive clinical care to reach the lower income groups. Education, at primary and secondary levels at least, tends to be reasonably distributed, except for the previously mentioned bias against people in illegal settlements. The poor are seldom excluded by poverty; most households are rich enough to afford to forego the earnings of child labor and keep children in school. In such circumstances increases in educational expenditures should benefit the poor.

Since cities of Type I countries are large and diverse, with high average incomes, the range of standards will be very wide, and the problem is to find an appropriate mix of services that cater to all income classes equitably. Two points need to be borne constantly in mind. First: these cities will be much larger in a short time. Planning and investment for public infrastructure and services must have great scope and cities must do this work within a short time frame. Otherwise, the poor will inevitably be rationed out of urbanized land, rationed out of public services, handicapped in forming human capital. Second: large backlogs exist for service and infrastructure for all social classes; although there are sufficient national and urban resources to provide them, a severe financial problem will persist, and every effort must be made to make these services self-financing. Requirements of the very poor aside, cities should probably make

a profit on many of these services, at least as long as shortages persist among the relatively well-to-do.

Finally, the cities of Type I countries should seriously consider upgrading family planning efforts. Even in those countries with sparsely populated hinterlands, most of the new population will be living in major cities, because most will be born there. It is unlikely that any deconcentration efforts or rural development efforts will actually produce a decline in cities' growth below their natural rate of growth. (There is little evidence, as noted in Chapter II, that migration to cities can even be slowed or diverted to lesser cities at reasonable cost.) Thus family planning efforts in Type I countries will have the direct, almost certain benefit of making the growth of large cities somewhat more manageable.

B. TYPE IV COUNTRIES

In terms of affluence, degree of urbanization, adequacy of present urban infrastructure and services, rural land availability and industrial development Type IV countries are on the opposite end of the scales from Type I countries. Countries of Types II and III fall somewhere toward the middle between them. Type IV is discussed first for maximum contrast and to provide for easier cross reference in the discussions of Types II and III.

These are primarily rural economies with only about 20 percent of their populations in cities. They are extremely poor. As discussed in Chapter I, a rapid agricultural growth rate sustained over a long period will be needed for the mass of the rural people to escape absolute poverty. Population growth rates are high and are expected to decline rather slowly, partly because most families are rural. Potential for rural-to-urban migration is thus high, and the migration flow will continue at a high rate relative to the urban population base for several decades. Thus the cities face a very long-run absorption problem.

The poverty of the rural areas is reflected in the cities. Industrial employment practices are not restrictive in much of the formal sector, hence industrial wages are low under pressure of the abundant urban labor supply relative to the industrial base. By all indicators, labor markets function fairly effectively within cities and between cities and countryside; for example, migration in India slowed with the slowing of industrial growth, and wage rate studies in Pakistan show relatively minor urban-rural differences. Goods markets have functioned erratically. In most of these countries, heavy effective protection of final goods, during most of their history as independent countries, has encouraged an import-dependent manufacturing sector with heavy capital demands and little value added, when valued in international terms. Thus the cities have not, in general, established self-sustaining growth in the sense of generating real savings for future investment.

Services provided by the public sector and public and private housing have lagged behind demand. The result is that from 25-50 percent of the people of most cities are housed in illegal settlements, with proportions at least as large lacking one or more of the "necessary" public services such as water,

drainage, and removal of sewerage and wastes. In general, the administration of cities is also running well behind the need, partly because most are under-financed.

The cities of Type IV countries are very different from other cities in the scale of their absolute poverty. There can be no serious question that relief of urban poverty through large-scale redistribution is impossible; average incomes are low and there is no great difference between the 20th percentile and the 60th in the typical income distribution pattern of these cities. Furthermore, agricultural and rural development must command a share of investment resources commensurate with their importance, making cities the logical claimant of a small share of small resources. In this situation the emphasis on appropriate standards of services, which apply to all countries, becomes overwhelmingly important.

Relative to the size of their populations and their industrial base, none of these countries has succeeded in becoming a large exporter of manufactured goods. A vast literature exists on the overprotection and consequent import dependency of industry, with appropriate guidelines for reform; this need not be repeated here. It should be stressed, however, that a healthy manufacturing industry, able to offer fairly stable albeit low wage employment, is a crucial prime-mover in the potential absorptive capacity of the cities.

Little has been done to promote the efficiency of informal sector enterprises or small enterprises in general in these countries. They share this neglect with most of the world, but given the scarcity of all other resources relative to labor, the issue is more important in Type IV countries. Formal, large-scale industry, even corrected for all distortions caused by protection, is not going to be large enough for decades to absorb labor productively in the order of magnitude of the potential labor supply. Smaller, more labor-intensive industries, needing less of a jump in sophistication from the rural background of much of the population, catering to the market demands of the poor, have some prospects for the rapid growth needed to fulfill the clear first priority need of the cities - income-generating employment.

Day-in, day-out acquiescence in the illegal squatting of a large minority - in some cases a majority - of their citizens, is an established pattern in virtually all of these cities. Lacking an effective mechanism to organize the growth of urban settlements, the city administrators generally feel that they have little choice but to condone squatting, and little realistic prospects of channelling it into most desirable areas or providing necessary services for squatters once they are settled. There is, however, considerable de facto "security" of tenure in many squatter areas. The style of squatter settlements is unusually unfortunate in most of these cities; extremely close, crowded superstructures; inadequate rights-of-way for passage, drainage, or water supply reticulation; and inadequate space for proper sanitation (particularly for separation of animals) characterize most of these settlements. To find and promote an alternative to this type of squatting for the expected increments to the population are perhaps the first service priorities. This need not be expensive and could even be relatively costless to the public sector.

To acquire land, correct drainage as necessary, subdivide it with adequate space for rights-of-way, supply bulk water and a minimal number of distribution points, and provide the necessary administrative services to sell plots to households on fairly liberal credit; this is the minimum task. At this level of service, few households would be excluded by their inability to pay the full cost of a site. The public sector has a financial problem, expenditures in advance of collections, but not necessarily a heavy, long-run loss. A mix of higher standard services is also necessary, such as the serviced site with core housing programs now being funded by the Government of Pakistan, and, for the still better off, flats and cottages such as many of the governments now finance for industrial workers and civil servants. But a low-grade facility such as described above seems also to be needed if an alternative to squatting is to be brought within the means of the poor who comprise such a large part of these cities. Over the longer run, as resources permit, the people now living in squatter settlements will have to be provided with minimum services, including regularization of settlements, provision of title, water, drainage, etc. On a per capita cost basis, slum upgrading and squatter regularization may be less expensive than provision of even very basic sites for new settlements. Thus, strong attempts should be made to improve and upgrade even difficult squatter areas before deciding to destroy them or leave them unserviced.

The situation in supply of public services is generally worse, in numerical terms, than the housing problem. Water supply and delivery systems, drainage, sewerage, streets and roads were designed in colonial or pre-colonial times for much smaller and more affluent populations. None of these services has kept up with population growth in most cities; at best one or two of them may be reasonably adequate. At this plane of generality, few sensible recommendations can be made concerning allocations for public services in face of the obvious excess need compared to financial and organizational resources. On the financial side, however, it appears that performance could be improved over a wide range of these services. Many are scarce even for the relatively affluent. It would be advisable to charge sufficiently high prices to those groups to generate funds for expansion of all of these services.

Family planning and education deserve special emphasis within the limited social services budget. The first cannot be expected to affect city growth to any great extent in the next one or two decades; potential migration from the countryside is large enough so that city population is probably directly constrained by absorptive capacity at wages slightly above those available in agriculture. Slower natural growth of the city population will allow more migrants to enter the city and find work. Rather, the stress on family planning in cities is required as a part of the larger national priority for lowering population growth, and the communication and incentive advantages of cities make them logical places to focus this national effort. Educational expenditures are required to retrain a generation of city children, whose cultural and traditional background (hence informal family training) is largely rural, for participation in the urban economy. Heavy stress on primary literacy, and beyond that on technical training is a recognized priority, not yet fully incorporated into teaching methods and curricula. Recalling that much

of the productive employment will have to be in the informal sector, the governments must plan on developing a reasonably well-rounded labor force. It is probably true that, compared to most industrial uses of mass labor, the informal sector is more demanding of skill, organizing ability and so forth, if it is to be a leading sector in city development.

C. TYPE II COUNTRIES

At their lower extreme, rural incomes in Type II countries approach those of Type IV countries, but in none of these is urban poverty so pervasive. A larger urban group lives in absolute poverty than in Type I countries, and average urban incomes are lower. Therefore, the potential for subsidy of the very poor is less and the appropriate mix of standards of services will be skewed toward the low standard end. Backlogs of unfulfilled urban needs are, in general, greater in Type II than in Type I countries, but they are not unmanageable. Migration flows are still rapid, but as in Type I countries, these pressures will abate, in most cases, within a decade; after 1985-1990 the main urban growth will be natural growth. The Philippines is an important exception where the long-run prospects for average agricultural incomes are relatively poor and hence pressure to migrate may continue to be intense for several decades. Korea, on the other hand, is already experiencing a decline in rural populations.

National policies affecting urban development vary widely. On the one hand, Korea's industrial and agricultural policy have produced a self-sustaining, internationally competitive manufacturing sector and good urban-rural distribution of incomes. Comparatively few restrictions exist in the labor markets. On the other hand, the Philippines and Malaysia have industrial systems characterized by relatively high protection, restriction of labor markets, and a good deal of unemployment of the relatively well educated; the formal-informal pattern of discrimination applies.

All of these countries are small enough to require an open, export-oriented industrial development, and the strength of their cities will to a great extent depend on policies to encourage this type of growth.

Physical infrastructure in the cities has lagged somewhat behind the rapid urban population growth in Type II countries, so that all of them have moderate to very large backlogs of most public services, housing and urbanized land. In the case of the Philippines, this is partly a poverty problem, approaching that of the Type IV countries, but for a smaller portion of the population. In Korea it appears to be largely an organizational problem with some financial overtones; the bulk of the relatively poor in Korea's urban population would be able to pay for a much higher level of urban services. Disproportionately few resources have gone into planning and providing these services compared to Korea's rapid development in other fields. The mix of standards for public services can be weighted toward the high end; for example, water, sewerage, electricity, paved streets and roads, and perhaps some modest on-plot superstructures should probably characterize public site development for housing of all but a very small, very poor class.

For most of Type II countries, the backlog of services will call for interim solutions that are below potential long run standards. (Again, the Philippines might be an exception where quite low standards will be appropriate for decades.) Since a large part of the population is housed in unimproved slums, and the flow of migrants for the next decade will be large, it is probably impossible financially and organizationally to replace slum housing and house the new urban dwellers at the same time. Slum improvement, to a reasonably high standard, with the whole package of services paid for (over time) by slum dwellers, will be a required second method of adding to the stock of serviced housing.

In common with Type I countries, most Type II countries should be unstinting in support of human capital investments. They can afford to invest in the skill of the next generation, and the sophisticated internationally oriented economies will demand a highly competent labor force. Also in common with Type I countries, these countries will have very large cities growing mainly by natural growth in the near future. Population control in cities is directly related, in such circumstances, to the growth of the cities themselves and, as discussed in Chapter IV, it should become progressively easier with the increase in urbanization.

D. TYPE III COUNTRIES

The Type III African countries have many features that are similar to all of the above types. The main difference is perhaps in terms of predictability. For the countries in this category, the present level of the urban population is low relative to the total population. Cities are small but growing more rapidly than elsewhere. Population growth is rapid but resources, particularly land, are not always an overwhelming constraint. The spatial and economic character of these countries in the year 2000 is difficult to predict. Some may reach the levels of the Type I countries of today, but for others there is the real danger that population growth will outstrip the growth of output to the point where absolute poverty becomes the dominant problem.

The economies of these countries are primarily rural economies and will remain so (with few exceptions) for the next twenty-five years. By and large these countries need major improvement in agricultural policies - pricing, supply of capital, supply of greater, better-organized extension, exploitation of unused land, better management of currently overused common grazing lands: the whole package of services needed to transform low-income, low-technology agriculture into a reasonably productive sector. This is clearly the number one national priority in most cases and, not paradoxically, the number one urban priority as well. The cities are simply not equipped, in terms of their infrastructural base, their industrial base, and their administrative capacity, to provide an urban employment alternative for the mass of the population in this century.

In these countries, the process of urbanization is just beginning. The urban population is small enough and the resource base sufficient for these countries to be able in the short run to support a highly inefficient

process of urban development. The small segment of these countries that is, in effect, the window to the international economy is in a position to exploit its advantage through the development of the protected industrial and administrative urban elite. This pattern of urban development, sometimes called local colonialism, characterizes several Type III countries. This is, however, an inherently unstable situation. The rapidly growing populations within the foreseeable future will be increasing the pressures on the resource base and the huge disparities in income between the rural and urban areas will continue to generate substantial urban growth through migration. Type III countries contain the main examples of the "Harris-Todaro" phenomenon, i.e., the situation where a large part of the urban sector has as its main economic function queueing up for the relatively few jobs in the "elite" sectors. 1/ At some point, perhaps in the not-too-distant future, this inefficient urban growth pattern could threaten to impoverish some of these countries by the gross waste of labor that such behavior implies. Because membership in the urban elite generally requires credentials, this pattern of development has already established a large demand for fundamentally wasteful education for credential purposes. It is common for credential requirements to escalate, as an excess supply of school leavers develops at each level of formal education.

The fact that there is still a great deal of uncertainty about the future is an indication of the scope for influencing the pattern of change and spatial development. As in the Type IV countries, the major emphasis must be given to the framework of national policy within which the urbanization process is taking place. As long as wages in the administrative and other protected sectors are higher than those justified by the abundance of labor, the rush of migrants to the cities is inevitable. High unemployment and urban unrest are the most likely short-term disadvantages.

In this situation, the time available to implement an efficient strategy for development will depend on the resource base. If the resource base is sufficient, a forced pace of urbanization can be accommodated in the short run and perhaps turned to advantage in the longer run. In countries such as Zambia or Botswana, where exported mineral wealth forms the basis of development, the movement to the cities of the rural population means that this population can now be reached with a whole range of services from water supply to education, which would have been beyond the resource capability of the country to provide in sparsely settled rural areas. If these resources are used to develop the human capital of the country, a foundation will have been laid for a more efficient future pattern of development.

On the other hand, if the resource base is inadequate to sustain a prolonged period of investment in human capital, the inefficiencies of the pattern of urban development will become a real threat to national development. Kenya is a country in this position. In this situation, high priority must be

1/ Todaro, "Income Expectations, Rural-Urban Migration and Employment in Africa." International Labor Review, 1971, pp. 387-410.

given to increasing the productivity of agriculture in order to reduce the rural-urban wage gap and thereby reduce migration. Low rural incomes and food shortages in some countries will require special attention in order to increase national productivity and generate the foreign exchange necessary for the creation of an urban industrial base to complement agricultural growth.

Within the context of an appropriate national development pattern, the strategy in urban areas will have to be one that emphasizes the efficient creation of employment and the rapid expansion of services. The low levels of income of the large numbers moving to urban areas mean that particular attention will have to be given to developing appropriate standards of services. Malawi is an excellent example of such standards. Faced with very low average urban incomes and a growing urban poor population, the public sector has created new urban land, subdivided, and very lightly serviced, at very low cost. On the employment side, it is necessary to take very vigorous action to "get the prices right." Generally the industrial labor market is restricted and privileged industrial labor is grossly overpaid relative to an abundance of equally qualified labor used in other occupations. The civil service is usually overpaid, having taken over many of the perquisites of the colonial elite. (Tanzania, an exceptional case, actually reduced money wages of civil servants substantially in order to correct part of this distortion.) It is unlikely that employment in industry or provision of public services can expand rapidly as long as this overpayment absorbs a large share of potential private and public savings, respectively. Informal sector employment has frequently suffered from outright harassment by government, through an attempt to enforce overly restrictive licensing, standards, and administrative procedures. Some governments are now recognizing that this harassment is counterproductive, but little positive action in favor of this productive sector is yet being undertaken.

In the goods markets, many Type III countries are characterized by the worst excesses of protection and privilege. None has yet developed a very large unproductive industrial sector, but this is more a matter of a short history and slow development than appropriate policy.

In the provision of services, in addition to establishing an appropriate mix of standards, Type III cities should be able to take advantage of the traditions of self-help and informal community help that most of these societies have developed. These could help to economize on the very short supply of formal management ability. In this context, the informal sector stands out as a major asset. To the extent service provision can be accomplished without the need for governments to manage it, this scarce management talent can be spread over a wider range.

THE BASIS FOR THE UN PROJECTIONS OF URBAN POPULATION

A. DESCRIPTION OF THE ASSUMPTIONS BEHIND UN PROJECTIONS OF TOTAL POPULATION

A.1 An examination of the October 9, 1974, United Nations print-out of "Urban-Rural Projections from 1950 to 2000" reveals that it consists of two divisions of data for each country or region. The first portion (from 1950 to 1970) is derived from empirical observation.

A.2 The second group of data (1975-2000) - in particular, the totals - represents projections based upon the "cohort-component" formula which is explained in several UN publications. 1/ In turn, the projections for the urban and rural growth rates are based upon the total figures. An iterative formula for the calculation of the urban and rural growth rates is also provided by a United Nations publication. 2/

A.3 In all cases, the assumptions were based upon a country-by-country scheme with specific circumstances of the country taken into account. In addition, the projections are based upon the medium variant for the assumed levels of fertility and mortality. A Gross Reproduction Rate (GRR) of 2.0 is regarded as the medium fertility growth rate.

A.4 With regard to the future direction of fertility, several assumptions have been employed for the projections. They are:

- (a) As countries progress in economic and social development there will be a fertility decline (Theory of Demographic Transition). In the long run, it is assumed fertility levels will stabilize at the net replacement level.
- (b) Family planning policies and programs for any particular country will facilitate the process of fertility decline.
- (c) As the decline in fertility commences, it will start slowly, gain momentum and proceed to slow again. From observation of countries which have already experienced fertility declines, the decline is the most rapid after passing a GRR of 2.5 and until it reaches the rate of 1.5 or less. Generally, the models are predicated upon various logistic curves or modified exponential curves.

1/ Manual III: Methods for Population Projections by Sex and Age (United Nations Publication, Sales No. 56 XIII.3); World Population Prospects as Assessed in 1968, pp. 5-9 (United Nations Publication, Sales No. 72 XIII.4); Demographic Projections with the Aid of Computers, UN Working Paper (ESA/P/WP.40).

2/ Manual VIII: Methods for Projections of Urban and Rural Populations (United Nations, Population Studies, No. 55).

(d) Cultural factors among different geographic regions are assumed to contribute - negatively or positively - toward fertility decline.

A.5 Future courses of mortality in developing countries countries were obtained from the model life tables of the Office of Population Research, Princeton University. 1/ The traditional United Nations models were also employed. In numerous instances, the trends of mortality decline from the United Nations model were modified to account for a slower decline of anticipated mortality in developing and developed regions.

A.6 In regard to the improvement in life expectancy, the United Nations models included in the UN Manual III entitled Methods for Population Projections by Sex and Age have been modified to conform to the decline of mortality.

A.7 As a general rule, in Africa and Asia international migration was not included in the projections. This was done for two reasons:

- (a) Quantitative measurements are lacking for international migration in Africa.
- (b) The volume of migration in most Asian countries is insignificant.

A.8 International migration is important and will remain at a significant rate between North America and Latin America, between Europe and North America, and between Southern Europe, Northern Africa and Turkey on the one hand and Western Europe on the other.

A.9 From a world view, the present pattern of projections is that inter-regional migration will be decreasing, instead of increasing. In addition, declining migration was assumed in the projections because of the difficulty of establishing a reliable estimate of future trends.

B. UN METHOD FOR PROJECTIONS OF URBAN AND RURAL POPULATION 2/

A.10 The UN method of measuring and projecting the tempo of urbanization is based on the difference between the urban and the rural population growth rate of a given country or URGD. The assumption can be made that an URGD observed in the past may also be maintained for an indefinite period without leading to absurd results. The use of the URGD permits the expression of the relationship between a given level of urbanization and the rate of rise of the urban population by a logistic curve. While not being a social theory in itself, the logistic curve is not inconsistent with the balancing mechanisms of "push" and "pull" factors in the process of urbanization.

1/ Ansley J. Coale and Paul Demeny, Regional Model Life Tables and Stable Populations (Princeton, Princeton University Press, 1966).

2/ This description summarizes and draws extensively on the UN projections Manual VIII.

A.11 The projection of the level of urbanization in a given country is based on the relationship between the assumption of constant growth rate differential between the urban and the rural sector (URGD) and that of a logistic curve in the percentage of urban population.

A.12 If T_0 , U_0 and R_0 are respectively the total, urban and rural populations at the beginning of a period ($t = 0$) and u and r the exponential rates of growth of the urban and rural population, the URGD, i.e., the difference between the rates is $d = u - r$. Then at any given time we have:

$$U_t = U_0 e^{ut}$$

$$R_t = R_0 e^{rt}$$

and

$$(U/R)_t = (U/R)_0 e^{(u-r)t} = (U/R)_0 e^{dt}$$

the level of urbanization can be expressed simply in terms of the ratio

$$(U/R)_0 = K:$$

$$(U/T)_t = (U/U+R)_t = \frac{k e^{dt}}{1+k e^{dt}}$$

which is the equation of a logistic curve.

A.13 Tabulations of the curve exist for the very simple case where the time origin t_0 is chosen for convenience to be the point at which the level of urbanization is exactly equal to 50 percent ($U_0 = R_0$) so that $k = 1$. If it is further assumed that the level of URGD in percentage point is $d = 1$, the formula is reduced for any point in time to:

$$100(U/T)_t = \frac{100 e^t}{1 + e^t}$$

A.14 The fictitious time scale generated by this procedure can be transformed into the actual time scale for a given country according to the value of d . If the URGD is exactly 2.0 percent ($d = 0.02$) the intervals are half-years, hence exactly 2 successive time intervals represent an interval of one year in actual time. When the URGD is not exactly a multiple of 1.0, interpolations can be made. Given the logistic curve, if the levels of urbanization at two dates in the past are available, the URGD can be calculated directly, and vice-versa.

A.15 It is very interesting to observe that despite differences in urbanization level and growth rates, the URGD in more developed and less developed regions are of the same order of magnitude. Regardless of level of development, levels of urbanization or tempo of population growth, URGDs between

about 2.0 and 4.0 are now typical throughout the world. Where there is no other detailed knowledge, projections may be made within these ranges: the low urbanization tempo would be 2.0, the medium one 3.0, and the high one 4.0.

A.16 In our sample of countries, the lowest URGD for the period 1950-1970 was for India (URGD = 1.11) and the highest was for the Republic of Korea (URGD = 5.71). The UN projections reported in our tables are based on the medium tempo adjusted for each country. The resulting URGDs for 1975-2000 tend to be somewhat higher for countries which had very low values for 1950-1970, and much lower for countries which had high values; that is to say, the dispersion of URGDs around a value of 3.0 is greatly reduced in the projections with the attendant effects on projected rural and urban population sizes.

C. PROJECTIONS FOR GROUPS OF CITIES

A.17 The URGD method can also be applied to individual cities or groups of cities. Their population can be projected in relation to the urban population as already projected. The procedure can be applied to one city at a time, preferably beginning with the largest. But since projections for individual cities may be considerably in error, it is possible that the errors are partly compensated, some cities being overestimated while some others are underestimated. It may seem safer, therefore, to make a forecast for the combined population of groups of cities.

A.18 The number of groups of cities to be considered should be adjusted to the total number of cities in the country. The lowest group size limit (say, 20,000) should be chosen sufficient to make the cities in the group quite numerous. This reduces problems with the specification of the exact number of cities that may enter the group before the end of the projection period. For the world projections, the lower limit of 100,000 will underestimate the number of cities in that class in the year 2000 for small countries.