PART I

Conditions and Trends

1 The Global Context

1:1 Current Trends in Global Economic Conditions

Recent world economic trends

An understanding of economic change worldwide and within nations is needed to make sense of urbanization trends and of other changes in the spatial distribution of the world's population over the last 15-20 years. An understanding of economic change is also important for understanding the changing scale and nature of international and internal migration flows. Without such an understanding, it is difficult to make sense of the very rapid growth of many cities in China, the increasing concentration of the world's urban population in Asia, the slowing in growth of most major cities in Latin America (at least up to the early 1990s), the radical restructuring of the urban system in the United States and the revival of certain major cities in Europe. There are also important changes in the physical structure of cities and their wider metropolitan areas that are much influenced by economic trends. This brief review of economic change in the last two decades is to provide the broad context for considering changes in the scale and nature of urbanization in the second part of this chapter and the more detailed considerations of population and urban change within each of the world's regions in Chapter 2. It is also important for understanding the changes in the scale and nature of poverty in both rural and urban areas (described in Chapter 3) and the changes in the scale and nature of urban environmental problems (described in Chapter 4).

Although in aggregate, the world economy has expanded considerably over the last two decades, it has experienced a fluctuating growth pattern over this period. The 1980s began with the fear of a return to high inflation, following the 1979-80 oil price increase of around 150 per cent. When coupled with the structural problems facing the major economies, there was a fear among OECD nations that this would herald another period of recession comparable to that following the first oil-shock in 1973/4. However, the leading economies were better prepared and were able to use firmer monetary and fiscal policies that not only contained inflation but improved their economic performance. By 1984, the average inflation level within OECD stood at around 5 per cent compared with nearly 13 per cent in 1980. However, the recovery remained weak. Average real GDP growth rates for OECD countries fell from 3-4 per cent during the 1970s to less than 2 per cent in 1980 and 1981 and zero in 1982-see Table 1.1. Between 1983 and 1990, average real growth rates rose once more to between 2 to 4.5 per cent a year across the OECD countries. By the early 1990s, growth rates had fallen once more and real growth rates did not exceed 2 per cent between 1991 and 1993.

These aggregate figures conceal significant differences between countries.[1] The Japanese economy, for instance, grew strongly throughout the period except in 1992 and 1993. The US economy contracted sharply in 1982 (by 2.2 per cent) and rose strongly immediately afterwards, and managed to maintain real growth levels between 1991 and 1993, against the general trend. Economic growth in Northern, Southern and Western Europe has, in general, been lower than in Japan and more stable than in the US. In the early 1990s, the downturn was sharp, with negative growth in 1993 in 11 European countries (see Table 1.1). For the years 1991-93, certain nations had declines in their real GDP, the largest decline being in Finland but with declines also in Sweden, Switzerland and the United Kingdom.

The economic declines in East and Central Europe and in the republics that were formerly part of the Soviet Union in the early 1990s were considerably larger. After years of poor economic performance, attempts were made to introduce reforms in most of these countries-but it was the political revolutions of 1989 that brought abrupt changes in both political and economic organization. This included the collapse of existing trade patterns following the collapse of the Council for Mutual Economic Assistance (CMEA). As different countries sought to reduce the role of the state in production and to introduce other economic changes, they came to be labelled as 'transition' economies. There has been a sharp decline in output in most of East and Central Europe since 1989-and for the region as a whole, output diminished in each year from 1990 to 1993.[2] In 1992, output in the republics that were formerly part of the Soviet Union fell by 20 per cent.[3] Exports to the OECD began to provide some stimulus for growth for some of the transition economies from 1992.

For most countries in the South, the period 1975-95 has meant little growth in per capita

TABLE 1.1 **Real GDP: Percentage changes from previous period**

	Average														Estimates & Projections					
	1970-77	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
United States	3.0	4.8	2.5	-0.5	1.8	-2.2	3.9	6.2	3.2	2.9	3.1	3.9	2.5	1.2	-0.6	2.3	3.1	3.9	3.1	2.0
Japan	4.4	4.9	5.5	3.6	3.6	3.2	2.7	4.3	5.0	2.6	4.1	6.2	4.7	4.8	4.3	1.1	0.1	1.0	2.5	3.4
Germany	2.7	3.0	4.2	1.0	0.1	-0.9	1.8	2.8	2.0	2.3	1.5	3.7	3.6	5.7	5.0	2.2	-1.1	2.8	2.8	3.5
France	3.5	3.4	3.2	1.6	1.2	2.5	0.7	1.3	1.9	2.5	2.3	4.5	4.3	2.5	0.8	1.2	-1.0	2.2	3.1	3.2
Italy	3.4	3.6	5.8	4.1	0.6	0.2	1.0	2.7	2.6	2.9	3.1	4.1	2.9	2.1	1.2	0.7	-0.7	2.2	2.7	2.9
United Kingdom	2.2	3.5	2.8	-2.2	-1.3	1.7	3.7	2.3	3.8	4.3	4.8	5.0	2.2	0.4	-2.0	-0.5	2.0	3.5	3.4	3.0
Canada	5.1	4.6	3.9	1.5	3.7	-3.2	3.2	6.3	4.7	3.3	4.2	5.0	2.4	-0.2	-1.8	0.6	2.2	4.1	4.2	3.9
Total of above countries	3.3	4.3	3.6	0.9	1.7	-0.3	2.9	4.6	3.3	2.9	3.2	4.5	3.2	2.4	1.0	1.6	1.4	3.0	3.0	2.7
Australia	3.3	4.0	4.0	2.5	3.4	-0.1	0.7	7.5	4.7	2.0	4.7	4.1	4.5	1.3	-1.3	2.1	3.8	4.3	4.3	4.0
Austria	4.1	0.1	4.7	2.9	-0.3	1.1	2.0	1.4	2.5	1.2	1.7	4.1	3.8	4.2	2.7	1.6	-0.3	2.6	3.0	3.1
Belgium	3.3	2.7	2.1	4.3	-0.9	1.5	-1.7	4.5	0.8	1.4	2.0	4.9	3.5	3.2	2.3	1.9	-1.7	2.3	3.0	3.1
Denmark	2.5	1.5	3.5	-0.4	-0.9	3.0	2.5	4.4	4.3	3.6	0.3	1.2	0.6	1.4	1.0	1.2	1.4	4.7	3.3	2.9
Finland	2.9	2.2	7.3	5.3	1.6	3.6	3.0	3.1	3.3	2.4	4.1	4.9	5.7	0	-7.1	-3.6	-2.0	3.5	4.8	3.9
Greece	5.0	6.7	3.7	1.8	0.1	0.4	0.4	2.8	3.1	1.6	-0.5	4.4	4.0	01.0	3.2	0.8	-0.5	1.0	1.5	2.3
Iceland	6.6	7.0	5.5	7.0	4.3	2.0	-2.0	4.1	3.6	6.5	8.8	-0.3	0.2	0.5	1.0	-3.7	0.9	1.9	1.6	2.0
Ireland	4.9	7.2	3.1	3.1	3.3	2.3	-0.2	4.4	3.1	-1.4	5.7	4.3	7.4	8.6	2.9	5.0	4.0	5.0	5.0	4.6
Luxembourg	2.7	4.1	2.3	0.8	-0.6	1.1	3.0	6.2	2.9	4.8	2.9	5.7	6.7	3.2	3.1	1.9	0.3	2.6	3.2	3.5
Mexico	5.8	8.2	9.2	8.3	8.8	-0.6	-4.2	3.6	2.6	-3.8	1.9	1.2	3.3	4.4	3.6	2.1	0.6	2.9	4.0	4.3
Netherlands	3.3	2.5	2.4	0.9	-0.7	-1.5	1.4	3.1	2.6	2.7	1.2	2.6	4.7	4.1	2.1	1.4	0.4	2.5	2.9	3.2
New Zealand	2.9	-6.4	1.5	0.4	4.7	3.4	1.1	8.7	1.1	0.7	-1.7	3.0	1.0	-0.1		0.4	4.4	5.0	3.6	2.9
Norway	4.8	4.7	5.1	4.2	0.9	0.3	4.6	5.7	5.3	4.2	2.1	-0.5	0.6	1.7	1.6	3.4	2.2	3.6	2.9	2.3
Portugal	4.9	2.8	5.6	4.6	1.6	2.1	-0.2	-1.9	2.8	4.1	5.3	3.9	5.2	4.4	2.1	1.1	-1.1	1.0	2.6	2.9
Spain	4.7	1.5	0	1.3	-0.2	1.6	2.2	1.5	2.6	3.2	5.6	5.2	4.7	3.6	2.2	0.8	-1.0	1.7	2.9	3.3
Sweden	1.8	1.8	3.8	1.7	0	1.0	1.8	4.0	1.9	2.3	3.1	2.3	2.4	1.4	-1.1	-1.9	-2.1	2.3	2.3	2.5
Switzerland	0.9	0.6	2.4	4.4	1.4	-0.9	1.0	1.8	3.7	2.9	2.0	2.9	3.9	2.3	0	-0.3	-0.9	1.7	2.2	2.7
Turkey	6.4	1.7	-0.7	-1.9	5.3	4.2	5.3	7.4	4.5	7.8	9.1	2.1	0.9	9.1	1.0	5.5	5.9	-3.9	3.6	4.8
Total of smaller countries	4.2	3.1	3.4	2.9	2.3	1.0	0.9	3.8	3.0	2.0	3.6	3.2	3.6	3.6	1.3	1.5	0.7	2.0	3.3	3.5
Total OECD	3.5	4.1	3.6	1.2	1.8	0	2.6	4.4	3.3	2.7	3.3	4.3	3.3	2.6	1.0	1.6	1.3	2.8	3.0	2.9
OECD North America	3.3	5.0	3.1	0.2	2.4	-2.1	3.3	6.0	3.2	2.5	3.1	3.8	2.6	1.3	-0.4	2.1	2.9	3.9	3.2	2.3
OECD Europe	3.3	2.9	3.4	1.4	0.4	1.0	1.8	2.6	2.7	3.1	3.1	4.0	3.4	3.2	1.5	1.2	-0.1	2.3	3.0	3.2
EC	3.2	3.2	3.5	1.3	0.1	0.8	1.6	2.3	2.5	2.9	2.9	4.2	3.5	3.0	1.7	1.1	-0.3	2.5	3.0	3.2
Total OECD less the United States	3.8	3.7	4.2	2.3	1.8	1.2	1.8	3.4	3.4	2.6	3.4	4.5	3.7	3.4	2.0	1.2	0.2	2.2	3.0	3.4

Source: Annex Table 1, OECD Economic Outlook Issue no. 56, December 1994, OECD Publications, Paris.

income, especially from the early 1980s. Between 1980 and 1991, annual average growth in per capita income was negative for three regions: sub-Saharan Africa, the Middle East and North Africa, and Latin America and the Caribbean. Serious debt problems were evident in many countries from the beginning of the decade, as global recession and rising real interest rates meant many countries could not afford to repay their foreign debts. The 1980s thus came to be known as `the lost decade' in Latin America and this description is applicable to most of Africa and many countries in Asia too.

The main exceptions are the leading Asian economies such as China and what have been termed the Dynamic Asian Economies (the Republic of Korea, Taiwan, Hong Kong, Singapore, Thailand, Indonesia and Malaysia) which sustained high economic growth rates for most or all of the 1980s and early 1990s. The region in which these nations are concentrated-East Asia and the Pacific-had much the highest economic growth rate of any of the world's regions during the 1980s and early 1990s. China had among the world's most rapidly growing economies between 1980 and 1993, including being the fastest growing economy in the region (and indeed in the world) for 1992 and 1993.[4] This is all the more remarkable, given that China has around one-fifth of the world's population. As will be described in more detail later, the growing role of East Asia within the world economy is also reflected in the fact that this region contains a growing proportion of the world's urban population and of its largest cities.

Most other countries in the South suffered from one or more of the following problems: economic stagnation, high inflation, poor terms of trade, severe external debt problems plus other domestic problems, such as rising unemployment, high interest rates, unstable currencies and falling incomes for a large proportion of their population. These usually had a devastating impact on the overall development of these countries, particularly on housing and living conditions including the quality and availability of housing, water supply and provision for sanitation as well as on their

political and social stability. The number of urban dwellers living in poverty increased sharply in many countries during the 1980s and early 1990s (see Chapter 3).

In recent years, there has been some turn-around for certain countries in Latin America and in South Asia. For instance, the growth in GDP in Latin America averaged 3.1 per cent a year between 1991 and 1993-although much of this growth was concentrated in Argentina, Chile, Colombia and, until late 1994, Mexico. The economic performance of most African countries, particularly those in sub-Saharan Africa, remained poor over the last two decades[5]-and this region did not share the more buoyant economic performance achieved by South Asia and Latin America for 1991 to 1993.[6] Some countries in the continent have suffered from drought which has sharply reduced food production-with serious problems of under-nutrition in large regions and of famine in some. In addition some countries have suffered from civil strife and military and ethnic conflicts over long periods. In the economic area they have suffered from poor terms of trade for their primary commodity exports, higher oil prices for the non-oil producers and increasing debt burdens for most or all of the last fifteen years. Overall debt stock for sub-Saharan Africa rose from $84 billion in 1980 to $199 billion in 1993.[7] Most of the export earnings these countries were generating over the period were used mainly for purposes of servicing debt, which is largely owed to other governments and official agencies.

Changes in nations' per capita incomes[8]

These economic reversals during the 1980s in most of Latin America and Africa and much of Asia represented a change from the previous two decades. In most countries, per capita incomes in the early 1990s were still much higher than in 1960-and this is reflected in the regional figures given in Table 1.2. However, there are countries where there has been very little growth in per capita income since 1960 and, in a few, per capita income in the early 1990s is actually lower than it was in 1960. The following summary uses purchasing power parity adjusted per capita income estimates.[9]

Global GDP, in real terms, increased more than fourfold between 1960 and 1991 with the world's average per capita income almost tripling in this period.[10] In aggregate, per capita income for OECD nations tripled in this period; in Austria and Spain it increased more than fourfold and in Japan more than sevenfold. Within the North, the region with the most rapid growth in its per capita income was Southern Europe.[11]

TABLE 1.2 Changes in real income per person, 1960-1991

Country or region	Real GDP per capita (ppp U$)	
	1960	1991
World		5,490
'The North'		14,860
'The South'	950	2,730
'Least developed countries'	580	880
Latin America and the Caribbean	2,140	5,360
Arab States	1,310	4,420
South Asia	700	1,260
EastAsia	730	3,210
South-East Asia	1,000	3,420
Sub-Saharan Africa		1,250
North America	9,780	21,860
Europe		
European Community	5,050	16,760
Nordic countries	5,770	17,230
Southern Europe	3,390	14,100

Source: Statistics drawn from UNDP, Human Development Report 1994, Oxford University Press, New York and Oxford, 1994.

ppp = purchasing power parities

In aggregate, per capita income in the South almost tripled between 1960 and 1991, although there was far more variation between countries and regions than in the North. In many Asian nations, it expanded more than threefold. For instance, in China, Malaysia, Thailand and Indonesia, it expanded more than fourfold, in Singapore more than sixfold, in Hong Kong, eightfold, and in the Republic of Korea more than twelvefold. In Latin America as a whole, it expanded 2.5-fold with Brazil (3.7-fold) having the largest expansion within the region. In Africa, some nations had dramatic increases-for instance the per capita income of Botswana increased tenfold between 1960 and 1991 with that of Egypt increasing 6.5-fold and Kenya 3.7-fold.

Although there are prominent exceptions, in general, the nations with the lowest per capita incomes in 1960 also had among the lowest per capita incomes in 1991. Most of the countries with the smallest increase in per capita income and virtually all those that had a decline in this period were in sub-Saharan Africa. Perhaps not surprisingly, many of the nations with a decline in per capita income in this period were those in which there were prolonged wars. Among those with declining per capita incomes are Mozambique, Somalia, Liberia and Afghanistan, which experienced serious civil war and strife. Angola, Sudan and Ethiopia, which also suffered serious and prolonged civil wars, had among the lowest increases in per capita income during this 31-year period.

Changing macro-economic conditions and impacts on human settlements

The lower economic growth rates that most countries in the South experienced during the 1980s in comparison to the 1970s generally meant reduced rates of growth in regard to consumption and to gross fixed capital formation. The weakness in overall investment growth is explained by a number of factors including the decline in disposable income for households, lower expenditures by firms and governments and a low level of confidence in general economic improvements.

During the 1980s and early 1990s, international finance was dominated by two developments. The first was the emergence of very large current account deficits in the USA and the huge surplus incurred by Japan and to a lesser extent by Germany and the dynamic Asian economies. The second development was the international debt crises. The 1980s also brought the virtual elimination of the very large OPEC surpluses. Among the key policy responses which have had widespread effects are the World Bank and International Monetary Fund (IMF) programmes which came to emphasize the seeking of debt solutions on a case by case basis, while at the same time introducing conditionality for countries implementing the programmes.[12]

It is important to note that in the 1980s, property lending in the OECD area expanded rapidly, due to its good credit rating among the depository institutions. Various factors explain why lending in this area was favoured: the sector's enjoyment of limited competition from the securities market relative to commercial lending; government encouragement for investment in housing; and the fact that real estate seemed to provide solid security for loans, in the wake of rising prices. Towards the end of the decade, property values declined in many countries with the result that collateral values underlying bank loans also fell, leading to reduced borrowers' capacity, rises in interest rates on housing loans, relative to market rates and a slump in lending activity.[13] In some countries, falls in the value of property led to large numbers of people with `negative equity' as the value of their property fell below the value of the loan they had used to purchase it.

For most countries in the South, the `lost decade' in terms of their economic performance also brought very inadequate investment in infrastructure, housing and services related to shelter. Planned investments in expanding city infrastructure and services were often among the first to be cut during a recession. In most countries, there was also a serious deterioration in existing infrastructure and services-reflected in the deterioration of city bus and train services, garbage collection services, road repairs and maintenance to water mains, sewers, drains and public buildings.[14] To this deterioration was added that arising from home-owners, landlords and businesses who postponed investments in maintenance and repair, as their own incomes diminished.[15] The lack of investment funds was further aggravated by the prevailing debt situation. For the transition economies, there was in the period a lull in growth associated mainly with reforms and later transition to market-based production systems. The elimination of subsidies and the state withdrawal from production sectors targeted for reforms, such as housing development, has implied less investment in the built environment and in infrastructure and services, even in countries where overall economic growth has begun to improve.

The inflationary conditions in most countries in the South in the 1980s and 1990s and also in the transition economies in the early 1990s also had repercussions on human settlements; unlike the major economies in the North, they were unable to contain inflation, owing to structural economic problems as well as weak monetary and fiscal systems. Overall inflation levels in many transition economies grew rapidly. Some of the newly independent states such as the Ukraine have been suffering from hyper-inflation due to monetary conditions, energy-related price rises and also prevailing price-control regimes.

Inflation levels have also remained high in many countries in the South. In general, it is the fastest growing economies that have been most successful in keeping inflation to single-digit rates, such as the Republic of Korea, Singapore, Malaysia, Thailand and Hong Kong. The problem with high inflation levels is that they have encouraged capital flight, discouraged domestic savings in cases where real interest rates are negative, and discouraged foreign investments. This in turn has led to a lack of investment funds from domestic sources to undertake investments in basic infrastructure and other capital developments. High levels of inflation have also led to lower credit availability and lower demand. Most households have to reduce their level of investments as their disposable income falls which, coupled with higher interest rates, reduces demand for loans, including mortgages.

Inflationary conditions also reduce business confidence with the effect that short-term projects are preferred over long-term investments which require long pay-back periods. Since most large infrastructure projects have high returns but long pay-back periods, there was a decline in the number of such projects. This was even the case in cities with rapidly growing populations and a great need for a large expansion in roads, public transport, water supply, sanitation, drainage and

power. Construction has further been constrained by shortages of foreign currency reserves, which has also partly been hampered by the tightening of global credit conditions.

One particular problem facing many Southern countries is the cost of importing building materials, as the import content of conventional building materials is very high, on average 20 per cent but up to 60 per cent in some countries.[16] Countries with limited export earnings have difficulties generating the needed foreign exchange. Poor terms of trade and in particular, currency devaluations raise import costs making it difficult to afford regular supplies. Supply is further curtailed by foreign exchange shortages and rationing. This imposes great constraints on all building and construction projects that use imported materials and rising costs for on-going projects where costs often escalate even faster due to shortages and poor deliveries.

Structural reforms and structural adjustments

Structural reforms have been very important in both North and South since the 1970s, but became even more crucial in the 1980s when major economies experienced large current imbalances as well as external imbalances. In both the North and South, structural reforms have had the same primary aim of building capacity for sustained economic development. The difference in policies used has arisen out of the differences in the economic structures of the economies and the kinds and degree of market distortions and rigidities that are in existence.

In the North, policies have covered four areas: taxation, financial markets, product markets, and labour markets and social policies. Reforms have sought to streamline personal income taxes, corporate taxation and consumption taxes. In both personal and corporate taxes, rates have been lowered but the bases broadened. The aim has been to improve incentives to work and for saving, while better corporate taxes are aimed at improving investment climate. Financial market reforms have involved extensive deregulation aimed at improving their efficiency, increasing flexibility, reducing distortions in savings flow to final uses, improving responses to customers, creating a more receptive environment for the adoption of new technologies, enhancing the countries' position in the international markets for financial services, and creating an enabling market for monetary policy implementation using market-oriented instruments. The deregulation has involved allowing foreign participation and creating greater scope for competition.

In product markets, a range of reforms have been directed at specific industries or group of industries. Actions taken have been designed to promote competition from both domestic and foreign sources through deregulation, reduction in protection levels and a critical review of industrial policies. The process has involved broad domestic measures such as the dismantling of general price controls and international trade policies such as regional agreements, international negotiations as in GATT, and deregulation of services traditionally provided by regulated networks-such as those in transport and communications.

In labour markets and social policies the goal has been to reduce impediments to lowering unemployment. Policies in this area have included the removal of regulatory controls in wages, job training and retraining and adjustments in social programmes. From the mid-1980s, there was increased privatization and strong pressure to reduce the role of the state in the economy particularly in certain Northern economies such as UK and USA.

In the South, some similar reforms, such as those in taxation and product markets, are being implemented under specific programmes introduced to address structural reforms. Structural adjustment programmes have been characterized by moves towards privatization and the adjustment of the economy towards market-oriented economic systems, reduction of the public sector, exchange rate adjustments-mainly through devaluation of national currencies-deregulation of the price system, removal of subsidies and also deregulation of the service sector and factor inputs.

The implementation of the programmes has had implications at both national and global level. The policy changes in the North also reduced the flow of aid and other capital flows to the South, adding to the slowing down of economic activities. In the labour market, the programmes led to a reduction in general and public sector employment levels and often to cuts in incomes.

One of the principal policies in the structural reform programmes in both North and South has been to cut public spending and to reduce budgetary deficits. The cuts made are usually in sectors not considered as priority or core productive sectors which, in many cases, includes human settlements.

The effects of structural programmes in the South have been of much concern, particularly due to their undesirable immediate effects. As Chapter 3 will describe, structural adjustment programmes were often associated with rising levels of urban poverty. In the long run, it is hoped that the programmes will lead to sustained economic growth. In the short-run, the impacts were very different. Structural adjustment policies have an impact on human settlements through several channels: the national economic growth rates; the size and allocation of government expenditure;

and the impacts of government policies on different sectors. The immediate impact on the economy is deflationary to reduce domestic consumption and encourage exports and, through reduced government expenditure, to encourage private sector expansion.

The measures adopted to achieve the immediate objectives have generally resulted in higher prices of essential commodities, including food and building materials, reduced employment, and reduced incomes owing to the fiscal and monetary contraction. There were also other effects such as lower access to health care or reduced effectiveness (for instance as needed medicines could not be imported), and declining quality and effectiveness of schools and other basic services as a result of less public expenditure.

International and national debt burdens

Debt burdens have constrained global economic development since the problem came to the fore in 1982. The effect of the crises has been that increasing proportions of national revenues are devoted to debt servicing, with little or no additional capital to investment. As the crises continued in the 1980s, debtor countries began to experience a reversal in capital resource flows, lower investment capacity and growth and also higher inflation. The expansionary policies of 1979-81 coupled with large fiscal deficits (particularly of the USA), rapid increase of world interest rates, falling commodity prices and the recessionary conditions in turn made it difficult to find a lasting solution to this problem. The policy solutions used have been varied and have met with differing success depending on the debtor country's circumstances and magnitude of debt. These policies have included debt-swaps, debt relief, particularly for low-income countries, debt rescheduling, debt buy-back schemes, debt for trade swaps and other schemes such as debt and equity issues. However, in spite of progress made in a number of countries and relief for the very poor, debt has continued to be a threat to economic development in the South.

In the OECD countries, domestic government indebtedness is estimated to have increased from 22 per cent in 1979 to 40 per cent in 1990.[17] This has restricted governments' ability to maintain appropriate expenditures and tax plans, as an increasing share of public expenditure has to be devoted to meeting debt service obligations. The strategies chosen to deal with these debts include: across the board reduction of the share of non-interest expenditures (such as pensions and unemployment benefits), raising taxation and reducing investments, subsidies and capital transfers. However, it is the current imbalances in trade deficits and current account deficits that are the major concerns of Northern governments.

In the South, the concern has been both with foreign debt and domestic policies. This situation arose out of the growth patterns in the 1970s and early 1980s, when these countries used foreign borrowing to maintain unsustainable levels of consumption in the wake of falling export earnings and shifting terms of trade. The emergence of debt problems, and the tightening of loans in the 1980s led to problems in servicing the existing debts as well as serious balance of payments problems.

The effects of debt problems are varied although there are some common impacts. In all the countries, both public and private investments declined and in some cases virtually collapsed as sources of credit became scarce. In particular, public spending on projects including those associated with human settlements, were reduced as debt servicing became a priority.[18] This often meant declines in investments in water supply, sanitation, drainage and roads. Budgetary stringencies often meant declining support for all forms of housing project, including many squatter upgrading programmes and housing credit programmes that, unlike most forms of government support for housing had reached lower income groups with improved conditions. The situation was made worse by reduced shelter investment by the private sector as a result of the adjustment policies.

Housing finance was also affected by inflation and international interest rates, which rose as debt problems set in, and by the effect of the debt on other mechanisms employed by governments to raise funds. Mortgage interest rates based on a combination of international rates and underlying domestic inflation considerations also remained high. The result was lack of long-term fixed lending. The overall effect of reduced housing finance and demand was lower levels of lending and hence lower levels of construction, improvement and renovation.

Human settlements development was further constrained by the effects of debt on households' income and borrowing capacity. The reduction in savings as disposable income fell (or grew less quickly) had the effect of cutting down on investments in private sector housing. In countries where corporate investment in the housing sector is significant, the reduction in the availability of credit in the finance markets and reduced government grants following budgetary reductions had the effect of further reducing investments in housing and related infrastructure and services.

Changes in the world economy

There are a series of complex structural changes in the world economy that are not apparent in the

economic indicators outlined above. For example, there are at least four major changes in the relative importance of different economic sectors that have profound implications for human settlements:

- The rapid decline in the value of natural resources within the global economy and relative to the value of manufactures which means the relative impoverishment of countries and regions dependent on natural resource production.[19] This helps explain why the economies of certain parts of Latin America and Africa fared so poorly during the 1980s. It also helps explain why many of the OPEC countries were no longer among the most rapidly growing economies in the world, during the late 1980s and early 1990s.
- The rapid growth in international trade (the value of which multiplied twelvefold since 1945) and the transformation of trade from one dominated by goods to one dominated by finance and specialized services. One commentator has suggested that this forms the basis for a new urban economic order of banking and service activities that comes to replace the older, typically manufacturing oriented urban core.[20] The cities with important stock-markets and financial services have also benefited from the very large expansion in the financial industry; for instance, between 1974 and 1994, the total capitalization of the world's stock-markets expanded more than sixteenfold in real terms from $900 million to $15 trillion.[21] Producer services have become the most dynamic, fastest growing sector in many cities.[22] Insurance, banking, financial services, real estate, legal services, accounting and professional associations are central components–and most mix business and consumer markets.[23] But there are also other important producer services linked to management, innovation, research and development, personnel, wholesale distribution, advertising, transport and communications, and servicing the offices and equipment used by this wide range of businesses. The globalization of production is probably increasing overall demand for producer services but the location of the producer services can be entirely disassociated from the manufacturing plant. Thus, the producer services in London and New York are meeting demands most of which are not generated within their own region.[24]
- The rapid growth in the media business and its increasing internationalization with much of it controlled by transnationals–for instance major news services, television, film and video industries, major newspapers and publishing houses. There is also a globalization of advertising and marketing agencies. Their increased importance has also greatly boosted the economyof the cities where they have concentrated.
- Tourism–both international and within nations–has become of major significance to the economies of many nations and within them, many cities and smaller urban centres. The scale of international tourism when measured in terms of arrivals increased more than fifteenfold between 1970 and the late 1980s.[25] This too has greatly boosted the economy of many urban centres, including some that were facing serious economic decline as their manufacturing base or importance as a port declined. Many cities in Europe earn more from tourism than from manufacturing.

There are other important changes, some of which underlie the relative importance of different economic sectors and these too have fundamental implications for human settlements in both the North and the South. They include:[26]

- The much increased importance of transnational corporations within the global economy. Just 500 companies account for two thirds of world trade, and around 40 per cent of this occurs within these companies.[27] This has meant a great increase in the proportion of industries and some services worldwide that are organized and controlled on a world scale, through global corporate networks. These have brought and continue to bring significant changes in the international division of labour. Export processing zones or new financial centres or simply new centres of industry are being created or much changed–including some that are at a considerable distance from the major cities. This has transformed the economic and urban base of many cities and regions. National and city governments have increasingly sought to ensure their countries or cities remain competitive through developing export processing zones, free trade zones and technopoles–see Box 1.1. They also seek to attract the global or regional offices of the multinationals and to capture a larger share of the international tourism and business convention market.
- The transformation of production processes with the technological revolution that allows changes in production (for instance flexible specialization and increased automation) and in its organization. One important organizational change that influences urban systems within nations is the 'just-in-time' production system that can encourage a concentration of industries and service enterprises that are part of the production process–although with modern transport and communications systems, allowing these to be in different cities. Another

BOX 1.1

Technopoles and innovation

The term 'technopole' has been given to deliberate attempts to plan and promote within one location technically innovative, industrial-related production. Technopoles include industrial complexes of high technology firms that arose without deliberate planning, though governments and universities had a critical role in their development-for instance Silicon Valley in California as a new complex and Boston's route 128 that was the transformation of an older industrial region. They also include 'science cities' that are scientific research complexes which are spatially separate from manufacturing-for instance Tsukuba (Japan) and Taedok (Republic of Korea).

There have been many attempts to create technopoles that have failed to generate what can be termed the 'innovative milieu' that drives the innovation and synergy between different firms and that allows a technopole to achieve a self-generating development.

. . . without an innovative milieu, the development of high technology industries will contribute to regional development only within the heavy constraints set by the business cycles of industries that are likely to be highly volatile, There will be no possibility 0f truly indigenous growth, and thus no escape from the state of dependency on another region, another region's companies and another region's innovative individuals.' (pp. 234-5).

In addition, there are also the old metropolises that keep their leading role as centres of high technology firms and research (for instance Paris and Tokyo) and certain newer metropolitan centres that developed as centres of high technology production (Los Angeles and Munich). There are also some notable differences between countries-for instance in the United States, the large US corporate laboratories fled from the old major cities while in Japan they have remained within metropolitan Tokyo. The Keihin region of Japan embracing metropolitan Tokyo and its surrounding prefectures of Kanagawa, Saitama and Chiba is the leading high technology industrial area in the world. And in contrast to its leading rival in Southern California, its primacy is based firmly on production for the consumer market. It concentrates just under a quarter of Japan's manufacturing output and is the largest industrial region in Japan.

Source: Manuel Castells and Peter Hall (1994), Technopoles of the World. The Making of 21st Century Industrial Complexes, Routledge, London and New York.

whose impact is more international is the 'global' capital good where different components are made in places where production costs are minimized with the final product bearing parts made in dozens of different countries.

- Advances in telecommunications and in computer networks that permit a progressively centralized control of production but a greater decentralization of the production itself, either within transnational companies as they manufacture different parts of a single product in different countries or cities, or through subcontracting, joint venture and strategic alliances. This can lead to an almost complete separation between management and production as head offices arrange for the whole design, production, promotion and sales process without the good being produced and sold necessarily coming to the city or even the country from where this whole process is controlled. Many elements in this new organization of production no longer need to be in central cities or even in cities at all. They nc longer benefit from agglomeration economies and can benefit from cheaper locations within countries (e.g. on the edge of metropolitan centres or outside them on greenfield sites) or in lower-wage countries. This development was dependent on better logistical management and sophisticated telecommunications and it also reduces the dependence on unskilled labour. There is also a growing number of service activities that can be moved to cheaper locations within nations or internationally because of advanced telecommunications. For instance, many major companies in the North have a large part of their routine administrative, accounting or sales tasks undertaken in countries in the South. Many more companies have a substantial part of their workforce in rural areas or small towns, including a growing proportion who work from home through teleworking (Chapter 8 considers this in more detail).
- The increasing mobility of capital at both national and transnational level. Direct foreign investment has grown much more rapidly than the export trade.[28] The scale of direct foreign investment flows to the South has increased very considerably, rising from only a few billion dollars in 1980 to some $10 billion in 1986 to $56 billion in 1993;[29] the scale of private loans and portfolio equity investments has also increased rapidly in the early 1990s.[30] Direct foreign investment was boosted by the privatization of many state-owned enterprises, especially in Latin America and Eastern Europe. However, most direct foreign investment remains between countries in the North and most direct foreign investment to the South is concentrated in a limited number of countries.[31] For instance, in 1993, China was much the largest recipient with over a quarter of the total; China with Mexico, Argentina. Malaysia and Thailand received 59 per cent of foreign direct investment flows to the South.[32]
- The emphasis of most government policies on free markets in finance and trade in goods and services and the removal of protectionist trade barriers (and the development of regional trading groups) which has resulted in governments with less power and private capital with more power.[33] This has also been interpreted by some to mean that cities have greater power,[34] although it is only cities that can suc-

cessfully compete for international, national or local investments that have more power.

These are all changes whose direct and indirect implications are considered in the rest of this chapter, and also in Chapter 2.

1.2 Global Population Change and Urbanization

Changes in population and in households

The world's total population in 1995 was estimated at 5.7 billion.[35] The rate at which it is has been growing was essentially constant between 1975 and 1990 (at around 1.7 per cent a year) and it is projected to drop to an average of around 1.5 per cent a year during the 1990s.[36] Fertility rates have declined almost everywhere in recent years, although the pace of change differs greatly. For aggregate regional statistics, the exception is Africa, although fertility decline has started in a number of countries in East and Southern Africa.[37] However the global picture is one of immense diversity.[38] Thus, the discussion of recent demographic changes and their implications for human settlements will be concentrated in Chapter 2, within sections that consider population and urban change in each of the world's regions.

In most societies in recent decades there have been rapid changes in the size of households and in their structure (including the proportion of households headed by women and the types of person within the household). One of the most dramatic has been the increase in the proportion of female-headed households which are now thought to comprise more than one fifth of all households worldwide–although with large variations between countries.[39] Box 1.2 gives more details and discusses the links between this growth and economic and urban change. It is also likely that in most societies there is or has been an increase in the proportion of nuclear families and a fall in the average size of households, which has accompanied (and is linked to) an increasingly monetized economy and increasing proportions of the labour force working in non-agricultural activities and living in urban areas. For the United States and for much of Europe, the average household size is now less than three persons. Another important change, recorded in many countries in the North, is a rapid increase in the proportion of single person households. In much of Europe, over a quarter of all households are one-person households; in the USA, over a fifth of all households are one-person households. These and other changes in the size and composition of households have important and often underrated influences on urban changes and housing markets. They bring major changes in the number of households which need accommodation; a rapid growth in the number of households can mean that housing demand rises, even as the overall population of a city falls. They also bring changes in the type of accommodation that is sought, in household income and in households' preferences as to where they want to live.[40]

However, the scale and nature of changes in household size and structure appear too varied from society to society or within a society over time (or perhaps even between income groups) to permit much detailed generalization. International comparisons are also hampered by the differences in definition or interpretation of `household' between countries and the fact that there is no recent data on households in many countries. In addition, the assumption that economic changes always promote a change from a predominance of extended families to a predominance of nuclear families has been challenged both by historical studies which show that household composition has long been highly variable in rural areas and by contemporary studies which find extended households common in urban areas.[41] The relative proportion of nuclear or extended families depends on a great variety of macro and micro factors–for instance, in rural areas, they include local forms of agricultural production, land availability and inheritance, kinship patterns and demographic variables'such as life expectancy.[42] There is also evidence of a rising proportion of extended families in many urban areas, largely as a response by households to falling real incomes.[43] Chapter 6 will describe one aspect of this–the number of young adults (single and married) who share the house of parents or other kin as they lack the income to afford their own accommodation. Chapter 3 will also give examples of the growth of extended families in urban areas as relatives come to live with nuclear families because they have lost their own livelihoods or as relatives are welcomed for the extra income and household work they can contribute-although there are also examples of extended families dividing, as the nuclear household can no longer support relatives. Thus, `while there is little doubt that household composition usually undergoes some change in the course of urban development, these changes take different forms at different times and in different places and they can by no means be generalized.[44]

An urbanizing world

The last few decades have brought enormous changes to the world's settlements-cities, smaller urban centres and villages. They include new forms of city and metropolitan areas, some

BOX 1.2

Women-headed households and urbanization

Women-headed households form a rising proportion of households in most parts of the world. Worldwide, it is estimated that one-fifth of all households are women-headed households.[45] This is not a homogeneous category as it includes not only single parent women-headed households (headed by unmarried, divorced, separated or widowed women) but also households headed by grandmothers and women who live alone or with other women. Although such households are not a new phenomenon and in many societies they have a long history, what is new is their importance relative to other forms of household and the fact that they have become common in many more societies.[46]

There are large variations between regions and nations in the proportion of women-headed households and in the extent to which this proportion is changing. For instance, only an estimated 13 per cent of households in Asia and the Pacific are women-headed compared to 19.1 per cent in Africa and 18.2 in Latin America.[47] In some countries, the proportion of women-headed households can rise to more than a third of all households. In some countries such as India and the Philippines, female household headship does not seem to have risen much or at all since the 1960s while in others, especially in Latin America and the Caribbean it has grown quite substantially.

Although women-headed households are not unique to urban areas and in some regions such as South Asia and sub-Saharan Africa they are more characteristic of rural districts, many of the factors responsible for female-headed household formation arise through urbanization. Urbanization and its outcomes brings changes in gender roles and relations and in gender inequalities (although with great variety in the form and intensity from place to place). This can be seen through the transformation of household structure, the shifts in household survival strategies, and changing patterns of employment.

In addition, the urbanization process is itself frequently shaped by gender roles and relations-for instance through the scale and nature of female migration into urban areas (which is much influenced by decisions in rural households about who should migrate and for what reason) and the influence on the urban labour market arising from constraints placed on women's right to work outside the home by households and societies and by the extent of the demand for female labour. The degree and nature of gender selective movement to urban areas is often a major influence on both the frequency and the spatial distribution of women headed households within countries.[48] In general, where men dominate rural-urban migration streams as in South Asia, North Africa, the Middle East and many parts of sub-Saharan Africa, urban sex ratios show more men than women and women-headed households are usually more characteristic of rural than urban areas. In the towns and cities of East and South-East Asia, and Latin America and the Caribbean, rural out-migration is female selective, urban sex ratios usually show more women than men and levels of female household headship are higher in urban areas.

There is a tendency to equate the growth in female households with the growth in poor or disadvantaged households–but this growth has positive aspects in many societies. For instance, women-headed households are likely to be free of patriarchy at the domestic level–while other benefits may be greater self esteem, more personal freedom, higher degrees of flexibility in terms of taking paid work, enhanced control over finances, and a reduction or absence of physical and/or emotional abuse. Women-headed households are not always over-represented among the lowest income groups. In addition, when women decide to set up their own houses, it may be a positive and empowering step, especially if in doing so, they are able to further their personal interests and the well-being of their dependants. Various studies have shown that the expenditure patterns of female-headed households are more biased towards nutrition and education than those of male-headed households, with less spent on items that contribute little or nothing to the household's basic needs.[49] Where this is the case, women and children within a low income female-headed household will usually have better diets than those in male-headed households with the same income, and with less tendency for children or youth to be withdrawn prematurely from school. However, while female-headed households may be better off than they had previously been when male-headed, in most societies, they are still disadvantaged by the widespread discrimination against women and against single parent households.

Women-headed households face greater difficulties than male-headed households because of the discrimination women face in, for instance, labour markets and in access to credit, housing and basic services. And single parent households, most of which are female headed, also face the difficulties of one adult having to combine income-earning with household management and child rearing and this generally means that the parent can only take on part time, informal jobs with low-earnings and few if any fringe benefits.[50]

Source: Sylvia Chant, 'Gender aspects of urban economic growth and development', Paper prepared for the UNU/WIDER Conference on 'Human Settlements in the Changing Global Political and Economic Processes', Helsinki, 1995.

of unprecedented size. The average population of the world's 100 largest cities was over 5 million inhabitants by 1990 compared to 2.1 million in 1950 and less than 200,000 in 1800.[51] The last few decades have also brought a world that is far more urbanized, and with a much higher proportion living in large cities and metropolitan areas. Soon after the year 2000, there will be more urban dwellers than rural dwellers worldwide. There are also tens of millions of 'rural-dwellers' who may live in settlements designated by censuses as `rural' but who derive their livelihood from work in urban areas or who work in industries or service enterprises located in 'greenfield sites.' In the North, most of these 'rural dwellers' also have homes that enjoy the quality of infrastructure and service normally associated with urban locations-for instance piped water and water-borne sanitation and the regular collection of garbage.

Table 1.3 shows how the world's total, urban and rural populations were distributed among the regions in 1990.[52] The extent to which Asia dominates each of the categories is particularly notable–with three-fifths of the world's population and just under three-quarters of its rural population. Despite being predominantly rural, it still had more than two-fifths of the world's urban population and more than two-fifths of the world's population in cities with 1 million or more inhabitants (hereafter called 'million cities'). Table 1.3 also highlights the scale of Africa's rural population–which in this year was larger than the rural population of Europe, North America, Oceania, Latin America and the Caribbean put together.

TABLE 1.3 The distribution of the world's total, rural and urban populations and its largest cities, 1990

Region	Total population (millions of inhabitants)	Percent of the world's:				Number of the world's	
		Total population	Rural population	Urban population	Population in 'million cities'	'million cities'	'mega cities'
World	5,285	100.0	100.0	100.0	100.0	281	12
Africa	633	12.0	14.4	8.8	7.5	25	0
Asia	3,186	60.3	72.2	44.5	45.6	118	7
Europe	722	13.7	6.7	22.8	17.9	61	0
Latin America & the Caribbean	440	8.3	4.2	13.8	14.7	36	3
North America	278	5.3	2.3	9.2	13.1	36	2
Oceania	26	0.5	0.3	0.8	1.3	5	0

Notes: The figures for the number of'million cities' and 'mega-cities' and the population in 'million cities' should be treated with caution, as the criteria used in setting boundaries for cities or metropolitan areas varies greatly between nations. Some cities with more than a million inhabitants within their urban agglomeration or metropolitan area do not become 'million-cities' as the population for their 'city' as reported by governments to the United Nations does not contain a million inhabitants. There are also cities whose population may have exceeded 1 million inhabitants by 1990 but which have not been recorded by the United Nations Population Division in their 1994 revisions.

Source: United Nations, World Urbanization Prospects: the 1994 Revision, Population Division, New York, 1995. The number of'million cities' and their populations have been adjusted, where new data were available.

What underlies urbanization

Urbanization trends during the 1980s have to be understood within the longer term changes of a world population that has been urbanizing rapidly for several decades. Urban populations did grow rapidly in most parts of the world during the 1980s-but they actually grew faster during the 1950s.[53] Population growth rates for most major cities in both the North and the South were slower during the 1980s, compared to the 1970s and 1960s. And for many of the world's largest cities, including many in the South, more people moved out of the city than in during the last inter-census period.

Recent trends in urbanization reflect economic and political changes, some long-rooted, some of more recent origin. For instance, the steady increase in the level of urbanization worldwide since 1950 reflects the fact that the size of the world's economy has grown many times since then and has also changed from one dominated by relatively closed national economies or trading blocs to one where most countries have more open economies and where production and the services it needs (including financial services) are increasingly integrated internationally. In 1950, most of the world's workforce worked in agriculture; by 1990, most worked in services. The period since 1950 has brought not only enormous changes in the scale and nature of economic activity but also in the size and nature of households, in the scale and distribution of incomes within and between nations and in the scale and nature of government. All, inevitably, influence settlements patterns.

Perhaps the most fundamental influences on the world's settlement system in recent decades have come from the unprecedented changes in economic and political conditions. Section 1.1 outlined the main economic changes that meant that many countries in both North and South had the value of their per capita income multiply several times since 1960. In general, as the final section in this chapter describes in more detail, the countries with the most rapidly growing economies since 1950 were generally those with the most rapid increase in their level of urbanization while the world's largest cities are heavily concentrated in the world's largest economies. On the political front, virtually all the former colonies of European powers gained independence since 1950 and the political changes of that decolonization also meant major changes to settlement systems-especially through the concentration of economic and political power in national capitals and, in some nations, the removal of migration controls on indigenous populations. The more recent economic, social and political changes in East and Central Europe and the former Soviet Union and in South Africa are also fundamentally changing settlement patterns, although these changes are too recent to have been captured by available census data.

Many countries also experienced an unprecedented growth in their national populations. Over twenty nations with 1 million or more inhabitants in 1990 had populations that had more than tripled since 1950-most of them in Eastern Africa, Western Asia and Central America. Although rapid population growth does not, of itself, increase the level of urbanization, in most nations in the South it is the most important factor in increasing urban populations.[54] Even in regions with much less dramatic population growth and political change such as Western Europe and North America, there have been major demographic changes-for instance in age structures and household sizes and types-and as Chapter 2 will describe, these have contributed to major changes in settlement patterns.

But amidst rapid economic, social, political and demographic change, there are some elements of continuity in settlements. The average size of the world's largest cities may have changed enormously but their location has changed much less. For instance, in most of the world's regions, there is a perhaps surprising continuity in the list of the largest cities and metropolitan areas; more than two-thirds of the world's 'million-cities' in 1990 were already important cities 200 years ago while around a quarter have been important cities for at

least 500 years.[55] In Latin America, most of the region's largest cities today, including virtually all national and most provincial capitals were founded by the eighteenth century with most of the largest cities founded by the year 1580 AD.[56] In Asia, close to 90 per cent of all its cities that had a million or more inhabitants in 1990 had been founded by 1800 AD and around three-fifths were already important cities by that date. In countries or regions with long urban histories, there is often a comparable continuity, even for small market towns. For instance, studies of various regions of India have also found that most of the urban centres, even down to small administrative centres and market towns, have long histories.[57] In most countries, settlement patterns have changed much less than the degree of economic, social and demographic change might imply. One reason is that existing cities represent a considerable concentration of human and physical capital and it is difficult for new cities to arise that can compete with the old ones.[58] Another is that in most instances, cities adapt to changing circumstances. A third is that most major cities are also important administrative centres, and this generally provides some economic stability.

A predominantly urban world?

Perhaps too much emphasis is placed on the impending transition of the world to where the number of urban dwellers will exceed the number of rural dwellers. There are two reasons for caution. The first is the extent to which this transition could be hastened or delayed by changes in definitions. It would only take China, India or a few of the other most populous nations to change their definition of urban centres for there to be a significant increase or decrease in the proportion of the world's population living in urban centres.[59] The proportion of the world's population currently living in urban centres is best considered not as a precise percentage (i.e. 45.2 per cent in 1995) but as being between 40 and 55 per cent, depending on the criteria used to define what is an `urban centre'. What is perhaps more significant than the fact that more than half of the world's population will soon be living in urban centres is the underlying economic and social changes it reveals-that a steadily declining proportion of the world's population make a living from agriculture, forestry, hunting and fishing.

The second reason for caution arises from the confusion between the terms `urban centre' and `city'. Many people have commented that more than half the world's population will soon be living in cities–but this is incorrect since a significant proportion of the world's urban population live in small market towns and administrative centres. Certainly, the proportion of the world's population living in `cities', however defined, is substantially smaller than the proportion living in urban centres of all sizes.[60]

The definition of city and metropolitan populations

Caution is also needed when considering the population of individual cities–or comparing populations between different cities–since the size of a city's population depends on the boundaries chosen. For instance, the current population of most of the world's largest urban areas including London, Los Angeles, Shanghai, Beijing, Jakarta, Dhaka and Bombay can vary by many million inhabitants in any year, depending on which boundaries are used to define their populations. Different boundaries also mean different population growth rates–so London, Los Angeles, Tokyo, Buenos Aires or Mexico City can be correctly stated as having populations that are declining and expanding in recent decades, depending on which boundaries are chosen for defining their populations.

Even the citizens of a city use its name in different senses, depending on context. A Parisian may at times think of Paris as the central département of that name-largely corresponding to the area of 19th-century Paris. At other times (especially if the Parisian in question is an inhabitant of, say, suburban Seine St Denis), the continuously urbanized area, including the surrounding départements, may be included in the implied definition. At yet others, the whole Paris region–the Ile de France-may be the intended sense.[61]

It is also difficult to compare the populations of major cities `outside the central city' because of the different ways in which the areas outside the `central city' can also be subdivided–for instance into inner suburbs and outer suburbs–and often into `exurbs' or population living in the metropolitan area but outside the built up area of the city itself. In many countries, the boundaries of the metropolitan area may be extended further to include urban centres or other settlements from which a considerable proportion of the economically active population commute to work in the metropolitan area or whose work is tied into the economy of the metropolis. Boundaries may also be set for `extended metropolitan regions' which provide a useful regional planning framework for public authorities but which often encompass significant numbers of rural inhabitants and have a significant proportion of the labour force working in agriculture. Comparing the size, population growth rate or density of the central city population of one city with the size, population growth rate or density of another city but for its metropolitan area or `extended metropolitan region' will produce dramatic contrasts but this is not comparing like with like. Even

comparisons between two cities in terms of their `central cities' can be invalid as in one city the central city refers to a very small central `historic city' while in the other, it refers to a much larger area.

This is why any international list of `the world's largest cities' risks great inaccuracy as some city populations are for large urbanized regions with thousands of square kilometres while others are for older `city boundaries' with a few hundred square kilometres. It only needs a few cities to change the basis by which their boundaries are defined for the list of the world's largest metropolises to be significantly altered. For instance, London has long dropped off the list of the world's largest cities since it had less than 7 million people in its metropolitan area in 1991-but it has a population of 12.53 million if considered as a metropolitan region.[62] One of main reasons that Shanghai's population appears so large-at over 13 million-is that this figure is the population in an area of over 6,000 square kilometres which includes large areas of highly productive agriculture and many villages and agricultural workers.[63] The

TABLE 1.4 Examples of how the populations of urban areas change with different boundaries

City or metropolitan area	Date	Population	Area (sq. km)	Notes
Beijing[a]	1990	2,336,544	87	4 inner city districts including the historic old city
(China)		c.5,400,000	158	'Core city'
		6,325,722	1,369	Inner city and inner suburban districts
		10,819,407	16,808	Inner city, inner and outer suburban districts and 8 counties
Dhaka	1991		6	Historic city
(Bangladesh)		c.4,000,000	363	Dhaka Metropolitan Area (Dhaka City Corporation and Dhaka Cantonment)
		6,400,000	780	Dhaka Statistical Metropolitan Area
		<8,000,000	1,530	Rajdhani Unnayan Kartripakhya (RAJUK)-the jurisdiction of Dhaka's planning authority
Katowice	1991	367,000		The city
(Poland)		2,250,000		The metropolitan area (Upper Silesian Industrial Region)
		c.4,000,000		Katowice governorate
Mexico City	1990	1,935,708	139	The central city
(Mexico)		8,261,951	1,489	The Federal District
		14,991,281	4,636	Mexico City Metropolitan Area
		c.18,000,000	8,163	Mexico City megalopolis[b]
Tokyo	1990	8,164,000	598	The central city (23 wards)
(Japan)		11,856,000	2,162	Tokyo prefecture (Tokyo-to)
		31,559,000	13,508	Greater Tokyo Metropolitan Area (including Yokohama)[c]
		39,158,000	36,834	National Capital Regiona.[d]
Toronto	1991	620,000	97	City of Toronto
(Canada)		2,200,000	630	Metropolitan Toronto
		3,893,000	5,583	Census Metropolitan Area
		4,100,000	7,061	Greater Toronto Area
		4,840,000	7,550	Toronto CMSA equivalent[e]
London	1991	4,230	3	The original 'city' of London
(UK)		2,343,133	321	Inner London
		6,393,568	1,579	Greater London (32 boroughs and the city of London)[f]
		12,530,000		London 'metropolitan region[g]
Los Angeles	1990	3,485,398	1,211	Los Angeles City
(USA)		9,053,645	10,480	Los Angeles County
		8,863,000	2,038	Los Angeles-Long Beach Primary Metropolitan Statistical Area
		14,532,000	87,652	Los Angeles Consolidated Metropolitan Area

Notes:

[a] Information supplied by Richard Kirkby based on data from the 1990 Census, in Zhongguo *renkou tongji nianjian* 1992 (Yearbook of Population Statistics, 1992), Beijing, Jingji guanli chubanshe (Economic Management Press), 1992, 448 and (for area) Beijing Municipal Statistics Bureau, Beijing Statistics in *Brief,* Beijing, China Statistical Publishing House, 1988, 1. Apart from the educational quarter in the Haidian District (northwest) and the steel works and heavy industrial area of Shijingshan (west), prior to the 1980s economic boom the city proper could be broadly defined as that area within the san huan lu-the Third Ringroad. This encircles an area of just 158 km^2 in a total municipality spanning almost 17,000 km^2. Its population comprises all of the four inner-city districts and parts of the four inner suburban districts. In total, this 'core city' comprises only around half of the 10.82 million official residents of the capital in 1990.

[b] Garza, Gustavo 'Dynamics of Mexican Urbanization', Background paper for the UN Global Report on Human Settlements 1996.

[c] This ensures the inclusion within Tokyo of the vast suburban areas and includes Tokyo-to (including the islands) and Chiba, Kanagawa and Saitama Prefectures.

[d] Includes Greater Tokyo Metropolitan Area plus Yamanashi, Gunma, Tochigi and Ibaraki Prefectures.

[e] This is what Toronto's population might be if it was defined with the methodology used in the United States for defining Consolidated Metropolitan Areas. This would include Toronto Metropolitan Area, the adjacent Hamilton CMA (0.6 million), Oshawa CMA (0.24 million) and the rest of York County.

[f] Note that these figures for the City of London, Inner London and Greater London are census figures; official estimates for 1991 for Inner London were 2,627,400 and for Greater London were 6,889,900.

[g] A. G. Champion-see Section 2.4.

TABLE 1.5 The world's largest urban agglomerations in 1990

Urban agglomeration	Population (thousands 1990)	Comments	A.A. increment in population 1980-1990	A.A. growth rate (thousand) 1980-1990 (%)
Tokyo	25,013	The population would be c.31.6 million if Greater Tokyo Metropolitan Area was taken - see Table 1.4[a]	316	1.4
New York	16,056	19.3 million in the CMSA in 1990[b]	46	0.3
Mexico City	15,085	Would be several million larger if considered as a polynucleated metropolitan region[c]	120	0.8
Sao Paulo	14,847	The population is for a large metropolitan region	275	2.1
Shanghai	13,452	This is the population within a large metropolitan region[d]	171	1.4
Bombay	12,223	One reason for its relatively rapid growth 1980-90 was a considerable expansion of its boundaries	416	4.2
Los Angeles	11,456	14.53 million in the CMSA in 1990[e]	193	1.9
Beijing (Peking)	10,872	Population for a large metropolitan region; the core city has a muchsmaller population-see Section 2.6	184	1.9
Calcutta	10,741	Urban agglomeration	171	1.8
Buenos Aires	10,623	Urban agglomeration	72	0.7
Seoul	10,558		228	2.5
Osaka	10,482	The population would be larger if measured as a Standard Metropolitan Economic Area[f]	49	0.5
Rio de Janeiro	9,515	Metropolitan area	73	0.8
Paris	9,334	Urban agglomeration	40	0.4

Source: United Nations, World Urbanization Prospects: the 1994 Revision, Population Division, New York, 1995
Notes:

a The figure for 25.0 million is for the contiguous densely inhabited districts of Tokyo-to (ku-bu) and 87 surrounding cities and towns including Yokohama, Kawasaki and Chiba, spreading through Tokyo, Kanagawa, Saitama and Chiba prefectures.

b This figure of 16.1 million is for the urban agglomeration that includes Jersey City, Newark and part of north-east New Jersey; the Consolidated Metropolitan Statistical Area (CMSA) has a larger area-see Chapter 2.

c This figure is based on the metropolitan area. A larger area could be considered as an emerging polycentric metropolitan region as different metropolitan areas fuse or overlap-for instance linking the metropolitan areas of Mexico City, Toluca, Puebla and Cuernavaca. See Garza, Gustavo, 'Dynamics of Mexican Urbanization', Background paper for the UN Global Report on Human Settlements, 1996; see also Box 2.3 in Chapter 2 that is drawn from this background paper.

d The population in the core city or the built up area is substantially smaller; in 1992, the urban core districts contained less than 8 million inhabitants; see Box 2.6 in Chapter 2.

e This population of 11.5 million is for the urban agglomeration that includes Long Beach; the CMSA is much larger and more populous-see Chapter 2.

f The figure of 10.5 million includes Osaka densely inhabitated districts and 36 cities surrounding Osaka. See Yamada, Hiroyuki and Kazuyuki Tokuoka, g The trends of the population and urbanization in Post-war Japan', Background Paper for the United Nations Global Report on Human Settlements, 1995.

same is true for Beijing and Dhaka-see Table 1.4. 'Metropolitan Toronto' in 1991 can have between 2.2 million and 4.8 million inhabitants, depending on the boundaries used. Figures for the population of Katowice in 1991 can vary from 367,000 to nearly 4 million for similar reasons-and Tokyo can have anywhere between 8 and 40 million inhabitants.

To address the large physical expansion of major cities and the fact that their labour market may be considerably larger than the size of the urban agglomeration (for instance with settlements outside the urban agglomeration having mostly daily commuters to the urban area) new concepts have been developed-as the basis for measuring urban populations. These include functional urban regions and statistical metropolitan areas. These definitions seek to include in a city's total population all nearby settlements whose economies or residents can be considered too intricately related to the city core to be considered a separate settlement. The US definition of 'Standard Metropolitan Areas' delimits what can be called `functional regions' that include suburbs and other settlements outside the core city's built up area if the proportion of residents commuting to work in the central core exceeds a certain level and if the settlement meets other criteria of metropolitan `character' (e.g. population density). In Europe, the tendency seems to be more to view metropolitan areas as areas that conveniently encompass all the continuously built up area of a metropolis but that exclude large and small urban centres and rural settlements nearby, even though

TABLE 1.5 continued

Urban agglomeration	Population (thousands 1990)	Comments	A.A. increment in population 1980-1990	A.A. growth rate (thousand) 1980-1990
Tianjin	9,253	This is the population for a large metropolitan region; the core city has about half this population.[g]	199	2.4
Jakarta	9,250	The population of the wider metropolitan region is almost twice this[h]	327	4.4
Moscow	9,048	Urban agglomeration	91	1.1
Cairo	8,633	The population in the'Greater Cairo Region' is several million larger than this.[i]	178	2.3
Delhi	8,171	Urban agglomeration	261	3.9
Manila	7,968	Urban agglomeration	201	3.0
Karachi	7,965	Some local estimates suggest this is rather low	294	4.7
Lagos	7,742	This appears high in comparison to the 1991 census[j]	336	5.8
London	7,335	The population could be 12.5 million within a metropolitan region boundary[k]	-41	-0.5
Chicago	6,792	8,240,000 in the wider CMSA[l]	1	0.0
Istanbul	6,507	Urban agglomeration	211	4.0
Lima	6,475	Lima-Callao metropolitan area	204	3.9
Essen	6,353	Urban agglomeration[m]	2	0.0
Teheran	6,351	Urban agglomeration	128	2.3
Bangkok	5,894	This is for Bangkok Metropolitan Area; Greater Bankok Area or the metropolitan region have several million more[n]	117	2.2
Dhaka	5,877	Statistical metropolitan area	267	6.2

g See Kirkby, Richard, Background Paper on China prepared for the United Nations Global Report on Human Settlements, 1995; more details are given in Chapter 2.

h Jakarta metropolitan area (also called Jabotabek) is estimated to have had nearly 17 million inhabitants in 1990 within an area of around 5,500 square kilometres; about half of this was in the central city (DKI Jakarta); see Hadiwinoto, Suhadi and Josef Leitmann, 'Jakarta: urban environmental profile', Cities, vol. 11, no. 3, 1994, 153-57.

i UNCHS (Habitat), Metropolitan Planning and Management in the Developing World; Spatial Decentralization Policy in Bombay and Cairo, Nairobi, 1993.

j The 1991 census suggested that the population of Lagos was around 5 million inhabitants; Aina, Tade Akin, 'Metropolitan Lagos: population growth and spatial expansion; city study', Background paper for the Global Report on Human Settlements, 1995, suggested that this was an undercount but that Lagos still had less than 6 million inhabitants in 1991.

k A. G. Champion, unpublished tabulation using 1991 census data. 'Main built-up area (core)', 'Urban region' and 'Metropolitan region' are definitions based on the CURDS Functional Regions framework; more details are given in Chapter 2, Table 2.12.

l The figure for 6.8 million is for the urban agglomeration that includes part of Illinois and parts of north-western Indiana.

m Includes Duisburg, Essen, Krefeld, Mülheim an der Ruhr, Oberhausen, Bottrop, Gelsenkirchen, Bochum, Dortmund, Hagen, Hamm and Herne.

n See Chapter 2.

their housing and labour markets are fully integrated into those of the metropolitan centre. Extending metropolitan definitions in Europe to encompass `functional urban regions' would considerably increase the population of most major cities-and for some would include many small cities, urban centres and villages at distances of 50 or even 100 kilometres from a large city, especially those close to railway stations with rapid services to the city.

No definition of urban areas is necessarily superior; each serves a particular purpose. Without more-or-less standardized definitions, however, international comparisons of urbanization may be highly misleading.

The world's largest cities

Table 1.5 lists the world's 30 largest urban agglomerations in 1990, and it shows that the population of most of them actually grew quite slowly during the 1980s-in terms of the annual rate of growth. Only two among these 30 cities (Dhaka and Lagos) had annual average population growth rates that exceeded 5 per cent during the 1980s-and it may be that Lagos had a much slower population growth rate than that shown in Table 1.5.[64] Most of the 'million-cities' with the highest population growth rates during the 1980s were not among the world's largest cities. Many examples will also be given in Chapter 2 of

relatively small cities that had much more rapid population growth rates than the cities listed in Table 1.5 during the 1980s.

But population growth rates can be misleading in that the larger the city population at the beginning of a period, the larger the increment in population has to be to produce a high population growth rate. Table 1.5 also includes figures for the annual average increment in the city's population which reveals that only one urban agglomeration, Bombay, had a population that had an annual increase of more than 400,000 during the 1980s–and a large part of this is the result of much-extended boundaries being used in the 1990 census compared to the 1980 census, with many people counted as part of its population in 1990 that had been excluded in 1980. Three urban agglomerations had populations that grew by more than 300,000 a year between 1980 and 1990: Tokyo, Jakarta and Lagos–although this may overstate the scale of population growth in Lagos.[65] Again, some caution is needed in interpreting these figures, as the population growth rate or the annual average increment in population will depend on which city or metropolitan boundary is chosen. For instance, if for Los Angeles it is the Consolidated Metropolitan Area that is taken, the average annual increment in population during the 1980s was also over 300,000.

If a much larger sample of the world's largest cities is considered–the 281 or so 'million-cities' that existed by 1990–Table 1.6 shows the much-increased proportion of each region's population that lives in million-cities. This Table also highlights some of the regional shifts in the concentration of the world's urban and large-city population. The much-increased role of Asia within the world economy since 1950 is reflected in the sharp increase in its concentration of the world's urban population, 'million-city' population and proportion of the world's largest cities between 1950 and 1990. The concentration of the world's million-cities in Asia can also be seen in Map 1.1. But this is not so much a new trend as a return to what had been the case in previous centuries. Historically, Asia has long had a high concentration of the world's urban population and has always had most of the world's largest cities.[66] As Table 1.6 shows, Asia had more than three-fifths of the world's largest 100 cities in 1800 AD. Many of Asia's largest cities in 1990 had long been among the world's largest cities–for instance Tokyo, Beijing (formerly Peking), Guangzhou (formerly Canton), Istanbul and Calcutta. Most of the others that grew to become among the largest cities in the region were also cities with long histories. Most were the major cities either in the most populous countries or in the most successful economies–for instance Kyoto in Japan, Seoul and Pusan in South Korea, Karachi and Lahore in Pakistan, Delhi, Bombay and Bangalore in India, Jakarta and Surabaya in Indonesia and many of China's major cities.

The Americas, as a region, increased its share of the world's urban population, and 'million-city' population and share of the world's largest cities between 1950 and 1990 but with an important intra-regional shift. In 1950, Northern America had most of the urban and 'million-city' population; by 1990 this was no longer so. This is also not a new trend but a return to what existed prior to rapid industrialization in Northern America in both pre-Columbian and colonial times when most of the urban population and major cities in the Americas were in Central and South America. There was also a strong contrast within the Americas between the major industrial centres of Northern America that had been among the world's largest cities in 1950 and were no longer so in 1990–and the growing prominence of the major cities in Latin America's two largest economies–Mexico and Brazil–especially their largest industrial concentrations, Mexico City and Sao Paulo. This does not imply a lack of rapid urban change in Northern America; as Chapter 2 describes, many of the relatively new cities in the South and West of the US have been among the world's most rapidly growing cities since 1950.

In Africa, there was a rapid increase in the proportion of the world's urban population and `million-city' population between 1950 and 1990, although the speed of change appears particularly high in all but Northern Africa because it had such a small base in 1950. One reason why it began from such a small base is that colonial governments strictly controlled the right of Africans to live in urban centres.[67]

In Europe, the rapid decline in the region's share of the world's urban population, `million-cities' population and share of the world's 100 largest cities between 1950 and 1990 is particularly striking. Part of the reason is the dramatic decline in the relative importance of what were among the world's largest industrial centres in 1950–such as Naples in Italy, Hamburg and Dusseldorf in Germany and Birmingham and Manchester in the United Kingdom. But another important reason is the much slower rate of natural increase. Europe was the first of the world's regions to begin a rapid and sustained increase in its population, as birth rates came to regularly exceed death rates but also the first region to undergo a rapid decrease in birth rates to the point where the total population is hardly growing or even declining in many European countries.

But once again, the problem of urban boundaries is evident here. For instance, the number of 'million-cities' in Europe is considerably increased–and the share of the total population

MAP 1.1
The world's million-cities and 'mega-cities' in 1990

Notes: See Map 2.1 to 2.6 for more details for each region. This Map is based on populations in 'urban agglomerations' and drawn from the same source as Table 1.3 while Map 2.1 on North America is based on populations in metropolitan areas and Map 2.3 on West Europe is based on populations in functional urban regions. This means some slight differences in the list of 'million-cities'.

they concentrate considerably increased-if urban populations are defined by functional regions rather than by city cores. For instance, Glasgow in the United Kingdom is not included in the United Nations list of 'million-cities' but had more than a million in its functional urban region while Newcastle and Liverpool would both have more than a million in 1990, if their boundaries were for metropolitan regions (see Section 2.4 for more details)

Although most of the large cities in the North listed in Table 1.5 had very slow population growth rates during the 1980s, not all the world's most rapidly growing cities are in the South. This is especially the case if the growth of city populations is considered in this century-during which the United States has had many of the world's most rapidly growing large cities.[68] For instance, Nairobi is often held up as one of the world's most rapidly growing cities-but both Miami and Phoenix in the United States had larger populations than Nairobi in 1990, yet all were small settlements in 1900. The population of Los Angeles was around one tenth that of Calcutta in 1900 yet in 1990, it had about the same number of people in its metropolitan area (see Table 1.5). These and other examples of rapidly growing cities in the North do not alter the fact that most of the large cities in the world with the fastest population growth rates are in the South but it does suggest that the rate of growth of the largest cities in the South is not unprecedented.

Over the last few decades, there have also been important rearrangements of population and production within cities, metropolitan areas or wider 'city regions.' For many of the world's largest cities, part of the slow-down in their population growth is explained by a rapid growth in production and population just outside their boundaries-and with much of this production intimately connected to enterprises still within its boundaries. In general, all major cities or metropolitan centres experience a decentralization of population and of production, as they grow. This generally begins with suburban housing being developed at ever greater distances from the city centre and then a widening commuting field and an increasing concentration of enterprises in suburban locations or in belts around the metropolitan area. But the speed of this decentralization of people and enterprises and its spatial configuration seems to vary greatly from city to city and to change over time. There are also recent examples of city centres attracting new enterprises other than those that concentrate in central business districts and also new residents.[69]

This rearrangement of production within cities is perhaps best understood in terms of three sets of factors with different spatial implications:

- the factors that encourage a movement of enterprises out of major cities, metropolitan areas or even wider metropolitan regions, discourage new ones locating there, and cause a decline in the enterprises that are concentrated in central cities-,
- the factors that still concentrate enterprises within or close to metropolitan areas (or urban regions) but outside the central city, and

TABLE 1.6 The regional distribution of the world's population in 'million-cities' and the location of the world's largest 100 cities, 1990, 1950 and 1800

	Proportion of the world's urban popn		Proportion of the world's population in million-cities		Number of the world's 100 largest cities in		
	1950	1990	1950	1990	1800	1950	1990
Africa	4.5	8.8	1.8	7.5	4	3	7
Eastern Africa	0.5	1.7	–	0.8	–	–	-
Middle Africa	0.5	1.0	–	0.8	0	0	1
Northern Africa	1.8	2.8	1.8	3.2	3	2	5
Southern Africa	0.8	0.9	–	0.8	0	1	0
Western Africa	0.9	2.6	–	2.0	1	0	1
Americas	23.7	23.0	30.1	27.8	3	26	27
Caribbean	0.8	0.9	0.6	0.8	1	1	0
Central America	2.0	3.3	1.6	2.7	1	1	3
Northern America	14.4	9.2	21.2	13.1	0	18	13
South America	6.5	9.7	6.7	11.1	1	6	11
Asia	32.0	44.5	28.6	45.6	64	33	44
Eastern Asia	15.2	19.7	17.6	22.2	29	18	21
Southeastern Asia	3.7	5.8	3.4	5.6	5	5	8
South-central Asia	11.2	14.8	7.0	14.6	24	9	13
Western Asia	1.8	4.1	0.6	3.3	6	1	2
Europe	38.8	22.8	38.0	17.9	29	36	20
Eastern Europe	11.8	9.3	7.7	6.3	2	7	4
Northern Europe	7.7	3.4	9.0	2.1	6	6	2
Southern Europe	6.5	4.0	6.7	3.2	12	8	6
Western Europe	12.8	6.2	14.6	6.2	9	15	8
Oceania	1.1	0.8	1.6	1.3	0	2	2

Source: The statistics for for 1950 and 1990 were largely derived from data in United Nations, World Urbanization Prospects: the 1994 Revision, Population Division, New York, 1995, adjusted, when new census data is available. The calculations for 1800 were made, drawing on the TIED cities database that combines the data on city populations from 1950 to 1990 from United Nations 1995, op. cit. with recent and historic data drawn from around 250 censuses and from Chandler, Tertius and Gerald Fox, 3000 Years of Urban Growth, Academic Press, New York and London, 1974.

- the factors that encourage enterprises back into central cities.

The scale and importance of the first of these sets of factors has long been evident and carefully documented. It includes advances in transport and communications and the fact that an increasing proportion of the national territory, including many smaller cities, had a skilled and literate workforce, good quality transport and communications and adequate quality infrastructure and services. In many countries in both the North and the South, large incentives were offered to attract manufacturing to smaller urban centres or poorer regions.

What is less well documented, especially in the South, is the fact that it has become common to have a decentralization of population and of production away from the central city (and even its inner suburbs) but with a continued or increased concentration of population and of production within the metropolitan area or wider region. Judged nationally, this remains an increasing concentration of population and economic activity within what might be termed 'core region' but a decreased concentration of population and economic activity within the core region itself. In most major cities in the North and many in the South, there has been a declining proportion of the population living in the central city and the outward sprawl of the urban agglomeration, especially along major roads and highways. This has probably gone furthest in the United States where population densities in outer suburbs are generally much lower than in Europe and where many enterprises have also developed close to major highways outside the central areas. Some of the most innovative and successful concentrations of enterprises are not in cities but concentrated along major highways (for instance the firms along Route 128 in Massachusetts) or in Silicon Valley. This has led to new terms such as the `100-mile city' where there is no obvious `central city'. This decentralization of production and of urban population within core regions can also be seen in the rapid growth of smaller cities that are close to the major cities or metropolitan areas as these attract both industrial and service enterprises that previously would tend to concentrate in major cities. Regions with good quality transport and communication networks encourage this, as does the 'just-in-time' system which needs some physical proximity.

One of the most remarkable examples of this is the region bounded by Sao Paulo, Belo Horizonte, Rio de Janeiro and Porto Alegre in Brazil which includes a great range of cities of different sizes, many of which have been successful in attracting new enterprises that previously would have concentrated in the major cities. Many such cities are within 200 km of Sao Paulo's central city and have many advantages and few disadvantages when compared to investment in Sao Paulo itself. Private investment in Greater Sao Paulo was discouraged by the well-organized trade union movement, pollution, transport problems and a lack of suitable land sites. Investment in cities nearby was encouraged by a whole range of factors including better roads and telecommunications, the availability of land and fiscal incentives in the smaller cities. The decentralization of production was also boosted by the promotion and support of the government in information technology in Campinas and in the aeronautics industry in Valle del Paraiba.[70] Motor vehicle companies such as General Motors, Volkswagen and Mercedes Benz have chosen different small cities within this region.[71] However, this model of a region with a diverse but highly integrated urban system and a declining importance for any dominant city depends on good transport and communications systems and good quality infrastructure and services available in different cities. Many of the largest cities in the South remain more concentrated, because of poorer transport and communications systems

and as scarce infrastructure and skilled labour tend to be concentrated in large cities so modern economic activity clusters around them.[72]

There are also examples of successful cities once again attracting employment and residential populations back to central areas or to inner suburbs.[73] There are also examples of cities that have transformed their economic prospects, after facing economic decline–for instance Barcelona [74] and Baltimore.[75] One important reason why, as noted in a survey of cities in *The Economist* in 1995, is that financial markets like traditional cities in which enterprises are concentrated, even if advanced telecommunications allow many routine tasks to be located outside the financial district.[76] For banks and other financial services, `face-to-face contact is irreplaceable, partly because it promotes the trust that is essential to make deals, and partly because the informal exchange of ideas in such businesses is unpredictable ... serendipitous proximity cannot be reproduced by fax machine or video-conferencing'.[77] The concentration of banks in turn encourages a concentration of service enterprises associated with banks or their staff. In addition, many other service activities also find advantage in concentration, including design, marketing, advertising, film and television.[78]

The `world cities'

The structural changes within the world economy described earlier have helped to reorder the relative importance of cities around the world and, for many cities, to reshape their physical form and the spatial distribution of enterprises and residents within them. Regions and cities have proved more flexible than nations in adapting to changing economic conditions–and certain key regions and cities have become successful locales of the new wave of innovation and investment-for instance Silicon Valley and Orange County in California, Arizona, Texas and Colorado in the western United States, Bavaria in Germany, the French Midi–from Sophia-Antipolis via Montpellier to Toulouse, certain cities in southern Europe, and, of course, many cities in the Asian Tigers [79] and in China. Meanwhile, most major port cities and traditional industrial centres in the North (and some in the South) that grew to become among the world's major cities during the second half of the nineteenth and first half of the twentieth century lost importance–and most had population declines during the 1980s.

The large and increasing share of the world's economy controlled by multinationals has led to certain cities becoming what are often termed `global' or `world' cities–as they are key command and control points of the world economy.[80] Some are unambiguously world cities as they are the `commanding nodes' of the global system[81]-London, New York and Tokyo. New York and London are not only leading financial markets but also leading producers and exporters in accounting, advertising, management consulting, international legal services and other business services.[82] Tokyo–developing as an important centre for the international trade in services such as construction and engineering services, has developed beyond its initially restricted role of exporting only the services required by its larger international trading houses.[83] It is interesting to note that Tokyo also remains one of the world's major concentrations of industrial production whereas New York and London do not. It is a reminder of how advanced telecommunications systems and logistical management of production can separate almost completely in spatial terms the production process from those who manage and finance it and the `producer services' that the managers and financiers need.

Another category of world cities consists of the cities that articulate large national economies into the system (Paris, Madrid, Sao Paulo) or subnational (regional) economies (Chicago) or simply have a commanding multinational role (Miami, Singapore).[84] Global cities are not necessarily the same as large cities–as many cities that are not among the world's largest have major international roles–for instance Singapore and Zurich. Several of the world's largest cities do not owe their size and economic base to their role within global production but to being national capitals in more populous nations with a high concentration of political power there–for instance Delhi and Cairo. Several other cities that are among the world's thirty largest listed in Table 1.5 derive their size more from their national role. It is interesting to note that the former national capitals of the most populous nation in Africa (Lagos in Nigeria) and Latin America (Rio de Janeiro in Brazil) are among the thirty largest cities in the world–and both owe much of their size and economic importance to the period when they were political capitals. Calcutta too grew to be much the largest city in India as the former capital; Delhi, to where the national capital was moved early in the twentieth century, has grown much faster than Calcutta in recent decades and may soon have a larger population than Calcutta.

A few of the world cities are capitals (London, Paris, Tokyo) but most are not, for instance New York, Frankfurt, Zurich, Amsterdam, Sydney, Los Angeles, Osaka and Toronto.[85] World cities have to adapt to changing circumstances to stay as world cities. For instance, Singapore's position could have been threatened by the rapid growth of the Thai and Malaysian economies but it chose to keep high wage jobs in dominant financial and producer services for itself while creating labour-

intensive activities in manufacturing and tourism in regions just outside its boundaries.[86]

Internal and international migration

The scale, direction and nature of migration flows are so fundamental to understanding urbanization and, more generally, changes in the spatial distribution of population that it is surprising that internal migration receives so little attention. In most countries in the South, there has been relatively little recent research on the scale and nature of internal migration flows. There is much more work on the scale and nature of international migration flows, even though there is far more internal population movement than international population movement. The much increased volume of research on international migration is no doubt linked to political worries of governments in wealthy countries-for instance for countries close to areas of conflict or potential conflict that might create large flows of refugees and other emigrants and for wealthy countries that are close to low-income countries and with borders over which it is difficult to control population movements.

In most countries, there is very little idea of the scale and nature of internal migration flows, except that they are almost always diverse, complex, constantly changing and include rural to urban, urban to rural, urban to urban and rural to rural flows. It is often assumed that rural to urban migration is the dominant migration flow but rural to rural flows may be of a larger scale-and in many countries, urban to urban migration flows outnumber rural to urban flows. In virtually all nations, there are also large urban to rural migration flows, even in countries which are urbanizing; the fact that the nation is urbanizing merely reflects the fact that rural to urban migration flows outnumber migration flows in the opposite direction.

There is also considerable diversity between nations and regions in the migrants themselves-for instance in terms of age, level of education, extent to which the move is considered permanent or temporary and the extent to which this move is part of a complex and diverse household survival strategy. Recent studies have highlighted the extent to which migration patterns are also differentiated by gender.[87] Various studies have shown how female migration is of much greater volume and complexity than was previously believed and also how the migration of women differs in many ways from that of men in its form, composition, causes and consequences.[88]

There is also great diversity in the scale and nature of migration. There are around 30,000 urban centres in the South and each has its own unique pattern of in-migration and out-migration that constantly changes, reflecting (among other things) changes in that centre's economic base, labour market and age structure. It also reflects social, economic and political changes within the region and nation and is influenced by such factors as crop prices, landowning structures and changes in agricultural technologies and crop mixes in surrounding areas and distant regions. Each detailed study of migrants in urban settings and of conditions in areas of out-migration reveals a long list of factors which influence migration, including: those relating to individuals or household structures and gender-relations within households; local social, economic and cultural factors; regional and national social and economic change; and international factors.[89] In each location, the relative importance of the different factors is subject to constant change. This cautions against seeking too many generalizations and general recommendations in regard to rural-urban migration.

One example of this diversity is the differences in the scale and nature of demand for female labour.[90] For instance, in South-East Asia, the demand for women workers in multinational industries and in unskilled and semi-skilled service occupations (domestic service, informal commerce, sex) is important in drawing young women to cities in Taiwan, Philippines, Thailand, Malaysia and South Korea.[91]

Although it is often assumed that the largest migration flows are in countries in the South, in fact, there is probably more migration in the United States in any one year in terms of the proportion of the population who move than in virtually all countries in the South. For instance, it is estimated that one person in five in the USA moves each year and as Chapter 2 will describe, the restructuring of the urban system there during the 1980s was more rapid and fundamental than that taking place in most countries in the South. This does not show up as rapid change in the level of urbanization as most migration is urban to urban. Chapter 2 will also describe the very rapid change in the urban system in China and here too, the change in the proportion of the population living in urban areas gives little indication of the scale of the change.

The scale of international migration has certainly increased over the last ten to fifteen years. Estimates for 1992 suggest that over 100 million people lived outside their own country of which 20 million were thought to be refugees and asylum seekers.[92] An estimate for 1990 suggested that around 15-20 million were in western Europe, around 15-20 million in North America, and 2-3 million were in the wealthiest nations in Asia including Japan, Taiwan and Singapore.[93] There are also large populations of foreigners within the wealthier countries in Africa and Latin America,

most of them being from lower-income countries close-by. As in internal migration flows, there is great diversity in the types of international migrants and the forms that their movements take-contract labourers, students, professionals and skilled workers, immigrants joining their families through family reunification, people who retire to a foreign country-and asylum seekers and refugees.[94] Their scale and nature is greatly influenced by the attitude of the receiving country to immigrants and the provisions made to allow or control immigration.

Among these different categories of international migrants, the growth in the number of refugees has been most dramatic-by 1994, 23 million people qualified as refugees compared to about 2.5 million 20 years ago.[95] There has also been a considerable growth in international migration flows of highly qualified or skilled labour migrants, that include the professional and managerial staff transferred within the international labour markets of transnational corporations. For instance, in 1988, 83,000 Japanese were assigned to work in overseas branches of Japanese companies while a further 29,000 (not including students) went overseas to engage in scientific study and research.[96]

There is also great diversity in the scale of emigration out of and immigration into each nation-and also in who moves. A distinction can be drawn between countries where there is far more immigration than emigration-generally the wealthiest countries that also have relatively open policies to immigrants-and countries with high levels of emigration. There are also the exceptional cases of certain oil-exporting Middle East countries that have foreign workers making up more than half their workforce-for instance this was the case in 1990 in Bahrain, Kuwait, Saudi Arabia, Qatar and United Arab Emirates.[97] Other OPEC nations have generally been centres for immigration within their own region, although usually less so in the 1980s and early 1990s as the real price of oil fell. Singapore was also reported to have 11 per cent of its labour force made up of foreign workers-mainly from Malaysia, Thailand, Indonesia and the Philippines.[98] Although there is little recent data for most African countries, in nations such as Congo, Zaire and South Africa, immigrants made up more than 5 per cent of their population in the mid-1980s.[99]

Many countries have several per cent of their population or labour force living abroad-including Jordan, Russia, Burkina Faso and Egypt with more than 10 per cent of their population or labour force living abroad (although for Russia, most are in republics that were formerly part of the Soviet Union).[100] A considerable proportion of the population of Central America (excluding Mexico) live outside their country of origin.[101] In some instances, this is associated with war or civil strife-as in the huge emigration flows out of Afghanistan, Mozambique and most Central American countries, although in recent years, in all these countries, many emigrants (including refugees) have now returned. An increasing number of countries from which there were large emigration flows have changed to become major centres for immigrants-for instance most countries in Southern Europe, and several Central and East European states-particularly Hungary, Poland and the Czech Republic.[102] There are also many countries with large emigrant and immigrant flows-for instance with large emigration movements of skilled and professional emigrants and with unskilled immigrants coming in from lower income countries.

Many of the main migration flows have well-established historical roots.[103] A considerable part of them is also a consequence of an increasingly globalized economy. Between 25 and 30 million migrants are thought to be foreign workers, most of whom will return to their own countries.[104] An estimate for 1991 suggested that the total value of their remittances back to their own countries was $71 billion and if this is an accurate estimate, then it means that total remittance flows are larger than total aid flows and makes remittance flows one of the largest items in international trade.[105]

Below, are outlined some of the important changes in international migration during the last ten to fifteen years.[106] This is not a comprehensive list, but it does illustrate how international migration flows have to be understood within specific national and regional contexts.

- The removal of the Iron Curtain, the break-up of the former Soviet Union and the changes in international boundaries in East and Central Europe has changed the scale and nature of international migration in this region. Migration flows have been largest to Germany, although as Chapter 2 will describe, a large part of this is ethnic Germans moving to Germany and these are not considered by the German government as immigrants but citizens. There have also been large migration flows from the former Soviet Union to Israel and North America-and also from Hungary and Poland to North America.[107] Changing boundaries are also changing people's status from `nationals' to `immigrants' as in the splitting up of Czechoslovakia, Yugoslavia and the division of the former USSR into many independent republics.[108]
- The large-scale recruitment of foreign workers in the oil-rich Middle East. Most were admitted on strictly limited contract terms,

were not allowed to bring dependants and were expected to return to their home country when their contract finished.[109] In the mid-1980s, with the drop in the real price of oil, hundreds of thousands of Arab, South and East Asian workers lost their jobs and returned home. Similarly, large numbers of foreign workers lost their jobs or were expelled during and after the Gulf War. However, most oil-rich Middle Eastern countries still rely heavily on foreign workers. There are considerable differences in the kinds of migrants coming from different countries-for instance, a higher proportion of skilled and professional migrants come from certain countries, while most unskilled women workers come from Philippines, Indonesia, Thailand, South Korea or Sri Lanka.[110]

- The very large increase in the number of refugees in Africa, associated with the wars and civil strife there-for instance the refugee flows from Rwanda, Burundi, the Sudan and Somalia. Mozambique was the single largest source of refugees in the early 1990s[111] but many have returned in the last few years. During the 1980s, there were also mass expulsions of foreign workers at particular times in countries such as Nigeria, Congo and Mauritania, linked to economic recession when in previously more prosperous periods, they had been tolerated.
- The changing nature of international migration in Asia as it grew rapidly and also became more concentrated within Asia, between the wealthier and the poorer nations, whereas previously it had been more oriented to nations outside Asia. Within Asia, it is possible to distinguish between labour importing countries (Japan, Singapore, Taiwan, Brunei), countries which import some types of labour but export others (Hong Kong, Thailand, Malaysia, Republic of Korea) and countries which are predominantly labour exporters (China, Philippines, India, Bangladesh, Pakistan, Sri Lanka, Indonesia).[112]
- In Latin America, there is uncertainty as to whether international migration increased during the 1980s and early 1990s. Certain factors led to a decrease-for instance, as the economic crisis lessened economic differences between countries and with the reduction in population displacements from war or civil strife in Central America.[113] The return to democracy in many countries encouraged or allowed the return of many hundreds of thousands of Latin Americans to their own countries.
- The changing nature of international migration to the North, with a growing importance within migration flows of high-skill workers, clandestine migrants and asylum seekers.[114] The growth in the number of asylum seekers is perhaps the most dramatic in the last decade[115] with the number of asylum applications to Europe, North America and Australia multiplying around sevenfold between 1983 and 1991 to reach 715,000 in 1991.[116] It has grown considerably since then, reflecting the breakup of the former Yugoslavia; estimates for October 1993 suggest 5 million residents had been displaced from their home areas with 4.3 million moving to other places within the old borders and 700,000 having left for other countries.[117]

The relationship between economic growth and urbanization

Rising levels of urbanization and rapid population growth in large cities have often been considered problematic because governments and international agencies fail to ensure that infrastructure and service provision keeps up with the growth in population and governments often fail to enforce pollution control and other regulations needed to protect the quality of life in urban areas. Although the debate about the role of cities in development and in environmental problems continues, the key role that cities have in dynamic and competitive economies was increasingly acknowledged during the 1980' and early 1990s.[118] So too was the fact that major cities generally have a significantly higher concentration of the nation's economic output than of its population. In 1995, Singapore's information minister suggested that `In the next century, the most relevant unit of economic production, social organization and knowledge generation will be the city.'[119]

One reason for this is that rising levels of urbanization are strongly associated with growing and diversifying economies-and most of the nations in the South whose economic performance over the last two decades is so envied by other nations are also the nations with the most rapid increase in their levels of urbanization. The nature of this relationship between the scale of the economy and the scale of the urban population is also illustrated by the fact that most of the world's largest cities are in the world's largest economies. Taking economic and population statistics for 1990, the world's 25 largest economies also had over 70 per cent of the world's 281 `million-cities'[120] and all but one of its 12 urban agglomerations with 10 million or more inhabitants.[121] The world's five largest economies on that date (United States of America, China, Japan, Germany and France) had between them half of the world's 10 million plus inhabitant urban agglomerations and a third of its 'million-cities'.[122]

Some argue that, whilst increases in the level of urbanization may be high, they are not abnormal when compared to other countries at a similar

stage of their development.[123] For instance, there are examples of countries in the North which had increases in their levels of urbanization during the second half of the nineteenth century or first half of the twentieth century which were as or more rapid than most nations in the South over the last 30-40 years. There are also many examples of cities in the North that had population growth rates for several decades during the nineteenth or early twentieth centuries that were comparable to those of the most rapidly growing cities in the South over the last few decades. There are also instances of countries in the North where the overall growth rate of their urban populations was very rapid, even by contemporary standards-for instance in the United States, between 1820 and 1870, the estimated average annual growth rate for the urban population was 5.5 per cent.[124] The urban population in Japan grew at around 6 per cent a year during the 1930s. This can be compared to growth rates for the urban population in Africa of less than 5 per cent a year during the 1980s-and growth rates for the urban population of Asia of less than 4 per cent and for the urban population of Latin America and the Caribbean of close to 3 per cent.[125] What is unprecedented when comparing the last 3-4 decades to earlier periods is the number of countries undergoing rapid urbanization and the number of cities worldwide that are growing rapidly-although as noted earlier, the population growth rate of many cities slowed during the 1980s.

Many factors influence the scale of net rural to urban migration that in turn underlies increases in the level of urbanization. However, there is an evident relationship between changes in economic development in a country and the level of urbanization. The relationship can be seen by plotting countries' level of urbanization against per capita income-see Figure 1.1. The relationship is complex, with many factors at work-and whilst economic development may result in growing levels of urbanization, higher levels of urbanization in turn can stimulate more economic growth.[126]

It has also been argued that urban growth has been detrimental to economic growth and the term 'over-urbanization' has been used to describe countries where the level of urbanization relative to national income is considered to be high in comparison to reference countries. One reason put forward for this is that, with limited investment funds, high levels of investment in urban areas will reduce investment in other productive sectors of the economy including agriculture. Another argument is that economic growth or stability may be compromised by high levels of government investment in urban infrastructure and services.

One basis for the 'over-urbanization' thesis is that specific urbanization levels in the South have been achieved at lower levels of per capita income than those associated with similar levels of urbanization in the North. For example, the North was less urbanized than Asia or Africa when its per capita income was $US300.[127] In the case of Latin America, average levels of urbanization in 1980 were similar to those in the North but the level of per capita GNP was less than one-third that in the North. It has been argued that increases in the level of urbanization in the South have been achieved without economic growth, industrialization and increases in agricultural productivity.[128] However, there are a number of reasons why the 'over-urbanization' thesis might be questioned:

1. There are doubts about the quality and the comparability of the data for both urban populations and for per capita GNP The margin of error for Northern urban data for 1800 and the South for 1930 is estimated to be about 6-8 per cent.[129] Another problem with such international comparisons noted already is that each country uses different criteria for measuring its urban population.
2. The accuracy of the GNP per capita estimates is questionable; many Southern countries have only recorded national income since 1950 and it is recognized that a considerable part of the economy maybe unrecorded because of the extent of the informal economy and other unregistered activity. The accuracy of estimates for GNP may be particularly poor when a large proportion of production is for subsistence or traded outside of the money economy.
3. One important aspect of the relationship between level of urbanization and level of per capita income of particular interest is the extent to which levels of urbanization fall (or their rate of increase slows) with a stagnant or declining economy. Historic studies suggest that city populations may not respond as rapidly to economic decline as they do to economic growth and increases in the level of urbanization as income rises may not be matched by an equal reduction in the level of urbanization as income falls. The same can be said for countries in the Southern Cone of Latin America in recent decades where increases in the levels of urbanization have slowed, as have urban population growth rates-but they did not slow as abruptly as the economy. The results of an analysis of how urbanization levels change over time in response to economic change will show a strong correlation between the two-but while economic stagnation or decline may slow increases in the level of urbanization, they do not generally halt it. In

some countries in Africa, economic stagnation is reported to have encouraged some movement of city populations back to rural areas but the limited information available on this to date does not suggest a large scale movement. Even when incomes are falling, it seems to be rare that households perceive the advantages in rural areas to be sufficient to encourage them to move back on an equivalent scale. What appears more common, as will be described in Chapter 3, is household livelihood strategies that draw on both rural and urban resources.

4. In addition to an inertia to reverses in the level of urbanization, there may be other reasons to account for the high level of urbanization. One is that some economic activities such as mining increase urbanization by requiring a concentrated workforce (and usually an urban setting for their shelters) but do not necessarily increase national income by as much as had been the case in nineteenth-century Europe. National income may increase little because the profits from these activities are invested overseas (and much of the processing also takes place overseas). Another reason why levels of urbanization may be higher in recent decades for any given level of per capita income is that the role of government has expanded considerably during the twentieth century and state employees live mainly in urban centres.

5. Perhaps the main reason for doubting the validity of the 'over-urbanization' thesis is that it implies that the model of urban development undergone in the North represents a pattern that should be followed in the South and that any deviation from this model represents 'over-urbanization'. In this, it has similarities with the normative judgements made as to whether the distribution of population within urban centres in a country corresponds to particular mathematical distributions that are assumed to be `correct' or `balanced'. If, in general, Latin American countries are more urbanized today relative to per capita income than countries in the North, what should be sought are the reasons why. It would be surprising if urban trends in the South followed patterns in the North. The much weaker position of most countries in the South within world markets and the fundamental differences between the world in the nineteenth and the end of the twentieth centuries must affect the social, economic and political factors that influence levels of urbanization.

The level of urbanization in any country is influenced by many factors, both economic and social including:

- The proportion of the economy that is derived from manufacturing or service industries rather than agricultural activities.
- The nature of the economic activity within each sector. For example, the type of agriculture affects the scale of urban settlements. The extent to which agriculture stimulates or supports local urban development depends critically on the value of the crop, the extent to which there are local possibilities for adding value to the crop (for instance fruit juices and alcoholic beverages, jams and sweets) and the nature of land ownership.[130] High value crops that provide good incomes for farmers and agricultural workers within relatively intensive farming systems can support rapid growth of local urban centres to the point where agriculture supports a relatively urbanized population-and can also attract new enterprises from outside the area.[131]
- The influence of land-ownership patterns is important not only for its influence on what is produced but also in where the profits generated are spent or invested. In general, the larger the farm, the less likely the value generated by the production will be spent locally.[132] Plantations are an extreme example of agricultural production where it is usual for only a small proportion of the value generated by their production to be spent or invested nearby.

The relative importance of factors that influence levels of urbanization may change as countries become more urbanized. In advanced economies, many rural areas are urbanized as manufacturing and service enterprises can locate on `greenfield' sites with many of the service and infrastructure benefits of urban locations but none of the congestion; and city-workers can live in rural areas and travel each day to work. In countries with a high population density, these criteria may apply to a large proportion of rural areas, as will be described in Section 2.6. This also helps explain why the relationship between per capita income and level of urbanization becomes much less obvious among the higher income countries-for instance there were large increases in per capita income for the United States and many European countries between 1970 and 1990 but relatively little increase in their level of urbanization.

To conclude, levels of urbanization for each country are likely to reflect not only the level of per capita GDP and the nature of the economy but a number of other factors including definitions used for urban areas, the nature of agriculture, physical factors such as the size and topography of the country, political factors including the relative degree of security in rural locations, and cultural preferences for types of lifestyle. In addition, government policies and

state institutions are a major influence on the level of urbanization. This influence is felt in a number of different ways including:

- The share of national income spent by the public sector. This has clearly increased considerably in most countries during the last few decades, although much less so in the last decade or so. In part this is due to some areas that were previously provided by the private sector being drawn partially or wholly within the public sector, for example, health or transport services. Most state employees are urban residents (although not all are employed in the major cities). The importance of government employment within the urban labour force has been demonstrated by the impacts of redundancies arising from the implementation of structural adjustment programmes in the South. Assessments of the significance of this factor may take some time to emerge, in particular, because reduced employment opportunities in the public sector are likely to impact more on future rural to urban migration trends rather than result in urban to rural migration.
- Government macro-economic and regional policies also impact on the level of urbanization. Governments influence aggregate national income and the distribution between the different sectors of the economy. Subsidizes for agriculture or farmers in most countries in the North have helped to maintain farmers' income and investment capacity. Subsidized services in urban areas have encouraged industrial development. They also influence the relative cost of capital and labour in urban and rural areas and thereby affect employment opportunities. For example, countries in Eastern Europe have successfully kept levels of urbanization below what would have been expected relative to levels of income through a strategy of labour intensive agriculture.[133] Investments in infrastructure influence the costs associated with transportation and telecommunications. In the North, for example, improved transport links and home-based working using advanced telecommunications have also permitted a separation between of the location of residence and employment opportunities.

It is often suggested that governments have favoured urban rather than rural areas within their investment strategies and pricing policies and that this has encouraged the migration of people from rural to urban areas and therefore an increase in the level of urbanization, although within the Indian context public sector policies do not seem to have had a significant impact on the level of urbanization.[134] Instead, the evidence suggests that the level of urbanization in India is relatively insensitive to public sector investment strategies.

These influences on the level of urbanization suggest that countries may have very country-specific components to the relations between levels of urbanization and economic variables, although the underlying nature of such relations may be broadly similar.

Recent census information has allowed a reconsideration of the trends and relationships discussed above.[135] The graphs in Figure 1.1 illustrate the relationship between urban and economic change for certain regions. For the countries included in this analysis from South America, the wide range in the levels of urbanization is immediately evident. The eight countries fall into three groups: high levels of urbanization for the Southern Cone countries that experienced economic growth during the first few decades of the twentieth century plus Venezuela (one of the OPEC countries); intermediate levels of urbanization (Peru and Colombia), and low levels of urbanization (Paraguay and Ecuador). Considering the graphical relationship between levels of urbanization and per capita income, two characteristics stand out. The first is the `shock' to incomes during the late 1970s and early 1980s which took place with little reduction in the increase in the level of urbanization and second, the increase in urbanization in Venezuela despite a considerable reduction in per capita income.

Northern Europe (Scandinavia plus the UK and Eire) shows a very similar pattern between the two graphs indicating that most countries have succeeded in achieving small but continually rising per capita incomes (and at a similar level except Eire) during the period under consideration. The countries with high levels of urbanization show little increases in recent decades, despite the fact that incomes have continued to rise. These graphs suggest that urbanization levels will stabilize at different levels in different countries-although the different levels may simply reflect different definitions used for urban centres. There is also the fact noted earlier that in the wealthiest countries, an increasing proportion of the rural population are either urban workers (who commute to work) or work in manufacturing and service enterprises located in greenfield sites.

South-East and East Asia and Oceania also includes some of the wealthiest nations (Australia, Japan and New Zealand) for whom urbanization levels have shown little change in recent decades. Both South Korea and Indonesia have had increasing urbanization although this trend is less evident for Fiji and the Philippines. Considering incomes, two groups appear to emerge from the second graph: a high income group which has

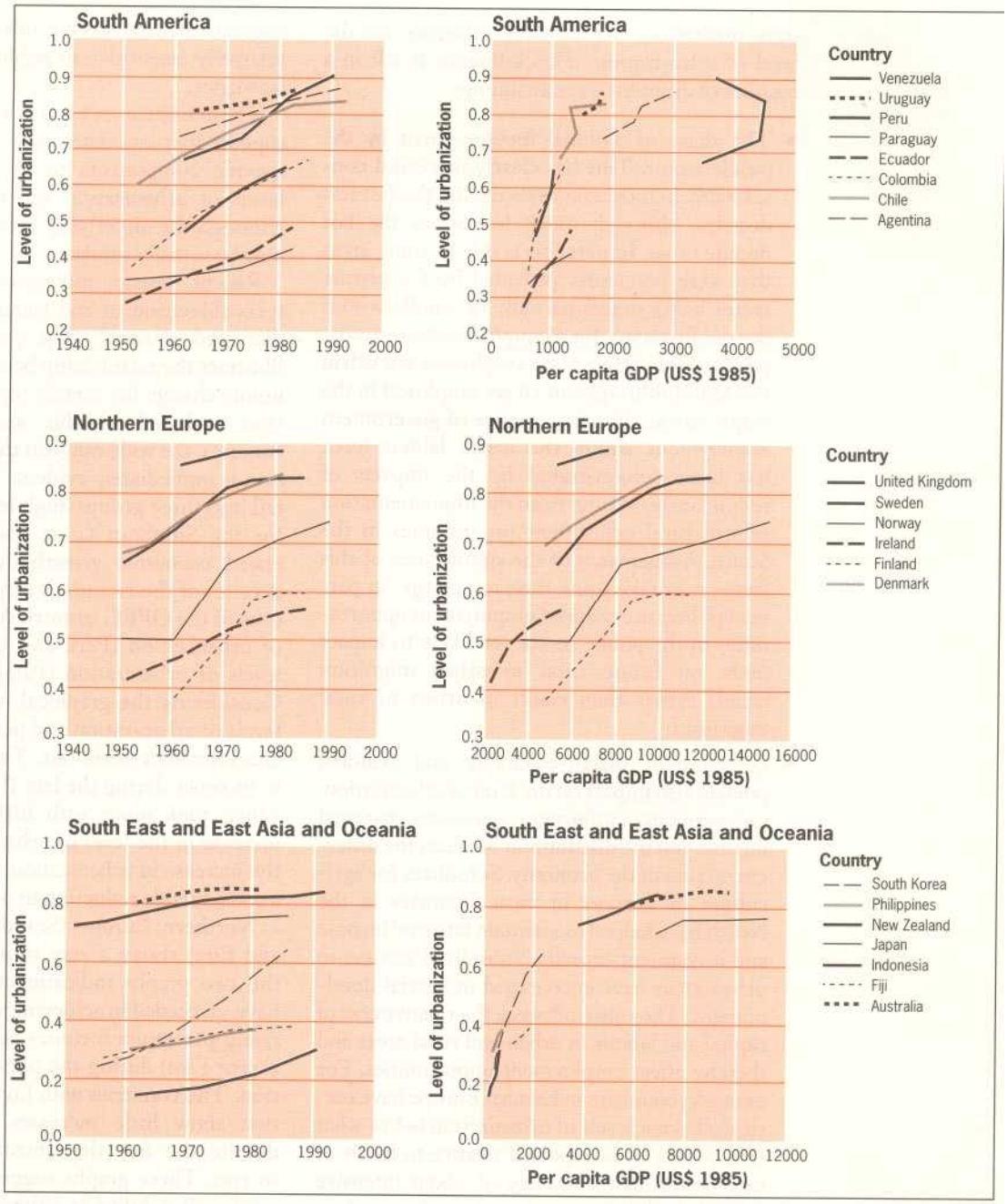


FIGURE 1.1
Urban and economic changes in selected countries

seen very little change in urbanization levels, and a low income group with increasing levels of urbanization and rising incomes. While South Korea's level of urbanization at first appears to have increased very rapidly, when considered with changes in per capita income (where the country has had one of the world's most rapid increases over the last 40 years), the trends are consistent with other countries.

In general, there is a close relationship between the level of urbanization and per capita income (measured here by GDP per capita). For the time period and countries considered here, there is also a correlation between the level of urbanization and the date (i.e. a time trend) in addition to the relationship with per capita GDP This suggests that there may be other factors not specifically included in this model that are important in better understanding the process of urbanization and that have, in broad terms, been increasing over time. In this case, the time trend is acting as a proxy for a set of factors that are positively related to the level of urbanization and are correlated to the time trend but which have not been separately identified.

Notes and References

1. OECD, *OECD Economic Outlook,* Dec. 1994.
2. World Bank, *Annual Report 1994,* Washington DC, 1994.
3. World Bank, *Annual Report 1993,* Washington DC, 1993.
4. World Bank 1994, op. *cit.* and World Bank, *World Development Report 1994: Infrastructure for Development,* Oxford University Press, Oxford, 1994, Table 2.
5. World Bank, *World Development Report 1991,* Oxford University Press, Oxford, 1991.
6. World Bank 1994, op. *cit.*
7. Government of Kenya, *Economic Survey 1994,* Central Bureau of Statistics, Government Press, Kenya.
8. Per capita income is taken as per capita GDP in this section.
9. UNDP, *Human Development Report 1994,* Oxford University Press, Oxford, 1994.
10. UNDP 1994, op. *cit.*
11. *Ibid.*
12. OECD, *OECD Economic Outlook* (various issues) and World Bank, *World Development Report 1991,* Oxford University Press, Oxford, 1991.
13. OECD, *OECD Economic Outlook,* Dec. 1988.
14. Hardoy, Jorge E. and David Satterthwaite, *Squatter Citizen: Life in the Urban Third World,* Earthscan Publications, London, 1989.
15. *Ibid.*
16. United Nations, *Housing and Economic Adjustment,* United Nations Publication Sale No. 881V 1, DIESA, 1988.
17. *OECD Economic Outlook,* Dec. 1992.
18. World Bank 1991, op. *cit.*
19. See Table 2.5 in The World Bank, *Annual Report 1994,* Washington DC, 1994.
20. This section draws heavily on Sassen, Saskia, *Cities in a World Economy,* Pine Forge Press, Thousand Oaks, London, New Delhi, 1994. It also draws on Friedmann, John, `Where we stand: a decade of world city research', Paper prepared for the Conference of World Cities in a World System, Center for Innovative Technology, April 1993, and Friedmann, John and G. Wolff, `World city formation', *International Journal of Urban and Regional Research, vol.* 6, no. 3,1983,309-43.
21. Parker, John, `Turn up the lights; a survey of cities', *The Economist,* 29 July 1995.
22. Sassen 1994, op. *cit.*
23. *Ibid.*
24. *Ibid.*
25. Harris, Nigel, *City, Class and Trade, I.* B. Tauris and Co. London and New York, 1991.
26. Amin, Ash and Nigel Thrift, `Neo-Marshallian nodes in global networks', *International Journal of Urban and Regional Research, vol.* 16, no. 4, Dec. 1992, 571-87 and Hay, Dennis, `On the development of cities', in David Cadman and Geoffrey Payne (eds.), *The Living City-Towards a Sustainable Future,* Routledge, London, 1990.
27. Korten, David C., *When Corporations Rule the World,* Earthscan, London, 1995.
28. *Ibid.*
29. Preliminary figure, from World Bank, *Annual Report 1994,* Washington DC, 1994.
30. World Bank 1994, op. *cit.*
31. Sassen 1994, op. *cit.*
32. World Bank 1994, op. *cit.*
33. Sassen 1994, op. *cit.*
34. Parker 1995, op. *cit.*
35. United Nations, *World Urbanization Prospects: the 1994 Revision,* Population Division, New York, 1995.
36. United Nations 1995, op. *cit.;* Cleland, John, `Population growth in the 21 st century; cause for crisis or celebration', Paper presented to the 21st Century Trust meeting on *Population Growth, Health and Development. Problems and Prospects for the 21st Century,* Oxford, 1995.
37. Cleland 1995, op. *cit.*
38. *Ibid.*
39. Varley, Ann, `Women-heading households: some more equal than others?', *World Development vol.* 24, no. 3, 1996.
40. See Bourne, L. S., *Urban Growth and Population Redistribution in North America: A Diverse and Unequal Landscape,* Major Report 32, Centre for Urban and Community Studies, University of Toronto, Toronto, 1995.
41. Chant, Sylvia, `Gender aspects of urban economic growth and development', Paper prepared for the UNU/WIDER Conference on `Human Settlements in the Changing Global Political and Economic Processes', Helsinki, 1995.
42. Chant 1995, op. *cit.,* drawing from: Flandrin, Jean-Louis, *Families in Former Times: Kinsbip, Household and Sexuality,* Cambridge University Press, Cambridge, 1979; Laslett, Peter, `Introduction: the history of the family', in Peter Laslett and Richard Wall (eds.), *Household and Family in Past Time,* Cambridge University Press, Cambridge, 1972, 1-89; Mitterauer, Michael and Reinhard Sieder, *The European Family,* Blackwell, Oxford, 1982; Peil, Margaret, with Pius O. Sada, *African Urban Society,* John Wiley and Sons, Chichester, 1984; Stivens, Maila, `Family and state in Malaysian industrialization: the case of Rembau, Negeri Sambilan, Malaysia', in Haleh Afshar (ed.), *Women, State and Ideology: Studies from Africa and Asia,* Macmillan, Basingstoke, 1987, 89-110.
43. See Chant 1995, op. *cit.* for a review and a list of empirical studies on this; see also Gugler, Josef, `Social organization in the city' in Alan Gilbert and Josef Gugler (eds.), *Cities, Poverty and Development. Urbanization in the Third World* (Second Edition), Oxford University Press, Oxford, 1992, 155-76.
44. Chant 1995, op. *cit.* 7.
45. Varley 1996, op. *cit.*
46. Chant 1995, op. *cit.;* Townsend, Janet and Janet Momsen, `Toward a geography of gender in the Third World', in Janet Momsen and Janet Townsend (eds.), *Geography of Gender in the Third World,* Hutchinson, London, 1987,27-81.
47. Varley 1996, op. *cit.*
48. Brydon, Lynne and Sylvia Chant, *Women in the Third World: Gender Issues in Rural and Urban Areas,* Edward Elgar, Aldershot, 1989; Chant, Sylvia and Sarah A. Radcliffe, `Migration and development: the importance of gender', in Sylvia Chant (ed.), *Gender and Migration in Developing Countries,* Belhaven Press, London, 1992, 1-29.
49. Appleton, Simon, `Gender dimensions of structural adjustment: the role of economic theory and quantitative analysis', IDS *Bulletin, vol.* 22, no. 1, 1991, 17-22; Chant, Sylvia, 'Single-parent families: choice or constraint? The formation of female-headed households in Mexican shantytowns', *Development and Change,* vol. 16, no. 4, 1985, 635-65; Chant, Sylvia and Cathy McIlwaine, *Women ofa Lesser Cost; Female Labour, Foreign Exchange and Philippine Development,* Pluto, London, 1995 (chapters 3 and 7); Engle, Patrice, `Father's money, mother's money and parental commitment: Guatemala and Nicaragua', in Rae Lesser Blumberg, Cathy Rakowski, Irene Tinker and Michael Montéon (eds.), *Engendering Wealth and Wellbeing: Empowerment for Global Change,* Westview, Boulder, 1995, 155-79; Hoddinot, John and Lawrence Haddad, *Household Expenditures, Child Anthropomorphic Status and the Intra-Household Division ofIncome,* Unit for the Study of African Economics, University of Oxford, 1991; Kanji, Nazneen, `Structural adjustment policies: shifting the costs of social reproduction to women', *Critical Health,* vol. 34, 1991, 61-7; Kennedy, Eileen, `Development policy, gender of head of household and nutrition', in Eileen Kennedy and Mercedes Gonzáalez de la Rocha, *Poverty and Wellbeing in the Household: Case Studies of the Developing World,* Centre for Iberian and Latin American Studies, UCLS, San Diego, 1994,25-42; Weekes-Vagliani, Winifred, `Structural adjustment and gender in the Côte d'Ivoire', in Haleh Afshar and Carolyne Dennis (eds.), *Women andAdjustment Policies in the Third World,* Macmillan, Basingstoke, 1992,117-49.
50. Drawn from Chant, 1995, op. *cit.,* quoting Browner, C. H., `Women,

household and health in Latin America', *Social Science and Medicine, vol.* 28, no. 5, 1989, pp. 461-473; Buvinic, Mayra, Juan Pablo Valenzuela, Temistocles Molina and Electra González, 'The fortunes of adolescent mothers and their children: the transmission of poverty in Santiago, Chile', *Population and Development Review, vol.* 18, no. 2, 1992, 169-97; Elson, Diane, `The impact of structural adjustment on women: concepts and issues', in Bade Onimode (ed.), *The IMF, the World Bank and the African Dept Vol 2: The Social and Political Impact,* Zed, London, 1989; Haddad, Lawrence, `Gender and poverty in Ghana: a descriptive analysis of selected outcomes and processes', *IDS Bulletin vol.* 22, no. 1, 1991, 5-16; Safa, Helen and Peggy Antrobus, `Women and economic crisis in the Caribbean', in Lourdes Benerfa and Shelly Feldman (eds.), *Unequal Burden: Economic Crises, Persistent Poverty and Women's Work,* Westview, Boulder, 1992, 49-82.

51. Satterthwaite, David, `Continuity and change in the world's largest cities', Background paper for the Global Report, 1995.
52. 1990 was chosen as the reference year in this section and also in Chapter 2 since the most recent census data in most nations is from censuses held between 1989 and 1991 and thus virtually all statistics for rural, urban or city populations for 1995 are simply estimates or projections based on earlier data.
53. See United Nations, *World Urbanization Prospects: the 1994 Revision,* Population Division, New York, 1995.
54. As Hardoy and Satterthwaite 1989 (op. *cit.)* note, it is still common for people to confuse `growth in urban population' and `growth in a nation's or region's level of urbanization'. Virtually all changes in the level of urbanization (i.e. in the proportion of population living in urban centres) are a result of population movements in or out of urban centres. Natural increase in population (ie the excess of births over deaths) does not contribute to increases in urbanization levels except where the rate of natural increase in urban centres is higher than that in rural areas. If this is the case, this may be the result of high proportions of migrants from rural to urban areas being of child-bearing age and their movement to urban centres changing urban centres' rate of natural increase. But rates of natural increase are generally lower in urban centres, compared to rural centres. Part of a change in a nation's level of urbanization is often due to rural settlements growing to the point where they are reclassified as urban (and thus are added to the urban population) or boundaries of cities or metropolitan areas being extended and including people that were previously classified as rural-and rapid rates of natural increase can increase this contribution. But in general, a nation's level of urbanization is not influenced much by population increases for it is essentially the result of changes in economic structure; increased proportions of national populations in urban centres reflect an increase in the proportion of employment opportunities (or possibilities for survival) concentrated in urban centres.
55. This calculation is made from the Cities Database of the Human Settlements Programme of the International Institute for Environment and Development (IIED) and of IIED-America Latina. This combines the data on city populations from 1950 to 1990 from United Nations 1995, op. *cit.* with recent and historic data drawn from around 250 censuses and from Chandler, Tertius and Gerald Fox, 3000 *Years of Urban Growth,* Academic Press, New York and London, 1974.
56. Hardoy and Satterthwaite 1989, op. *cit.*
57. Hardoy, Jorge E. and Satterthwaite, David (eds.), *Small and Intermediate Urban Centres; Their Role in National and Regional Development in the Third World,* Hodder and Stoughton (UK), 1986 and Westview (USA) 1986.
58. Harris 1991, op. *cit.*
59. Hardoy and Satterthwaite 1989, op. *cit.*
60. *Ibid.*
61. Cheshire P C. and D. G. Hay, `Background and the use of Functional Urban Regions', in P. C. Cheshire and D. G. Hay (editors), *Urban Problems in Western Europe,* Unwin Hyman, London.
62. See Section 2.4 for more details and the basis for this figure and its source.
63. Hawkins, J. N., `Shanghai: an Exploratory Report on Food for a City' *GeoJournal* Supplementary issue, 1982.
64. See note j in Table 1.5; Aina, Tade Akin, `Metropolitan Lagos: population growth and spatial expansion; city study', Background paper for the Global Report on Human Settlements, 1995.
65. The 1991 census figure for Lagos put its population at around 5 million.
66. Bairoch, Paul, *Cities and Economic Development: From the Dawn of History to the Present,* Mansell, London, 1988.
67. See chapter 8 of Hardoy and Satterthwaite 1989, op. *cit.*
68. Satterthwaite, David, `Continuity and change in the world's largest cities', Background paper for the Global Report, 1995.
69. Parker 1995, op. *cit.*
70. Caride, Horacio E. and José A. Borello, *Industrial Location in Major Latin American Metropolitan Areas,* report prepared by IIED-America Latina for the Business Council on Sustainable Development, 1995.
71. Caride and Borello 1995, op. *cit.*
72. Harris, Nigel, `Bombay in a global economy; structural adjustment and the role of cities', *Cities, vol.* 12, no. 3, June 1995,175-84.
73. Parker 1995, op. *cit.*
74. Borja, J. and others, *Barcelona; un Modelo de Transformación,* Urban Management Programme, Quito, 1995.
75. de Jong, Mark W. 'Revitalizing the urban core: waterfront development in Baltimore, Maryland', in Joanne Fox-Przeworski, John Goddard and Mark de Jong (eds.), *Urban Regeneration in a Changing Economy-an International Perspective,* Clarendon Press, Oxford, 1991,185-98.
76. Parker 1995, op. *cit.*
77. *Ibid* 7.
78. *Ibid.*
79. Castells, Manuel and Peter Hall, *Technopoles of the World. The Making of 21st Century Industrial Complexes,* Routledge, London and New York, 1994.
80. Friedmann and Wolff 1983, Friedmann 1993, Sassen 1994, op. *cit.*
81. Friedmann 1993, op. *cit.*
82. Sassen 1994, op. *cit.*
83. *Ibid.*
84. Friedmann 1993, op. *cit.*
85. *Ibid.*
86. Parsonage, James, `Southeast Asia's "Growth Triangle": a subregional response to global transformation', *International Journal of Urban and Regional Research, vol.* 16, no. 2, June 1992,307-17.
87. See for instance Chant, Sylvia and Sarah A. Radcliffe, `Migration and development: the importance of gender', Radcliffe, Sarah A., `Mountains, maidens and migration: gender and mobility in Peru,' Pryer, Jane, `Purdah, patriarchy and population movement; perspectives from Bangladesh', and Hugo, Graeme, `Women on the move: changing patterns of population movement of women in Indonesia' in Sylvia Chant (ed.), *Gender and Migration in Developing Countries,* Belhaven Press, London, 1992.
88. See references in previous note; also Hugo, Graeme J., `Migration as a survival strategy: the family dimension of migration' in United Nations, *Population Distribution and Migration,* ST/ESA/SER.R/133, New York, 1995.
89. See for instance references in the previous two notes; also Baker, Jonathan and Tade Akin Aina (eds.), *The Migration Experience in Africa,* Nordiska Africainstitutet, Uppsala, 1995; United Nations, *Population Distribution and Migration,* ST/ESA/SER.R/133, New York, 1995; Douglass, Mike, `Thailand: territorial dissolution and alternative regional development for the Central Plains', in Walter B. Stohr and D. R. Fraser Taylor (eds.), *Development From Above or Below,* John Wiley and Sons, Chichester, UK, 1981, 183-208 and Saint, William S. and William D. Goldsmith, `Cropping systems, structural change and rural-urban migration in Brazil', *World Development, vol.* 8, 1980,259-72.
90. Chant and Radcliffe 1992, op. *cit.*
91. *Ibid.*

92. Castles, Stephen and Mark j. Miller, *The Age ofMigration: International Population Movements in the Modern World,* MacMillan, London and Basingstoke, 1993.
93. Martin, P. L., `Labour migration in Asia: conference report', *International Migration Review, vol.* 25, no. 1, 1991.
94. Champion, Tony and Russell King, `New trends in international migration in Europe', *Geographical Viewpoint, vol.* 21,1993,45-56.
95. Kane, Hal, *The Hour of Departure: Forces that create Refugees and Migrants,* Worldwatch Paper 125, Worldwatch Institute, Washington DC, 1995. Note that this source also estimated that there were 27 million `internal' refugees who have fled from persecution but have not crossed international boundaries.
96. Skeldon, R., `International migration within and from the East and Southeast Asian regions: a review essay', *Asian and Pacific MigrationJournal, vol. 1,* no. 1, 1992.
97. ILO, *Social and Labour Issues concerning Migrant Workers in the Construction Industry,* International Labour Organization, Sectoral Office Programme, TMMWCI, International Labour Office, Geneva, 1995.
98. Castles and Miller 1993, op. *cit.*
99. Russell, Sharon Stanton, `Migration between developing countries in the African and Latin American regions and its likely future', in United Nations, *Population Distribution and Migration,* ST/ESA/SER.R/133, NewYork, 1995.
100. Stalker, Peter, *The World Of Strangers* International Labour Organization, Geneva, 1994.
101. Russell 1995, op. *cit.*
102. Castles and Miller 1993, op. *cit.*
103. *Ibid.*
104. *Ibid.*
105. Russell 1995, op. *cit.*
106. The information presented about each region is largely drawn from Castles and Miller 1993, op. *cit.*
107. Castles and Miller 1993, op. *cit.*
108. Brubraker, W R, `Citizenship struggles in Soviet successor states', *International Migration Review, vol.* 26, 1992, 269-91; and Buttner, T and C. Prinz, `Structure and impact of German east-west migration', in W Lutz (ed.), *Future Demographic Trends in Europe and North America:* What Can *we Assume* Today?, Academic Press, London, 1991, 379-98.
109. Castles and Miller 1993 and ILO 1995, op. cit.
110. Castles and Miller 1993, op. cit.
111. Russell 1995, op. cit.
112. Castles and Miller 1993, op. cit.
113. Russell 1995, op. cit.
114. Champion, A.G., `International migration and demographic change in the Developed World', *Urban Studies, vol.* 31, nos. 4/5, 1994, 653-77; White, P, `The social geography of immigrants in European cities: the geography of arrival', in R. King (ed.), *The New Geography ofEuropean Migrations,* Belhaven, London, 1993, 47-66.
115. Fernhout, R., `Europe 1993 and its refugees', *Ethnic and Racial Studies, vol.* 16, 1993, 492-506; and Black, R., `Refugees and asylum seekers in Western Europe: new challenges', in R. Black and V Robinson (eds.), *Geography and Refugees,* Belhaven, London, 1993, 87-103.
116. Champion 1994, op. cit.
117. UNECE, *InternationalMigration Bulletin no. 3,* United Nations Economic Commission for Europe, Geneva, 1993.
118. See for instance Harris 1991 and Parker 1995, op. *cit.;* also World Bank, *Urban Policy and Economic Development: an Agenda for the 1990s,* The World Bank, Washington DC, 1991.
119. George Yeo, reported in Parker 1995, *op. cit.*
120. These statistics are drawn from the same sources listed in Table 1.6.
121. Satterthwaite 1995, op. *cit.*
122. *Ibid.*
123. Becker, Charles M., Jeffrey G. Williamson and Edwin S. Mills, *Indian Urbanization and Economic* Growth *since 1960,* The Johns Hopkins University Press, Baltimore and London, 1992.
124. Preston, Samuel H., `Urban growth in developing countries: a demographic reappraisal', *Population and Development Review, vol.* 5, no. 2, 1979.
125. United Nations 1995, op. cit.
126. See Preston 1979, op. cit.and Kelley, Allen C. and Jeffrey G. Williamson, What *Drives Third World* City Growth: A *Dynamic General Equilibrium* Approach, Princeton University Press, Princeton, 1984.
127. Preston 1979, op. cit.
128. Bairoch 1988, op. cit.
129. *Ibid.*
130. Manzanal, Mabel and Cesar Vapnarsky, `The Comahue Region, Argentina' in Hardoy, Jorge E. and Satterthwaite, David (eds.), Small *and Intermediate Urban Centres; Their Role in National and Regional Development in the Third World,* Hodder and Stoughton (UK), 1986 and Westview (USA) 1986; Hardoy and Satterthwaite 1989, op. *cit.*
131. Manzanal and Vapnarsky 1986, op. *cit.*
132. Hardoy and Satterthwaite 1986, op. *cit.*
133. Ofer, Gur, `Industrial structure, urbanization and the growth strategy of socialist countries', *Quarterly Journal of Economics, vol. 10,* no. 2, 1976, 219-44.
134. Becker, Williamson and Mills 1992, op. *cit.*
135. Mitlin, Diana, *The Relationship between Economic Change and Level of Urbanisation,* Background paper for the Global Report on Human Settlements, 1995.

2 Regional Perspectives on Population and Urbanization

2.1 Introduction

Much attention has been given to the rapid growth in the world's urban population but rather less to the much larger and more fundamental economic, political and demographic changes that underlie it. Much of the attention has centred on cities in the South yet over the last ten to fifteen years, the scale and pace of urban change in parts of the North has also been rapid. Much attention has been given to the world's 'mega-cities', yet the vast majority of the world's urban population (in both the North and the South) do not live in mega-cities. It is also commonly stated that large cities are `mushrooming' yet, as Chapter 1 described, most of the major cities in both the North and the South have long histories as cities.

There is also a tendency to generalize about cities as if they have many characteristics in common and to describe and compare them with economic and demographic statistics. But each metropolitan area, city and market town is so much more than these statistics can reveal. As John Friedmann points out:

> In the economist's language, particular cities are dissolved into market configurations, their history is replaced by something called the urban dynamic, where people disappear as citizens of the polis and are subsumed under the categories of abstract urbanization processes, while human concerns are reduced to property, profits and competitive advantage.[1]

Each urban centre has its own unique and complex ecological setting and political economy within which individuals, social groups, voluntary organizations, businesses and different government agencies coexist, collaborate or compete. Within this context, so often, historic and contemporary factors collide-and generally, also local, national and international interests. This is not only the case in large cities but also in thousands of small urban centres. These are aspects rarely covered in Global Reports because generalizations are less easily made. The complexity and diversity of urban centres are revealed in their histories-but only for the small proportion of the world's urban centres whose history has been recorded. Social and cultural aspects of cities that have importance for their inhabitants also receive little attention.

This Chapter aims to bring out this diversity and to base the description of population and urbanization in the specific social and economic context of each of the world's major regions. Separate sections look at North America, Latin America and the Caribbean, West Europe, East and Central Europe and the fifteen republics that were formerly the Soviet Union, Asia and the Pacific, and Africa. Each of these sections includes two primary focuses. The first is change in national populations-including their size, age structure and the role of international migration either in boosting or reducing populations. The second is changes in spatial distribution of population within national boundaries, including their distribution among metropolitan areas, cities, smaller urban centres and rural settlements. There is also a special interest in identifying trends during the 1980s and considering whether these represent continuations of trends evident in previous decades. There are certainly new urban trends that only become evident during the 1980s. There is also a special interest in considering what past and current trends imply for the future. Where possible, information is also given about trends in the early 1990s, although the fact that most data on population and urban change comes from censuses and most recent censuses were undertaken in 1990 and 1991 limits the amount of information available.

2.2 North America[2]

Introduction

Over the last few decades, both the United States and Canada experienced a much more rapid and fundamental reordering of their population and urban systems than Europe. They also had some of the world's most rapidly growing cities and metropolitan areas. Among the mature industrial economies, they have relatively new, fluid and malleable urban systems and in comparison to other industrialized countries (or continents), people, firms and jobs move with relative ease and surprising frequency, and over considerable distances. Between 1950 and 1990, there were major changes in the spatial distribution of population and in the relative importance of different cities and metropolitan areas. The dominance of the larger industrial cities and older eastern gateway ports were re-ordered and complex new urban hierarchies are emerging.

Between 1950 and 1990, the population of the US increased by 65 per cent to reach 248.7

million; in Canada, it increased almost 95 per cent, 1951-91, to reach 27.3 million. The proportion of the population living in urban centres in these same periods grew from 64 to over 82 per cent in the US and from 61 to 77 per cent in Canada.[3] The scale of economic growth was much greater during this period; the Gross National Product (GNP) of the US increased almost twenty-fold (from $288 billion to over $5,000 billion in constant 1982 US dollars), and from $1,900 to $23,000 per capita. The Canadian economy has shown somewhat higher long-term average growth rates, at least until the beginning of the latest recession in the late 1980s, and the level of per capita output is almost the same (allowing for variable currency exchange rates). This brought much expanded national production but also rapid technological changes in production, communication and transportation, dramatic revisions in occupational structures and in the spatial division of labour, continued income growth and markedly uneven wealth creation. The structure and relative importance of regional and urban economies shifted in response to both domestic needs and international competition. In response, massive metropolitan complexes are being created, often in formerly peripheral regions, and new and even more dispersed forms of urban agglomeration are evolving. In parallel, long-standing patterns of dominance and interdependence among cities, and between cities and suburbs, are being redefined. The North American continent and its cities are clearly in flux; its urban systems, metropolitan forms and suburban landscapes are still in the making.

Although the settlement systems of the US and Canada (as well as Mexico) are becoming increasingly interdependent, the two systems are considered separately here. Despite numerous common attributes, these two systems have rather different histories, differing regulatory environments and most recently varying growth trajectories.[4] They are also of vastly different size and political configuration. There were some 16,900 separate incorporated municipalities (both urban and rural) with over 10,000 inhabitants in the US in 1990, and only 759 in Canada. To discuss the two systems together would complicate the empirical analysis (since basic data sources and statistical definitions differ), obscure unique elements in both their structure and evolution, and otherwise swamp the Canadian urban experience.

Demographic change

The demographic basis of the post-World War II urban transformation in North America is the outcome of two principal components: immigration; and a series of socio-demographic waves (or transitions) and migration movements that swept across the continent. Both the US and Canada experienced a massive `baby and marriage boom' beginning near the end of World War II, but especially during the years 1948 to 1963. Rates of natural increase rose significantly, and both birth rates and rates of natural increase were much higher than those prevailing in western Europe. The marriage rate also increased, and the average age of first-marriage and first-birth declined while in parallel, and over the same period, the death rate declined.[5] The resulting population boom contributed substantially to the rapid growth of the consumer economy, to increased aggregate housing demand and new residential construction, and to the evolution of new urban forms through widespread suburbanization.

The subsequent `baby and marriage bust', when it did set in after 1963, was therefore even sharper than in most other western countries. Birth rates declined, and the age of first marriage increased.[6] The 'echo-baby boom', expected a generation later as the children of the first baby-boom reached child-bearing age, did not materialize. The result of these sharp demographic transitions is not simply large differentials in the size of individual age cohorts, but also wide variations in demand and supply pressures in the market-and thus a new `market geography'. These variations continue to send ripples through housing and labour markets, and through the agencies responsible for public service delivery.[7] These, in turn, set the stage for significant shifts in the preferences, migration behaviours and economic well-being of age-specific household and family groups, and thus in the fortunes of the particular communities and regions where these groups reside.

Parallel to these demographic changes were equally dramatic changes in household and family composition, especially the proliferation and diversification of household types. Average household size declined over the study period from 4.0 persons to under 2.7 and is even lower in the metropolitan areas. Over 20 per cent of all households now have only one person, and in the US over 13 per cent are female-headed, single-parent households. Less than half of all households are now family households in the sense of having members related by blood or marriage. The impacts of these shifts in domestic living arrangement are often underrated as factors in metropolitan development. These include a substantially greater consumption of housing space, urban land and public resources per capita and per household than would otherwise have been the case.[8]

As rates of natural increase declined, they also became more uniform across the continent. As a result, internal migration flows assumed greater

TABLE 2.1 Comparisons between the United States and Canada in metropolitan populations

	United States 1990[a]	Canada 1991[b]
Total national population (millions)	248.7	27.3
% change in national population 1980/90;1981/91	9.8	12.1
Number of metropolitan areas	284[c]	281[d]
Total metropolitan population (million inhabitants)	192.7	16.4
% of national population in metropolitan areas	77.5	61.1
Average number of inhabitants in metropolitan areas (thousands)	678.5	653.8
Number of metropolitan areas with over one million inhabitants	39	3
% of metro. popn in metro. areas with over 1 million inhabitants	62.5	52.8
% change in metro. area populations 1980/90; 1981/91	11.6	20.4
% of national population in 3 largest metropolitan areas	16.3	31.6

Notes:

[a] Metropolitan Areas as defined April 1, 1990. Includes Consolidated Metropolitan Statistical Areas (CMSAs) and individual Metropolitan Statistical Areas (MSAs).

[b] Census Metropolitan Areas (CMAs) as defined in 1991.

[c] Includes 35 metropolitan areas with populations less than 100,000.

[d] Includes 3 census agglomerations with populations over 100,000, but not defined as census metropolitan areas in 1991.

Source: Bourne, L. S., 'Urban growth and population distribution in North America: A diverse and unfinished landscape', Major Report 32, Centre for Urban and Community Studies, University of Toronto, 1995.

importance as determinants of urban growth and population redistribution, and as the source of social change within localities. In any given year about 18 per cent of North Americans change their place of residence, and after five years, over 50 per cent have moved. With such high mobility levels, the potential for redistributing population and economic activity is obviously high. So too is the uncertainty with regard to future settlement trends.

Although the rate of immigration relative to national population and even the number of immigrants per year were much higher in the US earlier in the century (before World War I), both the number of immigrants and the overall rate have increased steadily (with wide fluctuations) since the 1950s. The rate of immigration averaged 1.9/1000 population during the 1960s and 1970s, rising to 2.5 in the 1980s, and then to 4.5 in the early 1990s. The historical rate of immigration into Canada has been considerably higher in relative terms (as has the rate of emigration), but with different cycles, depending on the needs of the economy, external pressures (e.g. wars and refugees), and public policy whims.[9] However, compared to the US, immigration to Canada peaked earlier and at much higher rates, at 9.7/1000 population in the 1950s. It then declined to 8.0 in the 1960s, to 4.1 during the 1970s and to 3.5 in the mid-1980s, before turning sharply upward in the early 1990s. As rates of natural increase have declined so much, immigration comes to take on a larger role in population change. These immigration flows represented between 20 per cent (US) and 30 per cent (Canada) of total population growth over the 1970s and 1980s. By the early 1990s the two countries were officially admitting nearly 1.3 million immigrants (1.1 million in the US and over 200,000 in Canada) annually. In the last few years, as a result of a deliberate shift in policy, immigration to Canada has represented over half of total national population growth.

The origins of the immigrants have also shifted significantly away from long-established sources in Europe to countries in the South and especially Mexico and Latin America (for the US), and Asia. In Canada, for example, during the 1950s over 80 per cent of all immigrants were drawn from Europe and the US. By 1991 that proportion was down to below 30 per cent, while over 65 per cent were from Asian countries and the Caribbean.[10] In the US, over 80 per cent of immigrants now come from Asia, the Caribbean and Latin America. Many of these new populations are also visibly and culturally distinct from earlier European immigrants.

Regional change in total and urban populations

The spatial distribution of urban population and of economic activity has shifted even more sharply since 1950 than the national figures suggest. This is most evident in the differential growth of regional and state populations and in the expansion of the metropolitan urban system. The predominant regional movement in North America has always been from east to west, following the historical unfolding of European settlement.[11] In 1950, four of the five most populous American states were in the old manufacturing belt in the North-East and Great Lakes regions (New York, Pennsylvania, Illinois, Ohio; California was the exception). These two regions alone held 54 per cent of the national population in 1950, but only 44 per cent in 1990. By the Census of 1990 three of the four most populous states, California (29.7m), Texas (17.0m), and Florida (12.9m), were in the south and west (New York State had 18.0 million, roughly the same as in 1970). During the 1980s almost one-half of total US population growth was concentrated in these three states. This represents a considerable regional shift of population, economic activity and the distribution of political power.

In considering urban change, the more common yardstick of the urbanization process in the US is not the rural-urban balance but the distinction between metropolitan and non-metropolitan areas. The concept of a metropolitan area is

TABLE 2.2 US metropolitan area population rankings, 1990

Rank	Metropolitan Area	Population (in 1000s)	% change 1980-1990
1.	New York CMSA[a]	19,342	3.4
2.	Los Angeles CMSA	14,532	26.3
3.	Chicago CMSA	8,240	1.5
4.	Washington-Baltimore CMSA	6,727	16.1
5.	San Francisco-Oakland-San Jose CMSA	6,253	15.4
6.	Philadelphia CMSA	5,893	4.3
7.	Boston CMSA	5,187	-2.0
8.	Detroit CMSA	5,455	6.5
9.	Dallas-Fort Worth CMSA	4,037	32.5
10.	Houston CMSA	3,731	19.6
11.	Miami CMSA	3,193	20.7
12.	Seattle MSA	2,970	23.2
13.	Atlanta MSA	2,960	33.0
14.	Cleveland-Akron CMSA	2,860	-2.6
15.	Minneapolis-St. Paul MSA	2,539	15.5
16.	San Diego MSA	2,498	34.1
17.	St Louis MSA	2,493	3.2
18.	Pittsburgh MSA	2,395	-6.8
19.	Phoenix MSA	2,238	40.0
20.	Tampa-St. Petersburg MSA	2,068	28.1

Notes: [a] **A consolidated metropolitan statistical area (CMSA) includes two or more primary metropolitan statistical areas (i.e. two or more large cities) while a metropolitan statistical area (MSA) is centred on one large city.**

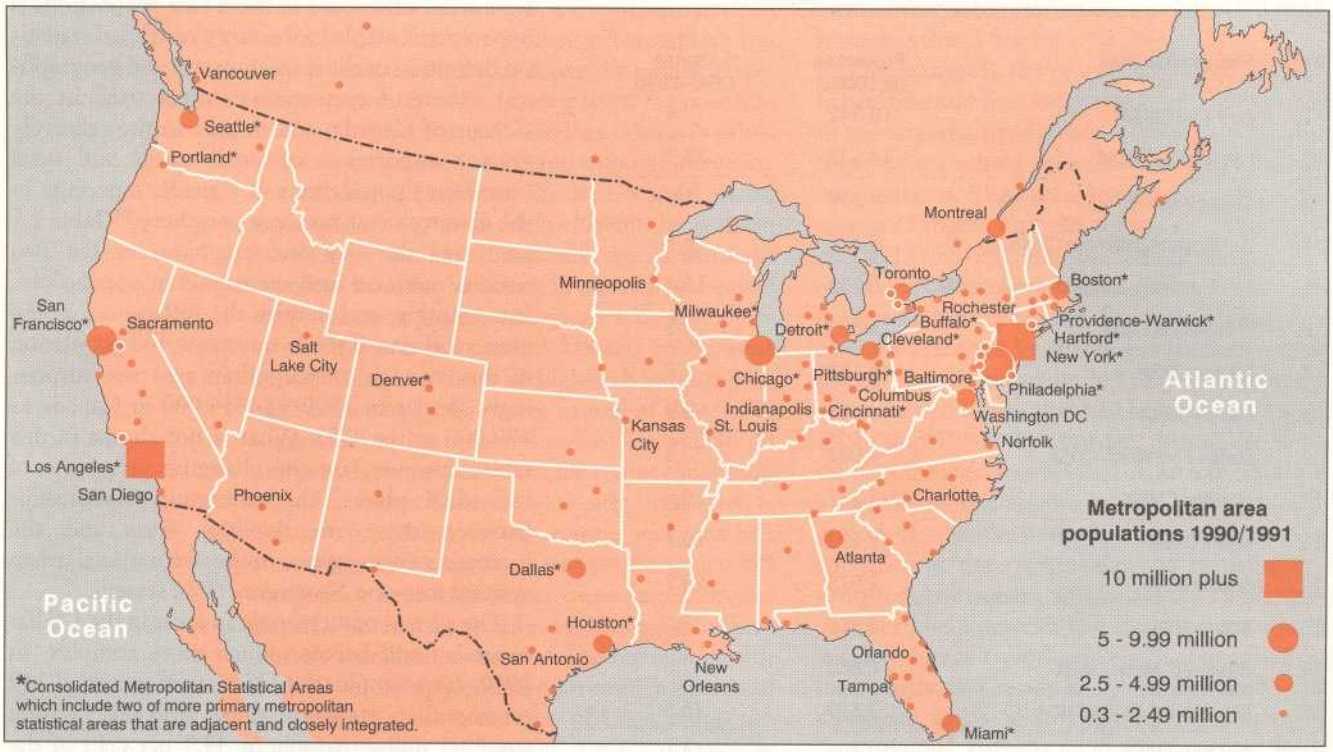
Source: US Bureau of the Census.

intended to delimit `functional regions' not land uses or built environments. Metropolitan areas in the US are defined as including all incorporated urban places with populations of at least 50,000 within the central city, representing the 'urbanized core', plus those adjacent suburban areas (counties) that are closely integrated with that core through the operation of local housing and labour markets. The total combined population of central city (central county) and suburbs should be at least 100,000 [12]. Typically, outlying areas are included within the metropolitan area if the proportion of their residents commuting to work in the central core exceeds a certain level, and if those areas meet certain other criteria of metropolitan `character' (e.g. population density). Non-metropolitan areas, on the other hand, include every other form of settlement from small cities and towns to exurban and strictly rural areas.

In 1990, over 77.5 per cent of the entire US population was classified as metropolitan. In Canada, in 1991, 61 per cent of the population lived in census metropolitan areas (CMAs). The significant difference in these two proportions is in part attributable to the more restricted statistical definition of the minimum size and geographical extent of metropolitan areas used in the Census of Canada, and in part to the relatively greater importance of small towns and rural (non-farm) populations in Canada, especially in the country's vast resource periphery.[13] Table 2.1 compares the size and attributes of the two nations' national and metropolitan populations. Interestingly, and despite the differences in the numerical size of the two systems, the population of the `average' metropolitan area was surprisingly similar in 1990/91 (654,000 in Canada to 679,000 in the US). What is not shown in this table, however, are the changing properties of individual places, the emerging relationships between these metropolitan areas and the increasing convergence of the two national urban systems into one North American system.

The system of metropolitan areas in the US has expanded and become much more complex. In 1950, for example, the US Census recorded 169 metropolitan statistical areas (MSAs), housing some 85 million people or 44.9 per cent of the national population. The US population had became predominantly metropolitan in the mid-1950s. By 1990 there were 284 metropolitan areas (some of which are defined as consolidated metropolitan areas, or CMSAs, created through the merger of several earlier and adjacent MSAs), with nearly 193 million residents, or 77.5 per cent of the total US population.[14] By 1990, just over half (50.2 per cent) of the US population resided not just in metropolitan areas but in large metropolises. Some-especially the consolidated metropolises formed by the aggregation of more than one MSA `grew' into each other and are now of immense size: the New York-New Jersey-Connecticut CMSA has 19.0 million people while the Los Angeles-Anaheim-Riverside CMSA over 14.5 million (see Table 2.2) Even some of the relative latecomers to this size category are now of global proportions: for example, the CMSA which includes the capital, Washington, DC had over 4.0 million people in 1990.[15] Map 2.1 shows the largest metropolitan areas in Canada and the United States.

The United States is also unusual in having many relatively `new' large metropolitan areas, unlike Europe, North Africa, Asia and Latin America where most of the largest metropolitan areas have long been important cities. By 1990, there were also CMSAs with between 2 and 4 million inhabitants that had not even been founded 150 years ago-including Miami, Seattle and Phoenix while Dallas-Fort Worth and Tampa were still not urban centres in 1850 and Los Angeles, Houston, San Diego and Atlanta had at most only a few thousand inhabitants. In



MAP 2.1
The largest metropolitan areas in North America, 1990-91

Notes: This map shows all the statistical metropolitan areas in the United States that had 300,000 or more inhabitants in the 1990 census-and all census metropolitan areas in Canada that had 300,000 or more inhabitants in the 1991 census. It highlights the relative concentration of the larger metropolitan regions in the northeast and southwest and the relative absence of large metropolitan areas in the mid-continent regions.

Source: Bourne L. S., 'Urban growth and population distribution in North America: A diverse and unfinished landscape', Major Report 32, Centre for Urban and Community Studies, University of Toronto, 1995, drawing on census data from the 1991 census in Canada and the 1990 census in the United States.

1850, many other 'million-cities' of the South and South-West were also very small or still to be incorporated as urban centres including Denver, Riverside, Orlando and Fort Lauderdale. The United States also has a considerable proportion of the world's fastest growing cities. Although it is common to stress the very rapid growth of large cities in Africa, Asia and Latin America, many of the US's larger metropolitan areas rank as among the world's fastest growing over the last few decades.

In Canada the historical rise in metropolitan concentration was somewhat slower, and started from a considerably lower base, as might be expected given the relatively small number of centres in the Canadian urban system (28 with over 100,000 population), the importance of the country's resource industries and the relatively low density and greater dispersion of the national population. The Canadian population became predominantly urban in the mid-1920s and predominantly metropolitan by the mid-1960s, roughly a decade later than the US. Prior to 1930, there were no metropolitan areas in Canada with over 1 million inhabitants. By the Census of 1991, however, the three largest metropolitan areas, Toronto (3.9 million), Montreal (3.2 million) and Vancouver (1.6 million), held nearly 32 per cent of the nation's population. If the more extensive metropolitan area definitions used in the US Census were applied to Canada, this level of concentration would be even higher.[16] The comparable figure for the largest three metropolitan areas in the US, as expected given the much larger number of places, was considerably lower, at 16.3 per cent. However, regardless of how they are measured, the living environments of the present generation of North Americans, and the policy problems associated with residing and working in these metropolitan environments, are very different from those of the previous generation.

Stimulated by a rapidly growing and relatively youthful population during the 1960s and 1970s, and by the reduction in real transportation costs, high levels of job creation and rising real incomes, migration flows increased and shifted direction. Certain regions and urban areas became prime destinations of those flows, and thus grew at impressively high rates. Others lost out. During the 1980s, for instance, the contribution of net migration (combining immigration and internal migration) to metropolitan population growth in the US varied widely, from a low of -8.9 per cent in Pittsburgh to +27.8 per cent in Phoenix-which helps explain why Phoenix was one of the world's most rapidly growing cities in this decade. For internal migrants only, the percentage contribu-

tions were equally varied, from -11.1 per cent for Chicago to +25.2 per cent in Tampa, but for different reasons. In comparison, rates of natural increase varied much less within the urban system. For the decade, they varied from a low of 0.3 per cent in Tampa (because this is a popular retirement centre), to 15.2 per cent in Houston. In Canada the corresponding differentials have been somewhat lower, varying in terms of rates of natural increase from 0.9 per cent in Victoria (a retirement centre) to 12.9 per cent in Calgary, and in internal migration from -9.8 per cent in Sudbury (a mining centre) to +9.4 per cent in Ottawa-Hull (the capital region). It should be noted that urban decline is seldom as rapid as growth.

Since migrants, on average, tend to be younger (excluding the elderly and retirement migrations) and better educated than non-migrants, these flows also transfer considerable wealth, market power and labour skills to the receiving regions. They also shift the locations of future generations of population growth. On the other hand, regions with high net out-migration rates tend to have lower consumption levels, lower rates of labour force participation and less potential (or demographic capacity) for future population growth. While the overall rate (or propensity) of migration has remained more-or-less constant over three decades or more, the destinations have not been constant. The net flows for any given city or region, as a result,,are notoriously unstable and difficult to predict.

The contribution of immigrant flows to the growth of metropolitan populations also deserves consideration. Immigration is highly selective in its geographical destinations and impacts, even more so than for migration within the country. Most overseas immigrants, attracted by job opportunities and following the previous migration chains established by friends and kin, have gone to relatively few regions and the larger metropolitan areas. In Canada, nearly three-quarters of all recent immigrants have settled in the three largest metropolitan areas, Toronto, Montreal and Vancouver, with over 30 per cent of the total converging on Toronto. In the US, gateway cities such as New York, Miami, Los Angeles, San Francisco, and the border cities of Texas and the South-West, have captured most of these recent flows.

This concentration has substantially influenced patterns of national population and economic growth, although the effects are numerous and difficult to measure empirically. The larger the flows the more uneven the potential impacts. These flows are also rapidly transforming the social structure and ethno-cultural character of the recipient cities. Miami, Los Angeles, Vancouver and Toronto, among others, have been transformed into complex `mosaics' of distinctive cultures, languages, races and ethnicities. In some of these cases the `new minorities' will constitute a majority of the population in the central city by the turn of the century. The resulting pressures on local and state governments to provide services appropriate to these new and diverse populations, and the associated political tensions, have increased accordingly.

In contrast, the almost complete absence of immigration to most other urban areas has added to existing levels of social and economic differentiation among the cities in both countries.[17] Moreover, indices of income inequalities between growing and declining places, and among neighbourhoods within growing cities, are deepening and new sources of social inequality appear to be arising.[18]

Periodization of urban and regional growth

The scale and complexity of the changes in the economy, demography and life-styles in recent decades, unfolding over a vast and diverse continent, defy simple generalization and easy explanation. As a result most researchers offer some kind of periodization to illustrate the principal directions and patterns of change.[19] Here, three periods are suggested covering the 1950s to the 1980s with a fourth period launched by the recession of the early 1990s that remains to be defined. The differential growth rates of metropolitan areas in the US, by city-size category and by region (Table 2.3), illustrate the complex shifts between these three periods.

The first period covering the 1950s and 1960s, that can simply be titled *metropolitan growth and concentration,* was essentially a period of modest to rapid growth almost everywhere. In most regions, populations grew based on the waves of high natural increase, high rates of household formation and increased immigration. It was also a period of rapid economic growth with expansion in the industrial sector, in services and government activities, contrasting with the absolute decline of the workforce in agriculture and the resource industries. These, in turn, were mirrored in the continued concentration of economic power, employment and population in the larger metropolitan areas. At the same time, cheap mortgages, rising incomes and an expanding highway system opened the suburbs and adjacent rural areas to millions of new households. On average, the population of metropolitan areas grew faster than non-metropolitan areas, while that in peripheral rural areas in particular declined, often dramatically.

The second period, roughly from the early 1970s to the early 1980s, introduced the latest migration turnaround. It was a period defined

TABLE 2.3 Population change by region and metropolitan size category, US, 1960-90.

Region and Metropolitan Category		1990 Size (millions)	Per cent (10-year) Change 1960-70	1970-80	1980-90
North:					
	Large Metro.	62.9	12.0	-0.9	2.8
	Other Metro.	25.6	11.1	5.2	3.3
	Non-Metro.	22.6	2.6	8.0	0.1
South:					
	Large Metro.	28.2	30.9	23.4	22.3
	Other Metro.	31.9	15.5	20.9	13.4
	Non-Metro.	24.9	1.1	16.3	4.6
West:					
	Large Metro.	33.8	29.1	20.0	24.2
	Other Metro.	10.8	24.8	32.2	22.8
	Non-Metro.	8.1	9.0	30.6	14.1
Region totalsa:					
	North	**111.0**	9.8	2.2	2.4
	South	84.9	14.2	20.1	13.3
	West	52.8	24.6	24.0	22.2
US totals:					
	Large Metro.	124.8	18.5	8.1	12.1
	Other Metro.	67.9	14.5	15:5	10.8
	Non-Metro.	56.0	2.7	14.3	3.9

Notes: [a] The North region represents the combined Northeast and Midwest census regions. Where a metropolitan area overlaps regional boundaries it has been allocated to the region containing the principal central city.

Source: Bourne, L. S., 'Urban growth and population distribution in North America: A diverse and unfinished landscape', Major Report 32, Centre for Urban and Community Studies, University of Toronto, 1995. Data from US Bureau of the Census, 1960, 1970, 1980, 1990; and Frey, W. and A. Speare, Jr. 'The revival of metropolitan growth in the US', Population and Development Review, vol. 18, no. 1, 1992, 129-46.

by national *population deconcentration and a non-metropolitan revival,* incorporating renewed growth in smaller cities and towns and selected rural areas, and relatively slower metropolitan growth. For a short period at least, and for the first time this century, the growth rate of the population in non-metropolitan America exceeded that in the metropolitan areas. Metropolitan areas as a group experienced net out-migration, again for the first time, and for some areas (e.g. New York, Detroit, Chicago) the rates became overwhelmingly negative. Some of the older metropolitan areas in the North-East and Great Lakes regions of the US, particularly those with the misfortune to have economies specialized in the wrong sectors (such as Pittsburgh and Cleveland), experienced absolute population declines.

This non-metropolitan turnaround, often described as a process of de-urbanization or counter-urbanization, was the outcome of several forces acting simultaneously. These included declining rates of natural increase, an ageing population, and slower growth (if not decline) in the older manufacturing regions, in part due to widespread economic restructuring and deindustrialization, and in part to international competition.[20] At the same time, the oil price shock and increasing resource prices in the mid-1970s favoured non-manufacturing regions, such as Texas and the mountain states (and, in Canada, Alberta), and the expansion of retirement and life-style migrations continued to Florida, California, Nevada and Arizona (and British Columbia in Canada). Most of these tended to divert population, employment growth and new investment away from the large manufacturing cities and from the US North and North-East generally, to cities and rural areas in the South and South-West.

Although this process of national population deconcentration was real, the apparent migration turnaround and rural revival were partially a function of the statistical under-estimation (or under-bounding) of the physical extent-and thus the real size-of American metropolitan areas. Many of the most rapidly growing non-metropolitan counties in the US during this period were in fact immediately adjacent to existing metropolitan areas, as defined by the Census. As such, they very likely represented a further extension of the suburbanization process into the exurban fringe and beyond, rather than a rejection of urban living and a return to rural life styles and economic pursuits. Although much of what appeared to be counterurbanization can therefore be dismissed as a definitional problem, there was (and continues to be) a significant redistribution of population and industrial growth toward new regions and some non-metropolitan areas.

In Canada, during the 1970s, growth also shifted away from the older industrial heartland to the resource-based periphery in a parallel process of national population deconcentration. Indeed, and in direct response to higher resource prices (e.g. for oil, base metals, forest products and other primary commodities), growth was highly concentrated in the two western-most provinces-British Columbia and Alberta-and especially in those cities (Calgary Edmonton and Vancouver) that serve as management and service centres for these resource sectors. Similarly, retirement migrations have stimulated localized growth in otherwise non-urbanized regions well outside the metropolitan areas.

Because few of the cities in the US South or South-West (excluding California), or in the Canadian west at this time were large, many observers .concluded that this period signalled a revival of the fortunes of smaller urban centres and metropolitan areas and the subsequent `death of the large metropolis'. This proved to be an over-statement since many middle-size urban areas have done well. Yet, it can be argued that rather than abandoning large cities, North Americans are simply building the next generation of large cities (or metropolises), and are doing so in different regions. This new generation of

cities includes those noted earlier as being among the fastest growing cities in the world: the populations of Phoenix and Orlando have increased more than ninefold since 1950 while those of Houston, San Diego and Dallas-Fort Worth have increased around fivefold. Las Vegas should be added to the list; in 1950, it had less than 200,000 inhabitants and now has more than 1 million. The closest parallel in Canada was Calgary (an oil centre), which grew from under 200,000 in 1951 to over 750,000 in 1991.

This period of national deconcentration or counter-urbanization was relatively short-lived in both countries. The 1980s brought yet another- and an even more complex-pattern of growth. This period witnessed a modest level of national *concentration and metropolitan revival,* combined with a relative reduction in the growth rate of many peripheral and resource-based regions (e.g. Texas, Alberta). During much of this decade the growth rates of the larger metropolitan areas, on average, exceeded those of smaller metropolitan areas and of non-metropolitan regions, not unlike the pattern of the 1960s (see Table 2.3). But this was not the 1960s; the determinants and patterns of growth were not the same and overall growth rates were much lower. Retirement and life style (including recreational) migration flows continued, particularly to the South and South-West.

Even some northern metropolitan areas, such as New York City and Boston, also enjoyed a moderate degree of economic resurgence after 1975, as did selected parts of the traditional manufacturing belt. Often, however (as in the case of New York), there was very little if any associated population growth. Although there was minimum growth in employment in basic manufacturing, the major engines of metropolitan growth were the service sector, particularly producer services, finance, insurance and real estate, and in some instances high-tech industry.[21] The expansion of government employment and services, and the military, also played significant roles.

In Canada during the 1980s the pendulum of urban and regional growth shifted yet again.[22] While in the 1970s over half the nation's economic growth and population growth were in two western provinces (part of the traditional resource periphery), during the 1980s over one half was located in one region-central Canada- and most of that growth took place in the greater Toronto area. Since the Toronto region is both a manufacturing and service centre, and a provincial capital, as well as the command post for many national economic and cultural industries, it benefited from most of the sectoral reversals in the rest of the country. But this combination of growth inducements in the industrial heartland was not to last.

The differential in economic growth performance between cities also increased during this period. Those cities that were more closely linked to the new service economy and to the global economic system, either as global financial centres,[23] such as New York and Los Angeles, or as leaders in particular niche industries (e.g. Seattle) or leisure markets (e.g. Las Vegas, Orlando), or as government centres (e.g. Washington DC; Austin, Texas; Ottawa-Hull), did rather well. Even some of the formerly declining metropolitan areas, as noted above, exhibited a moderate resurgence, but for quite different and varied reasons. Some of these cities rediscovered and then built on (or marketed) their own comparative advantages, for example in terms of lower housing and labour costs, less environmental pollution, reduced traffic and congestion levels, new recreation and leisure facilities, and in some instances, lower taxes. For other older cities the deindustrialization process had simply run its course; there were few traditional manufacturing jobs left to lose.

This period, in turn, appears to have been brought to an abrupt halt by the recession of the early 1990s. That recession was particularly severe in terms of corporate downsizing and employment losses, notably full-time employment. Unlike earlier recessions the impacts were relatively strongest in the service and financial sectors. What the resulting economic dynamic of the post-recession decade will produce, in terms of urban growth and population redistribution, remains to be seen. Nevertheless, it is clear that the patterns will not be the same as those of the 1980s, or of any of the earlier periods.

Urban and regional contrasts

This brief summary of the components and patterns of population growth and change in North America can capture some of the shifts in the national urban systems, but it cannot do justice to the detailed patterns and determinants of growth that vary widely from region to region and from city to city. Rapid urban growth continues but in a more complex and `punctuated' fashion, depending on the attributes of local places and regions, their position with respect to the urban system as a whole and increasingly with respect to the emerging continental and global economies. The tendency in the literature has been to characterize the urban growth patterns since 1950 in the vivid terms of polar extremes: in Canada as a polarization of heartland (or core) and periphery; and in the US as a contrast between sun-belt and frost-belt, or between the sun-and-gun (i.e. military) belt of the southern states and the northern rust-belt. These images are at times useful, but they are overly simplistic and potentially misleading. While it is true that southern regions and metropolitan

areas in the US have been growing faster on average than the rest of the country, growth has been very uneven within both regions, and is often dominated by the performance of a few large states (Florida, Texas and California). It is also interesting to note that the four poorest states in the US are all in the booming sun-belt, while three of the four richest states are in the declining North-East.[24]

The overall pattern of growth in this period could be termed `bi-coastal' (see Figure 2.1). Rapidly growing urban areas now dot both coasts from Maine to Miami on the east and from San Diego to Seattle and Vancouver on the west. The attraction here is not the coast *per se,* nor exclusively the climate (although that is obviously a positive feature) but also their position with respect to national and international urban systems. The traditional 'city-as-gateway' concept has become useful once again.

If metropolitan areas in North America are grouped according to their main economic bases, it reveals some interesting variations in population growth rates. The fastest growing urban areas in the US in the 1980s and early 1990s were typically smaller metropolitan areas whose economies were based on retirement and recreational pursuits (e.g. Ft. Pierce, Florida). The population of these communities grew by 46.9 per cent in the 1980s, compared to an average of 11.9 per cent for all metropolitan areas.[25] Most are in Florida, Arizona and Nevada. In Canada, most places similarly classified (but with lower growth rates) are in the westernmost province of British Columbia on the east coast of Vancouver Island or in the lower mainland, and in the recreational areas of southern Ontario.

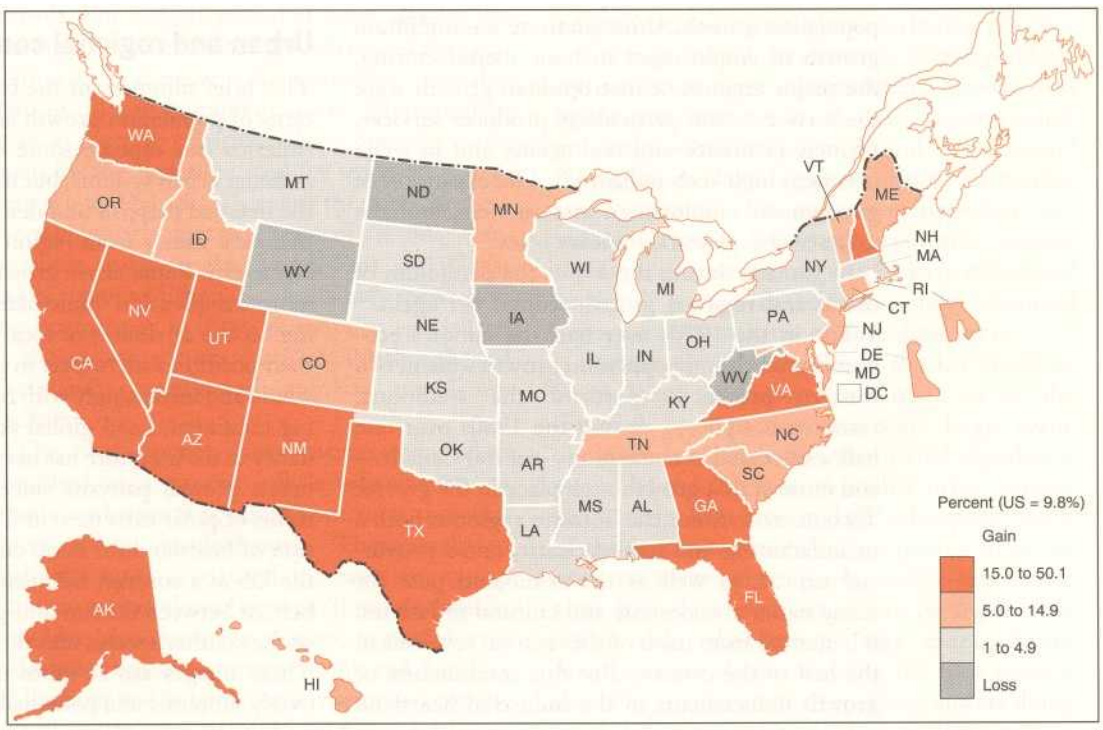
A second group, typically somewhat larger, included the finance and service centres identified above-those urban places serving as 'control and management' centres for the national economy. US metropolitan areas in this category grew by 14.5 per cent during the 1980s. Cities in a third group were involved primarily in public administration, often as national, state or provincial capitals, or as military centres (average growth rate 17.5 per cent). In contrast, manufacturing-based cities grew by only 1.5 per cent on average, and mining and resource communities declined on average by 2.0 per cent over the decade.

Canada showed similar patterns in terms of a nation-wide set of declining agricultural and resource-based communities, particularly in the east and northern regions. But without a comparable sun-belt or military complex, it showed somewhat less regional diversity in growth, but offers an even more prominent role for governments in urban and regional growth, particularly given the increasing economic and political power of the provincial governments. Of the eight fastest growing urban areas in Canada during the 1980s, five were provincial capital cities; another was the federal capital, Ottawa-Hull.[26]

Still other cities have found their fortunes as regional service centres in growing regions (e.g. Dallas, Atlanta), as military locations (e.g. San

FIGURE 2.1
Per cent change in state population within the United States, 1980-1990

Chart prepared by the US Bureau of the Census



Diego), as hosts for expanding high-tech industries (e.g. Silicon Valley in San Jose; Software Valley near Salt Lake City, Utah; Kanata near Ottawa), and as centres for specialized services in such expanding fields as research and development, education and health care. Interestingly, many of these centres owe their growth stimulus to government policies, and to other public sector activities and decisions, rather than those of the market. In North America, as in most other regions, the state continues to play an important, but often under-rated part, in shaping the urban growth process.

Looking to the future

As both Canada and the US were emerging slowly from the recession of the early 1990s, the dynamics of population and urban economic growth remain as volatile as ever. It is unclear whether trends and patterns evident in the early 1990s will continue. With slower overall population growth, the redistribution of population and economic activity will assume greater importance. Among the more recent and significant factors that will contribute to this volatility in the future are immigration, an ageing population, life style shifts, the uncertain growth in income, revisions in welfare policies, technological innovations, trade liberalization and increased global competition. Here we examine the implication of an ageing population and of immigration to illustrate the potential sources of uncertainty.

Consider first the implications of an ageing population-this will be the most marked change as the baby-boom population moves through the life cycle. The proportion over 65 years will rise from 12.5 per cent (1989) to over 21 per cent by 2010. The question is: how will this relatively large group behave as consumers and where will they live? Will they tend to remain within their present and largely metropolitan environments, or will they migrate in large numbers, perhaps to small cities and towns and to environmentally attractive regions? The combination of ageing and a slower rate of population growth overall could have serious impacts on those older metropolitan areas that attract few migrants. Some of these areas could see their populations and economic base decline rather sharply in the near future.

Immigration is likely to continue having a major impact on population and urban change-all the more so as birth rates are likely to remain low and well below replacement level. The numbers of new immigrants in the future are unknown but potentially large. Whatever the size of the flows, the impacts of immigration-at least on particular regions and places-will continue to be large and uneven. In most instances the effects on urban life and economic growth will be positive, enriching and cumulative. But in some places and for specific groups, immigration will become a source of increased social tension and political conflict over urban space, jobs and scarce public resources. In some of the major gateway cities, over one-quarter of their populations are now foreign-born and often culturally and racially distinctive. As immigration continues, many inner cities could become dominated by such distinctive migrants. In the greater Toronto region, for example, 37 per cent of the population is currently foreign-born and one half of those are `visible' minorities. By the turn of the century over 40 per cent of the population of the municipality of Metro Toronto will be classified as new minorities.

Even if we could anticipate the future components of national population increase over the next decade or two, this would tell us very little about where or how these people will live. In mobile societies such as the US and Canada, forecasts of population movements become qualitatively more complicated since they require an assessment of the combined effects on individual cities and regions of simultaneous revisions in national growth rates, demographic changes, economic restructuring, diverse life style choices about where and with whom to live, and changes in public policy (e.g. with regard to welfare, health-care, unemployment and social assistance, and taxation). Our best guesses for the 1990s and beyond must rest on a continuation, with variations, of trends evident during the 1980s and early 1990s.[27] On this basis we might expect continued growth of the coastal regions, the recipients of considerable economic investment, internal migration and immigration. In contrast, we might also expect widespread declines in the Great Lakes metropolitan regions, in parts of the industrial North-East and in the central and northern agricultural and mining interior (the Great Plains states). Yet the patterns will be much more complex than these generalizations suggest. Even within growing regions there will be decline (e.g. most of the state of Georgia outside of Atlanta-Athens and Savannah is declining), and in declining regions there will be growth (e.g. Minneapolis). In Canada, only the west coast (Vancouver, Victoria), Alberta (Calgary) and south-central Ontario (Toronto) are likely to witness significant urban population growth in the next decade.

Adding to this uncertainty are the potential impacts of heightened global competition, economic integration and further trade liberalization on urban growth and population distributions. The impacts, notably of the revised GATT Agreement (1993), the Canada-US Free Trade Agreement (FTA), signed in 1988, and its extension as the North American

Free Trade Agreement (NAFTA) to Mexico in 1993, are unclear.[28] Undoubtedly, they will in combination have differential effects by sector, by industry type, and by region, as well as among the three countries involved. As Section 2.3 describes, Mexico's urban system has also been reordered through increasing ties with the US economy. In the US and Canada, those places that will likely benefit most from NAFTA are the same cities and regions that have benefited from recent trends in national and global economies over the last two decades, notably those in the southern and western US and on the west coast of Canada. Cities with high-tech industries, or high-order service functions, as well as those with educational or health-based economies, should do well over the longer term, despite recent cutbacks in the public sector. Those with low-wage industries, as well as agricultural service centres and rust-belt manufacturing centres, will fare poorly under stiff competition from Mexico and lower-wage countries abroad. For Canada, as well as for Mexico, the effects of trade liberalization on urban and regional growth are likely to be very different, from each other and from the US, and in the case of Canada they are potentially more challenging, both economically and politically.

In both countries, as a result, the contrasts between places and regions that are winners and losers in this competition for growth will be larger and much more politically visible. Again, the challenge for policy makers is to minimize the uneven consequences of this highly differentiated urban growth.

2.3 Latin American and the Caribbean[29]

Introduction

Perhaps the three most notable aspects of population and urban change in the region since 1980 are the slower population growth (underpinned by lower fertility and in some instances by less immigration and more emigration), smaller increases in the levels of urbanization and the much slower rates of growth for many of the region's largest cities. In some countries, there were significant changes in the cities and regions where the most rapid urban growth took place. These represent important changes in long established trends since Latin America and the Caribbean have had among the world's most rapid growth rates in total and in urban populations for many decades. Prior to 1980, the region also had among the world's fastest growing large cities. It had the most rapid population growth rate of any of the world's regions for the period 1920-70[30], and during the 1970s its population growth rate was second only to Africa. By the mid-1990s, its total population was roughly the same as that of Europe[31] whereas only 70 years ago, it was less than a third that of Europe's.[32]

The changes in the rate at which countries were urbanizing and the slower rate of growth for many of the largest cities became evident in the returns from censuses held between 1989 and 1991. For most nations, these are a response to abrupt economic changes. For the region as a whole, the period 1950 to 1980 can be characterized as one of economic expansion, rapid urbanization and increasing life expectancy. In most nations, it was also characterized by strong government support for industrialization largely based on import substitution-priorities that had been initiated in the 1930s and 1940s. By contrast, during the 1980s, most countries experienced a serious and prolonged economic recession. The 1980s was also a period of considerable political change as many countries in the region returned to democratic forms of government and as the scale and nature of government expenditure, investment and intervention changed, partly as a result of democratization, partly as a result of measures linked to the economic crisis and structural adjustment. In most nations, barriers protecting national industries were lowered or removed, many state enterprises were privatized and a greater priority was given to exports.

Care must be taken not to exaggerate the scale of the changes in demographic trends. For instance, many of the largest cities or metropolitan areas had had significantly slower rates of population growth prior to the 1980s. In addition, despite the slower population growth rates, most major cities still had larger annual increases in population during the 1980s than during the 1970s.[33] The economic and political changes of the 1980s are also likely to bring more fundamental changes to the spatial distribution of population during the 1990s but the form that these will take is not yet evident-rather as the spatial implications of the earlier concentration on import-substitution and industrialization also took time to become apparent, especially its concentration of urban and industrial development in a few major cities-most of them national capitals.

Demographic change

By 1990, the region's population totalled 440 million and had doubled in size since 1960. 71.4 per cent living in urban areas, a level of urbanization similar to that of Europe. Demographic statistics for the region are much influenced by Brazil and Mexico that between them have more than half the region's total and urban population. Just eight countries have more than four-fifths of the region's total population and around 87 per cent of its urban population.[34]

Perhaps the two most significant demographic

changes in recent decades have been the much increased life expectancy (from 56 to 68 years, 1960-92) and the declining rates of natural increase evident in most countries. By 1992, Cuba and Costa Rica had among the world's highest life expectancies (75.6 and 76.0) while in many other countries, life expectancies were above 70 years of age (Uruguay, Chile, Argentina and Venezuela) while figures for Mexico and Colombia were very close to 70. Several of these countries also had among the largest increases in life expectancy between 1960 and 1992 (see Chapter 3).

Most countries also underwent what is often termed the demographic transition from high mortality and fertility to low mortality and fertility between 1950 and 1990, [35] although for some, it had begun earlier. There is considerable diversity between countries in population growth rates, that can be illustrated by contrasting three groups of nations:

- Nations with relatively low population growth rates-for instance the three nations in the Southern Cone, Cuba and two of the wealthier Caribbean nations, Jamaica and Trinidad and Tobago. But for all but Trinidad and Tobago, these are countries whose population growth rates were already below 2.0 per cent a year in the 1950s with Jamaica and Uruguay having rates of 1.5 per cent a year or less. [36]

- Nations with population growth rates of between 1.8 and 2.5 per cent a year during the 1980s that includes many of the largest and wealthiest countries such as Venezuela, Mexico, Brazil and Colombia where population growth rates have fallen steadily from the 1950s or 1960s. The 1991 census in Brazil found that the average population growth rate for the country as a whole had fallen to 1.9 per cent a year between 1980 and 1991; for Mexico, it was down to 2.0 per cent a year between 1980 and 1990.

- Nations where population growth rates remained high during the 1980s-for instance Honduras and Paraguay with rates above 3.0 per cent a year and Guatemala with 2.9 per cent a year. [37]

At least since the 1960s, total fertility rates in large cities have been lower than the national averages although fertility rates are still above replacement levels in all but Havana.[38] In general, the larger the city, the lower the fertility rate although there are some medium size cities where fertility levels are even lower than those of the largest cities in their own countries.[39] The lower fertility rates in major cities is partly explained by the fact that desired fertility is lower there and health and contraceptive advice is more readily available; it is also linked to greater participation by women in city labour markets and the fact that the education of children is more valued.[40]

Although fertility rates have generally been declining in most of the region's large cities, in some where total fertility was already low in the beginning of the 1980s-under three children per woman-there have been slight increases that are also evident at a national level. For instance, this is the case in Santiago de Chile and the postponement of births during the economic crisis, particularly between 1982 and 1985, may explain the fluctuations observed :later in the decade.[41] In addition, the rate of natural increase in major cities may be closer to other urban centres and rural areas than the differences in fertility rates suggest because of higher than average numbers of women of child-bearing age[42] and because mortality rates are also lower. Infant mortality rates are generally lower in major cities compared to national averages-although the differences between the two are often smaller than might be expected, given the concentration of wealth and health services in the major cities.[43] Women generally had lower mortality rates in large cities, compared to those in other urban centres who in turn had lower mortality rates than women in rural areas.[44]

Large cities tend to have a lower proportion of children and a higher proportion of persons of working age than the national population. The population of large cities is also ageing more rapidly than their national populations, especially in countries where fertility declines began early. For instance, in Buenos Aires and Montevideo, continued lower fertility coupled with the arrival of sizeable numbers of international migrants during the 1940s and 1950s has given rise to older age structures than those found in other large cities in the region. Already by 1980, an estimated 13 per cent of the population of Buenos Aires was over 60 years of age.[45] There are often particular neighbourhoods in cities with a population that is ageing particularly rapidly, linked both to the concentration of older people (mostly women) and movement out of these neighbourhoods by younger age groups. [46]

In many countries in the region-especially the most urbanized-the number of rural inhabitants has been decreasing while in many more, population growth rates among the rural population is very slow-less than 0.4 per cent a year. In some countries, rural populations declined-for instance in Colombia between 1985 and 1993 and in Argentina for both the 1970-80 and the 1980-91 census periods. However, in several countries, notably Paraguay, Haiti and the countries in Central America, rural population growth rates remained at between 1.3 and 2.0 per cent a year during the 1980s.[47]

National and international migration

Detailed studies of migration processes for

particular individuals, households or those in particular settlements usually reveal a complexity and diversity that is not captured in national statistics. The scale and nature of population movements and of who moves also changes, influenced by broader economic and social change. As Alan Gilbert notes:

> Better transportation, growing rural populations, more jobs in the cities and a greater awareness of the opportunities available in the cities are bound to have affected the kinds of people who move, their destinations and their motives. These interrelationships between migration and socio-economic change have become even more obvious since 1980 when severe economic problems began to hit most of Latin America's cities. [48]

Most countries in Latin America have had major changes in the regional distribution of their population. In many, this reflected changes in their economic orientation-for instance the rapid increase in the proportion of Ecuador's population in the coastal provinces as land there was developed for export agriculture and as Guayaquil, the chief commercial centre and port expanded and eventually grew larger than Quito, the national capital, located within the Sierras. In many countries, both formal and informal land colonization programmes in `frontier' areas have also changed the distribution of populations, especially those with land in the Amazon that remained relatively unpopulated in the 1950s or 1960s. The proportion of the national population in Peru, Brazil, Colombia, Ecuador and Bolivia that is within the Amazon area has grown very considerably. Such regional shifts in population were generally largest in countries with large numbers of landless people or peasant farmers with very inadequate land holdings.

Rural to urban migration has come to have a much smaller role in urban population growth as countries become more urbanized.[49] Recent studies show a decline in migration to Mexico City,[50] Rio de Janeiro[5l] and Santiago de Chile.[52] In Argentina, Chile and Peru, rural-urban migration accounts for a quarter or less of all internal migration.[53] In addition, urban to urban migration has come to have a much greater influence on population trends in many cities and has become increasingly important in reshaping urban systems in many countries. In Mexico, the growing weight of urban-urban migration has been documented along with the greater diversification of the urban system and increased migration from large to intermediate and small cities.[54] In the Dominican Republic, the proportion of migrants to Santo Domingo who originate in other urban centres has been increasing since 1970.[55] However, the removal or lowering of trade barriers that formerly protected small-scale farmers may in some countries lead to an increased importance of rural to urban migration. For instance, there are some 2.4 million small-scale maize producers in Mexico whose livelihoods will be threatened if cheap maize can enter from the United States.[56] Cuba is an exception, since 75 per cent of its internal migration still consists of rural-urban or rural-rural movements, despite its high level of urbanization. In Cuba, most rural migrants originate in scattered rural areas and move to rural areas with a higher degree of concentration or to towns. [57]

It may be that migration movements, whether by individuals or by households, have become more diverse and more complex-in response to rapid and often unpredictable economic and social change.[58] For instance, Roberts has suggested that in contemporary Latin American cities, many people cope with unstable economic and political development through moving, seeking out new opportunities, at times returning to their original homes, at times shifting more or less permanently their base.[59]

There is often a preponderance of women in net migration flows to large cities[60]-although another reason for imbalanced sex ratios in some cities is the increasing proportion of people in older age groups in which women predominate. Men move in much greater numbers to mining towns and major new industrial cities where most available work is only open to men but women dominate migration flows to most large cities because of job opportunities there in domestic service, office cleaning, shop work, street selling and prostitution.[61] For instance, in Bogotá, there has been an increasing number of female migrants and by 1993, there were 93 males for each 100 females living in the city.[62] Social change and widespread poverty in rural areas have meant a disproportionate number of young women seeking employment in large cities, notably in domestic service but also in other services as well as manufacturing; since the late 1960s, the cut-flower export industry has been growing considerably in importance as a source of employment for young female labour, particularly in the municipalities close to Bogotá.[63] Many aspects of women's migration are distinct from men's migration but only recently has much attention been given to these aspects; as a recent review noted, the patterns of selectivity and rationality underlying gender-differentiated migration require more attention.[64]

For cities that attract fewer migrants, so natural increase comes to have a greater importance in city population growth, even if the rate of natural increase is relatively low compared to recent decades. For instance, Buenos Aires grew during most of this century mainly from internal and international migration but during the last two decades, natural increase has accounted for two-thirds of population growth.[65] Like many other

cities in the region, Buenos Aires attracts fewer internal and international migrants and former migrants are moving from Buenos Aires to their places of origin or to other urban destinations and a growing number of native city residents have been moving to other parts of Argentina.[66]

International migration has always had an important role in population and urban change within many countries in Latin America and the Caribbean. The large flows of international migrants that converged on the region during the nineteenth and twentieth centuries are an important influence on population concentration between countries-and within countries since immigrants tended to settle in the larger cities. Immigrants attracted to the booming economies of Argentina, Uruguay and Southern Brazil in the late nineteenth and early twentieth century help explain the very rapid growth of many cities at that time although immigration became less important than rural to urban migration from around 1940.[67] Only eight countries received 95 per cent of the overseas migration that reached Latin America since the early nineteenth century and among them, seven are today among the most highly urbanized.[68] Among the largest countries, only Mexico and Peru received relatively few immigrants and in these countries it was the rural-urban migration of the indigenous population that underpinned urbanization.[69]

In recent decades, emigration has been on a scale to have significantly lowered population growth rates for particular countries for particular periods-often coinciding with military repression, civil strife and/or economic slump. El Salvador and Haiti had very low rates of population growth during the 1980s as a result of net international emigration and high mortality.[70] International emigration has also lowered population growth rates in Montevideo and Buenos Aires.[71]

TABLE 2.4 Per capita GDP in 1992 and annual average changes in per capita GDP for the 1970s, 1980s and early 1990s (1988 US dollars)

Country	GDP per capita (1992)	Annual average change in per capita GDP		
		1970-79	1980-80	1990-92
Caribbean				
Cuba				
Dominican Republic	694	4.3	-0.5	1.3
Haiti	218	3.0	-2.9	-8.9
Jamaica	1,457	-2.9	0.9	-1.1
Trinidad &Tobago	4,188	4.4	-4.2	0.6
Central America				
Costa Rica	1,757	2.6	-0.6	2.0
El Salvador	1,102	0.2	-1.8	2.0
Guatemala	928	2.8	-2.0	1.0
Honduras	763	2.2	-1.0	0.4
Mexico	2,317	3.7	-0.7	1.0
Nicaragua	512	-3.2	-4.4	-2.7
Panama	2,257	2.2	-1.5	6.5
South America				
Bolivia	886	1.3	-2.5	1.5
Brazil	2,151	6.3	-0.7	-1.8
Colombia	1,490	3.3	1.5	1.2
Ecuador	1,298	5.6	-0.9	1.7
Paraguay	1,528	5.5	-0.0	-0.9
Peru	1,295	0.8	-3.3	-1.7
Venezuela	3,892	0.7	-1.8	6.9
Southern cone				
Argentina	4,327	0.9	-2.2	7.6
Chile	2,862	1.0	0.9	6.5
Uruguay	3,037	2.6	-0.3	4.5
Latin America	2,192	3.3	-1.1	1.4

Source: Inter-American Development Bank, Economic and Social Progress in Latin America: 1993 report, Johns Hopkins University Press, Washington DC, 1993.

Economic and spatial change

The economic and spatial changes during the 1980s represent a considerable break from prevailing trends in previous decades. Most countries in Latin America sustained an impressive economic performance for most of the period between 1945 and 1980.[72] For the region, per capita income grew at an annual average of 2.7 per cent during these 35 years, far above the historic rate. Manufacturing increased its share of GDP from 14 per cent in 1930 to 25 per cent in 1980 and imports share of GDP fell from 20 to 15 per cent in this same period.[73] Table 2.4 shows the dramatic contrast between economic performance in the 1970s compared to the 1980s. During the 1970s, only in Jamaica and in Nicaragua was there a decline in per capita income and in the case of Nicaragua, this was linked to the civil war that raged there for most of the decade. In many countries, the growth in per capita income was very rapid-especially in Brazil but also, among the other large population countries, in Mexico, Colombia and Ecuador. For most of these countries, this economic expansion built on a comparable or even higher economic expansion during the 1960s.

During the 1980s, only three countries listed within Table 2.4 (Jamaica, Colombia and Chile) avoided a decline in per capita income and their growth rates were very low in comparison to those achieved by most countries in the 1970s.[74] For many countries, there was a rapid decline and for several countries, their per capita income was 20 to 30 per cent lower in 1989 than it had been a decade earlier. The economic recession brought declines in income for those working in formal and informal sector enterprises (see Box 2.1) and a rapid growth in levels of unemployment. Social spending was also greatly reduced in most countries.[75]

The core of the industrial growth for most of the region since the 1930s had been import substitution industries that had usually been helped by large scale government support and protective barriers. There had been a strong

economic rationale for import substitution from the 1930s, with the depression in Europe and North America both before and after World War II cutting export markets and with the war itself disrupting the possibilities of importing manufactured goods.[76] But from the 1960s onwards, a concentration on import-substitution meant that the region missed the opportunity to take part in the rapid expansion in international trade. High levels of inequality within most Latin American societies limited the expansion of the internal consumer market. During the 1980s, many industries developed on the basis of import-substitution declined or closed as local consumer markets shrunk with the recession and as protective barriers were removed and imports grew.

BOX 2.1

Declining incomes in Latin America during the 1980s

As the result of the recession, incomes have declined in both formal and informal activities. Between 1980 and 1991, real manufacturing wages fell by 23 per cent in Mexico and Argentina and average manual earnings fell by as much as 61 per cent in Lima. The value of the minimum wage fell even more dramatically: between 1980 and 1991 it fell 38 per cent in Brazilian cities, 53 per cent in urban Venezuela, 57 per cent in Mexico City and 83 per cent in Lima.

Incomes in informal sector work also fell in many countries; for instance during the 1980s, there was a rapid growth in the number of people working in the informal sector and income declines of between 24 and 39 percent in the informal sector in Costa Rica, Brazil, Argentina, and Peru.[77] Many of those working in informal occupations lost their income sources. In Mexico, the proportion of self-employed workers and family members working with remuneration increased from 16 to 21 per cent of the economically active population.[78]

Source: Gilbert, Alan, The Latin American City, Latin American Bureau, London, 1994.

In some countries, there was also a rapid shift in the orientation of the economies from industrialization based on import substitution to outward looking growth and from broad ranging state intervention to much greater reliance on market forces.[79] These changes brought major spatial changes. For instance, in Mexico City, the country's dominant centre for import substitution industries, 250,000 industrial jobs were lost as 6,000 companies closed down[80] while several of Mexico's cities on or close to the border with the United States grew rapidly because of the increase in employment linked to export production. Many other important centres of industrial production such as Buenos Aires (Argentina), Medellin (Colombia) and Monterrey (Mexico) also lost large numbers of manufacturing jobs.[81] Meanwhile, the concentration on exports stimulated population growth in many urban centres that served export processing zones, zones with agricultural exports (especially those such as fruit with high value) and areas where fishing and forestry production were increased; in many countries, there was also rapid population growth among- the more successful tourist centres.[82] There was a rapid growth in export processing zones in many countries, most of them located away from national capitals.[83]

Changes in employment

The economic crisis during the 1980s brought several important changes in the scale and nature of urban employment. One was the loss of industrial jobs noted above. Another was a cut in public employees or a cut in their real wages. In many countries, government budgets fell rapidly; for instance, in Mexico, the federal budget fell from 34 per cent of GDP to 20 per cent.[84] This also meant a large loss of jobs, given that around a fifth of all jobs in the region were in the public sector.[85] The recession during the 1980s also meant lower investment and dwindling resources in public works[86] which also meant fewer jobs.

Another notable change was the increasing proportion of the labour force working in services, although it is difficult to separate the influence of the economic crisis from long term economic trends that were already increasing the proportion of people working in services. For the region as a whole, by 1990, 48 per cent of the economically active population worked in services (including transport and commerce) compared to 26 per cent in 1950.[87] In 1990, 26 per cent of the region's population worked in industry-the same proportion as in 1980.[88] In most cities, commerce and services provide most jobs with industry rarely contributing more than 30 per cent.[89] In Argentina, industrial jobs had represented 37 per cent of all urban employment in 1974 but this fell to 24 per cent in 1991 with the proportion working in services rising from 44 to 54 per cent. By 1990, only 26 per cent worked in agriculture compared to 55 per cent in 1950.[90]

Two other changes were of particular importance to urban economies because they brought decreases in consumer demand. The first was the scale of open unemployment that grew steadily and in countries where it stabilized, it was at much higher levels than in previous decades.[91] The second was the increasing proportion of the workforce working in what is termed the 'informal sector' in most countries and this probably represents a change in a long-established historic trend towards increased proportions of the workforce working in formal sector enterprises.[92] Although many informal sector enterprises can generate incomes for those working in them that

TABLE 2.5 Latin America: total and urban populations for 1990 and urban change since 1950

Country in	Total popn 1990 ('000s)	Urban popn 1990 ('000s)	% urban 1950	% urban 1990	Change urban 1950-90
Caribbean					
Cuba	10,598	7,801	49.4	73.6	24.2
Dominican Republic	7,110	4,293	23.7	60.4	36.7
Haiti	6,486	1,855	12.2	28.6	16.4
Jamaica	2,366	1,217	26.8	51.5	24.7
Puerto Rico	3,531	2,518	40.6	71.3	30.7
Trinidad & Tobago	1,236	854	63.9	69.1	5.2
Central America					
Costa Rica	3,035	1,429	33.5	47.1	13.6
El Salvador	5,172	2,269	36.5	43.9	7.4
Guatemala	9,197	3,628	29.5	39.4	9.9
Honduras	4,879	1,985	17.6	40.7	23.1
Mexico	84,511	61,335	42.7	72.6	29.9
Nicaragua	3,676	2,197	34.9	59.8	24.9
Panama	2,398	1,240	35.8	51.7	15.9
South America					
Argentina	32,547	28,158	65.3	86.5	21.2
Bolivia	6,573	3,665	37.8	55.8	18.0
Brazil	148,477	110,789	36.0	74.6	38.7
Chile	13,154	10,954	58.4	83.3	24.9
Colombia	32,300	22,604	37.1	70.0	32.9
Ecuador	10,264	5,625	28.3	54.8	26.5
Paraguay	4,317	2,109	34.6	48.9	14.3
Peru	21,588	15,068	35.5	69.8	34.3
Uruguay	3,094	2,751	78.0	88.9	10.9
Venezuela	19,502	17,636	53.2	90.4	37.2
Latin America and the Caribbean	439,716	314,161	41.6	71.4	29.8

Source: United Nations, World Urbanization Prospects: the 1994 Revision, Population Division, New York, 1995.

are comparable to or higher than in the formal sector, work in the informal economy is generally less stable and it also seems as if most of the growth in the informal economy was in what might be termed the `survival informal sector' where incomes are very low.

There was also evidence of an increase in the proportion of people who are working less hours than they wished-what is sometimes called visible underemployment.[93] There was also a rapid growth in the number of people with incomes below national poverty lines (see Chapter 3 for more details). It is important to recall that a large proportion of those with below poverty line incomes are fully employed.

There is also evidence of a trend towards a loss of security and continuity in many jobs and also a decline in the proportion of the workforce with social security.[94] This was not only through an increasing proportion of the labour force working in the informal economy but also through ways in which formal sector enterprises can employ people on a temporary basis or in other ways to keep down wages or social security costs-for instance through part time jobs, the use of job-agencies for temporary workers, the use of home-workers or simply employing but not registering workers.[95] Although there are no precise figures as to its scale, it is linked to the restructuring of enterprises that seek to remain competitive as national markets are opened up to international competition and to the weaker position of trade unions.

There is also a long term trend towards increased participation by women and decreased participation by men in the labour force. Between 1960 and 1985, female participation in the labour force increased in 21 out of 25 countries considered with male participation rates falling in all countries; among the reasons for lower male participation rates are expanding schools and an increased number of people with pensions.[96] In Argentina, the proportion of the labour force that was female grew from 32 to 36 per cent between 1980 and 1990 while the proportion in services grew from 55 to 60 per cent.[97] The contribution by women to the family's cash income also rose from 31 per cent in 1980 to 36 per cent in 1991.

Urban change

The region as a whole went from being predominantly rural to predominantly urban between 1950 and 1990 and also with a relatively high concentration of national and urban population in 'million-cities'. One measure of the scale of urbanization and its concentration in large cities is that by 1990, there were more people living in `million-cities' in the region than living in rural areas.[98] By 1990, most countries with more than a million inhabitants had more than half their population in urban areas.

Table 2.5 includes the proportion of the population living in urban centres in 1950 and 1990 for all nations that had 1 million or more inhabitants in 1990. Many of these countries went from being predominantly rural to predominantly urban in these four decades. The scale of this transformation is particularly notable in Dominican Republic, Puerto Rico, Mexico, Brazil, Colombia, Peru and Venezuela. The scale of economic growth explains some of this; Brazil, Mexico, Dominican Republic and Colombia had among the region's most rapid economic growth and growth in manufacturing output.

Brazil's rapid economic growth and rapid urbanization also meant that its urban population came to have increasing weight within the region's urban population. In 1950, Brazil had 28 per cent of the region's urban population-little more than the three Southern Cone countries of Argentina, Chile and Uruguay with 24 per cent. Of the 'million-cities' in the region in 1950, the Southern Cone countries had three (one each, in their capitals) and Brazil two (Sao Paulo and Rio de Janeiro). By 1990, Brazil had 35 per cent of the

region's urban population and twelve of its thirty-six 'million-cities'; the Southern Cone had just 13 per cent of the region's urban population and five of its million cities.

Table 2.5 also highlights the variety in the levels of urbanization between countries. Although the accuracy of comparisons between countries in their levels of urbanization are always limited by the differences in the criteria used to define urban centres, it is possible to identify three groups of nations.[99] The first, the most urbanized with more than 80 per cent of their population in urban areas includes the three nations in the Southern Cone and Venezuela. The second with between 50 and 80 per cent in urban areas includes most of the countries that had rapid urban and industrial development during the period 1950-90-Dominican Republic, Mexico, Brazil, Ecuador and Colombia-and also Cuba (that was already one of the most urbanized nations in the region in 1950), Bolivia, Peru and Nicaragua and Jamaica and Trinidad and Tobago. The third with less than 50 per cent of the population in urban areas includes only one in South America (Paraguay) and one in the Caribbean (Haiti) along with a group of countries in Central America (Costa Rica, El Salvador, Guatemala and Honduras); all are among the less populous countries in the region (all had less than 10 million inhabitants in 1990).

Care must be taken in making inter-country comparisons since what appears as a comparable level of urbanization may have behind it very different demographic dynamics.[100] For instance, the level of urbanization in Uruguay and Venezuela has converged but Venezuela has a much higher rate of population growth and of urban growth during the 1980s. As Lattes has noted, `the exact path that a country follows towards high urbanization depends on the historical and structural processes that condition its demographic evolution.[101] This can be illustrated by the factors that explain why the Southern Cone of Latin America has long had among the highest levels of urbanization.[102] The three countries in this region (Argentina, Chile and Uruguay) have among the highest proportion of their populations living in large cities of any of the world's regions; as a region, it has a higher proportion of its inhabitants in cities of 100,000 plus and one million plus inhabitants than East Europe, West Europe or North America. The three nations in the southern cone did not have rapid increases in their level of urbanization between 1950 and 1990; the proportion of Uruguay's population living in urban areas only grew from 78 to 89 per cent in these 40 years. But these three nations are unusual in that they have long been among the most urbanized nations in the world. In addition, they had among the slowest growing economies and slowest growth in manufacturing output in Latin America, at least since the 1960s. Argentina and Chile also had a decrease in the proportion of their labour forces working in industry. The reasons for the high concentration of population in cities with one million plus inhabitants are rooted in their economic and demographic histories. These countries' populations were largely built up from rapid immigration from Europe in the late nineteenth and early twentieth centuries-but where landowning structures ensured little opportunity for the immigrants to acquire farmland. Most immigrants settled in the more prosperous cities.

Major cities

The scale of this region's urban population and its population in large cities has grown very rapidly. In 1900, it had less than 15 million urban inhabitants and no 'million-cities' although Rio de Janeiro had close to a million. By 1990, it had more than 300 million urban inhabitants, and 36 million-cities', including three with more than 10 million (and one other, Rio de Janeiro, with close to 10 million)-see Map 2.2. The relative importance of its major cities within the world had also increased very considerably. In 1900, only two cities in the region were within the world's largest twenty cities (Rio de Janeiro and Buenos Aires) while only another two were within the largest fifty cities. By 1990, the region had two of the world's five largest cities (Sao Paulo and Mexico City), two more within the largest twenty cities (Rio de Janeiro and Buenos Aires) and, in total, eight of the world's fifty largest cities.

But despite the fact that the region's urban population increased more than twentyfold between 1900 and 1990, most of the major urban centres today were founded in the sixteenth century by the Spanish and Portuguese with some such as Mexico City, Cusco and Quito being much older pre-Columbian cities.[103] In addition, the most urbanized countries in 1950 are generally still the most urbanized countries while the least urbanized countries have remained as such.[104] What has changed is not so much the list of the region's most important cities but the relative size of these cities and the concentration of population in large cities. In 1990, some 29 per cent of the region's population lived in cities with one or more million inhabitants.

In reviewing changes in cities' relative size (in terms of number of inhabitants) and economic or political importance, not unsurprisingly, Sao Paulo has come to be the largest, reflecting its dominant economic role within the region's largest economy—although Sao Paulo was already one of the region's most important urban centres in 1900. Mexico City is the second largest, reflecting its dominant economic and

MAP 2.2
The largest urban centres in Latin America and the Caribbean in 1990

Source and Notes: This map shows all urban centres which were recorded as having 750,000 or more inhabitants in 1990 in United Nations, World Urbanization Prospects: The 1994 Revision, Population Division, Department of Economic and Social Information and Policy Analysis, New York, 1995 with additional cities added or reclassified when more recent census data were available.

political role in the region's second largest economy. [105] Buenos Aires and Rio de Janeiro remain among the region's largest cities, although both have experienced some loss in their relative importance. Buenos Aires was the economic and political centre of Latin America's most prosperous economy in 1900. In this same year, Rio de Janeiro had been the economic and political centre of Brazil but it lost its role as political capital to Brasilia in the 1950s and Sao Paulo became the dominant economic centre. Most of the other major cities that rose up the list of the region's cities, if ordered by their population in 1990, were cities in the Southeast of Brazil where most of the rapid industrial development was concentrated: Belo Horizonte, Porto Alegre,

Curitiba and Campinas although Goiania and Brasilia (both new cities) in the centre and Manaus in Amazonia also grew to become among the region's largest cities. Brazil was also unusual in having so many of its largest cities that had not been important under colonial rule-for instance, Brasilia was only created,in 1958 while Porto Alegre was only a small unimportant town in 1800. Belo Horizonte was created as a new city at the end of the nineteenth century while neither Fortaleza nor Curitiba were important towns before becoming state capitals in the nineteenth century. In some ways, this reordering of the urban system and the fact that many major cities today were relatively small and unimportant 100 years ago is more comparable to the United States than to other countries within the region.

In Mexico, the second and third largest cities, Guadalajara and Monterrey, also grew in importance-again reflecting the fact that Mexico is the region's second most populous country and sec-

BOX 2.2

The growing importance of Mexico's border with the United States

The distribution of population and of urban population in Mexico has been significantly changed by the economic interaction between settlements in its North and the United States. The increasing population concentration in the North of Mexico is strongly associated with the development of the maquila industries there. This increase in population was strongly concentrated close to the border; the population in the 36 municipalities that adjoin the United States grew fourteenfold between 1930 and 1990 from 0.28 million inhabitants in 1930 to 2.9 million by 1980 and close to 4 million by 1990.[106] These industries originated in the mid 1960s when the government of Mexico began a programme to promote industrial development in the border area.[107] This permitted Mexican and foreign owned factories within the border area to import machinery, materials and components without paying tariffs as long as the goods produced were re-exported. Most of the maquila industries that developed were owned by US companies and they could also take advantage of US tariff regulations. In 1967, there were less than 100 plants with around 4,000 workers; by the early 1990s, there were 2,000 employing more than half a million people. The devaluation of the Mexican currency against the US dollar in the 1980s also boosted industrial and agricultural exports.[108] Since the early 1970s, maquila industries have been allowed to set up in the interior and since 1989 to sell products in the domestic market. During the 1980s, some cities away from the frontier were attracting major investments-for instance new motor vehicle export plants were set up in Chihuahua, Hermosillo and Saltillo.[109] Table 2.6 lists the border towns that to date have attracted most maquila industries and the 'twin city' in the United States to which they are connected. Of these, Ciudad Juarez and Tijuana concentrated most maquila industries in 1990.

TABLE 2.6 The urban centres with the most maquila employment and their'twin cities'

	Population			Compound Growth Rates						
Urban Centre	c.1900	1950	1990	1900-30	30-50	50-60	60-70	70-80	80-90	Partner Cities in USA
Ciudad Juarez	8.2	124.0	807.0	5.4	5.9	7.8	5.3	2.2	4.0	El Paso
Tijuana	0.2	60.0	755.0	12.6	10.3	9.8	8.3	2.4	5.8	San Diego
Nuevo Laredo	6.5	57.7		4.1	5.0	4.9	5.1	2.8		Laredo (and to San Antonio, Houston)
Reynosa	1.9	34.1	296.0	3.1	10.3	8.1	6.6	3.3	4.3	McAllen
Matamoros	8.3	45.8	319.0	0.5	8.1	7.3	4.3	3.0	5.4	Brownsville
Mexicali	0.0	65.7	637.0		7.7	10.6	4.4	2.1	6.4	Calexico
Nogales										Nogales (and up to Tucson and Phoenix)

Source: IIED and TIED-America Latina, Poblacion y Cambio Urbano en America Latina y el Caribe, 1850-1989, Anexo Estadistico, London and Buenos Aires, 1991, and more recent census data

It is worth recalling that it was not only the North of Mexico that was relatively poor and unurbanized before the maquila programme but so too was most of the border area in the United States; governments in both countries had neglected these areas.[110] With the exception of San Diego, some of the poorest US communities are on the US-Mexico border.[111] Before the maquila programme began, there was little industry in urban centres on either side of the border, although there had already been some economic developments in the North of Mexico associated with the United States from earlier in the century. For instance, Tijuana that in 1900 had only had 242 inhabitants grew rapidly during the 1920s from recreation and tourism during the prohibition period in the United States (when the fabrication and sale of alcoholic drinks was banned in the US). Tijuana has developed into an important metropolitan centre and may now have more than 1 million inhabitants. Mexicali which did not exist as an urban centre in 1900 received a considerable economic stimulus from the development of a large scale irrigation district during the 1940s and 1950s to respond to the demand for cotton during World War II and later conflicts such as the Korean War.[112] But by 1960, it still had only 174,500 inhabitants; by 1990 it had 637,000. Ciudad Juarez that had 8,200 inhabitants in 1900 and 124,000 in 1950 has also developed into an important metropolitan centre with around 1 million inhabitants.

ond largest economy. But in Mexico too, there has been a reordering of the urban system that is more recent than in Brazil but this too is creating major new cities away from the cities that are long-established centres of economic and political power-see Box 2.2.

Virtually all the cities in Latin America with a million or more inhabitants had much slower population growth rates during the 1980s than the average for the period 1950-90 and compared to the 1970s. Many had annual average population growth rates below 2 per cent a year during the 1980s including Mexico City, Buenos Aires, Sao Paulo and Rio de Janeiro; also, among the smaller metropolitan areas, Recife, Havana, Medellin, Cordoba, Rosario and Montevideo. The major cities in the Southern Cone had among the slowest rates of population increase during these four decades-a combination of low rates of natural increase for their populations and, generally, of slower economic growth. Montevideo had been the fifth largest city in the region in 1950; by 1990, it was no longer among the largest 20. Buenos Aires, Cordoba and Rosario in Argentina also grew relatively slowly in comparison to most other major cities.

Table 2.7 shows the proportion of the national population concentrated in four countries' capital cities (or, for Brazil, its two largest metropolitan areas) over time. It shows how Buenos Aires already had a fifth of Argentina's national population in 1895 and an increasing concentration up to 1970 with a decline since 1980. For Mexico City, the concentration of national population there was never on the same scale as in Argentina, but up to 1980, this concentration increased and has decreased since then. In Brazil, the concentration of national population within its wealthiest and largest metropolitan area, Sao Paulo, grew rapidly up to 1980 and declined between 1980 and 1991. For Rio de Janeiro, the decline began in the 1970s-although this was much influenced by the movement of the Federal Capital from Rio de Janeiro to Brasilia in 1960.

TABLE 2.7 Changes in the concentration of national populations in capital cities (or in Brazil, the largest two cities)

Per cent of national population in								
	1895	1914	1947	1960	1970	1980	1991	
Buenos Aires	20.6	26.9	30.1	34.4	36.0	36.0	34.5	
	1900	1930	1940	1950	1960	1970	1980	1990
Mexico City	3.0	6.3	7.9	11.1	15.5	17.5	20.0	18.5
	1905	1918	1938	1951	1964	1973	1985	1993
Bogota	2.7	2.8	4.2	5.8	9.7	12.8	14.7	18.4
	1900	1920	1940	1950	1960	1970	1980	1991
Sao Paulo	0.3	0.3	0.6	5.0	6.6	8.8	10.6	10.5
Rio de Janerio	5.5	4.7	5.6	6.3	7.2	7.7	7.4	6.5

Source: IIED and IIED-America Latina, Poblacion y Cambio Urbano en America Latina y el Caribe, 1850-1989; Anexo Estadistico, London and Buenos Aires, 1991, and more recent census data.

In this table, Bogotá presents a completely different picture from the others since the concentration of Colombia's population in Bogotá increased very considerably between 1985 and 1993.[113] It is also interesting in that Colombia has long been noted as a country in which no one city is dominant with Medellin, Cali and Baranquilla all being cities which, although smaller than Bogotá, were of a comparable scale, at least up until 1973. However, since 1964, Bogotá's intercensus population growth rate has been higher than all three of these other cities with the differential particularly high for the period 1985-1993 when Bogotá's population grew at 5.1 per cent a year while the other three had average population growth rates of between 2.0 and 2.8 per cent a year.[114] Among other countries, the primacy of Santo Domingo within the Dominican Republic was also reported to increase during the 1980s.[115]

Decentralizing populations from metropolitan areas to core regions

One important urban trend which has recently become better understood is the heavy concentration of productive activities and of urban populations in a few `core regions' which contain the largest cities or metropolitan areas but which cover a larger area than these. One of the most prominent examples of this was described in Chapter 1: the region in Brazil which centres on Sao Paulo metropolitan area and its surrounding belt but which also stretches to Belo Horizonte and Rio de Janeiro to its north and to Curitiba and Porto Alegre to the south. Two other important core regions are the La Plata-Buenos Aires-Campana Zarate-San Nicholas-Rosario-San Lorenzo region in Argentina and Mexico City-Toluca-Cuernavaca-Puebla-Queretaro in Mexico. While historically, the trend in most cities has been for much of the new (or expanding) industry to be within or close to the city's core area, in recent years or decades, industrial and commercial employment in many large cities has grown more rapidly outside the inner cities. There are examples both of central cities growing more slowly than suburban rings (or even losing population), of outer suburbs and `commuting towns' growing more rapidly than inner suburbs and central cities-and finally of cities beyond the commuting range of the largest centres sustaining population growth rates higher than the metropolitan areas, a process termed polarization reversal.[116] For instance, in Buenos Aires, the central city (the Federal District) lost population between 1970 and 1980 while the population in the counties within the Greater Buenos Aires Metropolitan Area but outside the Federal District had a total

BOX 2.3

The spatial expansion of Mexico City

The spatial expansion of Mexico City can best be understood by considering its growth over time in relation to four boundaries:

-the central city (four delegations) with an area of 139 square kilometres;
-the Federal District (with 16 delegations, including the four central ones) with an area of 1,489 square kilometres;
-the Mexico City Metropolitan Area which combines the Federal District and 27 municipalities beyond the Federal District's boundaries in the State of Mexico-with an area of 4,636 square kilometres;
-the polynucleated metropolitan region (or megalopolis) that combines the metropolitan areas of Mexico City, Toluca, Cuernavaca and Puebla with an area of 8,163 square kilometres.

Based on these boundaries, the spatial expansion of Mexico City since 1900 can be considered in four stages:

1. **The growth of the central nucleus, 1900-30. The population grew from 345,000 to one million in this period with all this growth within what is termed the Federal District and 98 per cent of it in the central city.**
2. **Expansion of the periphery, 1930-50. The population grew from one million to 2.2 million; the central city's share in the total population fell from 98 to 71 per cent with all urban growth still within the Federal District. The population in the central city still grew but the population in the seven delegations around these (but still within the Federal District) grew more rapidly. The central city's share of the population declined from 98 per cent in 1930 to 71 per cent in 1950. This second stage marked the beginning of the decentralization of commerce, services and population towards what were then the peripheral delegations. Although this expansion took place only within the Federal District, by 1950, its northern boundaries had reached the neighbouring State of Mexico.**
3. **The metropolitan dynamic stage; 1950-80. The population grew from 3.1 to 14.4 million during these 30 years. During the 1950s, the urbanized area spilled beyond the northern limits of the Federal District, with very rapid population growth rates recorded by the three municipalities in the State of Mexico into which this occurred but with a population growth rate of only 2.4 per cent a year in the central district. During the 1960s, seven new municipalities were added to the metropolitan area and these recorded an annual average population growth rate of 14.4 per cent during this period. During the 1970s, another eight municipalities were added so that by 1980, the Mexico City Metropolitan Area was composed of all 16 delegacions in the Federal District and 21 municipalities in the State of Mexico; by 1990, there were 27 municipalities. In 1950, the central city had 71.7 per cent of the population; by 1980 it had 18.6 per cent.**
4. **The emerging megalopolis. During the 1980s, there has been a rapid expansion of the urbanized area through the suburbanization of extensive areas and the rapid integration of previously isolated urban communities. This process had meant the emergence of a polycentric metropolitan region as different metropolitan areas fuse or overlap. By 1980, the metropolitan areas of Mexico City and Toluca had overlapped while by 1990, this was also the case with the metropolitan areas of Toluca, Puebla and Cuernavaca.[117] The population of Mexico City Metropolitan Area was 15.0 million by 1990 with the total population of this wider 'megalopolis' of 18 million.**

Source: Garza, Gustavo, 'Dynamics of Mexican Urbanization', Background paper for the UN Global Report on Human Settlements 1996.

population increase of 30 per cent.[118] Perhaps more significantly in the long term, Greater Buenos Aires did not increase its share of the national population during the 1970s and lost 1.5 per cent of its share during the 1980s.

Box 2.3 describes the spatial expansion of Mexico City. This illustrates the development of a metropolitan area and then of a wider core region with more than one metropolitan centre. The 1990 census figures certainly showed that the population in the metropolitan area was much smaller than that predicted by most people. With only 15.1 million people in 1990, it cannot possibly grow to 31 million inhabitants by the year 2000 as predicted by many in the 1970s[119] or even to 25 million as predicted in the 1980s; it will probably be substantially less than 2 0 million, and may only be 17 million or so. Although still one of the world's most populous metropolitan areas, none the less this is still little more than half the 31 million inhabitant projection that has been so widely used in the literature in discussions about 'exploding cities'. However, as Box 2.3 shows, the population within the wider urban agglomeration is significantly larger and this may come to have 25-30 million inhabitants within the next few decades, although over a much larger territory than the metropolitan area itself.

Bogotá reveals another pattern. A growing number of manufacturing establishments have developed around Bogotá since the 1950s, particularly in a region within 250 square kilometres of the city, but the growth of such establishments has generally been much slower than in the capital city.[120] Bogotá's core has not experienced the regional dispersal of manufacturing industries; indeed, there has been a trend for manufacturing employment within the larger region to concentrate no further than 50 km from Bogotá-although the dispersal of manufacturing jobs within the Bogotá metropolitan area away from the core observed in the 1970s continued throughout the 1980s although at a slower pace.[121]

Cuba's pattern of urban development does not bear much relation to that of other nations which experienced comparable rates of rapid economic growth during the 1960s and 1970s. Since the mid-Sixties, a declining proportion of its urban population has lived in Havana, the capital and much the largest city. The agrarian reform implemented shortly after the revolution in 1959 removed one of the main causes of rural to urban migration. Since then, a combination of economic and social development outside Havana (in rural and selected urban areas), the rationing

system and a postponement of new housing and infrastructure investments in Havana reduced its dominance of the national urban system.[122]

Small and intermediate urban centres

In most Latin American countries, a considerable proportion of their urban population live in urban centres other than the large cities. For instance, the 1991 census in Argentina showed that 46.5 per cent of the national population lived in urban centres with less than 1 million inhabitants, including 18 per cent in urban centres with less than 100,000 inhabitants. In Mexico, the 1990 census showed that a third of the population live in urban centres with between 15,000 and 1 million inhabitants compared to 27 per cent in 1980-while the proportion of the national population in cities with one million plus had declined in this period. [123] In Colombia, more than half the urban population still lived outside the country's four 'million-cities' in 1993.

There are great contrasts in the size, growth rate and economic base among the urban centres in the region with less than one million inhabitants. They include thousands of small market towns and service centres with a few thousand inhabitants but also some of the region's most prosperous and rapidly growing cities over the last ten to twenty years. For instance, some of the most rapidly growing smaller cities in the region over the last few decades have been cities that served agricultural areas producing high value crops for export or cities that attracted substantial numbers of international tourists. [124] There are probably hundreds of urban centres in Latin America with between 20,000 and 300,000 inhabitants that grew rapidly and became prosperous because of high value agricultural export crops; the development of such centres has rarely been documented in detail. One example is the Upper Valley of Rio Negro and Neuquen in Argentina where, on a 700 square kilometre fertile river valley, the total population grew from around 5,000 inhabitants in 1900 to 400,000 in 1990 with more than 80 per cent of this population living in urban centres.[125] Another is the city of Zamora in Michoacan, Mexico whose rapid growth was linked to high value agricultural crops. [126] It is also worth recalling the importance of high value agricultural goods to the early development of some of the region's largest cities; Sao Paulo's early history was as a small frontier town that was well located to serve the production and export of coffee. However, there are also large numbers of small urban centres within agricultural areas that received little economic stimulus from agriculture or the demand generated by those who earned an income from agriculture. This included urban centres within prosperous farming areas where most of the producer and consumer demand for goods and services bypassed the local town and went direct to larger and more distant cities.[127] The pattern of landownership is often a major influence on the extent to which high value crop production stimulates urban development locally; a large number of small but prosperous farmers with intensive production can provide a large stimulus to local urban development whereas agricultural plantations or large landholdings steer most of the economic stimulus to more distant cities, including those overseas. [128]

There are other cities that have grown rapidly on the basis of tourism or where tourism has become increasingly important. For instance, Cuautla in Mexico grew from a small market town with 18,000 inhabitants in 1940 to a city with over 120,000 in 1991, with tourism becoming increasingly important, especially weekend tourism from those living in Mexico City.[129] Bariloche in Argentina had just 6,562 inhabitants in 1960 and 81,001 in 1991-and it received half a million visitors in 1992.[130] Other small or intermediate urban centres have had their size and importance boosted by major universities developing there-for instance Merida in Venezuela that was originally a small market town that grew to serve the production and export of coffee greatly increased its size to around 250,000; one of the main factors has been the development and expansion of the University of the Andes there that by 1987 had 37,616 students, 2,949 teachers and 3,268 employees and workers.[131]

There are also hundreds of smaller urban centres within the region that have lost importance, as the goods or services they provided were no longer in demand or because they were a market town and service centre for an agricultural area whose products were also in less demand or faced falling prices or competition from other areas. Latin America has many urban centres that originally grew as mining centres or to serve the production of coffee, bananas or sugar or that were centres of transport that are now bypassed (for instance old river ports with much less demand for their services as most goods move by road). [132]

Future prospects

Many countries have achieved relatively rapid rates of economic growth in the first few years of the 1990s and this may have increased once again the rate of increase in the level of urbanization. However, in some of the most urbanized countries, levels of urbanization are now so high that there is no longer great potential for substantial increases in urbanization levels, although there is

considerable scope for changes in the spatial distribution of city and metropolitan centres that, as in the United States, are not reflected in changes in urbanization levels. For instance, profound changes will be brought to Mexico's urban system by a much smaller public sector and a more open economy (that may include millions of small. farmers moving off the land because their maize production is undercut by cheap imports) and a continued shift of its modern industrial base to the border region. The drop in employment in manufacturing and in government that became evident in the- 1980s may well continue through the 1990s; one estimate suggests that a further 10 million jobs may be lost in manufacturing in the region during the 1990s;[133] another suggests that between 5 and 10 per cent of the workforce may lose their jobs because of cutbacks in government and public sector enterprises. [134]

It is difficult to predict the scale and nature of urban change, given that it is so dependent on economic performance. For the countries that sustain rapid economic growth, urbanization is likely to continue. For countries that do not, levels of urbanization may not grow unless civil or political strife becomes important in forcing people off the land-as it did in Colombia during `La Violencia' in the 1950s and 1960s, and in Peru during recent years because of the activities of the `Shining Path' guerrillas. But whatever the economic performance, the dominance of the region's largest metropolitan areas both in their concentration of economic activities and their concentration of population is likely to lessen in most countries. In some, it will be in new cities; in others, still concentrated in core regions with the largest metropolitan centres at their core. Part of the reason is the change in economic orientation in which other cities have greater comparative advantage-the important centres for tourism and cities well located to attract new investment in export-oriented manufacturing or to benefit from forward and backward linkages from high value export agriculture. Part of the reason is the shrinking of government, that is likely to affect national capitals most. But there are also the factors that helped decentralize urban development in Europe and North America that are also operating in many of the higher income countries, including good quality inter-regional transport and communications systems.

2.4 West Europe[132]

Introduction

West Europe is now highly urbanized, with more than three-quarters of its population living in urban areas and only a few per cent of its labour force working in agriculture. As in North America, the most conventional measures regarding the scale of changes in population and urbanization-the growth in the total population and the increase in the level of urbanization-suggest little change in recent years. West Europe had the slowest growth in population of any of the world's regions between 1980 and 1995 and among the smallest increases in the level of urbanization. But as in North America, there were important changes in household size and composition and in age structure that in turn had important influences on housing markets and settlement patterns. The 1980s also brought important changes in trends for population movements in West Europe, with the 1980s being markedly different from the 1970s which in turn had been quite distinct from the previous two decades. As this section will describe, a considerable range of economic, social, demographic and political changes help explain the changes in population distribution, including the reordering of population within cities or wider metropolitan areas. Among the most notable economic changes were the rapid growth in the financial sector which helped revitalize the economy of certain key cities and the continued decline in most cities that had traditionally specialized in heavy industry and ports-although some such cities have managed to develop a new economic base.

Changes in the distribution of population also reflect political changes-for instance those reflecting the economic changes that resulted from the increasingly integrated and enlarged European Union. The widespread changes in the political and economic orientation of most governments in West Europe also influenced changes in the distribution of population-for instance as government support for poorer regions and for social programmes in general were cut back and as more attention was given to inner city regeneration. The sudden and dramatic political changes in East Europe and the former Soviet Union have also brought changes in the distribution of population, although it is only possible to highlight the short-term changes (for instance the massive wave of emigration from the former East Germany and many other parts of East Europe, principally to the former West Germany). In the absence of any unexpected political change, the longer term changes are dependent on the economic performance in the former Eastern Bloc and the scale and nature of economic linkages with West Europe. But there are also the uncertainties regarding the political stability of parts of East and Central Europe, as shown by the civil wars there and the political conflicts that underpinned the breaking up of various nation states.

Demographic change

Table 2.8 gives the national and urban populations of all the countries with more than a million inhabitants in 1990 in Northern, Southern and Western Europe. It includes countries that were formerly part of the Eastern Bloc, as these are now classified as part of these regions, after the political changes in East and Central Europe and the break-up of the former Soviet Union. However, the changes in population and urbanization in the countries that were previously part of this Eastern Bloc are considered in the next section because most of the data about such changes during the 1980' and early 1990' are from the years prior to the political changes. These must also be understood within longer-term trends that were evident during the 1960s and 1970s.

Within the nations in this region other than those that were formerly part of the Eastern Bloc, four basic developments are particularly relevant: the lowest population growth rates of any of the world's regions; the narrowing of inter-country differences for such growth rates, the waning of contrasts between Mediterranean Europe and the rest, and the reduction in the number of countries from which there was net emigration.

TABLE 2.8 West Europe: total and urban populations and level of urbanization for 1990 (all countries with one million or more inhabitants in 1990)

Country	Population in 1990		Percent urban
	Total (thousands)	Urban (thousands)	
Northern Europe			
Denmark	5,140	4,357	84.8
Estonia*	1,575	1,131	71.8
Finland	4,986	3,063	61.4
Ireland	3,503	1,993	56.9
Latvia*	2,671	1,902	71.2
Lithuania*	3,711	2,552	68.8
Norway	4,241	3,068	72.3
Sweden	8,559	7,112	83.1
United Kingdom	57,411	51,136	89.1
Southern Europe			
Albania*	3,289	1,176	35.7
Bosnia/Hercegovina*	4,308	1,920	44.6
Croatia*	4,517	2,701	59.8
Gree ce	10,238	6,413	62.6
Italy	57,023	38,050	66.7
Portugal	9,868	3,303	33.5
Slovenia*	1,918	1,131	59.0
Spain	39,272	29,592	75.4
TFYR of Macedonia*	2,046	1,182	57.8
Yugoslavia*	10,156	5,392	53.1
Western Europe			
Austria	7,705	4,267	55.4
Belgium	9,951	9,606	96.5
France	56,718	41,218	72.7
Germany	79,365	67,699	85.3
Netherlands	14,952	13,262	88.7
Switzerland	6,834	4,070	59.5
Total; 3 regions (including all countries)	411,368	308,391	75.0

* These were part of East Europe or the former Soviet Union and the discussion of population and urbanization there is included in Section 2.5

Source: United Nations, World Urbanization Prospects: the 1994 Revision, Population Division, New York, 1995.

Northern, Southern and Western Europe have long had the slowest population growth rates of any of the world's regions and there has been a steady decline in annual average growth rates over the last few decades. For instance, the twelve countries that made up the European Union up to 1994 had their annual average growth rate of 0.96 per cent in 1960-65 fall to 0.71, 0.61, 0.37 and 0.27 per cent in the next four 5-year periods although it grew slightly to 0.34 per cent for the period 1985-90.[136] This recent upturn in growth rate is entirely due to a rise in net immigration, up from 0.5 per thousand in 1980-85 to 1.6 in 1985-90.[137] In much of Europe, the total fertility rate is well below replacement level. Very low population growth rates help explain why it is much more common for cities or regions to have a net loss of population-since a relatively low level of net out-migration can still exceed the rate of natural increase.[138]

The narrowing of inter-country differences in population growth rates is a long established trend but it has progressed particularly strongly since the 1970s. This is particularly noticeable between Southern Europe and the rest of the region-for instance, the population of Portugal, Spain, Italy and Greece between them grew in aggregate by only 3.5 per cent between 1980 and 1990, not much higher than the 2.9 per cent increase in the population of the central and northern member states of the Council of Europe in this same period. The differential had been much higher in the previous decade, reflecting Southern Europe's higher birth rate and, to some extent, return migration from North-West Europe following the 1973/4 economic recession and the breakdown of the guest-worker system.

The reduction in the number of countries recording net emigration is also particularly notable over the last 20 years. In 1970, nine of the larger Council of Europe members lost population through international movements; in 1980, the number had shrunk to five and by 1991, it was down to just one country-Portugal.

There have been important changes in household size and composition, in divorce and cohabitation and in the level and incidence of childbearing.[139] In much of Europe, the average household size is now below 3.0 persons and more women are starting their family later in fife. In addition, over a quarter of all households contain only one person, at least 1 in 10 families is headed by a lone parent and around 1 in 3 marriages ends in divorce. These all affect migration but little is known about the geographic impacts. They certainly affect housing markets

as they imply an increase in the number of households-especially the number of smaller, less wealthy households.

The influence of demographic changes can also be seen on cities and urban systems. For instance, the baby boom of the later 1950s and early 1960s was associated with strong suburbanization and deconcentration pressures as couples reaching the family-building stage sought affordable homes with gardens and a safe and pleasant environment within commuting distance of work. But it was followed by a period of low fertility when not only were the pressures for suburbanization reduced but also the large baby-boom cohort started reaching the age when they were drawn to larger cities to take advantage of their higher education facilities, better job-seeking networks, more varied social opportunities and cheaper rented housing. Meanwhile, as the population ages, so retirement migration becomes increasingly important. This generally takes the form of population movement away from larger metropolitan centres and more densely settled areas and down the urban and regional hierarchy, taking advantage of the lower house prices and the more congenial environments of smaller towns and more rural areas. However, the preferred locations for such migration has changed over time-for instance from seaside and spa towns in the 1950s to countryside areas in the 1960s and 1970s to the Mediterranean sunbelt zones in the 1980s.

Regional patterns of population change

The narrowing of differentials in birth rates across Europe has meant that the regional map of population change has become increasingly dominated by migration exchanges. However, levels of net inter-regional movement in Europe have been lower in recent years than they were in the 1960s and early 1970s, and the patterns are less clearcut than in the past.

Table 2.9 gives the range of population change between regions within fifteen Council of Europe members during the 1980s. The most notable feature is the very wide range of regional growth rates, despite the fact that the degree of inter-country variation was much lower in the 1980s than in previous decades. The highest range is found in Portugal with both the fastest growing and the fastest declining regions in Europe (apart from the case of Turkey) and even the country with the narrowest regional range (Belgium) exhibits a wider range than exists between the national growth rates. This is also a reminder as to how national averages for population change can be misleading in that they are often the aggregate of very diverse regional changes.

Table 2.9 also shows the regional range of crude birth rates and migratory change rates for each country. The range in the crude birth rates reflects the major changes that have occurred in southern Europe in recent years with some of the

TABLE 2.9 The range of population change indicators between regions within countries during the 1980s

Country	Statistical areas	Population Change			Birth Rate			Net Migration Rate		
		Min	Max	Diff	Min	Max	Diff	Min	Max	Diff
Austria	Bundesland (9)	-4.5	+7.3	11.8	10.1	13.7	3.6	-1.6	+2.7	4.3
Belgium	Province (11)	-3.3	+6.3	9.6	10.9	14.0	3.1	-3.8	+6.0	9.8
Denmark	Amt (14)	-8.3	+8.0	16.3	–	–	–	-1.7	+5.3	7.0
Finland	Province (12)	-3.1	+10.8	14.1	10.8	14.6	3.8	-3.4	+5.9	9.3
France	Region (22)	-1.0	+13.3	14.3	9.7	15.8	5.3	-6.3	+12.6	18.9
Germany (West)	RB (31)	-7.2	+8.6	15.8	9.0	12.0	3.0	-1.9	+15.2	17.1
Ireland	County (26)	-7.1	+23.1	30.2	–	–	–	-7.0	+5.0	12.0
Italy	Region (20)	-5.1	+7.2	12.3	6.5	14.2	7.7	-2.8	+4.6	7.4
Netherlands	Province (11)	+0.7	+13.8	13.1	11.3	14.0	2.7	-2.2	+6.8	9.0
Portugal	Distrito (20)	-8.6	+26.9	35.5	9.7	15.4	5.7	-7.0	+21.9	28.9
Spain	Comm. auto (16)	+0.8	+11.7	12.5	8.3	14.3	6.0	–	-	–
Sweden	County (24)	-3.7	+8.9	12.6	11.4	14.5	3.1	-4.1	+7.0	11.1
Switzerland	Canton (25)	-1.0	+14.6	15.6	8.7	17.5	8.8	-4.6	+8.5	13.1
Turkey	Province (67)	-7.7	+48.7	56.4	–	–	–	-23.0	+12.3	35.3
United Kingdom	County (69)	-7.0	+14.5	21.5	10.5	20.4	9.9	-8.0	+18.9	26.9

Note: All data are in annual rates per thousand.

Periods: **Population change relates to 1980-8, except for France, Germany and Spain 1980-7; Ireland 1981-6; Turkey 1980-5; United Kingdom 1981-8. Birth rateis for 1988, except for Belgium, France, Germany, Spain, United Kingdom 1987.** Net **migration rate for 1980-8, except for Belgium, France, Germany, Italy, Spain 1980-7; Ireland 1981-6, Turkey 1980-5, United Kingdom 1981-8.**

Areas: **In Belgium, Brabant is subdivided into Brussels, Dutch-speaking, French-speaking. In Netherlands, Flevoland is grouped with Overijssel, In Switzerland, Basel-Stadt is grouped with Basel-Landschaft. In United Kingdom, local authority regions are used for Scotland, Boards for Northern Ireland.**

Source: **Calculated from data supplied by Eurostat and the national statistical agencies. Reprinted from Champion, A. G., 'Changes in the spatial distribution of the European population', In Council of Europe (eds.), Seminar on Present Demographic Trends and Life styles in Europe: Proceedings, Council of Europe, Strasbourg, 1991, 355-88.**

regions in Spain, Italy and Portugal being characterized by the lowest birth rates of all the 385 regions included in the analysis.

However, migration is the dominant component of population redistribution between regions and as Figure 2.2 shows, the degree of variation in net migration changes for the 1980s within countries was much larger than any broader geographical variation across the continent - notably in Portugal, Turkey and the United Kingdom. Figure 2.2 suggests that there is no clear gravitation of migration flows towards the European core of North-West Europe and areas of migration gain and migration loss are scattered widely across the map.

Figure 2.2 also suggests that population shifts during the 1980s were very different from the dominant periphery-to-core population shifts that took place within countries in the 1950s and 1960s. The geographic patterns have generally become more difficult to interpret, appearing to owe more to special factors operated on a localized or short-term basis than any single all-important process. It can be seen as a complex and diverse mosaic of growth and decline, as the population of each individual place is affected by its inherited economic structure, its ability to take advantages of new sources of growth and its attractiveness as a destination for local urban decentralization.

There are however, two distinct groups of regions experiencing net out-migration:

- Heavily urbanized areas, mainly in North-West Europe and including most of the capital cities (London, Paris, Brussels, Copenhagen) with the most severe losses occurring where urban decentralization is reinforced by industrial decline and the decline of port activities.
- Less developed low-income rural areas, particularly in the rural hinterlands of the larger agglomerations in Southern Europe, but including the less heavily populated areas of Ireland and Scandinavia.

Net in-migration regions form a more disparate set but at least three types can be identified:

- The hinterlands of the major cities, mainly in Northern and Central Europe that are benefitting from the urban exodus, such as around London, Copenhagen and Randstad Holland.
- Many of the `sunbelt' zones that are usually less urbanized areas with medium-sized and smaller cities, most notably southern areas of the UK, Germany, France and Portugal together with central and northeastern Italy.
- Some of the larger urban centres and/or their immediate hinterlands, particularly in Scandinavia, Mediterranean Europe and Ireland.

Regional change in urban populations

The 1980s brought important changes in trends for population movements in West Europe, with the 1980s being markedly different from the 1970s which in turn had been quite distinct from the previous two decades. The 1970s had brought major and largely unexpected changes in urban trends with what has been termed `counterurbanization' and the waning of urbanization. Counterurbanization was not so much the movement of people from urban to rural areas but more the movement from major cities and metropolitan areas to smaller urban places and thus a deconcentration in the urban population. The 1980s also brought changes that were largely unexpected-as counterurbanization was expected to continue and to develop but this did not materialize or only took place in isolated cases.

The scale of the regional changes in the 1980s was also less than those in earlier periods with only small signs of the traditional rural-urban population shifts and rather limited evidence of the continuation of more recent counterurbanization tendencies and with no new form of geographical patterning coming strongly to the fore. However, as in North America, the scale of the increase in the proportion of the population living in urban centres ceases to be a useful measure of the scale of urban change since so much change is inter-urban, with most migration movements also inter-urban. When only a few per cent of the labour force work within agriculture and a high proportion of the rural workforce either commute to work in urban areas or work in non-agricultural activities (including in business parks or greenfield sites that remain classified as rural), the distinction between `rural' and `urban' has lost its meaning in terms of distinguishing between those who generally make a living from agriculture or forestry and those who do not. In addition, most rural households in West Europe now enjoy a level of service provision that was formerly only associated with urban areas-for instance water piped to the home, connection to sewage networks, regular collection of garbage. The rural-urban distinction based on access to urban-based cultural activities is also blurred as a considerable proportion of rural households can get to theatres, cinemas, discos and other urban-based cultural activities. In effect, rural areas have been urbanized-just as low density suburban and exurban residential areas for urban households display some rural characteristics.

The counterurbanization of the 1970s was unexpected, as it represented a significant departure from the pattern from 1945 to around 1970 that had been dominated by the movement of people from peripheral regions to national core regions, associated with widespread rural to urban migration and universal increases in the

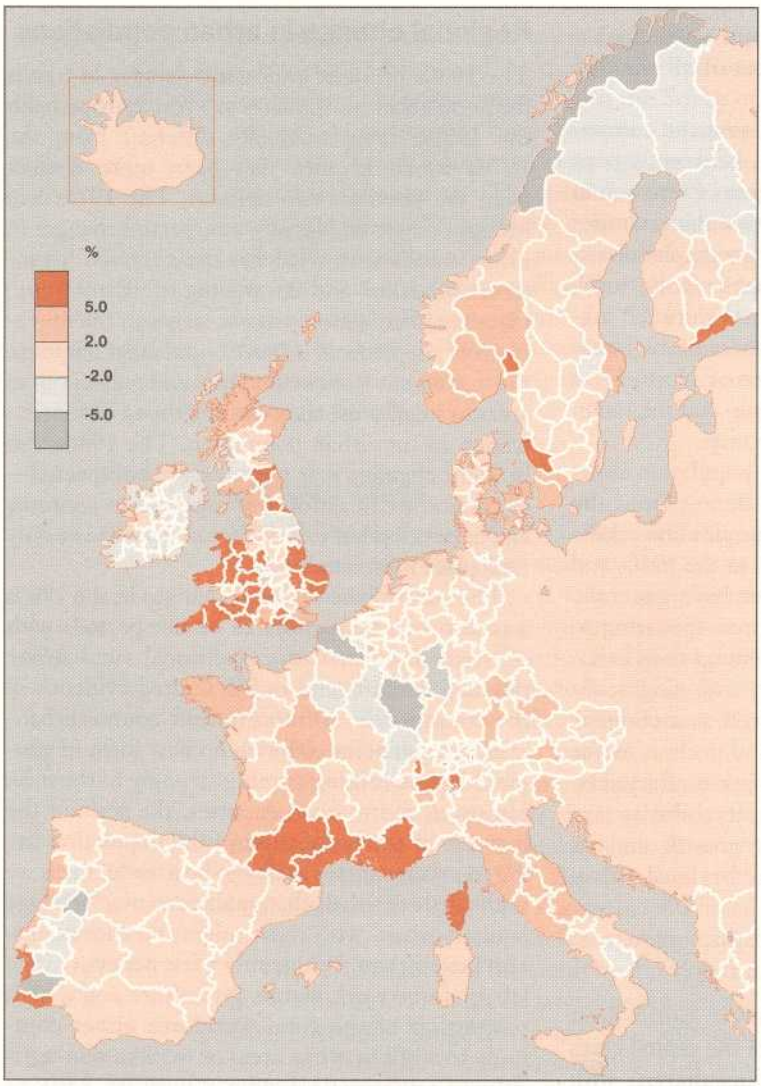


FIGURE 2.2 Regional map of net migration changes during the 1980s (annual average rate per 1000 people)

Source: Champion, A. G., 'Internal migration, counterurbanization and changing population distribution, in R. Hall and P. White (eds.), Europe's Population: Towards the Next Century, UCL Press, London, 1995.

proportion of the population living in urban areas. In the 1970s, there was net migration out of many of the larger cities and more densely populated areas. The larger cities, notably those which began their rapid growth in the nineteenth century, were generally much less attractive for migrants in the 1970s than in the previous two decades; many such cities experienced substantial migratory losses. The scale of this exodus from the larger cities was sufficiently large to alter the traditional patterns of net migration from peripheral regions to national cores. During the 1980s, most countries have not seen any acceleration in this process but have instead a slowdown in such deconcentration or indeed a return to larger cities gaining from migration flows.

Table 2.10 shows trends in urbanization and counterurbanization for thirteen countries. A positive score means urbanization while a negative score means a shift towards counterurbanization. The table shows that more countries were experiencing urbanization in the 1980s than in the 1970s and that even more countries saw a shift in trend if the second half of the 1980s is compared to the first half. This table also suggests considerable diversity in trends between countries-and also highlights how trends in both Italy and Ireland moved against the general trend, switching from regional concentration to deconcentration and in the case of Italy, this process appears to have deepened during the 1980s. In France too, there was a constant trend towards deconcentration through the 1970s and 1980s. However, various studies have shown important differences in settlement system changes within European nations. For instance, the 1990 census results in France showed that the Paris agglomeration had matched the national rate of population growth in the 1980s but the highest rates of growth occurred in a broad zone stretching from the Alps through the centre-west part of the country.[140]

International migration

A 1990 estimate suggested that between 15 and 20 million people in West Europe are `foreigners'. Most countries in the region have several per cent of their population who are `foreigners' and a significant increase in the stocks of foreigners since 1980.[141] Table 2.11 gives some examples of the number of foreigners and of their increase since 1981. Germany has much the largest number with 6.5 million in 1993.

These figures understate the scale of international migration as they refer only to `foreigners' and do not include international migrants who have been naturalized in the destination countries. For instance, in France, there are more than a million foreign-born people who have acquired French citizenship.[142] In the UK, there are some 4.5 million people of immigrant origin but 1.9 million foreign citizens in 1990.[143]

Not surprisingly, Germany has had the largest net influx of immigrants in recent years but most are not foreigners. The size of this influx peaked in 1989 at 977,000 persons with 344,000 from the former East Germany and around 377,000 ethnic Germans from Eastern Europe (especially from Poland, the former USSR and Romania); these are automatically deemed nationals because of their German ancestry and so are not considered `foreigners'. There were also another 250,000 who were `foreigners'.[144] The proportion of the population between `East' and `West' Germany also changed; in 1950, `East' Germany had 26.5 per cent of their combined population; by 1993 it had 19.3 per cent.[145] Prior to 1989, there had been an even larger exodus of some 5 million people moving from East to West between 1949 and the erection of the Berlin Wall in 1961. In addition, the picture is complicated by other immigration flows.

A recent paper on international migration in

TABLE 2.10 Trends in urbanization and counterurbanization in the 1970s and 1980s for selected countries

Country (number of regions)	1970s	1980s	Shift	1980-84	1984-9	Shift
Austria (16, 8)	+0.38	+0.01	–	-0.25	+0.47	+
Belgium (9)	-0.36	-0.44	–	-0.49	+0.33	+
Denmark (11)	-0.79	-0.01	+	-0.04	-0.16	–
Finland (12)		+0.69	?	+0.51	+0.80	+
France (22)	-0.26	-0.36	–	-0.33	-0.31	nc
FRGermany (30, 12)	-0.29		?	-0.63	-0.08	+
Ireland (9)	+0.43	-0.35	–			
Italy (13, 20)	+0.12	-0.21	–	-0.16	-0.33	–
Netherlands (11)	-0.83	+0.12	+	-0.24	+0.46	+
Norway (8)	+0.21	+0.69	+			
Portugal (17)	+0.36	+0.52	+	+0.39	+0.53	+
Sweden (12, 24)	-0.26	+0.35	+	+0.14	+0.53	+
Switzerland (11)	-0.49'		?	-0.51	-0.06	+

Notes: Data are correlation coefficients of relationship between net migration rate and population density; 'Shift': + = shift towards 'urbanization'; -= shift towards 'counterurbanization'; * data for population change (not migration); nc = no change. Also note that the correlation coefficients should be interpreted with care because their significance level depends on the number of regions.

Source: Champion, A. G., 'Urban and regional demographic trends in the developed world', Urban Studies, vol. 29, 1992, 461-82. Compiled from Fielding, A. J.,'Counterurbanization in Western Europe', Progress in Planning, vol. 17, 1982, 1-52; Fielding, A. J.,'Counterurbanization in Western Europe' in A. Findlay and P. White (eds.), West European Population Change, Croom Helm, London, 35-49; and Fielding, A. J.,'Counterurbanization: threat or blessing?' in D. Pinder led.), Western Europe: Challenge and Change, Belhaven, London, 226-39 and calculations from data supplied to the author by national statistical agencies.

TABLE 2.11 The growth in the foreign population for selected European Countries, 1981-1994

	thousands of people	
Country	1981	1994
Austria	163	582 (1993)
Belgium	879	921
Denmark	100	189
Germany	4,453 (1980)	6,496 (1993)
Netherlands	521	779
Norway	83	154(1993)
Spain	183	393 (1993)
Sweden	240	508
Switzerland	914	1,244 (1993)

Note: The United Kingdom and France also have large foreign populations-for the United Kingdom, it totalled 1.9 million in 1990 and for France some 3.6 million in this same year.

Source: Compiled from Council of Europe, Recent Demographic Developments in Europe 1994, Strasbourg, 1994.

Europe[146] suggested that there are at least five types of international migration that have grown in importance in the region since the early 1980':

East-West migration within Europe: The political changes in East and Central Europe since the late 1980' has already led to major shifts of people from the former East Europe to West Europe, especially Germany and Austria. The unification of Germany removed one important barrier-and the scale of migration flows into Germany was noted above. Moves towards the integration of other East European countries into existing European networks are likely to reinforce the net flow to West Europe and overseas, particularly during the years of painful economic reconstruction in Eastern Europe. There are also the east-west migration flows driven by civil wars as in the disintegration of the former Yugoslavia and open confrontation with nationalist feelings and expulsion-as in the driving out of Turks formerly resident in Bulgaria.

Labour migrants from the South: Recent estimates suggest that there are at least 2 million and possibly 3 million immigrants in the countries in Southern Europe (Portugal, Spain, Italy, Greece), that only 20-30 years ago were countries of mass emigration.[147] The potential for continuing migration between the two are underpinned by the rapidly growing population in North Africa and the large and at present increasing economic differences between North Africa and Southern Europe.

Refugees: It is often difficult to distinguish refugees from labour migrants. The number of asylum applications in Europe rose sharply during the 1980s and early 1990s from an annual total of 75,000 in 1983 to more than 500,000 in 1991.[148] At the same time, the proportion of asylum-seekers granted refugee status decreased rapidly. The origins of asylum-seekers varied over time, reflecting crisis situations which provoke refugee movements. Between 1983 and 1990, Asian countries (chiefly Sri Lanka, India, Pakistan, Bangladesh, Iran, Iraq, Afghanistan) accounted for 50 per cent of all claims submitted to Europe with 31 per cent from other European countries and 16 per cent from Africa.[149] Pre-existing colonial or labour migration links often guide subsequent patterns of asylum migration.

Skilled international migration: The emergence of post-industrial society in Europe with associated restructuring of the global economy and the growth of information based services has led to a rapid increase in the size of the highly skilled labour force-especially in countries where the control functions of this new economic geography are located-notably the headquarters of multinational firms. Within Europe, there is a division of labour between the production facilities which are located in development regions of cheap and abundant low-skill labour such as Portugal or the West of Eire and office headquarters located in metropolitan cities such as London, Paris or Munich which tend to concentrate the high level personnel responsible for the control functions.

Retirement migration: Traditionally, retirement migration is within national boundaries. Where countries are large and have a variety of scenic and climatic environments, movements tend to

take retirees to the seaside towns (e.g. along the South coast of England) to the sunnier warmer regions (e.g. Parisians migrating to the South of France) or attractive rural regions. In some instances, it is to where the retirees have roots. More recently, and aided by portable state or private pensions and by a general growth in wealth, increasing numbers of older people in Europe are moving on a temporary, seasonal or permanent basis to the Mediterranean sunbelt. They tend to cluster in purpose built tourist and residential complexes with many services (shops, leisure, medical) close by.

Europe's cities

West Europe is the only region in the world where considerable effort has been made to compare the population of cities in a great range of different countries, based on a consistent, common definition-what is termed the functional urban region. Functional urban regions seek to have boundaries that reflect `the economic sphere of influence of a city with a core city defined in terms of concentrations of employment and a commuting hinterland composed of all those areas from which more people commute to the particular city in question than to some other city'.[150] Map 2.3 shows the largest urban centres in West Europe in 1991 based on the populations in functional urban regions.

Table 2.12 highlights this point by showing the population in 1991 of the six largest urban centres in the United Kingdom, using four different bases for calculating their populations. Not only does the population of each city vary enormously depending on which basis is chosen but the rank also changes. The example of Newcastle upon Tyne highlights just how much different criteria used to set city boundaries affect population size; this city has some 300,000 inhabitants when measured by its district population but becomes among the six largest cities in the UK when different criteria are used-and has over a million inhabitants, if considered as a metropolitan region.

Among the largest cities in the region, London and Paris remain much the largest, whether measured by populations in the urban agglomeration or the functional urban region. After that, the rankings become more ambiguous, depending on what boundaries are used. The city of Essen is sometimes listed as the third largest but this is for a highly urbanized and industrialized region more often referred to as the Ruhr region and it includes many cities going from Duisburg in the east to Dortmund in the West. Among the other largest urban agglomerations are Italy's three largest cities-Rome, Naples and Milan, Spain's largest two cities (Barcelona and Madrid), Athens, Birmingham, Amsterdam and several German cities (Stuttgart, Hamburg, Munich, Frankfurt and Berlin). Brussels also emerges as one of Europe's largest cities when considered as a functional urban region but not when considered within the city's administrative boundaries.

But comparing cities by their dominant characteristics rather than their population sizes gives more of a sense of current developments there. Table 2.13 presents eleven types of cities and their dominant characteristics, with examples of cities that can be placed within such functional types. This highlights the difference between the growing high-tech/services cities that include many cities that are not among the largest in Europe and the declining industrial and port cities, many of which still are among the largest cities but most with declining populations. Many experienced a large decrease in their employment base during the 1980s, although for many this decrease was also evident in the 1970s or even earlier.

Cities that are a country's point of entry and exit for goods or people have always had important roles. Two kinds can be distinguished: gateway cities of which historically port cities have been the most important but in the last three decades, international airports have taken on

TABLE 2.12 Four different lists for the six largest cities in the United Kingdom in 1991, using different bases for defining city boundaries (resident population, thousands)

Local Authority district		Main built-up area		Urban region		Metropolitan region	
Birmingham	961	London	6,699	London	7,380	London	12,530
Leeds	681	Birmingham	1,121	Birmingham	1,363	Birmingham	2,906
Glasgow	663	Manchester	915	Glasgow	1,071	Manchester	2,809
Sheffield	501	Glasgow	786	Manchester	1,044	Liverpool	2,096
Liverpool	453	Liverpool	621	Newcastle	901	Glasgow	1,705
Edinburgh	419	Newcastle	504	Liverpool	831	Newcastle	1,342

Note: London no longer has a local authority for the wider city as a whole, since the abolition of the Greater London Council, so it does not figure among the largest local authority districts. The population in 1991 for'Greater London' was 6,679,700 but this is not comparable to the local authority districts used in this table. The'urban region' includes the built-up area and the wider region based on commuting to the core. The 'metropolitan region' includes all the urban regions that are intertwined with the main region defined and is broadly equivalent to the CMSAs in the USA described in Section 2.2

Source: A. G. Champion, unpublished tabulation using 1991 census data. 'Main built-up area (core)', 'Urban region' and 'Metropolitan region' are definitions based on the CURDS Functional Regions framework.

MAP 2.3
The largest urban centres in West Europe, 1991

Notes: This map is based on the list of functional urban regions developed by Hall, P. and D. Hay, Growth Centres in the European Urban System, Heinemann, London, 1980 with the population data for them developed by Paul Cheshire, drawing on the population censuses of 1990 and 1991. Where no population census was undertaken, registration data was used. The map includes all functional urban regions with one third of a million or more inhabitants in 1981; those with one million or more inhabitants are also named in the map.
Source: Functional Urban Region Database at the London School of Economics.

increasing importance; and border cities that have an important role as transport and administrative centres overseeing and often controlling the international exchanges between the two countries but often also international centres of trade, communication and information.[151] The fortunes of border cities fluctuate with changing political circumstances-for instance many inner European border cities within the European Community will lose some of their economic importance. Cities in or near to the borders of Eastern Europe such as Frankfurt/Oder, Vienna, Trieste and Thessaloniki have taken over a new role as gateway cities. Most of the great traditional sea ports were gateway cities-such as Liverpool, Marseille, Genoa-and these three cities and many others have faced a decline in their employment base.

Tourism has become increasingly important as the economic base for large numbers of cities and smaller urban centres. This includes not only the Mediterranean 'sun-belt' areas and other tourist

TABLE 2.13 Functional types of cities

City Type	Characteristics	Examples
Global cities	Accumulation of financial, economic, political and cultural headquarters of global importance	London, Paris
Growing high-tech/services cities	Modern industrial base, national centre of R&D, production-oriented services of international importance	Bristol, Reading, Munich
Declining Industrial cities	Traditional (monostructured) industrial base, obsolete physical infrastructure, structural unemployment	Metz, Oberhausen, Mons, Sheffield
Port cities	Declining shipbuilding and ship repair industries, environmental legacies, in the South burdened by additional gateway functions	Liverpool, Genoa Marseille
Growing cities without modern industrialization	Large informed economy and marginalized underclass, uncontrolled development and deteriorating environment	Palermo, Thessaloniki, Napoli
Company towns	Local economy depending to a high degree on a single corporation	Leverkusen, Eindhoven
New towns	New self-contained cities with overspill population in the hinterland of large urban agglomerations	Milton Keynes, Evry
Monofunctional satellites	New urban schemes within large agglomerations with focus on one function only (e.g. technopole, airport)	Sophia-Antipolis, Roissy
Small towns, rural centres, rurban belts	Smaller cities and semi-urbanized areas in rural regions, along coasts or transport corridors with weak economic potential	All over Europe
Tourism and culture citiesinternational tourism and cultural events	Local economic base depending on of European importance	Saltzburg, Venice
Border and gateway cities	Hinterland divided by national border; gateways for economic migrants and political refugees	Aachen, Basel

Source: Kunzmann, Klaus R. and Michael Wegener, The Pattern of Urbanization in Western Europe 1960-1990, Report for the Directorate General XVI of the Commission of the European Communities, institut fur Raumplanung, Universitat Dortmund, Dortmund, 1991.

areas but also cities with historic and cultural attractions. Many major cities in Europe such as Paris, London, Amsterdam, Munich, Rome, Florence, Berlin, Seville and Copenhagen have long had major tourist industries but have also benefitted from the renewed interest in history, from the expansion of the international convention industry and from the growing mobility of an increasingly better-educated and affluent society.[152]

What underlies urban change

The marked differences in the scale and nature of urban change between the 1980s and the 1970s have led to a considerable debate about what caused these differences. One widely held view is that something anomalous has been occurring at some stage since the late 1960s but opinion is divided as to whether it is the counterurbanization of the 1970s or the waning of this trend in the 1980s that was unusual.

Several of the economic and demographic factors cited as explanations for the counterurbanization of the 1970s were unique to that decade. These include the mid-decade recession following the oil-price rise of 1973/4 which produced a major shock to the system, including disinvestment in manufacturing industries in traditional industrial areas and the run-down of the guestworker movement in north-west European cities. Population gains in some of the more peripheral and rural areas can be linked directly to an increase in oil and natural resource exploitation because of the oil price rise as well as a rise in expenditure in defence industries and related research establishments that are located in such areas. Higher education was also being expanded, also often away from the major existing population centres together with the general upgrading of public-sector infrastructure and private services in rural areas. However, certain studies have suggested that the changes that took place during the 1970s were a logical evolution of those in the 1950s and 1960s.[153]

The 1980s also had its share of particular economic changes. Perhaps the most important were the impacts of the worldwide recession, the slump in the real price of oil, minerals and agricultural products which meant less income and economic activity in many peripheral regions, the restructuring of manufacturing operations designed to increase efficiency in an era of immense competition with new flexible approaches replacing the traditional Fordist model of production and the eclipsing of Keynsian approaches to the management of the economy. Shortage of public funds from the shrinkage of the tax base and also an ideological shift away from the welfare state led to major cutbacks in public sector infrastructure investments. There were also cutbacks in subsidies for declining and transforming industry (except within the European Community's Common Agricultural Policy) and in spending on regional development policy. There was also a switch within many governments from schemes for urban population dispersal towards policies for regenerating inner city areas, in response to the metropolitan problems of the previous decade. The late 1980s also brought the remarkable political events in East and Central Europe which by the end of the decade had brought reduced defence spending and large-scale immigration into Europe, especially to the former West Germany and Austria.

Given the fluctuations in the pace of deconcentration which occurred during the 1970s and the 1980s, these might be linked together in some form of cyclic relationship. For instance, an urban centre could proceed through a four-stage cycle:

- urbanization with fastest growth in its core;
- suburbanization with faster growth in the ring around the core:
- disurbanization with decline in the core and the ring, with the core performing worse than the ring; and finally
- reurbanization with the core again overtaking the ring.

This four-stage cycle can also be applied to wider (e.g. national) systems. Empirical studies of the changes in urban systems that occurred in the first three decades of the post-war period appear to bear out the changes predicted by the model. For instance:

> In the *1950s,* European population was concentrating remarkably into the metropolitan cores ... But by the *1960s,* a reversal had taken place: though metropolitan areas were still growing, they were decentralizing people from cores to rings. After *1970,* this process accelerated, so that cores virtually ceased to grow.[154]

Further evidence of this interpretation came from early signs of *gentrification* in the older cores of some of the larger metropolitan centres during the 1970s, leading on to more significant levels of urban regeneration in the following decade.

Economic cycles play the dominant role in any identifiable cyclic behaviour affecting migration and population redistribution. Population and urban change can be explained by references to cycles as particular factors fluctuate in their strength and perhaps also their nature over time. These cycles include the relatively short-term business cycles that are associated with fluctuations in labour and housing markets and are related to employment opportunities and the availability and cost of credit. Of a rather longer periodicity are development cycles linked to the commercial property industry, notably retailing where developers find that the profitability of one type of building or location may fall after a decade or more and therefore switch their investment to competitive alternatives before returning later to redevelop the original site. There is also the suggestion of 50-60-year-long waves or Kondratieff cycles associated with major phases of innovation and technological development that are also a major influence on urban growth and change.

In seeking to account for the fluctuations over time in the degree of population concentration and deconcentration, there are three distinct sets of factors that influence the distribution of people and jobs:

- A number of forces operating over the longer term in favour of deconcentration-such as improvements in transport and communication, the increasing preference (in many countries) for owner-occupied housing, and the growth of tourism and outdoor recreation;
- Some factors encouraging concentration m large cities and more urbanized regions, particularly the growth of business services and corporate headquarters and other activities requiring a high level of national and international accessibility and a large supply of highly qualified personnel; and
- Factors which may have different geographic effects at different times, depending on prevailing circumstances, operating along cyclic lines as described above.[155]

The key to applying this perspective is to acknowledge that the two sets of concentrating and deconcentrating forces are both likely to vary in their relative strength over time, with an outcome that may reinforce or counter the effects of the third group of factors at any one time.

Overall, two separate processes can be held to be largely responsible for the swings in population redistribution trends away from and back to regional concentration that have been widely observed in Europe over the last 25 years. One is the regional restructuring process which tends to provide a major recasting of the macro-region map of economic activity at relatively long intervals principally those of the long 50-60-year-waves. The other is the population deconcentration process which in its strict definition refers to a general shift towards lower density occupancy of urban space. This latter process is seen as long-established and deep-structural in nature, rooted in traditional suburbanization which still continues but which also includes the search by a significant number of residents and employers for smaller towns and more rural areas.

Looking towards the future

There is little agreement about the likely future pattern of growth-not least because of not knowing how the underlying factors which affect population distribution will themselves develop. The last 10-15 years have certainly brought great changes, resulting from changing markets, new methods of business organization and major political transformations. But there is little consensus as to whether these changes have run their course or will build on themselves cumulatively. The proponents of the long-wave theory believe that the main ingredients of the fifth Kondratieff are now in place, oriented around advanced telecommunications and new industries like biotechnology-but some large spatial readjustments can be expected during the 25-year growth phase of this new cycle. `Flexible specialization' has already produced severe structural upheaval but institutional and political changes associated

with the European Union and the removal of the Iron Curtain have the potential for a large scale redrawing of the economic map of Europe. The main argument centres on whether these changes will lead to the growth of a European core region at the expense of the continent's peripheral zones.

One group has suggested that growth in economic activity will be concentrated in a region stretching from south-east England through Benelux, south-west Germany and Switzerland to Lombardy and north-west Italy.[156] This is associated with the introduction of the single European Market at the end of 1992, with further steps towards European economic and political integration and by the expected enlargement of the Union and plans for the further development of the rapid rail system and telecommunications infrastructure. However, the experience in the past is that not all places within a favoured zone prosper while not all places outside a favoured zone are at a disadvantage. There is also the strong economic growth achieved by northern Italy, southern France and more recently by north-east Spain and these have led to suggestions that a Mediterranean sunbelt is emerging as a second major European growth zone. A third reason is the recognition that certain forces will counter the tendency towards ever greater concentration, including the costs of greater congestion, environmental damage in the fast-growing areas, the greater freedom of locational choice allowed by improved transport and communications and the necessity for effective government intervention to prevent increasing national and regional disparities that would threaten the European Union.

There is also the research which concludes that the economic fortunes of individual places have much more to do with their inherent characteristics and the way in which they position themselves with respect to the global economy and international capital than with their particular geographic location. Neighbouring places often develop in very different ways-and these can be linked to the quality of entrepreneurship and to their diverse range of inherited advantages and disadvantages.[157] This perspective sees Europe as made up of a large number of individual, largely urban-centred regions which compete for jobs, people and capital investment, sometimes in co-operation with their neighbours but as often as not in competition-while perhaps being linked to similar regions elsewhere through such networks as the Eurocities Group, POLIS, and the Commission des Villes.

One influence on changes in population distribution that is not easy to predict is the influence of quality of life considerations. Retirement migration is one clear example of this and the number of people reaching retirement age will increase steadily after 2000 in response to higher post-1945 fertility and reach a peak in the 2020s. The preferences of these people in terms of their lifestyle and preferred location-and their purchasing power (which in turn is influenced by the nature of government provision for pensions) will obviously have an increasing influence on population distribution. As noted earlier, the locational preferences of retired people have changed over the last 30 years.

The reunification of Germany and the fall of the `Iron Curtain' will bring important changes to the urban system of Europe and possibly to the distribution of population. For instance, the distribution of population within what was East Germany is also likely to change, perhaps most especially if Berlin does become the full capital of Germany.

Future changes in urban areas and urban systems will also be influenced by where employers choose to locate. The growth in business services has not only reinforced the position of the largest cities but also spawned a large volume of back-office jobs in suburban areas and more distant towns alongside decentralized factories and shopping complexes. In terms of residential implications, much depends on how far workers are prepared to commute and also on the extent to which telecommuting can substitute for daily physical presence in the main office. There is a complex mix of choice and constraint within the `tug of war' between centralizing and decentralizing forces. Employers may make the main decisions about where to locate but location decisions are also based on the availability of certain types of labour. Both employers and employees make decisions about location within the context provided by planning authorities and the policies they pursue.

Predicting changes in population distribution up to the year 2000 and beyond also needs predictions or assumptions about the way in which policy attitudes will develop over time. Counterurbanization during the 1970s was certainly helped by government regional policies to support developments in more peripheral regions, just as the waning of counterurbanization also coincided with a much reduced regional development effort in the 1980s. The extent of European economic integration and the extent of any government and European Union support for a technopoles network and much improved transport and telecommunications infrastructure will have important influences. Increasingly stringent environmental policies may also have a major spatial impact-for instance as they close down some industries while others have to fundamentally reorganize their production to meet emission standards. There also remains the

uncertainty as to when the civil wars and armed conflicts in various parts of East and Central Europe will be resolved and whether similar conflicts will spring up elsewhere.

2.5 East and Central Europe[158]

Introduction

The new political geography of the former Soviet Union and of what was previously called `East Europe' suggests the need to no longer discuss this as one region. For instance, the three Baltic States (Estonia, Latvia and Lithuania) that were formerly part of the Soviet Union are, geographically, part of Northern Europe and best grouped with near neighbours such as Finland and Sweden.[159] Most East European countries and the former Soviet republics that are on their western borders might more appropriately be discussed as one region, since they share many demographic, economic and spatial characteristics. There is certainly a need to consider urban change in countries such as Hungary, the Czech and Slovak Republics and Poland within a broader European context as their major cities strengthen linkages with the German and Austrian urban systems-or rather renew such linkages since many of their major cities developed on the basis of their interactions with cities such as Vienna and Berlin. The four republics in Central Asia also share demographic, economic and spatial characteristics that suggest that these be considered as one group and, geographically, part of Asia.

However, if the interest is in population and urban change since 1980, the countries that were until recently considered as `Eastern Europe' and the republics that were previously `the Soviet Union' have to be considered together. Their economic systems and political structures had important characteristics in common-that were also distinct from those in the rest of Europe-and these were the major influence on population and urban change. Until 1989, they were demarcated from the rest of Europe by the so called `Iron Curtain' and were subject to political and military control by the government of the Soviet Union. The whole region had a supra-national economic organization-the Council for Mutual Economic Assistance-and there were controls on population flows and trade with the West, although of varying strength, depending on the country and the decade. This brought major changes in their settlements, especially for cities and regions whose economies had previously developed through trading links with the West. This is why most of this section concentrates on East Europe as a group and on the former Soviet Union. Where possible, distinctions are drawn between the different republics in the former Soviet Union and between the countries formed by the break-up of Czechoslovakia and Yugoslavia. The only exception is the former East Germany that is considered within the section on West Europe. At the end of this section, some consideration is given to developments in the 1990s and what these may imply for population and urban change in the future.

Until the end of the 1980s, this varied group of 26 or more independent nations had economic and political characteristics quite distinct from those in West Europe that affected their settlement system and form that their cities took.[160] These include government decisions rather than market forces determining the nature and location of most productive investment. In general, priority was given to industry over services and in many instances, industries were located outside the major cities in places that differed from what a market economy would have produced. Industries were also kept in operation long after they would have been deemed unprofitable or too expensive in the West so at least up until the economic and political changes of the late 1980s, most industrial centres had not undergone the very rapid falls in industrial employment that had affected so many industrial centres in Europe. The abolition of a land market in cities, the limited role permitted to a private housing market and private enterprises and the large scale housing estates built by public enterprises brought a very different logic to the form and spatial distribution of residential areas and enterprises within cities.

East and Central Europe

The political revolutions of 1989 brought not only an abrupt change in economic and political organization but also the break-up of Yugoslavia, the division of Czechoslovakia into two Republics and the reunification of Germany. These combined with the ethnic conflicts and civil wars and the radical changes in economic policy are also likely to have set in motion new trends in population and urban change that are not revealed by existing statistics and will have to wait for a new round of censuses. This section will concentrate on population and urban change in the region from 1950 to 1992.

By 1992, the population in East Europe had reached 124 million with 56 per cent in urban areas-see Table 2.14. Half the total and the urban population was concentrated in Poland and Romania. This region had experienced the most rapid growth in total population and in urban population of any region in Europe-although in comparison to most of the world's regions, the scale of change was slow. The average for the region hides large differences-for instance,

the slowest was in Hungary where population grew by only 11 per cent in this 42-year period while the two fastest were Poland (55 per cent) and Albania where the population nearly tripled.

Population density in the region lies between the higher densities found in West Europe and the lower densities of the Ukraine and the Russian Federation. The areas of high population density are generally around national capitals or the industrial and urban concentrations that often contain major metropolitan centres and these have gained from marked rural to urban migration since World War II.

In Bulgaria, Hungary and Romania, the high concentration of national population in and around the national capital is particularly notable. In 1990, 40 per cent of Bulgaria's population was concentrated in the south-west of the country with Sofia, its surrounding region and the neighbouring region of Plovdiv. In Hungary, a fifth of the national population was in Budapest with another 10 per cent in the surrounding county of Pest. In Romania, Bucharest and the south-east region of the country had almost 40 per cent of the national population in the early 1990s. The national capitals in the Czech and Slovak republics, Albania and Poland concentrate far lower proportions of their national populations.

In addition to the main urban centres and industrial agglomerations, there are also large areas of high population density, mostly in the southern states that correspond to industrial concentrations in small urban centres and denser rural tracts-for example of Croatia, north of Zagreb, in Serbia in the Morava valley and in Kosovo, in Romania in Wallachia, in Albania along the coastal plain and in the Maritsa valley in Bulgaria.

TABLE 2.14 East Europe: total and urban populations in 1992 and urban change since the 1930s

Country	Population (millions) in 1992		Per cent of population in urban areas	
	Total	Urban	Pre-war	c.1992
Albania	3.3	1.2	15.4 (1938)	35.0
Bulgaria	9.0	5.9	21.4 (1934)	66.0
Czechoslovakia (old)	16.0	11.4	38.9 (1930)	72.2
Czech Republic	10.4	7.8		75.2
Slovakia	5.3	3.7		69.2
Hungary	10.4	6.1	33.2 (1930)	59.0
Poland	38.4	23.1	37.3 (1939)	60.9
Romania	23.2	12.3	21.4 (1930)	54.4
Yugoslavia (old)	23.9	11.0	13.2 (1931)	47.5
Bosnia/Hercegovina		1.5		34.2
Croatia	4.8	2.4		50.8
Macedonia	2.0	1.1		53.9
Slovenia	2.0	1.0		48.9
Montenegro		0.3		50.7
Serbia		4.6		46.5
Yugoslavia (new)		4.9		48.6
East Europe	123.7	71.1		56.4

Source: Carter, F. W., 'East Europe: population distribution, urban change, housing and environmental problems', background paper prepared for the Global Report on Human Settlements, 1995.

Demographic change

Population growth has slowed significantly over the last two decades; current estimates suggest an average annual growth rate of 1 per cent a year. Birth rates have fallen rapidly while death rates also fell until 1980, after which small increases were recorded. Over the last decade, rates of natural increase have been high in comparison to West Europe, especially in Poland, the former Yugoslavia and Romania. However, by the early 1990s, in several cases, rates of natural increase were very slow; in Bulgaria, birth and death rates were close to cancelling each other out. In Hungary, deaths already exceeded births in 1990. For Romania, some predictions suggest that the population will fall by a quarter over the next two decades as birth rates fall well below death rates.

Although it is difficult to compare age structures within East Europe because there is no agreed definition for the working population, countries such as Albania and Poland have a high proportion of children, reflecting religious and political policies in these states. There are considerable variations in the proportion of the `aged' population. The smallest proportion is found in Albania with less than 10 per cent and the former Yugoslavia with 13 per cent-both probably attributable to poorer medical facilities. The highest proportions are found in Bulgaria, Hungary and the Czech and Slovak republics where the `aged' population represent a fifth or more of total population. Overall, the age structure of the region over the next decade is likely to show a decreasing proportion of children and an increasing proportion of people aged over 64.

International migration

The removal of controls on people's movements and the greater possibilities of moving away from the region also brought changes in the settlement system. Prior to the changes in the late 1980s, the movement of people was regulated through registration formalities that allowed migration to be encouraged or discouraged in line with government priorities. In general, until the post-1989 changes, migration in Eastern Europe was only inter-regional within countries-apart from anomalies such as the repatriation of certain ethnic minorities or those people on temporary industrial and cultural appointments."' There was a steady flow of migrants to the West, sometimes involving significant numbers after such political upheavals as occurred in Hungary (1956), Czechoslovakia (1968) and Poland

(1980/81) but in general, international migration out of the region was controlled. One exception was Yugoslavia and estimates for 1988 suggest that there were 870,000 Yugoslav economic migrants working abroad.

With the greater freedom to travel that is part of the post-1989 reforms, internal migration or emigration out of the region could have the most significant influence on population distribution in the immediate future. Two factors, one political, one economic, would underlie this. First, nationalist problems released with the political liberalization have encouraged ethnic and religious tension in East European states that in turn have contributed to conflict and oppression in certain areas. At present, the former Yugoslavia is the main source of such movement as the former federation's disintegration has resulted in a long and bitter civil war. Recent UN estimates suggest around 1.8 million displaced persons within the former Yugoslavia and over half a million refugees from outside the territory.[162] The split between the Czech and Slovak Republics could also lead to large-scale population movement, especially within the half million strong Hungarian minority in the new Slovakian state. The second reason is that emigration may be stimulated by economic adversity, resulting from rising unemployment, decreasing living standards and real incomes coupled with high inflation. Such factors, arising from the market reform, have encouraged people to search for better living conditions outside the region.

Economic and spatial change

Since 1989, there has been a distinct transformation in the economies of Eastern Europe towards more market-oriented growth. This is likely to bring major changes to settlement systems through changes in the scale, nature and spatial distribution of economic activities. The settlement changes are likely to be most dramatic in the countries with the most radical economic change. This change consists of initially macro-economic stabilization and a broad internal and external liberalization programme for the economy, followed by the launching of privatization. This describes the former Czechoslovakia in early 1991 and Albania 1992-3 and Poland 1989-91 while recent economic changes in Hungary may also place it in this category. In others, such as Romania, the economic (and spatial) transformation is likely to be more gradual. There are also those areas where economic reform has been halted while war-related expenditures and disorganization of the economy caused by armed conflict have led to hyper-inflation; this group includes Bosnia/Hercegovina, the `new' Yugoslavia and to some extent Croatia.

Internal migration and urbanization

Internal migration has generally been from poorer to richer regions and from rural to urban areas. The scale of rural to urban migration in recent decades has been such that the number of people residing in rural areas fell in all but Albania. In the decade after 1965, more than half the increase in urban population was caused by rural to urban migration.[163]

Within the region, all but Albania and parts of the former Yugoslavia have more than half their population in urban centres while in the Czech and Slovak Republics and in Bulgaria, more than two-thirds live in urban centres. A significant part of the inter-regional migration trend pre-1989 was attributable to official government policies that promoted the growth of large towns and cities to provide the labour force for major plants and enterprises.

A very considerable proportion of the region's urban population lives in relatively small urban centres. In 1992, more than half the urban population lived in urban centres with less than 100,000 inhabitants and urban centres with 100,000 or more inhabitants contained a quarter of the region's population; for the European Union, by way of comparison, half the urban population live in cities of 100,000 or more inhabitants.

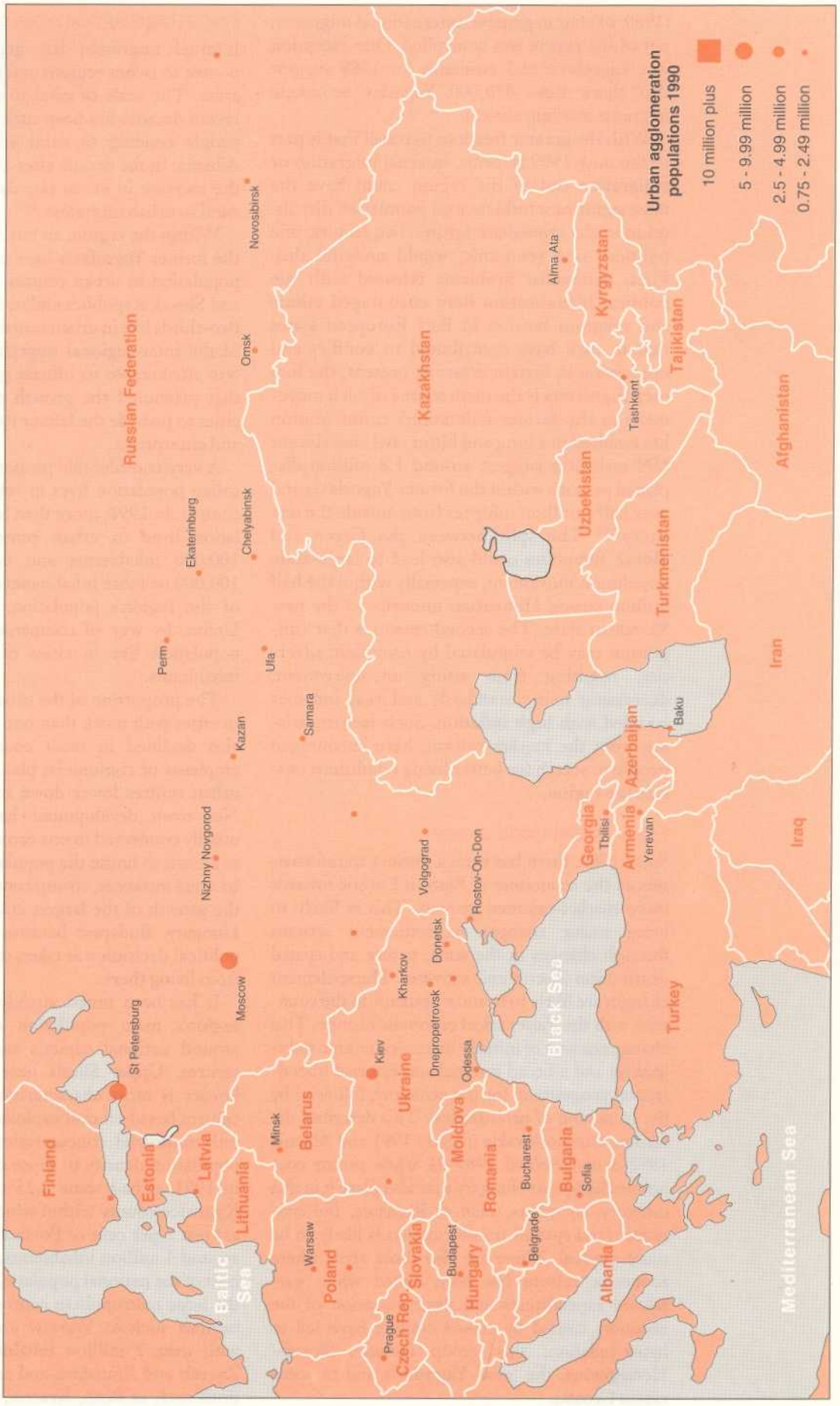
The proportion of the urban population living in cities with more than one million inhabitants also declined in most countries, due to the emphasis of communist planners on developing urban centres lower down the urban hierarchy. New-town development has been popular-usually connected to one economic function such as a town to house the population of a coal mine. In some instances, strong controls were placed on the growth of the largest cities. For instance, in Hungary, Budapest became so popular that a political decision was taken to discourage people from living there.

It has been noted already that many of the region's main population concentrations are around national capitals and major industrial centres. Upper Silesia near the Polish/Czech border is most characteristic of the industrial centres based on coal exploitation and this is the only industrial concentration similar in urban population density to those of Western Europe; in 1991, it had some 2.25 million inhabitants. Katowice county within which it is located covers just 2 per cent of Poland's territory but with around 4 million inhabitants, it has some 10 per cent of the national population.[164] There are also the large metropolitan centres that include state capitals such as Warsaw and Bucharest (each with over 2 million inhabitants) and Prague, Zagreb and Bratislava and regional agglomerations such as Brno, Kracow, Poznañ, Lódz and

MAP 2.4

The largest urban centres in East and Central Europe

Notes and sources: This map shows all urban centres which were recorded as having 750,000 or more inhabitants in 1990 in United Nations, World Urbanization Prospects: The 1994 Revision, Population Division, Department of Economic and Social Information and Policy Analysis, New York, 1995 with additional cities added or reclassified where more recent census data was available. And as in the text of this section, it includes all countries that were part of the former USSR, even where these are now classified as being parts of Northern Europe, Southern Europe or Asia.



Wroclaw. Unlike Katowice, most of these have been important urban centres for centuries and were part of an integrated system of Central European manufacturing and trading cities, prior to the industrial revolution.[165] For instance, Warsaw, Prague, Belgrade, Poznañ, Budapest and Bucharest were among Europe's largest urban centres for parts of the late Middle Ages and/or sixteenth and seventeenth centuries.

There is considerable variation in the rate at which the region's major cities have grown in recent decades. Within the United Nations list of the 'million-cities' in the region shown in Table 2.15, Katowice appears as the largest and among the most rapidly growing in recent decades but this population of 3.5 million in 1990 refers to the county, not the town and Katowice County is perhaps better considered as a region rather than a city or metropolitan area. However, the Upper Silesian Industrial Region with around 2.25 million inhabitants in 1992 would be among three other metropolitan centres, each with over 2 million in 1990: Warsaw, Bucharest and Budapest. Map 2.4 shows the largest urban centres in East and Central Europe.

Table 2.15 also shows how Warsaw, Bucharest and Sofia have grown relatively rapidly since 1950 while Prague, Lodz and Gdansk have grown relatively slowly. Part of the reason for Warsaw's rapid growth since World War 11 has been the rebuilding of the city after most of it was destroyed by the Nazis; in addition, the communist policy of heavy industrial development attracted many rural to urban migrants while increased mechanization in agriculture lessened job opportunities in rural areas. Bucharest and Sofia grew rapidly as what were predominantly agricultural economies prior to World War 11 underwent rapid industrialization. Cities such as Prague, Budapest, Lodz and Gdansk were already established industrial centres prior to World War II; some experienced less war damage.

TABLE 2.15 Population growth among the 'million-cities' in Eastern Europe

Urban centre	1990	1970	1950	c.1930	c.1900	c.1850	c.1800
Katowice	3,449.0	2,767.0	1,689.0	126.0	32.0		3.0
Warsaw	2,235.0	1,723.0	1,014.0	1,172.0	756.0	164.1	75.0
Bucharest	2,201.0	1,667.0	1,111.0	639.0	276.0	104.0	34.0
Budapest	2,121.0	1,946.0	1,618.0	1,318.0	792.0	156.5	54.0
Sofia	1,313.0	881.0	547.0	213.0	68.0	43.0	46.0
Prague	1,216.0	1,078.0	1,002.0	848.0	202.0	118.4	77.4
Lodz	1,042.0	925.0	725.0	605.0	314.0	16.0	0.8
Gdansk	884.0	697.03	65.0	256.0	141.0	64.0	41.0
Krakow (also Cracow)	825.0	630.03	63.0	219.0	91.0	42.0	25.0

Source: Chandler, Tertius and Gerald Fox, 3000 Years of Urban Growth, Academic Press, New York and London, 1974; United Nations, World Urbanization Prospects 1992, Estimates and Projections of Urban and Rural Populations and of Urban Agglomerations, Department of Economic and Social Information and Policy Analysis, ST/ESA/SER.A/136, United Nations, New York, 1993. Gdansk and Krakow are included as both had close to 1 million inhabitants by 1990.

The Republics that formerly formed the Soviet Union [166]

In considering population and urban change in this region, most attention is given to the period 1959 to 1989, with a particular interest in the period 1979-89, because 1959, 1969, 1979 and 1989 were census years in the former Soviet Union and the census data permit a more detailed consideration of such change. During this period, the region's population grew from 209 million to 287 million-with a population growth rate relatively low by world standards; it was slightly lower than the population growth rate of North America. Aggregate statistics for the whole region are much influenced by what is taking place in the Russian Federation; with 147 million inhabitants in 1989, it concentrated just over half of the region's population on more than three quarters of its territory. Ten of the fifteen republics had less than 8 million inhabitants on that date; four had less than 4 million.

Table 2.16 shows the diversity in population and urban change for these three decades between what were to become the independent republics. The most rapidly growing republics more than doubled their population while the least rapidly growing had populations that increased by less than 30 per cent. There are clear contrasts between the small increases among the Russian Federation, the Baltic States to the north-west and the western republics that border Europe that have low birth and death rates and the southern-especially Central Asian-republics that have high birth rates and low death rates. Among the other republics, population growth rates fell between these two extremes.

This same geographic contrast is evident for levels of urbanization in 1989 and for the scale of increase in urbanization levels between 1959 and 1989. This same group of the Baltic States, the Russian Federation and the western republics bordering Europe are all among the most urbanized-all but Moldova had 65 per cent or more of their populations in urban areas by 1989-and were among the most rapidly urbanizing regions for this 30-year period. By contrast, the Central Asian republics are the least urbanized and urbanized much less rapidly-indeed in Tajikistan and Turkmenistan, the level of urbanization did not increase in these 30 years. The other republics, Kazakhstan, Armenia, Azerbaijan and Georgia, generally fall within these extremes. This reflects the general geography of development within the former USSR. Urbanization levels across the four Central Asian republics remained static or fell during the decade 1979-89 as rural populations grow more rapidly than urban populations.

Within the Russian Federation, there was considerable diversity in the level of urbanization among the eleven economic regions. The most

TABLE 2.16 Total and urban populations and level of urbanization for the Republics, 1989, and scale of changes 1959-89

Republic	Total popn 1989 (thousands)	A.A. popn growth rate (1959-89)	Level of urbanization		Change in the level of urbanizn 1959-89
			1959	1989	
Baltic Republics					
Estonia	1,573	0.9	56.5	71.6	15
Latvia	2,680	0.8	56.1	71.1	15
Lithuania	3,690	1.0	38.6	68.0	29
Republics bordering Europe					
Belarus'	10,200	0.8	30.8	65.5	35
Ukraine	51,707	0.7	45.7	66.4	21
Moldova	4,338	1.4	22.3	47.0	25
Russian Federation	147,400	0.8	52.4	73.6	21
Caucasus					
Georgia	5,443	1.0	42.4	55.8	13
Azerbaijan	7,038	2.2	47.8	53.9	6
Armenia	3,288	2.1	50.0	67.8	18
Kazakhstan	16,536	1.9	43.7	57.2	14
Central Asia					
Uzbekistan	19,905	3.0	33.6	40.7	7
Kyrgyzstan	4,290	2.5	33.7	38.3	5
Taiikistan	5,109	3.2	32.6	32.6	0
Turkmenistan	3,534	2.9	46.2	45.4	-1
Total (former USSR)	286,731	1.1	47.9	65.9	18

Source: Shaw, Denis J. B., 'Settlement and urban change in the former Soviet Union', background paper for the Global Report, **1995,** drawing from Census of Population, **1959** and **1989**

urbanized were the Central region (83 per cent urban) with Moscow at its core and the North-West (87 per cent) with St Petersburg at its core; the least urbanized were the three more agricultural regions located in central and southern parts of the European territory-for instance the North Caucasus (57 per cent) and the Central Black Earth (60 per cent). [167]

Demographic change

There were major demographic changes in most parts of the region in the three decades up to 1989. Birth rates and rates of natural increase were high during the 1950s, partly as a result of the post-war `baby boom' but both fell rapidly throughout the 1960s as the considerably reduced generation of wartime children entered its period of maximum fertility. An increased birth rate might have been expected in the 1970s when the larger post-war generation entered its twenties but this did not happen. A series of pro-natalist government measures sought to stimulate birth rates and may have contributed to a slight increase during the 1980s but by the end of the decade, birth rates were again in decline. Social and economic changes were important in helping explain such demographic change. Rising living standards and better health care combined with changing values help explain declining birth rates in the more wealthy republics. However, some of the negative consequences of Soviet-style development have also been cited as helping to reduce fertility levels across the region including shortages of accommodation, poor health (linked to such factors as alcoholism, smoking, industrial pollution and inadequate expenditure on health protection) and low levels of service provision in cities (particularly affecting women who assume the larger share of domestic work).

This general picture of low birth rates, death rates and rates of natural increase applies much less to the more rural and traditional Central Asian republics. Although they also experienced a decline in birth rates during the 1960s, this decline began at a much higher level and also stopped at a higher level. While the average birth rate for the region in 1989 was 17.6 per 1000 population, it exceeded 30 in each of the Central Asian republics. Although Table 2.16 suggests that urban change is relatively slow in the four Central Asian republics, because of high natural growth rates, the rate of population growth in urban areas during this 30-year period exceeded that of many of the rapidly urbanizing republics. It is a reminder of how rapidly city populations can grow without large in-migration flows, when rates of natural increase are high.

Economic and urban change

Generalizations about urban change in this region are very difficult. First, there are an enormous number of urban centres-there were 6,216 urban centres in the 1989 census.[168] Second, there is the great economic, social and demographic diversity among the fifteen republics-and indeed the diversity within the larger ones, especially the Russian Federation. Third, there are the complex changes in national boundaries and in restrictions on international trade after the Second World War through which many major cities in the West lost economic and political importance-for instance Lvov and Riga.[169] But throughout the Soviet period, there was a strong relationship between urban and industrial growth, and the Soviet leadership's industrial development policies had a major impact upon population and urban change. The post-Stalin leadership (after 1953) broadened the goals of its economic policies to emphasize agriculture, consumer goods and services, without any absolute downgrading of the Stalinist accent on heavy industry and the military sector. A priority to industrial modernization and to introducing the plastics and chemical products that characterize modern industrial economies meant investment in oil and natural gas production. This new emphasis required increased output by the Volga-Urals oil and gas field, conveniently located in European USSR. This helps explain why several of the region's most

rapidly growing cities both for the period 1959-1979 and for the period 1979 to 1989 were in the Volga-Urals regions.[170] And ultimately, as energy demands grew, this also meant drawing on the resources of various peripheral producers in the North, Siberia (especially West Siberia), Kazakhstan and Central Asia.

Patterns of urban growth during the 1980s still strongly reflect the industrial emphases of the post-Stalin years. Although the exploitation of oil and gas and other natural resources stimulated urban and industrial development in producing regions such as the Volga region and the southern part of Western Siberia, the growing network of oil and gas pipelines and electricity grids also permitted the continuing expansion of industrial output in the west, next to Europe where most of the population and industrial capacity were concentrated. Some industrial development was also stimulated in other territories that were further away but which had labour surpluses or other advantages-for instance Belarus', the Baltic republics and the Transcaucasus. Two other reasons help explain why urban development remain concentrated in the west. The first was that it had numerous environmental and social advantages over the east and a much higher standard in infrastructure provision. The second was the increasing importance of trade links with East Europe (through COMECON) and West Europe, especially after 1970.

TABLE 2.17 Distribution of urban population in different size categories of urban centres, 1989

Republic	Urban population (thousands)	% of the urban popn in urban centres with			
		up to 19,999	20,000-99,999	100,000-999,999	1 million plus
Baltic Republics					
Estonia	1,118	24.3	22.7	53.0	0.0
Latvia	1,889	20.1	19.1	60.9	0.0
Lithuania	2,487	22.2	18.7	59.1	0.0
Republics bordering Europe					
Belarus'	6,642	18.3	18.9	39.0	23.8
Ukraine	34,297	21.0	21.5	35.6	21.9
Moldova	2,020	27.2	16.9	55.9	0.0
Russian Federation	107,939	15.5	22.1	39.1	23.3
Caucasus					
Georgia	2,992	17.7	19.1	21.7	41.5
Azerbaijan	3,806	26.5	28.8	13.4	31.3
Armenia	2,222	12.8	22.7	13.8	50.7
Central Asia					
Kazakhstan	9,398	17.1	20.2	50.8	11.9
Uzbekistan	8,041	18.3	22.0	34.1	25.5
Kyrgyzstan	1,625	16.0	33.5	50.5	0.0
Tajikistan	1,655	25.7	28.8	45.4	0.0
Turkmenistan	1,591	31.2	26.8	42.0	0.0
Total (former USSR)	187,722	17.6	21.9	38.7	21.8

Source: Shaw, Denis J. B., 'Settlement and urban change in the former Soviet Union', background paper for the Global Report, 1995, drawing from Census of Population, 1959 and 1989.

Priority was also given to modernizing and diversifying the metallurgic industries, including iron and steel industries, most of which were located in the European territories. The most important development in European USSR was the Kursk Magnetic Anomaly and its associated metallurgical and supporting industries, in the Central Black Earth economic region in Russia. Its metal-demanding branches continued to develop in such traditional heavy industry regions as the Urals and Donets-Dnepr (Ukraine) but the less metal-intensive and often more skill-demanding industries were attracted to traditional engineering regions like those around Moscow, St Petersburg and the Baltic capitals. Similarly the motor vehicle industry developed around Moscow and in the newly industrializing Volga region.

As in Europe and North America, the location of defence-related industries and other military activities was an important influence on urban change. These were particularly important to the economies of the Centre, the Urals and the Far East. Both Moscow and St Petersburg have high concentrations of defence-related industry-especially St. Petersburg where by the late 1980s, around a quarter of the workforce were employed in the defence industry. Three of the other 13 'million-cities' in the Russian Federation, Ekaterinburg,[171] Perm and Chelyabinsk, were among the other cities with high concentrations of defence industries. A system of `closed' towns also developed where military industry or research were concentrated whose existence was concealed.[172]

Many regions remained relatively untouched by the post-1953 industrial policies and their urban centres stagnated as a result. Others, such as parts of the Urals and the Donets-Dnepr with traditional iron and steel and heavy metallurgical industries or parts of the Centre with textile industries were too closely associated with Stalinist industrialization policies to benefit from the new economic directions. However, deindustrialization and the heavy unemployment associated with it were never features of the Soviet period, as many industries remained in production, long after the stage that they would have been deemed unprofitable in the West.

Large cities

An increasing proportion of the urban population came to live in large cities. By 1989, 61 per cent of the region's urban population lived in cities with 100,000 or more inhabitants compared to 49 per cent in 1959. This is much higher than in East Europe where only 46 per cent of the urban population lived in cities with 100,000 plus inhabitants. By this date, 22 per cent were living in 'million-cities' compared to 9 per cent in 1959.

Although official Soviet policy advocated controlling the growth of large cities, the elaborate government system for controlling migration to such cities established from the 1930s was never particularly effective. It was based on a system of residence permits, controls on employment and land use plans. The policy from the 1950s to persuade industry and other employers to locate in medium-size and small urban centres generally failed to counteract the attractions of the large cities. Most new or expanding enterprises located in larger cities. Large cities had an important role in the command economy for two reasons. First, they had the best quality infrastructure and skilled labour forces but also relatively low wages and other cost advantages that encouraged (or compelled) state and other enterprises to locate there. Unlike market economies, in the Soviet command economy, wage rates, taxes, the cost of land (or rent) and infrastructure costs were not necessarily higher in large and successful cities compared to smaller and less successful cities as they would be in West Europe or North America. Second, in a command economy, success depends as much on access to political and administrative decision-makers and government officials as economic performance and this enhanced the attraction of major administrative centres. Important ministries and enterprises wishing to locate in large cities had little difficulty in persuading local authorities to grant the necessary permissions (including resident permits) and/or persuading national party or government bodies to put pressure on local governments. This helps explain the increasing dominance of Union republic capitals and many regional administrative centres as they concentrated an increasing proportion of the urban population in their respective regions over the 1959-89 period.

An analysis of growth characteristics and socio-cultural development for the cities with 100,000 or more inhabitants for the 1970s permitted the 221 cities to be grouped into four types.[173] The first was a small group of 28 cities characterized by restricted industry-related growth and significant socio-cultural development; this favoured group included major urban centres such as Moscow and Kiev with high living standards. Next came a dynamic group of 42 cities with significant growth and development. This group included many cities towards the western and southern edges of the county that benefited from the post-Stalin policies of industrial modernization. The third group of 59 cities had significant growth but restricted socio-cultural development and included numerous resource centres and peripheral cities where rapid industrial growth, often under the aegis of only one or two dominant ministries was not matched by adequate provision of services. The fourth group of 92 cities had restricted growth and socio-cultural development and these included the heavy industrial centres of the Stalinist era-for instance cities in the Donets-Dnepr region, the Urals and the Kuzbass coalfield.

This concentration of rapid urban development away from the old heavy industrial centres was also confirmed by a study of the fastest and slowest growing cities between 1979 and 1989.[174] Of the 35 fastest growing cities 1979-89, only two are in the older industrial regions. Most of these fast growing cities are close to Europe in Belarus', the south-west of the Ukraine and Moldova, along the Volga and Kama rivers (part at least due to the oil and chemical industries, part to new manufacturing enterprises) and in West Siberia, east of the Ural region where oil and gas development have given impetus to rapid city growth. The distribution of rapidly growing cities during 1959-79 is fairly similar, and again with few such cities being located in the older industrial areas-although the cities to the west experienced less growth than in the 1980s. Of the 36 cities with the slowest population growth 1979-89 (including six with a net decline in population), two thirds are the Central Region of Russia, the Donbas coalfield (mainly in Donets-Dnepr) or the Kuznetsk basin. Virtually all the slowest growing towns during 1959-79 were also in or adjoining the mature industrial regions of the country.[175]

By the 1970s, Soviet urban specialists became aware of a phenomenon that had previously been considered a characteristic of capitalism-the development of large urban agglomerations or clusters of functionally interrelated cities. The largest such agglomeration is the one with Moscow at its centre. There are also clusters of cities on the Donetsk mining centres, the Kuzbass coalfield (also known as the Kuznetsk basin), in the central Dnepr region, and the Urals group of metallurgic and mining cities. The development of such agglomerations or core regions highlighted the need for a more comprehensive system of land use planning working at a regional scale but until the end of the Soviet period, such a planning system had failed to emerge. Instead, systems of cities often developed because enterprises and agencies denied access to one city were able to choose a location in a neighbouring city. Similarly, many migrants unable to gain residence rights in one city found accommodation in another nearby and commuted into the city by train or bus. In many large cities, including Moscow and St Petersburg, 10 per cent or more of the labour force live outside their boundaries and commute. But unlike Europe and North America, it tends to be the poorer groups working in the less remunerative jobs and living in poor quality settlements that commute from `suburban' locations while the inhabitants in

privileged central cities enjoyed superior living standards and services. Central city residents also enjoy subsidized public transport while commuters travel on non-subsidized transport.

From the 1950s, with the drive to solve the housing crisis, Soviet cities also expanded their physical size. Despite land use controls, land was not always used efficiently and the inhabitants of new housing estates often had lengthy journeys to work. However, Soviet cities generally spread less than cities in the West. One reason was the state control of land and of much of the housing and the emphasis in public housing on apartment blocks rather than individual units within relatively low density suburban developments. A second reason was low levels of car ownership and the lack of development for roads, especially beyond city limits. However, growing cities made increasing land and resource demands on their wider region through, for instance, recreational demands (including *dachas* or second homes and collective gardens) and the rising demand for fresh water and for land for rubbish disposal. These often threatened the integrity of green belts and other valued resources and gave rise to severe disputes between neighbouring local authorities.

Rural settlements

Between 1959 and 1989, rural populations and the number of rural settlements declined in most regions. In the Russian Federation, the rural population declined by around a third and among its eleven economic regions, only those to the extreme east and the extreme south (North Caucasus) had population increases. The Ukraine, Belarus' and the three Baltic states also experienced declines in their rural population in this period. Most of the declines were the result of rural-urban migration and they left within many rural settlements the problems associated with an ageing population and labour scarcity. The number of rural settlements declined by more than half in this period to 332,000 in 1989. This particularly affected small settlements with less than 100 inhabitants that had housed 12.0 per cent of the rural population in 1959 but only 4.6 per cent in 1989. Such small settlements are characteristic of the landscapes of north Russia where the bleak natural environment restricts the opportunities for large villages to develop. The number of large rural settlements-those with over 1000 inhabitants-grew significantly in these three decades and they came to house 55.4 per cent of the rural population. Larger settlements are especially characteristic of the semi-arid and arid southern parts of the region.

The rapid decline in the proportion of people living in rural areas reflects the priority given to urban-based production and the limited success in improving economic and social conditions in rural areas. But it is also linked to conditions and trends that pre-date the 1950s. Rural and agricultural work had long been poorly rewarded with relatively low wages compared to cities and very inadequate provision of services. The radical changes in the form of agricultural production under Stalin with the effective abolition of peasant farming and its replacement with a system of state or collective farms offered minimum incentives to the rural labour force. Although, after 1953, many efforts were made to improve wage levels in rural areas, to make agriculture more efficient and to provide services, these did not stem rural to urban migration. In addition, some of the rural improvement policies such as the grouping of rural inhabitants into key settlements where services could be provided more efficiently may have hastened rather than slowed out-migration. Although the Soviet authorities also sought to control migration out of rural settlements by minimizing the issue of internal passports to collective and state farmers, this did not prove effective.

Recent developments

Recent political changes and the fundamental changes they have included in economic policies will have far reaching implications for all aspects of population and urban change. Some of these had begun prior to the break up of the USSR in 1991. The reforms known as *Perestroyka* launched by the government of President Gorbachov sought to decentralize the command economy by introducing market-like elements and implementing measures of democratization. These helped provoke the break up of the USSR and since 1991, all the newly independent republics have been promoting a more market-based economy (with varying degrees of enthusiasm) and many have moved towards some model of pluralist democracy.

Perhaps the most visible changes in settlement trends to date are the consequence of new political boundaries imposed across what was formerly a single political and economic space. One obvious change arises from each new republic having to reconstruct its independent political life around its capital city and inevitably, each capital city's significance will grow. A second change is the cutting of inter-republic linkages originally built up over many years to serve the interests of the Soviet command economy as a whole; when added onto market forces, these will have uncertain consequences for regional growth patterns. Transport routes are being reoriented-for example Russia's decision to build a new oil-exporting port near St. Petersburg to replace Ventspils in Latvia. Several southern republics are seeking alternative routes for their export of fuels and other products. If trade with West Europe and other world regions expands-as

seems likely-cities that are well located, close to international frontiers and transport routes are likely to benefit. For instance cities like Vyborn near St. Petersburg or Nakhodka and Vladivostok in the Russian Far East stand to benefit from their Special Economic Zone status. Cities in general may benefit from an expansion of service activity that was long held back by Soviet development patterns. Some of the settlements on the various resource frontiers may also grow as a result of expanded foreign investment and resource extraction and with an enhanced ability (compared to the Soviet period) to keep some of the income in the locality.

On the negative side, regions and cities closely associated with the heavy industrialization of the Soviet era-most notably Donets-Dnepr in southern Ukraine, the Urals and the Kuzbass in West Siberia may well experience the deindustrialization and outmigration that has already hit so many similar regions in Europe and North America. The `smokestack' industries were so widespread within the command economy that such processes will not be confined to a few regions and the effects are likely to be particularly devastating on `company towns' that were dependent on one or two heavy industries or on the exploitation of a natural resource that is no longer required. Such urban centres are found everywhere but especially in eastern regions. Similarly, policies to reduce military expenditure and to restructure the military-industrial complex will have serious consequences both in established industrial regions and in some peripheral ones where military activity and employment has been significant. Some of these changes may be ameliorated by government subsidies and regional policy but the scope for such measures is restricted.

At least up to 1994, the transition to a market economy has had rather limited effects on regional development and settlement. Govermnent subsidy has staved off the worst ravages of unemployment and the command economy is only now in the process of privatization. Where subsidies have been removed or government commitment reduced, the effects can be considerable. Many northern regions of the Russian Federation have lost population since 1989 as a result of the closure or reduction of some resource extraction activities and military reductions. For example, Magadan administrative region in the extreme northeast of Siberia, where gold and some other mineral resources are exploited is reported to have lost 43 per cent of its population between 1989 and 1994. Krasnoyarsk Territory in Siberia, also developed for its natural resources (timber, hydro-electric, minerals) lost 16 per cent of its population in this same period.

There are also the changes in population distribution that arise from mass migrations by people escaping political persecution or actual violence. In many parts of the former USSR and especially in its southern regions, the new political geography has precipitated disagreement, conflict and on occasion open warfare. One estimate for 1993 suggested that there were more than 2 million refugees and forced resettlers living in Russia. In the Transcaucasus, an exchange of populations of around half a million people accompanied the war between Armenia and Azerbaijan over Nagorno-Karabakh. Other regions have also produced large flows of refugees including parts of Georgia and the neighbouring North Caucasus and Tajikistan in Central Asia.

Finally, there are the changes taking place in rural settlements as state and collective farms are dismantled or restructured and land ownership or use privatized. Rural settlement patterns are likely to change in areas where agricultural production increasingly takes place within the private sector. For instance, the establishment of many new farms and small settlements linked to new market and agricultural service centres may replace the nucleated farm settlements of the large collectives.

But changes in the settlement (or urban) systems of the fifteen independent republics will depend much on the extent of their economic success. If the economic changes succeed in promoting a more widespread affluence, it may promote urban changes similar to those already described in West Europe and North America. The lifting of residence restrictions and of controls on migration suggests a much greater mobility than in the past. But there are large areas of the former Soviet Union that remained little changed by the post-1950s economic changes and have yet to be influenced greatly by the more recent economic and political changes.

2.6 Asia and the Pacific[176]

Introduction

Asia contains three-fifths of the world's population and also a large and increasing share of its economic activities and its urban population. It also contains many of the world's fastest-growing large cities, reflecting the fact that it also contains most of the nations with the highest economic growth rates since 1980. But few generalizations are valid for the region, given the number of countries that range from the richest to the poorest and the largest and most populous to among the smallest and least populous in the world. Although this remains a predominantly rural region, it also contains a high proportion of the world's largest cities-see Box 2.4.

BOX 2.4

The share of Asia's rural, urban and large city population within the world

In 1990, Asia contained:

- **72 per cent of the world's rural population. This included the five largest rural populations within nations: China, India, Indonesia, Bangladesh and Pakistan which between them had close to three-fifth's of the world's rural population. China and India alone had close to half the world's rural population.**
- **44.5 per cent of the world's urban population. This includes the two largest urban populations within nations: China and India that between them had more than 500 million urban inhabitants. China's urban population was nearly as large as the total population of Latin America. Both China and India had urban populations that were larger than all of Africa and of all of North America.**
- **42 per cent of the world's 'million-cities' including halt of the world's ten largest urban agglomerations (Tokyo, Shanghai, Beijing, Bombay and Calcutta). See Map 2.5.**

Notes: One reason for what appears to be a sudden increase in Asia's total, urban and rural population and in the number of 'million-cities' around 1990 was the breakup of the former Soviet Union, as several republics that were previously in the Soviet Union became part of Asia. They include Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan (now part of South-Central Asia) and Armenia, Azerbaijan and Georgia (now part of Western Asia).

Demographic change

By 1990, the region's population totalled 3,186 million with 32 per cent living in urban areas. The region's total population doubled between 1955 and 1990 while the urban population more than tripled.[177] Most countries had populations that more than doubled between 1950 and 1990 while many had populations that more than tripled, especially in Western Asia. Demographic statistics for the region are much influenced by China and India; in this same year, between them they had more than three-fifths of the region's population and just over half its urban population. Table 2.18 gives statistics on population and urban change for Asian nations with 10 million or more inhabitants in 1990.

Population growth rates for the whole region have been declining since the late 1960s, although with an annual rate of change of 1.9 per cent a year during the 1980s, this remained second only to Africa among the world's regions. As in Latin America, there are countries with very low and very high rates of change. Some had growth rates below 1.0 per cent in the second half of the 1980s-including three of the wealthiest Asian countries Japan (0.44 per cent a year), Hong Kong and Republic of Korea. Some had rates that were still above 3.0 per cent a year-including Yemen, Pakistan and Iran and many of the oil-rich states in Western Asia, although for some of these, this was likely to be associated with immigration. Most countries fell between these two extremes. For the most populous countries, China's annual rate of change for the period 1985-90 was 1.5 per cent with India having 2.0 per cent and Indonesia having 1.8 per cent.[178] India's rate of population growth was reported to have declined to 1.9 per cent a year in 1991 and it is expected to fall further in coming years-one demographer suggested that it will fall to 1.6 per cent a year by the year 2000 and 1.3 per cent by the year 2005.[179]

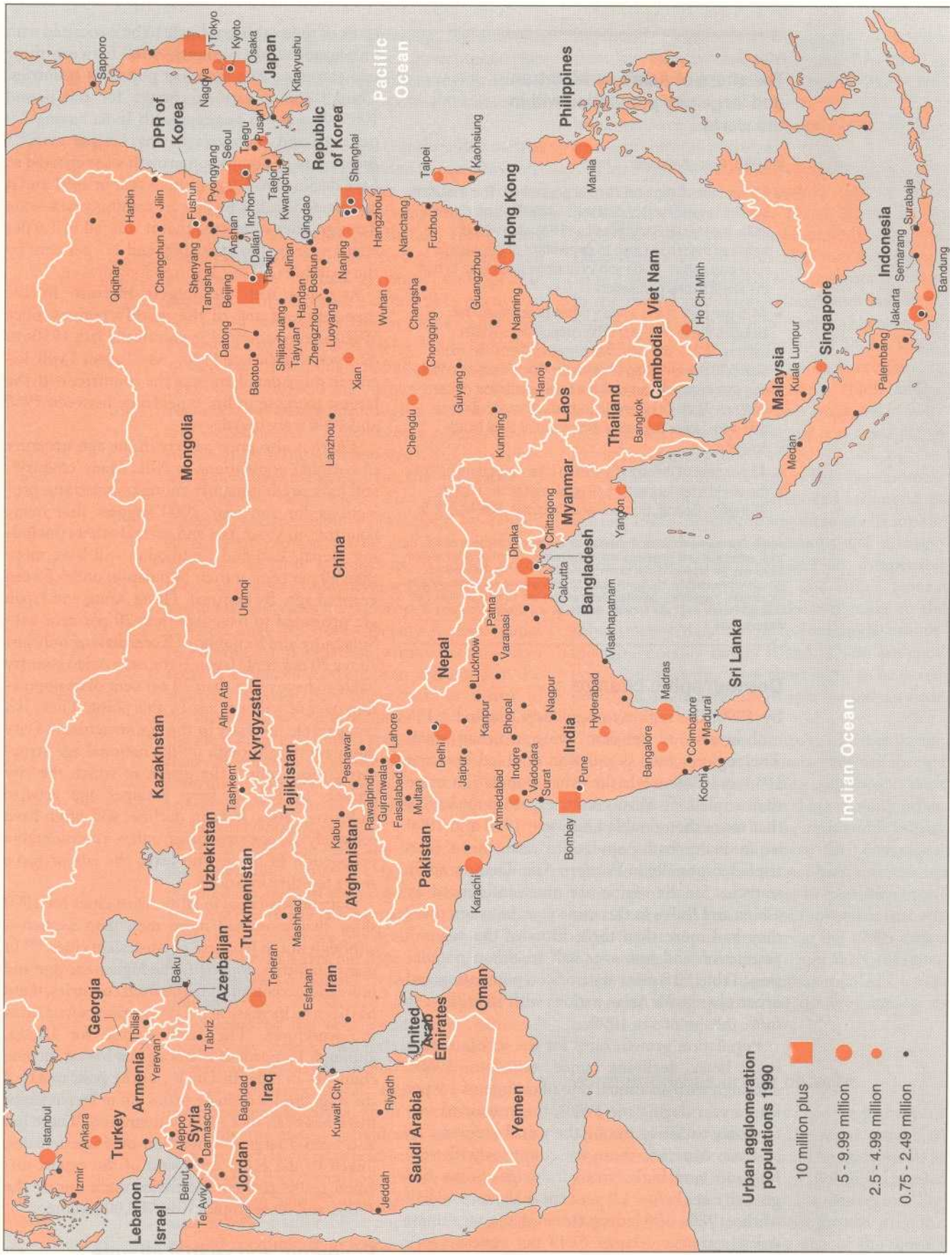
Asia has had the largest increase in life expectancy of any of the world's regions since 1960-from around 45 years in the late 1950s to 62.5 years in the late 1980s. As Chapter 3 will discuss in more detail, most of the countries with the largest increase in life expectancy between 1960 and 1990 were in Asia.

There is also great variety in the age structure of national populations in Asia. Many countries still have predominantly young populations; projections for the year 2000 suggest that many countries in West Asia and several others (including Nepal, Lao and Cambodia) will have more than 40 per cent of their population under fifteen years of age. By contrast, Hong Kong and Japan are projected to have less than 20 per cent with Singapore and Republic of Korea having only just above 20 per cent. Japan is the only Asian country likely to have more than 20 per cent of its population over 60 years of age by this point. There is a comparable diversity in the age structures of city populations, although unlike national age structures, these reflect the extent to which the city attracts or fails to keep younger age groups. Industrial cities, long in decline, will often have relatively old age structures, unless a considerable proportion of those who leave the labour force retire to other locations.

Data on sex ratios in large Asian cities for 1990 show that most had more men than women-although not in Japanese or Australian cities.[180] In many countries, especially the higher-income and more industrialized and urbanized countries, there has been an increase in the proportion of women in the workforce. The same is true for Dhaka, although Bangladesh is among the lowest income countries in Asia. In Dhaka, in the past, much of the migration was single males but in recent years, there has been more family migration. There has also been a large in-migration of single females, linked to the rapid expansion of the export-oriented ready-garment industries there during the 1980s, and these employ over 700,000 women.[181]

Economic and spatial change

Table 2.19 shows the high economic growth rates that many Asian nations achieved during the period 1980-92-which is very much in contrast



MAP 2.5
The largest urban centres in Asia

Source and notes: This map shows all urban centres which were recorded as having 750,000 or more inhabitants in 1990 in United Nations, World Urbanization Prospects: The 1994 Revision. Population Division, Department of Economic and Social Information and Policy Analysis, New York, 1995 with additional cities added or reclassified where more recent census data were available. Ulhasnagar is not included as a separate city within India as it is now part of Bombay urban agglomeration. The population figures for the cities in China are for administrative units that are larger than the built up areas. Their 'core populations' are generally substantially smaller-see for instance the difference between the population in 'Greater Shanghai and in Shanghai's core urban districts described in Box 2.6.

TABLE 2.18 Population and urban change in Asian countries with 10 million or more inhabitants in 1990

Country	Population 1990 (000s)	Popn 1990/ popn 1950	Urban popn 1990 (000s)	% of popn, in urban areas (level of urbanization)		Level of urbanization in 1990 minus level of urbanization in 1950
				1950	1990	
Eastern Asia						
China	1,155,305	2.1	302,690	11.0	26.2	15.2
Dem. People's Rep of Korea	21,774	2.2	13,024	31.0	59.8	28.8
Japan	123,537	1.5	95,321	50.3	77.2	26.9
Republic of Korea	42,869	2.1	31,658	21.4	73.8	52.5
South-central Asia						
Afghanistan	15,045	1.7	2,745	5.8	18.2	12.4
Bangladesh	108,118	2.6	16,942	4.2	15.7	11.4
India	850,638	2.4	217,216	17.3	25.5	8.3
Iran, Islamic Rep. of	58,946	3.5	33,161	27.0	56.3	29.3
Kazakhstan	16,670	2.5	9,606	39.0	57.6	18.6
Nepal	19,253	2.4	2,104	2.3	10.9	8.6
Pakistan	121,933	3.1	39,029	17.5	32.0	14.5
Sri Lanka	17,225	2.2	3,680	14.4	21.4	7.0
Uzbekistan	20,421	3.2	8,285	31.4	40.6	9.1
South-eastern Asia						
Indonesia	182,812	2.3	55,923	12.4	30.6	18.2
Malaysia	17,891	2.9	8,909	20.4	49.8	29.4
Myanmar	41,813	2.3	10,350	16.2	24.8	8.6
Philippines	60,779	2.9	29,657	27.1	48.8	21.7
Thailand	55,583	2.8	10,408	10.5	18.7	8.2
Viet Nam	66,689	2.2	13,258	11.6	19.9	8.2
Western Asia						
Iraq	18,078	3.5	12,987	35.1	71.8	36.7
Saudi Arabia	16,048	5.0	12,405	15.9	77.3	61.4
Syrian Arab Republic	12,348	3.5	6,199	30.6	50.2	19.6
Turkey	56,098	2.7	34,179	21.3	60.9	39.6
Yemen	11,311	2.6	3,269	5.8	28.9	23.1

Source: United Nations, World Urbanization Prospects: the 1994 Revision, Population Division, New York, 1995.

to most nations in Latin America and Africa. Perhaps the most remarkable is that of China with a fifth of the world's population and the second fastest growth in per capita income of any country in the world with 1 or more million inhabitants-the fastest growing being the Republic of Korea.

The nations with the most rapid economic growth include what are often called the `Newly Industrialized Countries' of Hong Kong, Singapore, Taiwan (province of China) and the Republic of Korea-although it is many years since they could be called `newly industrialized' and more than half of their GDP comes from services. Japan also sustained a relatively high growth rate per person, despite already being one of the world's most wealthy nations at the beginning of this period. Three of the 'ASEAN 4'-Indonesia, Malaysia and Thailand-also had among the world's fastest growths in per capita income in this period-while the growth in per capita income in this period in nations such as India, Pakistan and Malaysia compares favourably with most of the rest of the world.

Most of the Asian nations with among the fastest growths in their per capita GNP between 1980 and 1992 also had among the world's most rapid increases in per capita income between 1960 and 1980-especially China, Japan, Singapore, Hong Kong and the Republic of Korea. Indonesia, Malaysia and Thailand also sustained high growth rates per person in this earlier period-as did the oil-rich economies of Iraq and Saudi Arabia whose per capita incomes subsequently fell during the 1980s and early 1990s.

Urban change

Although with two-thirds of its population still living in rural areas in 1990, it is clear that Asia remains a predominantly rural continent, the extent of this `ruralness' compared to other regions is partly explained by the criteria used by governments in defining their urban populations. For instance, it would only need India and

TABLE 2.19 Per capita GNP 1992 and annual average changes in per capita GNP for 1980-1992 and for 1960-1980 for Asian countries with 10 million or more inhabitants in 1990 and Hong Kong and Singapore

Country	GNP per capita		
	US dollars (1992)	Average annual growth rate (%)	
		1980-92	1960-80
Eastern Asia			
China	470	7.6	5.0'
Dem. People's Rep of Korea			
Hong Kong	15,360	5.5	6.8
Japan	28,190	3.6	7.1
Republic of Korea	6,790	8.5	7.0
South-central Asia			
Afghanistan			
Bangladesh	220	1.8	0.3*
India	310	3.1	1.4
Iran, Islamic Rep. of	2,200	-1.4	
Kazakhstan	1,680		
Nepal	170	2.0	0.2
Pakistan	420	3.1	2.8
Sri Lanka	540	2.6	2.4
Uzbekistan	850		
South-eastern Asia			
Indonesia	670	4.0	4.0
Malaysia	2,790	3.2	4.3
Myanmar			1.2
Philippines	770	-1.0	2.8
Singapore	15,730	5.3	7.5
Thailand	1,840	6.0	4.7
Viet Nam			
Western Asia			
Iraq			5.3
Saudi Arabia	7,510	-3.3	8.1
Syrian Arab Republic			3.7
Turkey	1,980	2.9	3.6
Yemen			

* For 1960-1982

Source: Drawn from World Development Indicators in the 1994, 1984 and 1982 World Development Report, Oxford University Press.

China to change their definitions of `urban centres' to definitions commonly used in many European or Latin American nations for Asia to become 50 to 60 per cent urban-as hundreds of millions of what are now classified as `rural' dwellers become urban. [182] This is not to suggest that the definitions used in India and China are at fault but to demonstrate how the proportion of a country's or region's population that lives `in urban areas' can be moved upwards or downwards, depending on the criteria used. Box 2.5 gives more details about the increase in urban population in China and notes how China's urban population might have been 169 million larger in 1990, had not new criteria been introduced for defining urban centres in the 1990 census. The proportion of Japan's population living in urban areas in 1990 can vary from 63.2 per cent to 77.4 per cent, depending on whether it is the population in city municipalities, densely inhabited districts or standard metropolitan employment areas that is being considered.[183]

The nations in Asia can be classified in three different groups, according to their level of urbanization, with the countries in such groups also having some economic characteristics in common. [184] The first, most urbanized group has Australia and New Zealand, Japan, Hong Kong, Singapore and the Republic of Korea. All are predominantly urban with agriculture having a minor role in their economy; agriculture represented between 0 and 4 per cent of GNP in 1990, except for New Zealand where it represented 8 per cent. In all these countries, more than half of their GDP in 1990 comes from services. A more recent estimate suggested that services account for close to 80 per cent of Hong Kong's GDP and around 60 per cent of that of Singapore.[185]

The second group is the `ASEAN 4' (Thailand, Indonesia, Malaysia, Philippines) and Fiji and Pakistan where agriculture contributed less than a third to GDP and where, apart from in Thailand, between 30 and 50 per cent of their population is in urban areas. In most of these countries, the contribution of agriculture to GDP declined dramatically between 1960 and 1990 while that of industry and services tended to increase. Thailand appears very unurbanized within this group; it is reported to have only 19 per cent of its population in urban areas in 1990 and a total urban population of just 10.4 million[186] but this may be due to the urban definition used in Thailand excluding many settlements that would be classified as urban centres in other countries.

The third group contains China and all Southern Asian countries except Pakistan. These remain predominantly rural with agriculture having greater importance within their GDP and within their employment structure. However, China may soon be in the second group, given the speed of its economic growth, the declining proportion of its GDP in agriculture and its rapid urbanization. But again, China, like India, has such diversity in economic and urban trends within its boundaries that the use of aggregate national statistics is misleading. Certain parts of China and India have the economic and urban characteristics of Group 2 nations. There is also considerable diversity in the economic and urban characteristics of regions in countries such as Indonesia, Thailand and Bangladesh. It is also difficult to generalize about urban change in Asia when the region contains tens of thousands of urban centres. India alone had more than 4,000 urban centres in the 1991 census while there were nearly 500 urban centres in Bangladesh by 1990. [188]

BOX 2.5

Urban population growth in China, 1978-1990

In 1990, China had 302 million urban inhabitants representing just over a quarter of its total population. The urban population had increased by almost 130 million between 1978 and 1990; estimates suggest that 35 per cent of this was due to net rural to urban migration, 25 per cent to natural increase and 40 per cent to various alterations in the urban administrative system. These alterations included a large increase in the number of settlements designated as towns (zhen) and municipalities (shi); in both instances, this large increase was associated with changes in the criteria by which a settlement became one of these. However, the scale of China's urban population would have been much larger if the new, more rigorous criteria had not been applied to its definition. China's urban population in 1990 based on the 1982 census criteria would have been 571 million, encompassing more than half the total population. The many different figures given for China's urban population at different points during the 1980s reflect the difficulties of the (then) current urban definitions in accommodating rapid economic change in both rural and urban areas.

Population counts for metropolitan centres underestimate the true numbers having de facto residence, as the economic reforms have created a growing pool of mobile labour. It is generally agreed that the larger the city, the larger this mobile or temporary population. Since 1984, Beijing has consistently reported over 1 million temporary residents or transients; in Shanghai, estimates for late 1988 suggest almost 2 million. [187]

Source: Kirkby, Richard 1994, 'Dilemmas of urbanization: review and prospects', in Denis Dwyer (ed.), China: The Next Decades, Longman Scientific and Technical, Harlow, 128-55.

The major cities

Table 1.5 in Chapter 1 listed the thirty largest urban centres in the world in 1990; half of them were Asian cities. But the list does not include two of the most dynamic cities-Hong Kong and

Singapore. For Singapore, the reason is simply the size of this city-state with just 600 square kilometres. Hong Kong's population is also restricted by its small size but when Hong Kong returns to China in 1997, it would only need a reclassification of its boundaries to reflect the new urban developments closeby for it to become one of the world's largest cities. During the 1970s and 1980s, the transformation of the city-landscape of Singapore and Hong Kong reflected the increasingly important role they came to have within the Asian (and world) economy.

Comparable transformations are also underway in many other Asian cities that are key centres in Asia's economic transformation-for instance Seoul, Kuala Lumpur, Taipei and Bangkok. In China too, there are cities that have undergone a remarkable transformation over the last ten to fifteen years-for instance Guangzhou-and cities that developed almost from scratch-for instance Shenzhen which by 1990 had an official population of 700,000 but whose real population was estimated at more than 2 million. More recently, Shanghai has begun such a transformation, especially in a new development to its east that is being developed as a high technology metropolis-see Box 2.6

Large flows of foreign investment in industry, tourism, land and business development are largely focused on major metropolitan centres such as Tokyo, Seoul, Beijing, Shanghai, Hong Kong, Taipei, Bangkok, Singapore and Jakarta and are leading to intense competition between the administrations of cities and the country of which they are part to capture a greater share of these investments and of tourism.[189] A report by the United Nations Economic and Social Commission for Asia and the Pacific noted that

> Investment in convention centres, the rehabilitation of central cities and the growth of hotels are major features of these cities. Since these developments, while heavily reliant upon private capital, also need state investment particularly in ancillary infrastructure, there is intense competition for available capital for urban development.[190]

When comparing the populations of cities in China with those of other countries, one could use the populations of core cities which usually under-estimate the city populations since they exclude many of those living in suburban areas that are part of the city economy or the populations of city-regions which exaggerate their populations. In China, the process of annexation by large cities of surrounding areas tends to exaggerate the size of their populations and their relative importance. One extreme example is Chongqing that with annexed counties had some 12 million inhabitants by the mid-1980s, yet the urban agglomeration itself had less than 3 million inhabitants. Figures given for Shanghai's population have long been much larger than the population in the central urban agglomeration, although the rapid expansion of Shanghai's economy in recent years has lessened this difference. In China, there have been considerable incentives for local authorities to expand their boundaries since it offers them more direct control over rural resources.[191]

What is probably true for much of Asia is that the largest cities had slower rates of population growth during the 1980s than during the 1970s-although this is partly because as a city gets larger, it takes an ever increasing absolute increment in the population to maintain a city's growth rate. Thus, while most of the large cities in India had slower population growth rates during the 1980s, compared to the 1970s,[192] in fact most had larger

BOX 2.6
Shanghai

In 1949, Shanghai was the pre-eminent city with over half of China's modern industry. But after 1949, throughout the first phase of heavy industrialization, it was deprived of significant investment funds because of its location that was vulnerable to attack from the sea. Its population remained remarkably low, given that it had been the largest industrial centre in the world's most populous nation. In 1982, the city's urban core districts contained only 6.27 million inhabitants with the rest of its 11.8 million inhabitants distributed over what was then over 5000 square kilometres of mainly farming and small towns communities in neighbouring counties. It was not until the early 1980s that it was again given priority-when it was designated one of the 14 'open cities' and with the establishment of the Shanghai Economic Zone in 1983-but it was still compared unfavourably with Guangzhou. In the early 1990s, a combination of strong local pressure and a concentration of ex-Shanghai leaders in the higher echelons of national politics led to a major programme of redevelopment, especially in its eastern hinterland-a large area of agricultural and marginal land generally referred to as Pudong (literally 'east of the Huangpu river'). Here, a new high technology metropolis is being developed, modelled on Singapore.

By 1992, greater Shanghai's population had risen to 12.87 million but the urban core districts now contained 7.86 million inhabitants. There was also a large floating population that was not included in this figure-for instance in 1993, it had a registered temporary population of over 600,000. Migrants into Shanghai generally find employment in the suburban districts and the 6 counties annexed to the city and in almost every zhen and smaller town within Shanghai's orbit, there are established communities of migrants. Most are engaged in new small plants and off-farm enterprises.

Shanghai's official boundaries encompass more than 6,000 square kilometres and much of the remaining pockets of untouched farmland are being developed as housing estates, relocated factories and local enterprises, especially in ribbon developments along each highway. The development of rural industrialization in the city's attached counties has also introduced a new sense of urbanness into much of the peri-urban core.

Source: Kirkby, Richard, 'Country Report: China', Background Paper for the Global Report on Human Settlements, 1995.

annual increments in their population in the 1980s, compared to the 1970s.

Centralized deconcentration within urban systems?

There are too few detailed studies of changes in the spatial distribution of urban population within Asian nations to know whether urban populations are concentrating or deconcentrating within their urban system. In the largest and most populous countries, there are likely to be regions where there is increasing concentration of urban population in the major cities and also regions with increasing deconcentration-for instance, it would be surprising if all states in India and all provinces in Indonesia were experiencing comparable trends in this. A detailed analysis of this has been undertaken in Japan[193] (see Box 2.7) which shows a continuous concentration of population in three metropolitan regions since 1945 and thus no 'counterurbanization' of the kind experienced in Europe during the 1970s-although as the Box notes, it may be that the trend to urban concentration in these three regions is ending. However, Japan's urban system is inevitably influenced by the role of Tokyo as one of the pre-eminent world cities-and it may be that an end to the urban concentration was delayed-or will continue to be delayed-by the expansion in economic activity within Tokyo.

In several of the large Asian countries, many

BOX 2.7

Urban concentration in Japan

Since 1945, the national population has been continuously concentrating in the three major metropolitan regions centred on Tokyo, Keihanshin (Kyoto-Osaka-Kobe) and Nagoya. By 1990, they contained half of the national population, compared to 38 per cent in 1950. As Table 2.20 shows, all three of these metropolitan regions had their most rapid population growth rates in the early 1960s and were growing relatively rapidly until 1975, after which their population growth rate dropped considerably. It is also worth noting how the population growth in the other regions was very small or negative from 1955 to 1970 but more rapid for the 1970s and early 1980s, coming to almost equal that of the three major metropolitan regions in the later 1970s.

It may be that the long-term trend towards the increasing concentration of Japan's population in its three metropolitan regions-and especially that of Tokyo-has ended. Figure 2.3 shows the important changes in the number of net in-migrants to the three metropolitan regions and 'other'. For Tokyo region, there was net in-migration for the whole period, except in early 1993 when the long term trend towards increasing concentration of the national population in Tokyo stopped. For the other two metropolitan regions, net in-migration continued until the early 1970s and then virtually stopped. For 'other regions', there was net out-migration until the mid 1970s when it stopped, then an increase in net out-migration, then a second halt in this in the early 1990s.

TABLE 2.20 Population growth in Japan's major metropolitan regions, 1955-89

Region	Population ('000s)		Compound Growth Rate (percentage)						
	Popn 1955	Popn 1990	55-59	60-64	65-69	70-74	75-79	80-84	85-89
3 Major Metro regions	34,068	61,686	2.3	2.8	2.3	2.0	1.0	0.9	0.7
Tokyo Region	15,424	31,797	3.0	3.3	2.8	2.3	1.2	1.1	1.0
Nagoya Region	6,838	10,550	1.4	1.8	1.6	1.6	0.9	0.7	0.6
Keihanshin Region	11,805	19,340	2.0	2.5	2.1	1.7	0.7	0.6	0.4
Other regions	56,009	61,925	0.0	-0.2	0.0	0.8	0.8	0.5	0.1
National total	90,007	123,611	0.9	2.1	0.0	1.4	0.9	0.7	0.4

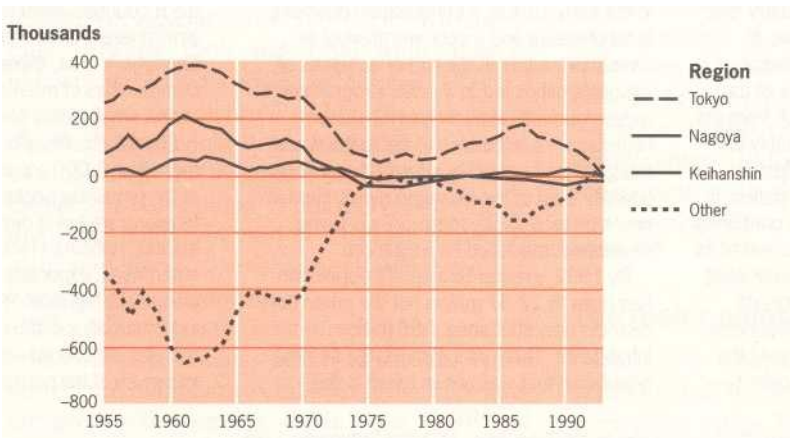


FIGURE 2.3
Changes in the number of net in-migrants for the three metropolitan regions and 'other'

Source: Yamada, Hiroyuki and Kazuyuki Tokuoka, 'The trends of the population and urbanization in Post-war Japan', Background Paper for the Global Report on Human Settlements, 1995. Figure 2.3 draws on the annual reports on internal migration in Japan.

peripheral regions have urban populations that are growing well above the average for all urban centres. For instance in Indonesia, the provinces with the highest urban population growth rates during the 1980s were generally among the least populous and the top seven were all transmigration receiving provinces and all had annual average population growth rates of between 8.7 and 17.7 per cent a year.[194] In India, many of the states with the lowest per capita incomes and the lowest levels of urbanization had a more rapid growth in their urban population than wealthier, more urbanized states.[195] In China, the peripheral `border region' had a more rapid increase in its population living in cities of 500,000 or more inhabitants than the much more developed and urbanized coastal and inland regions.[196]

Given the very rapid urban and industrial development in China since the early 1980s and the fact that so much of it is concentrated on the coast, this would be expected to show up in urban statistics. An analysis was made, comparing the growth in large city populations between 1981 and 1990 for the coastal region, the inland region and the border region-see Figure 2.4. However, the regional differences were not so dramatic. The growth in the aggregate population of the 46 cities that had more than 500,000 inhabitants in 1981 between 1981 and 1990 was 26 per cent for the coastal region, 24 per cent for the inland region and 15 per cent for the border region.[197] The difference between the coastal region and the inland region becomes greater-36 per cent compared to 31 per cent-if the inhabitants of outer suburban areas are added onto those of the core city populations.[198]

FIGURE 2.4
The coastal, inland and border regions of China

Source: Kirkby, Richard, 'Regional aspects of urban development during the post-Mao reform era', Background Paper for the United Nations Global Report on Human Settlements, 1995.

Metropolitan areas and extended metropolitan regions

Available data suggests a deconcentration of population within most of the large metropolitan centres with relatively slow population growth rates within the central city (or even population decline) and much higher population growth rates in the outer areas. For instance, the population within the metropolitan region of Jakarta appears to be deconcentrating quite rapidly. Central Jakarta had a relatively modest population growth rate during the 1980s-around 3.1 per cent a year-but the growth rates of the urban population in the three neighbouring districts that are part of `Jakarta Greater Metropolitan Area' were 11.7, 20.9 and 19.8 per cent.[199] In the main cities within the more successful economies, there is also a major restructuring of central cities-as in office developments, convention centres, hotels and in the diverse range of service enterprises that develop to serve these and in the transport and communication facilities that have to be installed[200] and these will tend to expel population from central cities. As Chapter 7 will describe in more detail, millions of people are evicted from their homes each year to make way for new urban developments, and some of the largest evictions have taken place in the major cities of Asia.

In India, a process of urban and industrial dispersal can be seen within or around the largest metropolitan areas.[201] This can be seen first in the emergence of new towns and rapid growth of small towns within the metropolitan region and the slow population growth within the central city. In the 1991 census, there were 856 new urban centres i.e. settlements that met the criteria for being classified as urban centres-and most of the new urban centres in the more urbanized states were close to metropolitan cities and have strong links, with them. Most of the new towns in the state of West Bengal are concentrated around Calcutta-that has long been India's largest city, although its population was surpassed by that of Bombay in the 1991 census. Other new urban centres have emerged around the other metropolitan cities of Bombay, Delhi, Madras, Bangalore, Ahmedabad, Hyderabad, Pune, Nagpur and Visakhapatnam.[202] The expanding physical area of major metropolitan centres such as Calcutta and Bombay has also absorbed what were previously physically separate urban centres.

There is also a tendency for the population in major cities to spread outwards even beyond the boundaries of metropolitan areas-and these are often referred to as Extended Metropolitan Regions.[203] The built-up area and labour market of cities such as Jakarta, Tokyo and Bangkok extend for great distances from their urban cores[204]–and this is often recognized by govern-

ments in defining new planning regions-for instance, in Thailand, the government has created an Extended Metropolitan region around Bangkok that stretches for some 100 kilometres from the central core.

It has also been suggested that extended metropolitan regions can be expanded to include corridors that run between them and thus to have interlocking extended metropolitan regions. This would apply to Tianjin and Beijing, Hong Kong and Guangzhou and Jakarta and Bandung and if these were defined as single metropolitan regions, it would bring considerable change to the list of the world's largest cities. There are similarities to the United States MSAs described in Section 2.2 although population densities in both the rural and the urban parts of these regions are typically much higher in Asia than in the United States.[205] However, a certain care is needed in defining such regions, if this is to establish a new base for comparing the population of city regions worldwide. For instance, new extended metropolitan regions could be defined in parts of Europe where major metropolitan areas are as close together as the cities noted above and these would increase the number of the world's largest cities from Europe.

There may be more diversity in this spatial reordering of population within metropolitan areas or extended metropolitan regions than the analyses to date have identified, in terms of the distance from the city centre of the areas with the most rapid population Growth and in terms of their location–i.e. is there rapid population growth in virtually all peripheral areas or is it concentrated in certain peripheral areas or along particular transport axes?

There is also the difficulty of knowing where the metropolitan area or extended metropolitan region ends, both in terms of the urbanized area and in terms of the labour market (i.e. including settlements which are physically separated from the metropolitan area but have a high proportion of people who commute to work in the metropolitan area). T. G. McGee has highlighted how large areas of the countryside have acquired increasingly urban characteristics such as an increasing proportion of their population working in non-agricultural activities (including increased female participation in such activities) and a diverse mix of agriculture, cottage industries, industrial estates and suburban developments-but they are not part of any major city or metropolitan area.[206] They are also characterized by a fluid and mobile population, including those that commute to larger urban centres, but they are not simply suburban areas. These are often in areas adjacent to the periphery of metropolitan areas or other cities or along main roads that link cities that are reasonably close together.[207] These are also areas where it is common for farmers and agricultural labourers to derive a significant part of their income from non-agricultural activities and for farm households to have household members working in non-agricultural activities.

There are also some interesting examples in Asia of urban agglomerations which cross national boundaries. For instance, Hong Kong can be regarded as the centre of the Hong Kong-Zhujiang Delta region, and also with the common pattern in large metropolitan areas of slow population growth in the central city (Hong Kong) with very rapid population growth in outer areas (Shenzen and Zhuhai).[208] A large proportion of Hong Kong's manufacturing production has been relocated in southern Guangdong and some three million workers in this part of China are employed in factories that were funded, designed and managed by Hong Kong entrepreneurs.[209]

Another example is the urban development around Singapore in Malaysia and Indonesia. In the late 1980s, Singapore sought to use its sophisticated financial, communications and management facilities to exploit relatively inexpensive labour and the rich land and other natural resources in the nearby industrial zones in the Johor state of Malaysia and Indonesia's Riau archipelago-notably Batam Island. There are good possibilities for this `growth triangle' to be developed as a single investment area for industry and tourism.[210]

Another `international' aspect of urbanization has been the large but fluctuating flows of foreign workers into the oil-producing countries in West Asia which obviously affects these nation's urban systems. But it has also had a considerable impact on the countries from where this emigration came as the emigrants channel back remittances to households and enterprises in their own countries. There is also the reverse movement that was of particular importance during the 1990s with a large number of `returnees' from the Gulf states in the 1990s. In 1991 alone, they totalled 2.6 million with three quarters of these returning to countries in West Asia.[211]

What underlies urban change

Urban change in Asia shows how the growth (or decline) of major cities or the rapid growth of some small urban centres has to be understood in terms of economic, social or political changes that are specific to that city or wider region. For instance, Karachi's population growth over the last few decades to become one of the world's largest cities has been much increased by the settlement there of immigrants or refugees. These include over 600,000 refugees arriving from India after Partition, large numbers of refugees from

Bangladesh during the 1970s and large numbers of refugees from Afghanistan and Iran during the late 1970s and the 1980s.[212] An understanding of Karachi's economy also needs consideration of the role of remittances sent to families based there from Pakistani workers in the Middle East.[213] The very rapid growth of Dhaka in recent decades must also be understood in terms of its much expanded political role, first as part of East Pakistan, then as capital of Bangladesh-and more recently, linked to the rapid growth of garment industries there.

For Asia's largest cities, it is perhaps worth drawing distinctions between those where urban dynamics are strongly linked to the globalization of the world economy and those that are much more linked to political and economic functions of the nation-state. For instance, the size of Delhi and its rapid growth is far more linked to its role as capital of India than to its concentration of enterprises with roles within an increasingly globalized economy. By contrast, urban dynamics in Singapore and Hong Kong are much more shaped by their role within the global economic system than as political and administrative centres. Most of the other large cities in Asia come between these two extremes. For instance, Tokyo is the world's largest urban agglomeration because it is both the national capital of the world's second largest economy and one of the three pre-eminent global cities. It is also clear that Tokyo's role within the global economy has helped to counter a tendency towards decentralization out of the central city and during the 1980s, many enterprises opened their new offices in central Tokyo or moved their head offices to Tokyo. In addition, the deregulation and internationalization of Japanese financial markets helped to create a concentration of many profitable service activities in Tokyo.[214] For the cities that are strongly linked into the world economy, it is also worth stressing the distinction between those that serve as centres of production for the world market or those that are centres for international tourism-and those that are important `command and control' centres and thus considered `world cities'. It is to these latter cities that banks and other financial services, media and the regional headquarters of multinational companies are attracted and they in turn stimulate and support a large range of producer service enterprises while their employees also generate demand for consumer services.

The increasing importance of Asia within the world economy and of its `world cities' was illustrated by a study of the locational behaviour and spatial organization of some major electronics firms between 1975 and 1991. Nine leading Japanese electronics firms expanded production much more rapidly outside Japan than inside, especially in East Asia-but with research and development facilities continuing to concentrate in metropolitan areas such as Tokyo and Osaka.[215]

Urban trends in all Asian nations are also influenced by government actions and structures. Perhaps the most notable change during the 1980s was the relaxing or removal of government controls on urban growth in various countries and the scaling down or removal of special programmes encouraging or directing new investment to peripheral regions. The most dramatic change was in China where there was rapid rural to urban migration during the 1980s and the 1990s. This was made possible by changes in the household registration system that during the 1960s and 1970s had controlled rural to urban migration and by the growing private food and housing markets and employment opportunities that allowed people to find a livelihood and basic necessities outside of the official system; in 1994, the government announced the imminent demise of the household registration system.[216]

The spatial distribution of urban development in many other Asian countries is also likely to change, as their macro-economic policy orientation has changed. For instance, the size and spatial distribution of large cities in India has also been considerably influenced by government priorities to import substitution and heavy industry from the 1950s-and the new priority to export promotion and a lessening of protective barriers will favour different locations to those favoured under the previous policy. In Japan, the slowing in the concentration of population in the three main metropolitan regions during the 1970s was certainly helped by public investment-particularly by the fact that investment in transport facilities was relatively concentrated in non-metro regions-and public policies that restricted the building of such facilities as large factories in the major metropolitan areas and promoted their moving to the other regions. However, it was also helped by a buoyant economy and by structural changes that encouraged many activities to locate outside the three main metropolitan regions.

Small and intermediate urban centres

A very considerable proportion of Asia's urban population lives outside large cities. For instance, in India, despite the prominence given to its largest cities such as Bombay, Calcutta and Delhi in any discussion of its urban trends-or in general to its 23 'million-cities'-in 1991, there were still as many people living in urban centres with less than 100,000 inhabitants as living in 'million-cities'-although the proportion living in 'million-cities' is growing while that in urban centres with under 100,000 is decreasing.[217]

The economic and urban transformation of many cities in Asia noted above has also been matched by a less visible but perhaps as important transformation in many smaller urban centres and in particular rural areas. For instance, in China, there has also been a rapid transformation in the rural and `township' economy:

> The 1980s was a period of unprecedented transfer of China's farm population away from traditional agricultural pursuits. The proliferation of the rural enterprise sector (owned collectively at township and village levels and after 1984 complemented by millions of small privately run operations) has been the cornerstone of an urbanization policy emphasising small and intermediate settlements. [218]

Between 1983 and 1986, the number of rural enterprises increased by a factor of ten; some 90 per cent were privately owned. By 1988, the rural enterprise sector employed 95 million people, almost a quarter of the official rural workforce. In many industrial sectors such as building materials and garments, rural industries it now accounts for over half of national output. By 1987, the total value of rural enterprises's output had exceeded that of the agricultural sector[219] and by the end of the 1980s rural enterprises provided up to a quarter of China's export earnings. [220] This growth has helped to absorb the surplus rural labour that lost its means of livelihood with the abolition of collective agriculture. It also had the great advantage of being largely self-financing and of making only modest calls on the higher levels of government for infrastructural investment. The growth of the small-town economies was also a stimulus for agriculture.

But there are also thousands of small and intermediate size urban centres in Asia that do not have dynamic economies. Many became urban centres because they are a minor administrative centre or a market and centre of a local or regional road network.

MAP 2.6

The largest urban centres in Africa in 1990

Source and notes: This map shows all urban centres which were recorded as having 750,000 or more inhabitants in 1990 in United Nations, World Urbanization Prospects: The 1994 Revision, Population Division, Department of Economic and Social Information and Policy Analysis, New York, 1995 with additional cities added or cities reclassified where more recent census data were available.

2.7 Africa[221]

Introduction

Describing population and urban change in Africa over the last 10-15 years is particularly problematic because of large gaps in basic demographic data. Africa has certainly had among the most rapid population growth and urban change of any of the world's regions in recent decades yet for almost half of its nations, there is no census data available since the early 1980s. [222] For many nations, all figures for national, regional and city populations are estimates or projections based on census data from the 1970s or early 1980s so it is impossible to describe changes in national and urban populations. There are also many countries where war or civil strife make any estimates for city or regional populations questionable-for instance in Somalia, Rwanda, Burundi and Liberia. Map 2.6 shows the largest urban centres in Africa in 1990.

In the absence of census data, one becomes more reliant on studies of particular settlements or city neighbourhoods or sectors that give an insight into the scale and nature of change although it is never possible to know how representative this change is of other settlements or city neighbourhoods.

Demographic change

Most of the nations with the fastest growing populations are now in Africa, although this is a relatively recent phenomenon. It was only in the first half of the 1970s that the region's population came to grow more rapidly than that of Latin America and the Caribbean.[223] Table 2.21 shows how many countries had populations that grew more than threefold between 1950 and 1990-although some caution is needed in reading the statistics in this Table as many of the population figures for 1990 are based on estimates or projections.

Table 2.22 shows why the 1980s has been termed the `lost decade' not only for Latin America but also for Africa. The table includes all countries with 5 or more million inhabitants in

TABLE 2.21 Population and urban change in African countries with 1 million or more inhabitants in 1990, between 1950 and 1990

Country	Population 1990 (000s)	Popn 1990/ popn 1950	Urban popn 1990 (000s)	% of popn in urban areas (level of urbanization)	
				1950	1990
Eastern Africa					
Burundi	5,503	2.2	345	1.7	6.3
Eritrea	3,082	2.7	487	5.9	15.8
Ethiopia	47,423	2.6	5,815	4.6	12.3
Kenya	23,612	3.8	5,565	5.6	23.6
Madagascar	12,571	3.0	2,993	7.8	23.8
Malawi	9,367	3.3	1,106	3.5	11.8
Mauritius	1,057	2.1	428	28.8	40.5
Mozambique	14,187	2.3	3,795	2.4	26.8
Rwanda	6,986	3.3	391	1.8	5.6
Somalia	8,677	2.8	2,101	12.7	24.2
Uganda	17,949	3.8	2,003	3.1	11.2
United Rep. of Tanzania	25,600	3.2	5,325	3.8	20.8
Zambia	8,150	3.3	3,422	8.9	42.0
Zimbabwe	9,903	3.6	2,826	10.6	28.5
Middle Africa					
Angola	9,194	2.2	2,602	7.6	28.3
Cameroon	11,526	2.6	4,643	9.8	40.3
Central African Rep.	2,927	2.2	1,097	16.0	37.5
Chad	5,553	2.1	1,138	3.9	20.5
Congo	2,232	2.8	1,194	30.9	53.5
Gabon	1,146	2.4	523	11.4	45.7
Zaire	37,436	3.1	10,506	19.1	28.1
Northern Africa					
Algeria	24,935	2.8	12,899	22.3	51.7
Egypt	56,312	2.6	24,743	31.9	43.9
Libyan Arab Jamahiriya	4,545	4.4	3,744	18.6	82.4
Morocco	24,334	2.7	11,217	26.2	46.1
Sudan	24,585	2.7	5,544	6.3	22.5
Tunisia	8,080	2.3	4,438	31.2	54.9
Southern Africa					
Botswana	1,276	3.3	295	0.3	23.1
Lesotho	1,792	2.4	348	1.0	19.4
Namibia	1,349	2.6	430	9.4	31.9
South Africa	37,066	2.7	18,240	43.1	49.2
Western Africa					
Benin	4,633	2.3	1,345	5.3	29.0
Burkina Faso	8,987	2.5	1,605	3.8	17.9
Côte D'Ivoire	11,974	4.3	4,841	13.2	40.4
Ghana	15,020	3.1	5,107	14.5	34.0
Guinea	5,755	2.3	1,484	5.5	25.8
Liberia	2,575	3.1	1,084	13.0	42.1
Mali	9,212	2.6	2,193	8.5	23.8
Mauritania	2,003	2.4	937	2.3	46.8
Niger	7,731	3.2	1,177	4.9	15.2
Nigeria	96,154	2.9	33,808	10.1	35.2
Senegal	7,327	2.9	2,919	30.5	39.8
Sierra Leone	3,999	2.1	1,287	9.2	32.2
Togo	3,531	2.7	1,005	7.2	28.5

Source: United Nations, World Urbanization Prospects: The 1994 Revision, Population Division, New York, 1995.

1990-and Botswana and Mauritius are also included, because these were the exceptions in achieving high growth rates in per capita income during the period 1980-92. In Eastern and Middle Africa, for the eleven countries for which there is data, seven had declines in per capita income in this period with no growth in Tanzania and very small growth in Kenya. Western Africa presents a similar picture.

Although very few African countries had rapid and sustained economic growth prior to 1980, half the nations listed had per capita GNP that grew on average by 1.4 or more per cent between 1960 and 1980. Taking the whole period 1960 to 1992, Mauritius and Botswana were the only nations with spectacular economic growth, although all of the Northern African nations listed above except for the Sudan were substantially wealthier per person in 1992 compared to 1960. But per capita income in several nations such as Mozambique, Madagascar, Ghana and Niger was actually less in 1992 than in 1960. According to other sources,

TABLE 2.22 Per capita GNP 1992 and annual average changes in per capita GNP 1980-1992 and 1960-1980 for African countries with 5 million or more inhabitants in 1990 and for Mauritius and Botswana

Country	GNP per capita		
	US dollars (1992)	Average annual growth rate (%)	
		1980-92	1960-80
Eastern Africa			
Burundi	210	1.3	2.5
Ethiopia	110	-1.9	1.4
Kenya	310	0.2	2.7
Madagascar	230	-2.4	-0.5
Malawi	210	-0.1	2.9
Mauritius	2,700	5.6	2.3
Mozambique	60	-3.6	-0.1
Rwanda	250	-0.6	1.5
Somalia			
Tanzania, United Republic of	110	0.0	1.9
Uganda	170		-0.7
Zambia			0.2
Zimbabwe	570	-0.9	0.7
Middle Africa			
Angola			-2.3
Cameroon	820	-1.5	2.6
Chad	220		-1.8
Zaire			0.2
Northern Africa			
Algeria	1,840	-0.5	
Egypt	640	1.8	
Morocco	1,030	1.4	2.5
Sudan			-0.2
Tunisia	1,720		1.3
Southern Africa			
Botswana	2,790	6.1	9.2
South Africa	2,670	0.1	4.8
Western Africa			
Burkina Faso	300	1.0	0.1
Côte D'Ivoire	670	-4.7	2.5
Ghana	450	0.1	-1.0
Guinea	510		0.3
Mali	310	-2.7	1.4
Mauritania		1.6	
Niger	280	-4.3	-1.6
Nigeria	320	-0.4	4.1
Senegal	780	0.1	-0.3

Source: Drawn from World Development Indicators in the 1994, 1984 and 1982 World Development Report, Oxford University Press. Botswana and Mauritius are included to highlight their rapid economic growth during the 1980s.

this was also true for Somalia, Zambia, Mali and for some of the small population African nations not included in the above table such as Central African Republic and Liberia.[224]

African cities in the 1990s

Looking back over the period from the early 1960s, when most African countries obtained formal independence, to the mid-1990s, African cities have changed in at least four major ways: their size, their spatial organization or morphology, the quality and distribution of public services and infrastructure, and their employment base.

Size is the most obvious difference, since the population of most African cities have grown severalfold over the last few decades; some have grown more than tenfold during this period. Exact comparisons over the same time period are difficult to obtain because of differing intercensal periods; and for many countries whose recent censuses were in the late 1980s or early 1990s, the final results are still not available. Nevertheless, two clear trends are visible. First, the largest cities have continued to grow in population, although by the 1980s and 1990s their rates of growth have declined in comparison to the spectacular rates of growth during the 1960s and 1970s. And whereas the main component of the growth of the largest cities was rural-urban migration in the earlier post-independence period, natural increase is now the major element. Second, in many countries, many or most medium-sized cities have been growing more quickly than the largest cities. This may very well be partly a result of the more difficult economic situation facing urban dwellers as a whole during the last decade and a half; but it may also be reinforced by the steadily deteriorating condition of infrastructure and public services in the largest cities. These factors, in turn, reflect the determination of many African countries to favour smaller cities in investment and planning decisions, however much the implementation of these policies of spatial decentralization fall short of their original goals.

The deterioration of services and infrastructure is another common trend of the 1990s. This is to some extent an inevitable result of the fact that, as national (and urban) economies stagnate in absolute terms, at the same time as urban populations across the continent continue to grow (the United Nations estimates that for the whole region the growth rate is approximately 4.5 per cent per year)[225] the resources necessary for roads, sewers, water systems, schools and hospitals simply cannot keep up with the needs of the population. While there is a clear differentiation between the living conditions of the (relatively) small groups of upper-level managers, foreign diplomats, senior politicians and successful businessmen on the one hand, and the growing numbers of lower-income urban dwellers on the other hand, there is also a general deterioration in the public services and infrastructure available to everybody.

Changes in the labour market have been very dramatic since the 1960s. In the decade following independence, the educational system was expanding at every level, and African graduates had little difficulty finding good jobs in either the public service (and its parastatal arms) or the large-scale private sector. Now, the public service is contracting everywhere, parastatals are being disbanded or privatized to cut back on the numbers of employees they support, and even university-educated professionals have great difficulty in finding secure employment, if in fact they obtain suitable employment at all. Partly as a counterpart to the decline in well-paid, secure employment, more and more urban residents have found work in the burgeoning `informal', or small-scale, unregulated sector where a bewildering variety of activities have developed to respond to the needs and financial capacity of the poor. These developments are reflected in the continued growth of spontaneous, popular housing areas; in the ever increasing numbers of ambulant hawkers and food-sellers on every corner of many downtown African cities; in the increase in the size and number of open-air markets; in the pervasiveness of small-scale, privately owned public-transport vehicles that have taken over the market from the monopoly state-regulated bus companies; and in a virtual explosion of small trades and services dealing with almost every facet of life in the city. From an overly regulated city which reflected the needs of the erstwhile colonial powers to control African urban life in every possible way, we are witnessing the birth of a new city form which reflects the new African reality. What could be called the `self-help city' in the 1970s, might very well be called the `informal city' in the 1990s.

All these changes have had a major effect on city form. Where once the central business district, with its clean, wide streets and high-quality shops and offices was the focus of urban life-in both the large capital cities and in secondary cities as well-the centre of gravity has shifted. Not only are central business districts more poorly maintained and more populated with small-scale hawkers and vendors than in the past, but more and more of the population is moving to the periphery of the larger cities, where land is cheaper and much more easily accessible, where shelter can be constructed economically using locally available materials, and where harassment from the police and restrictions of the formal planning system are rarely felt. This horizontal

expansion of the African city into its rural hinterland not only attenuates major infrastructural elements such as piped water, electricity, sewerage and roads to a point where their efficacy is greatly reduced; but it also adds considerably to the costs of such services as education, health and social assistance. As these peripheral settlements expand, and the public resources to service them continue to contract, a new approach to the planning and management of African cities will have to emerge if they are going to survive as viable social and productive entities in the twenty-first century.

However, there were certain cities that fared better-especially in North Africa. For instance, the city of Tunis in Tunisia presents a different picture, especially in the city centre and the area around the international airport which has been transformed by national and international business corporations and international tourism.[226] Although Tunis also has serious housing and other urban problems,[227] these are not of the same scale and nature as those of most cities in sub-Saharan Africa.

Urban change

An understanding of urban change in the last 10-15 years requires some consideration of the colonial experience, since it is only three decades or so since most countries in the region achieved political independence. Although urban centres and urban civilizations had grown and flourished in many parts of Africa prior to colonial rule,[228] it was largely under colonial rule that the major cities and the urban systems that exist today were defined. In addition, it was the institutional structure left by colonial rule and initially little modified by newly independent governments that has proved so ineffective in managing urban change.

This was the case for three main reasons. In the first place, a great number of cities which became important during the colonial and post-colonial periods simply had not existed before colonial rule. Nairobi (now the capital of Kenya) was established on an open plain in 1899, in order to facilitate the building of the railway which was to run from Mombasa on the East African coast to Kampala in Uganda. Harare, the capital of Zimbabwe was originally built and administered by the British South Africa Company, beginning in 1890 when the Union Jack was first raised on the previously uninhabited site of (what was then) Fort Salisbury.[229] Abidjan, now the largest city in Côte d'Ivoire, was at best a small lagoon village before being chosen by a certain French Captain in 1891 as the terminus for a railway line which would link the Atlantic Coast with the vast Niger hinterland being developed by French military and commercial interests.[230] Finally, Johannesburg was established in the year 1886 on the site of a digger's village being developed on unclaimed farmland in the immediate vicinitv of a major gold miing complex.[231] All these new towns-and many others, such as Cotonou, Libreville, and Bangui (as capital cities); and large provincial towns such as Bouaké, Tamale, Enugu, Lubumbashi and Mwanza-developed as major centres of commerce and of administrative activity. Because their major purpose was to strengthen the ties between the metropolitan country and the colonial territory, they were often located on or near the coast or a major waterway. A new colonial urban system began to emerge, displacing internal networks of trade and influence which had developed over many centuries.

A second major urban effect of colonialism in Africa was the establishment of powerful currents of rural-urban migration. Although African populations had been moving around the continent for centuries in response to commercial opportunities, variations in environmental conditions, political upheavals, and the depredations resulting from the slave trade, colonial regimes and the economic activities which they promoted raised the level of migratory activity to a much higher level. As a cash economy was introduced, and goods and services could be obtained in exchange for wages, there were incentives for African labourers to migrate to work on mines, plantations, and urban employment. Most migration was rural-rural, but perhaps one-quarter of all migrants went to the towns.

By the mid-1950s, the `winds of change' which nationalist movements brought to the African continent, combined with an increasing concern with African labour efficiency, led to a reassessment of the African role in towns-at least in the regions of eastern, central and southern Africa, where government control over African urban integration was the most marked. One of the main reasons for increasing administrative and political concern, near the end of the colonial period, was the very rapid increase in the population of many cities, largely the result of rapid in-migration. Annual average population growth rates of 5 to 7 per cent a year were common among the major cities in the 1950s and 1960s while some maintained even more rapid population growth rates for short periods. In general, these growth rates varied according to local political and economic circumstances. For example, most African cities grew quickly during the 1920s, slowed down during the 1930s, began to grow again during and after the Second World War, and slowed again during what were often political uncertainties during the 1950s. With Independence, they began to grow rapidly, a pattern which continued through to the 1980s.

The third major effect of colonial urbanization was the physical structure of cities that was bequeathed to the African governments that took over power from the late 1950s (for Ghana, Egypt, Tunisia and Morocco), through the 1960s (for almost all the rest of the Anglophone and Francophone countries) through to the 1980s. Looking at the totality of Francophone cities in thirteen West African countries at the end of the 1980s, a major study argues that

> today's African cities were, for the most part, established by colonizers who applied urban planning principles appropriate to their country of origin. The most striking aspect of colonial urban planning is the partition of urban space into two zones, the `European' city and the `indigenous' City. [232]

The limited impact of conventional responses

After Independence, many African countries sought to respond to this colonial urban contradiction by major exercises in `master planning', and by large-scale government-sponsored construction of residential dwellings. Neither proved adequate to the problems of urban management. For urban planning, typically, a major expatriate planning firm would produce a master plan for the future development of the capital city. The plan would contain an analysis of urban form and function, some analysis of likely future growth patterns, and a number of technical maps and plans such as a detailed land-use zoning map, plans for infrastructural development, and some proposals about procedures, regulations and even institutional reforms necessary to carry out the plan. These plans were the direct descendants of numerous plans produced during the colonial period, although successive documents tended to include more and more data of a sociological and economic nature. The city of Abidjan in Côte d'Ivoire had six major planning documents from 1928 to 1990; Dar es Salaam had three plans from 1949 to 1977; Nairobi had three from 1948 to the mid-1980s. While these plans often had an important influence on the overall approach to land-use planning in the central areas of the larger African cities, they failed to capture the speed and direction of growth in the peripheral areas, and in any case were almost never supported by the level of capital expenditure necessary to implement their infrastructural projections.

In the absence of major capital projects developed within the master plan framework, most urban planning decisions took place within the parameters of building and development regulations that were little more than copies of the existing legislation and bylaws in Britain, France and Portugal.[233] These usually ascribed a large and complex role in land-use management and other aspects of urban management to the public sector. Such European influence on African urban planning was reinforced by the fact that not only were virtually all urban planners working in Africa European in origin until at least the mid-1960s, but there were no schools of architecture or urban planning located on African soil (outside of South Africa) until the first decade after independence. Until at least the mid-1960s, virtually all the directors of urban planning in African countries were of European origin. Urban planning legislation was supplemented by building codes which, in many cases, were also very closely modelled on European regulations.

Within the terms of reference of the urban planners, but with a dynamic and importance of their own, were policies for the development of residential housing. Two of the hallmarks of the colonial approach to African urban housing in the 1950s were the redevelopment of decaying `core' areas combined with the removal of `slums' or squatter areas; and the construction of large rental (sometimes tenant-purchase) public housing estates. Once independence was accomplished, these policies were pursued by the successor governments. For instance, large scale `slum clearance' programmes were implemented in many cities-including Dar es Salaam,[234] Nairobi,[235] Dakar,[236] Lomé,[237] and Abidjan.[238] And while in some instances, public housing was built for at least a proportion of those whose houses were destroyed, most of the displaced could not find alternative housing nearby to the areas where they had previously lived.

The public housing programmes were also rooted in colonial precedents. During the colonial period, large estate housing projects were undertaken in such countries as Southern Rhodesia (now Zimbabwe), Kenya, Senegal and the Ivory Coast, where the government (and parastatal agencies such as the railways and port authorities) needed to house their employees. After independence, this state-centred approach to housing developed more widely, with many countries establishing national housing agencies with an important mandate to improve housing for Africans. Behind this drive was the feeling of many urban Africans that their housing conditions should be upgraded in line with their changed political status.

However, very few of the public housing agencies produced enough housing units to make much impression on improving housing and living conditions and many of the units they produced went to middle or upper income groups. There were some exceptions-for instance the large construction programme in the Côte d'Ivoire of SICOGI *(Société Ivoirienne de Construction et de Gestion Immobilière)* and SOGE-

FIHA *(Société de Gestion Financière de l'Habitat)* and the very large land development programme within Abidjan undertaken by *SETU (Société d'Equipement du Terrain Urbain).* But the role of public agencies in supplying urban housing in Côte d'Ivoire was also drastically curtailed in the 1980s.

As public housing programmes remained relatively small and usually used up most of the government resources devoted to housing and as official norms, codes and standards made the cheapest `legal' housing too expensive for most city households, so an increasing proportion of city inhabitants came to live in illegal or informal settlements. While there are many definitions of this type of housing, and many local variations around the main tendency, the central defining elements are usually twofold: (1) the housing in question is either illegally built (i.e. without formal permission from the authorities) or (and in many cases in addition) it sits on land which has not been properly purchased through the formal system and zoned for residential development; and (2) few, if any services-such as water, roads, sewerage and stormwater drainage, electricity, telephones, and community facilities (such as clinics and schools)-are built in the immediate neighbourhood. In general, there is a relationship between the formal illegality of a settlement and the quality of the housing stock within it, since owners (who are often landlords) will not invest in high quality building materials or in improvements if they cannot borrow against the property, or if there is a chance their dwelling will be demolished by the authorities. Thus, the more precarious a location from a legal point of view, normally the lower the quality of the dwellings within it. This general rule is modified in the case of neighbourhoods which, for political or other reasons, are relatively secure even if they are not legally sanctioned in a formal sense.

An urban crisis?

During the 1980s, the increase in the level of spontaneous, or informal housing in and around African cities reflected the almost total inability of most national or city authorities to provide adequate serviced land and infrastructure to their growing populations. The 1980s and early 1990s thus became, in common parlance, a period of `urban crisis' across the continent. The crisis-which itself was a reflection of declining or stagnating economies in the face of continuous rural-urban migration-had three major components: a decline in levels of formal employment, and a corresponding rapid increase in `informal sector' activities in many key areas of the urban economy; a deterioration in both the quality and distribution of basic services; and a decline in the quality of the urban environment, both built and natural. All these changes adversely affected the quality of urban life for everyone, but particularly for low income groups.

Employment

In the years immediately following independence in most African countries, Africanization of the public service and an expansion of parastatal agencies led to a high rate of new employment creation in urban areas, particularly in the capital cities and large regional centres. By the 1970s, these increases were paralleled by increases in both the quantity of manufacturing jobs available (most of them in the largest towns), and in average manufacturing wages. At the same time, agricultural wage employment fell, or stagnated in many countries, thus increasing the attractiveness of the larger towns to rural migrants who could not gain sufficient incomes by working in subsistence agriculture. As research has pointed out, those most likely to migrate from rural to urban areas were more educated than their non-migrating peers; more of them also tend to be male, young, and single.[239] Their numbers were increased after independence by a rapid expansion in primary and secondary schools in both rural and urban areas. But by the late 1960s and early 1970s, it became clear that the rate of rural-urban migration was greatly exceeding the rate of formal employment creation in Africa's cities. Total numbers of jobs created in the formal sectors (including government, the parastatal sector, manufacturing and the large-scale service sectors such as banking and tourism) were not keeping pace with the increase in the urban population, whether this was caused by rural-urban migration or by natural increase.

Figures on manufacturing employment in medium- and large-size establishments show the changes over time in one of the most important parts of the urban formal sector. In most countries, there was rapid growth in formal manufacturing employment between 1970 and 1975, followed by slower growth during 1975-80. With sharply increased oil prices after 1973, increasing foreign exchange needed to be allocated to oil (except in the few African countries which were net exporters of petroleum products), and lesser amounts were available for capital goods and the other intermediate inputs necessary for maintaining (let alone expanding) the manufacturing base. While the period from 1980 to 1985 (which included the second oil shock) saw renewed or accelerated manufacturing employment growth in some countries, others-particularly those with large manufacturing sectors such as Côte d'Ivoire, Ghana and Nigeria-reported negative employment growth rates, while such countries

as Kenya, Senegal and Zambia had annual increases during this period of only 4, 3 and 1 per cent, respectively.[240]

African countries cannot afford to maintain publicly funded social security systems such as social assistance or unemployment insurance programmes that operate in most countries of Europe and North America. Thus, individuals in the labour force who cannot obtain well-paid, formal sector urban employment have a number of options. If they are migrants, they can return to rural areas to engage in subsistence agriculture (for refugees, or those who do not have access to land, this is not possible). Or they can attempt to obtain support from family members or friends living in the town; or they can engage themselves in small-scale, `informal' income earning activities in the town. For most Africans seeking urban employment, remaining in `open unemployment' is not a realistic option as few can afford to wait. As formal urban employment opportunities declined, the alternative of engaging in small-scale, less remunerative activities-now known collectively as the `informal sector'-became increasingly common. While there are differences of opinion over the use of this term ,[241] it is used by many economists and other social scientists, and may be statistically delineated. Despite difficulties with certain aspects of the term, largely as a result of the fact that it represents a very diverse set of activities, an important recent study argues that:

> the African informal sector can be fairly carefully defined. In the last twenty years, urban small-scale, artisanal, residual/casual, and home production have expanded considerably in African nations. Their relative importance varies considerably across countries, in accordance with economic structure and public policy. Nonetheless, the main informal activities include carpentry and furniture production, tailoring, trade, vehicle and other repairs, metal goods' fabrication, restaurants, construction, transport, textiles and apparel manufacturing, footwear, and miscellaneous services.[242]

Typically, enterprises with ten or more workers tend to function within the formal sector, while smaller enterprises (down to a single person) tend to function more informally. In any case, beginning in the 1970s, and gaining strength during the economic downturn of the 1980s and early 1990s, the urban informal sector has become a powerful force for employment creation in virtually all African cities.

Estimates made in the mid 1970s suggested `that in the typical African country the informal sector employs 60 per cent of the urban labour force.' The estimates for urban areas within individual countries were as follows: the Congo, 55%; Senegal, 50%; Upper Volta (now Burkina Faso) 73%; Benin, 95%; and Niger, 65%. For individual cities, the figures were also high: Abidjan, 44%; Nairobi, 44%; Kumasi, 65%; Lagos, 50%; Banjul (The Gambia) 42%; Lomé 50%; Brazzaville; 37%; and Djibouti 20%.[243]

Although good statistics are not available for the 1980s and 1990s, the proportion of the urban labour force in informal activities has almost certainly risen. A leading Ivoirian sociologist estimated that, between 1976 to 1985, the number of people `working on the street' in a variety of informal activities had risen from 25,000 to 53,850 in Abidjan alone. During the same period, the central government complement in Abidjan rose from 31,840 to 56,940. `Given the negligible difference between the two', he argues, `one could conclude that the street offers as much employment and provides a living to as many people as the public service!'[244] One of the trends of the 1980s and 1990s has been the supplementation by informal activities of formal-sector jobs on the part of a large proportion of public-sector employees. Although many informal-sector workers are poor, this is by no means always the case as such activities as arket trading, the operation of public-transport vehicles, or the renting out of housing in informal neighbourhoods may involve considerable income. Nevertheless, in general there is a marked gap between formal and informal wages.

The growth of the urban informal sector, reinforced by economic stagnation during the 1980s and concomitant structural adjustment programmes which had the effect of reducing employment in the formal public sector, has had a number of visible effects on African cities. As noted earlier, the areas of informal housing increased, most of them on the outskirts of cities, adding considerably to the horizontal growth of urban areas and spreading existing services and infrastructure even more thinly on the ground. A second consequence is the growth of large open-air (often informal) markets throughout cities, with a consequent decline in formal retail trade, even in main downtown areas. Around these markets are thousands of unregulated petty traders, who often occupy adjacent streets and sell goods and produce on the sidewalk in front of the established (and licensed) retail stores. A third area in which informal activity plays an important role is mass transit, with more and more private buses and vans operating throughout African cities. These vehicles often serve areas of the city-such as the peripheral extensions-that are not well served by the public transport system. Finally, rather substantial areas of African cities have developed into specialized quarters for informal activities, although there is also considerable dispersion of individual informal trades. The increasing physical presence of informal activities

in African cities is having a major effect on the organization of space, as African cities distance themselves from their original colonial planning models.

Deterioration in services

As African cities continued to increase in size during the 1980s and 1990s, their declining economic situation led to a precipitous decline in the supply of basic infrastructure and urban services. In many African cities, most refuse is uncollected and piles of decaying waste are allowed to rot in streets and vacant lots. Schools are becoming so overcrowded that many students have only minimal contact with their teachers. A declining proportion of urban roads are tarmacked and drained, and many that are not, turn into virtual quagmires during the rainy season. Basic drugs-once given out freely-have disappeared from public clinics and professional medical care is extremely difficult to obtain, except for the rich. Public transport systems are seriously overburdened; and more and more people are obliged to live in unserviced plots in `informal' housing, where clean drinking water must be directly purchased from water sellers at a prohibitive cost, and where telephones and electrical connections are scarcely available.

The lack of investment in urban infrastructure and services also inhibited economic expansion. This was demonstrated in a study of Lagos that found that

> unreliable infrastructure services impose heavy costs on manufacturing enterprises. Virtually every manufacturing firm in Lagos has its own electric power generator to cope with the unreliable public power supply. These firms invest 10 to 35 percent of their capital in power generation alone and incur additional capital and operating expenses to substitute for other unreliable public services. The burden of investment in power generation, boreholes, vehicles, and radio equipment in lieu of working telephones is disproportionately higher for small firms. In Nigeria and many other low-income countries, manufacturers' high costs of operation prevent innovation and adoption of new technology and make it difficult for them to compete in international markets. [245]

Studies in other cities also show serious declines in public investment in infrastructure and services. For instance, in Togo, a study of urban investment levels in the four 5-year plans spanning the period from 1966 to 1985 shows a steady reduction from 17.9 per cent of total investment in the first plan, to 16.7 per cent in the second plan, to 10.6 per cent in the third plan and 6 per cent in the fourth plan. [246] This pattern, which appears to reflect a similar tendency in other French-speaking countries, may be connected to a decline in French overseas aid funds, both in absolute and relative magnitudes during the same period.[247] In Dar es Salaam, there was a decline in expenditure on services and infrastructure of 8.5 per cent a year from 1978/9 through 1986/7, measured in constant currency units.[248] If Dar es Salaam's population growth is taken into account, the per capita decline in expenditures comes to 11 per cent per year over the period studied. While the Tanzanian economy as a whole was stagnating during much of this period, the decline of the urban infrastrucual fabric was occurring at a much more rapid rate. To the north, Nairobi's services have also been deteriorating along with its revenue base. The capital expenditures of the Nairobi City Commission (in real US dollars per capita) for water and sewerage fell from $27.78 in 1981 to $2.47 in 1987; and per capita maintenance expenditures fell from $7.29 to $2.30 over the same period when calculated in a similar manner. Over a 6-year period, this represents an average annual decrease of approximately 28 per cent, compounded, when both capital and maintenance expenditures are added together. Similar calculations for expenditures on public works over the same period show an annual decrease of 19.5 per cent, compounded; and for social services an annual decrease of 20 per cent, compounded.[249] Such figures suggest an alarming decrease in the ability of a modern African city to service the needs of its population.

Two major urban services that have become increasingly overburdened in almost all African countries are waste management and public transport. For instance, in Nairobi, as the city grew both in population and spatially at a rate close to 5 per cent per year, the resources available to the municipal government to maintain its existing fleet of refuse removal vehicles-let alone to permit it to purchase additional vehicles-were severely limited. In 1989, officials felt 100 refuse collection trucks were needed to effectively serve the city of over a million people but only 10 trucks were functioning on a daily basis out of a total fleet of only 40 vehicles.[250] The number of functioning, operational vehicles fell steadily during the 1980s from a high of 86 in 1978.[251] In Dar es Salaam, a study of the city's garbage collection vehicles showed that in 1985, some 20 functioning trucks (of which only 6 were considered to be `in good condition') were able to collect only about 22 per cent of the estimated 1,200 tonnes of garbage produced every day. The situation was remedied somewhat with the donation of a number of vehicles by the Japanese government, but a study in 1988 showed that with 33 functioning trucks now on the road, the city council was only able to increase its waste removal efficiency to 28 per cent of the estimated total of refuse produced daily.[252] While the proportion of wastes collected varies across the

continent, it remains a severe problem in almost all countries.

Just as the urban poor, who tend increasingly to live in peripheral, unplanned settlements are only sporadically served by such services as water supply, refuse removal and electricity supply, their marginal location and low disposable incomes makes them more vulnerable to difficulties in public transport supply. The situation in most African cities in the 1960s and 1970s was one of monopoly supply, whereby a public (or publicly contracted) bus company organized the mass transport system throughout the whole of the municipality. Some of these companies were very large: for example, the SOTRA in Abidjan (a `mixed' private company with both French and Ivorian shareholders) had a fleet of 1,179 vehicles, and a staff of 6,153 in 1989; the SOTRAC in Dakar (also a 'mixed' company) had a fleet of 461 vehicles and a staff of 2,871 in 1989. [253] While these and other large companies such as KBS in Nairobi and Zupco in Harare represent some of the larger and more successful companies, by the 1980s, the system was breaking down, as many city administrations could not afford to replace, let alone properly maintain their ageing bus fleets at the same time as the population was growing; and even the private companies (operating in many Francophone countries) were having difficulties maintaining an efficient service in the face of declining revenues. A more mixed service, involving large public or private companies on the one hand, and a variety of smaller operators offering service on routes not otherwise covered by the larger companies, emerged.[254] By 1989, informal privately operated cars, pickup trucks, minibuses or minivans had captured much of the public transport market in many cities.[255]

In spite of the considerable increase in market claimed by the small operators vis-k-vis the large transit companies, and the improved accessibility to the city which they have brought to many low-income groups, there are drawbacks that are constantly being discussed in the African press. Overcrowding is common; accidents appear to be much more frequent than in the public buses (particularly on peri-urban roads and highways), and the fare may even be higher than in the public system for the same, or similar routes.

The examples of waste disposal and public transport illustrate two dimensions of the current crisis of urban services in Africa. In the case of waste removal, in many cities, the inhabitants have been living through an absolute withdrawal in the level of public service provision, without alternatives being provided-even at a lower standard of performance-by the private sector. Private services are being provided in some cities, for a fee to the householder, and there is more work for scavengers and small recyclers, but the absolute evidence of efficient garbage disposal in many cities has declined rather dramatically since the 1970s. In the case of public transport, a much greater variety of modes of service has quite clearly developed with the decline of the large public companies.

However, the potential for private investment to substitute for public investment in infrastructure and services varies considerably, according to the infrastructural or service component in question. Thus, while the decline in public support for piped sewerage and treatment, port and airport facilities, urban roads, and electrical transmission facilities cannot easily be compensated for by privatisation, the same is not-at least in principle-the case for urban transport, airport services, non-piped water services and waste collection (if not waste disposal).[256] As the state disengages from responsibility for providing a whole range of local services, and the urban population continues to grow, a new balance is emerging between private and public activity.

Deterioration in the built environment and environmental health

The deterioration in the built environment is sharply in evidence throughout most of urban Africa. As more of the urban population was forced into unplanned settlements on the outskirts of large cities, or into more crowded living space in an already deteriorating housing stock in the more established `high density' areas; as a lower proportion of the population had direct access to clean, piped water, regular garbage disposal and good health services, the quality of life for the vast majority of the population deteriorated during the 1980s and 1990s. This trend seems to have been accentuated by the effects of structural adjustment in many countries, according to which urban workers lost more than rural smallholders. Some demographers have even suggested that the decline in mortality rates that was clearly evident during the 1960s and 1970s may have slowed down in the 1980s. For example, in 1978 the mortality rate for infants and children stood at 112 per thousand in Abidjan, and 197 in the rural areas; but the census of 1988 recorded a figure of 120 for Abidjan (an increase), as against 191 (a decrease) in the rural areas.[257] In general, in Abidjan as well as elsewhere, most indices of health show much higher levels in urban, as opposed to rural areas, although the differences may be declining with the economic downturn and a reduction in health and nutritional expenditures by both government and individuals.

Under these conditions it may not be surprising to learn that in the central districts of Brazzaville there is less than one infectious

mosquito bite per person every three years; by contrast, the rate is more than 100 times higher in the new informal settlement areas with low population density. In Bobo-Dioulasso, the second largest city in Burkina Faso, the measured rate of malaria occurrence measured in a peripheral neighbourhood was almost twice as high as that measured in a central section of the town.[258]

Urban agriculture

Although urban agriculture has considerable importance in many Asian and Latin American countries-and also in certain cities in the North-it probably has the greatest importance in African urban centres as an important supplementary source of livelihood or of food and fuel for many more. Chapter 12 will return to its current and potential role; here, the aim is to illustrate its importance for urban populations in Africa.

A major study of six towns in Kenya (including the capital, Nairobi) was undertaken by a research NGO, the Mazingira Institute in the mid 1980s. The study sampled 1576 households on a wide range of economic activities and consumption habits. The data show that 29 per cent of all households grow food within the urban area where they live; and 17 per cent keep livestock. Extrapolating on their survey, the authors estimated that, in 1985, 25.2 million kg. of crops worth some $4 million were produced in urban areas in Kenya in one season. Most of the urban crop and livestock production was consumed as subsistence by the households themselves.[259] Reflecting similar findings to the Kenyan study, a survey of research on urban farming in Zambia finds that most urban farmers are poor women, who grow food because of the failure of incomes to keep up with prices.[260] A later study of Nairobi based on a different sampling strategy (the sample was chosen from those working on the land rather than randomly from urban households in the city) found that 64% of the respondents were female (very similar to the earlier Mazingira survey); that they tended to have only primary education, or no education at all; that most were born outside the city, in neighbouring districts; and that very few actually sold their crops.[261] The pattern of poor women practising urban agriculture in order to provide food for themselves and their families is also a major finding of a study of 150 urban farming households in Kampala, Uganda. While the study deals with households rather than individuals, most of those who worked in the fields were women; the households themselves were predominantly (73 per cent) at a `low level of income'; 69 per cent were producing food primarily for household consumption and not sale; and the main crops grown were annual tuber crops (such as cassava, sweet potatoes, bananas and cocoyams) as well as maize and beans. Interviews with the producers in 1989 indicated that, on average they had been farming for 13 years and that the vast majority had begun the practice in the 1970s or early 1980s. This suggests very strongly that urban farming as a major activity developed in Kampala `in response to the declining economic situation. The farmers had been living in the city a long time before they started their agricultural enterprises.[262] Across the continent in Lome, a study of the agricultural aspects of urban farming-while not comparable to work in East Africa-observes that most of the market gardeners are men, and that very large sections of public land reserves on the periphery of the city are under cultivation, with the tacit approval of the authorities. While market gardening increased in Lome as a direct response to the economic difficulties beginning in the late 19706 and early 1980s, produce is sold commercially rather than consumed by the cultivators.[263] One of the effects of increasing urban agriculture in Africa is that the economic and cultural differences between city and rural areas have become blurred. This is particularly the case in peripheral, unplanned areas where formal infrastructure is scarce, and many households live in relatively large plots of land in a semi-rural environment.

Notes and References

1. Friedmann, John, `The right to the city', in Richard M. Morse and Jorge *E.* Hardoy (eds.), *Rethinking the Latin American City,* Johns Hopkins University Press, Baltimore and London, *1992, 104-5.*
2. This section on North America *is* a shortened version *of* the background paper prepared by Professor L. *S.* Bourne (University *of* Toronto) entitled `Urban growth and population distribution in North America: diverse and unfinished landscape'. This has been published as Bourne, L. S., *Urban Growth and Population Redistribution in North America: A Diverse and Unequal Landscape,* Major Report *32,* Centre for Urban and Community Studies, University *of* Toronto, Toronto, *1995.*
3. In Canada the urban population *is* defined as that population living in incorporated places *of 1,000* or more and at densities *of* over *1,000* per square kilometre. In the *US* the minimum threshold population for urban areas *is 2,500.*
4. Goldberg, M. and J. Mercer, *The Myth of the North American City: Con tinentalism Challenged,* University *of* British Columbia Press, Vancouver, *1986*
5. There are numerous reasons for this differential in death rates, but in part at least it is attributable to relatively high infant mortality rates among Black Americans.
6. Miron, J., *Demographic Change, Household Formation and Housing Demand,* McGill-Queens University Press, Montreal, *1988.*
7. Sternlieb, G. and J. *W* Hughes (eds.), *America's New Market Geography,* Rutgers University Press, New Brunswick, *1986.*
8. From *1970* to *1990,* for example, the *US* population grew by *38%* while the

number of households increased by 62%.

9. Beaujot, R., *Population Change in Canada,* McClelland and Stewart, Toronto, 1991.

10. Bourne, L. S. and D. Ley (eds.), *The Changing Social Geography of Canadian Cities,* McGill-Queens University Press. Montreal, 1993.

11. For example, the geographic centre (or centre of gravity) of the US population has moved continuously westward since the founding of the republic. In 1770 the centre was located on the coast just east of Baltimore, by 1850 it was in southern Ohio, by 1950 it had shifted west to the Indiana-Illinois border, and by 1990 it was almost exactly in the middle of the state of Missouri and thus near the mid-point of the country.

12. The minimum total population for defining a metropolitan statistical area in New England is 75,000.

13. The definitional difference arises because of two factors: one, the use of a higher size threshold for inclusion as a metropolitan area in the Canadian census; and second, the use of smaller geographical units as building blocks in defining the boundaries of metropolitan areas in Canada. In the US the basic building blocks in delimiting metropolitan areas are counties; that is the entire county is added to the metropolitan area even if only a small portion of it is developed. Some of these counties, especially in the west, are very large. As a result US metropolitan areas, on average, are much more geographically extensive than those in Canada.

14. As defined by the US Office of Management and Budget in 1980, and modified in 1990. CMSAs were defined only for metropolitan complexes of over 1 million in which two or more individual but adjacent metropolitan areas (MSAs) exhibited close economic and social integration,

15. The Washington DC and Baltimore MSAs, when combined, had a total population of 6.7 million in 1990.

16. For example, a consolidated metropolitan area definition for Toronto would include the Toronto CMA (3.9 million), the Hamilton CMA (600,000) and Oshawa CMA (240,000), and the rest of York County, for a total metropolitan population of 4.84 million in 1991.

17. As contrasting examples in Canada, the population of the Toronto metropolitan area in 1986 was about 36% foreign-born, compared to less than 3 % in St. Johns, Newfoundland and only 2 % in Quebec City.

18. Goldsmith, W W and E. J. Blakely, *Separate Societies: Poverty and Inequality in US Cities,* Temple University Press, Philadelphia, 1993; Bourne, L. S., `Close together and worlds apart: an analysis of changes in the ecology of income in Canadian Metropolitan Areas', *Urban Studiesvol.* 30, no. 8, 1993, 1293-317.

19. Borchert, J., `Futures of American Cities', chapter 12 in J. E Hart (ed.), *Our Changing Cities,* Johns Hopkins University Press, Baltimore, 1991, 218-50. Berry, B. J. L., *America's Utopian Experiments. Communal Havens from Long-run Crises,* University Press of New England, Hanover, NH, 1992.

20. Noyelle, T. and T. M. Stanback, Jr., *The Economic Transformation of American Cities,* Rowman, Totowa, NJ, 1984; and Mills, E. S. and J. E McDonald (eds.), *Sources ofMetropolitan Growth,* Rutgers University Press, 1992.

21. Markusen, A. and others, *High-Tech America,* Allen and Unwin, Boston, 1986.

22. Simmons, J. and L. S. Bourne, *Urban Growth Trends in Canada, 1981-86: A New Geography of Change,* Major Report No. 2 5, Centre for Urban and Community Studies, University of Toronto, 1989; and Coffey, W, *The Evolution of Canada's Metropolitan Economies,* Institute for Research on Public Policy, Montreal, 1994.

2 3. Sassen, S., *The Global City,* Princeton University Press, Princeton, 1991.

24. The four poorest states in per capita income are Mississippi, Arkansas, Alabama and Louisiana; the four highest income states are Connecticut, New Jersey, Maryland (these three include some of the higher income suburbs of New York and Washington DC) and Massachusetts.

25. Frey, Wand A. Speare, Jr., `The revival of metropolitan growth in the U.S.', *Population and Development Review, vol.* 18, no. 1, 1992, 129-46.

26. The other two centres were Calgary, Alberta (oil, services) and Kitchener-Waterloo, Ontario (manufacturing, insurance, education).

27. Borchert 1991, op. *cit.;* Chinitz, B., `A framework for speculating about future urban growth patterns in the US', *Urban Studies, vol.* 28, no. 6, 1991, 939-59; Bourne, L. S., `Recycling urban systems and metropolitan areas: a geographical agenda for the 1990s and beyond', *Economic Geography, vol.* 67, no. 3, 1991, 185-209; and Hart, J. E (ed.), *Our Changing Cities,* Johns Hopkins University Press, Baltimore, 1991.

28. Drache, D. and M. S. Gertler (eds.), *The New Era of Global Competition: State Policy and Market Power,* McGill-Queens University Press, Montreal, 1991; and Noponen, H., and others (eds.), *Trading Industries; Trading Regions: International Trade, American Industry and Regional Economic Development,* Guilford Press, 1993, New York.

29. This section drew on various background papers prepared for the Global Report: Davila, Julio D., `Recent changes in production and population in Bogota, Colombia: a successful case of Clark's Law?'; Garcia-Guadilla, Maria Pilar and Virginia Jimenez-Diaz, `Urban growth in the metropolitan area of Caracas;' Garza, Gustavo, `Dynamics of Mexican urbanization: Mexico City emerging megolopolis and Metropolitan Monterrey'; and Jacobi, Pedro, 'Trends in Sao Paulo Metropolitan Area'.

30. For the period 1920-50-Hauser, Philip M. and Robert W Gardner, *Urban Future: Trends and Prospects,* Paper presented at the International Conference of Population and the Urban Future, Rome, September 1980, with statistical annex which drew its data from United Nations, *The Growth ofthe World's Urban and Rural Population,* 1920-2000, Population Studies no. 44, United Nations, New York, 1969. For statistics from 1950 to the present, United Nations, *World Urbanization Prospects 1992; Estimates and Projections of Urban and Rural Populations and of Urban Agglomerations,* Department of Economic and Social Information and Policy Analysis, ST/ESA/SER.A/136, United Nations, New York, 1993, 164 pages.

31. Care should be taken in drawing too many inferences from this. The scale of population loss among the region's indigenous population after the conquest by European powers meant that only in the 1870s did the region's population return to what it had been prior to the conquest.

32. Statistics drawn from Hauser and Gardner 1980 and United Nations 1993, op. *cit.*

33. This is because they began from a much larger population base in 1980, compared to 1970. Some notable exceptions include Mexico City Metropolitan Area with a much reduced annual increment in its population during the 1980s compared to the 1970s-although this might be exaggerated by the 1980 census figure being too high-and the two other largest metropolitan areas in Mexico, Guadalajara and Monterrey. Caracas and Medellin also had smaller annual increments in their population during the 1980s compared to the 1970s while in Montevideo and in the three largest Argentine cities (Buenos Aires, Cordoba and Rosario) there was very little increase.

34. Lattes, Alfredo, `Population distribution and development in Latin America', Proceedings of the United Nations Expert Meeting on Population Distribution and Migration, Santa Cruz, Bolivia, ST/ESA/SER.R/133, UN Population Division, New York, 1995.

3 5. Ibid.

36. Based on statistics drawn from UN 1993, op. *cit.*

37. United Nations 1993, op. *cit.*

38. Centro Latinoamericano de Demografia (CELADE), `Population dynamics in the large cities of Latin America and the Caribbean', Proceedings of the United Nations Expert Meeting on Population Distribution and Migration, Santa Cruz, Bolivia, ST/ESA/SER.R/133, UN Population Division, New York, 1995.

39. CELADE, *Redistribución espacial de la población en America Latina: una visión sumaria del periódo 1950-1985,* CELADE, Santiago, 1988, quoted in CELADE 1995, *op. cit.*
40. CELADE 1995, *op. cit.*
41. *Ibid.*
42. Lattes 1995 and CELADE 1995, op. *cit.*
43. See CELADE 1995, *op. cit.* One exception was Haiti where in 1980, infant mortality rates in Port-au-Prince were 102 per 1000 live births compared to a national figure of 100.
44. Lattes 1995, *op. cit.* reporting on the World Fertility Survey
45. Recchini de Lattes, Zulma, `Urbanization and demographic ageing: the case of a developing country, Argentina', in *Ageing and Urbanization,* Sales no. E.91.XIII.12, United Nations, New York, 1991, quoted in CELADE 1995, *op. cit.*
46. CELADE 1995, *op. cit.*
47. Lattes 1995 and United Nations 1993, *op. cit.*
48. Gilbert, Alan, *The Latin American City,* Latin American Bureau, London, 1994, 51.
49. This paragraph draws from Lattes 1995, *op. cit.*
50. Duhau, E., *Población y Economia de la Zona Metropolitana de la Ciudad de Mexico: El Centro y la Periferia,* Universidad Autónoma Metropolitana, Mimeo, 1992, quoted in CELADE 1995, *op. cit.*
51. Valladares, Licia, `Rio de Janeiro: la visión de los estudiosos de to urbano', in Mario Lombardi and Danilo Veiga (eds.), *Las Ciudades en Conflicto: una Perspectiva Latinoamericana,* Ediciones de la Banda Oriental, Montevideo, 1989, quoted in CELADE 1995, *op. cit.*
52. Rodríguez, J., *Dinámica Demográfica del Gran Santiago: Patrones Históricos, Tendencias Actuales, Perspectivas,* CELADE and Universidad de la Academia de Humanismo Cristiano (UAHC), Mimeo, 1992, quoted in CELADE 1995, *op. cit.*
53. Lattes 1995, *op. cit.*
54. CONAPO, *Sistema de Ciudades y Distribución Espacial de la Población de Mexico, vol. 1,* Consejo National de Población, Mexico City, 1991.
55. Duarte, Isis, `Población, migraciones internas y desarrollo en Reptública Dominicana: 1950-1981', Paper presented at the seminar on Territorial Mobility of Populations; New Patterns in Latin America, Santo Domingo, 13-14 December 1991 quoted in Lattes 1995, *op. cit.*
56. Gilbert 1994, *op. cit.*
57. Comité Estatal de Estadfsticas, `Cuba: el crecimiento urbano y las migraciones internas en el contexto del desarrollo económico y social', Paper presented at the Conference on the Peopling of the Americas, International Union for the Scientific Study of Population, Veracruz, May 1992, quoted in Lattes 1995, *op.cit.*
58. Lattes 1995, *op. cit.*
59. Roberts, Bryan, `Transitional cities', in Richard M. Morse and Jorge E. Hardoy (eds.), *Rethinking the Latin American City,* Johns Hopkins University Press, Baltimore and London, 1992, 50-65.
60. CELADE 1995, *op. cit.* drawing from Elton, Charlotte, *Migración Femenina en America Latina: Factores Determinantes,* Series E, No.26, CELADE, Santiago de Chile, 1978; Oliveira, Orlandina de and Brigida Garcfa, `Urbanization, migration and the growth of large cities: trends and implications in some developing countries', in *Population Studies No. 89,* E.83.XIII.3, United Nations, New York, 1984; Recchini de Lattes, Zulma, `Women in internal and international migration with special reference to Latin America', *Population Bulletin of the United Nations,* No. 27,1989, 95-107; and Zasz, Ivonne, *Mujeres Inmigrantes y Mercado de Trabajo en Santiago,* CELADE, Santiago de Chile, 1994.
61. Gilbert 1994, *op. cit.*
62. DANE, *Information Censo 93,* Computer Diskette, DANE, Bogoti, 1994.
63. Davila, Julio D., `Recent changes in production and population in Bogota, Colombia: a successful case of Clark's Law?', Background Paper for the United Nations Global Report on Human Settlements, 1995, plus appendices, 2-54.
64. Chant, Sylvia and Sarah A. Radcliffe, `Migration and development: the importance of gender', in Sylvia Chant (ed.), *Gender and Migration in Developing Countries,* Belhaven Press, London, 1992, 1-29.
65. Lattes, Alfredo E. and Zulma Recchini de Lattes, `Auge y declinación de las migraciones en Buenos Aires', in J. Jorrat and R. Sautu (eds.), *Después de Germani,* Editorial Paidos, Buenos Aires, 1992.
66. Lattes 1995, *op. cit.*
67. Gilbert 1994, *op. cit.*
68. Lattes, Alfredo E., `Migraciones hacia America Latina y el Caribe desde principios del siglio XIX', *Cuaderno del CENEP,* No. 35, Buenos Aires, 1985.
69. Lattes 1995, *op. cit.*
70. *Ibid.*
71. *Ibid.*
72. Ramos, Joseph, `Growth, crises and strategic turnarounds', *CEPAL Review,* no. 50, Aug. 1993, 63-79.
73. *Ibid.*
74. Figures for Cuba were not available
75. Gilbert 1994, op. c*it.*
76. Ramos 1993, op. c*it.*
77. Hakkert, R. and E W Goza, `The demographic consequences of austerity in Latin America', in W L. Canak (ed.), *Lost Promises: Debt, Austerity and Development in Latin America,* Westview Press, Boulder, 1989, 69-97.
78. Cordera Campos, R. and E. González Tiburcio, `Crisis and transition in the Mexican economy', in M. González de la Rocha and A. Escobar (eds.), *Social Responses to Mexico's Economic Crisis of the 1980s,* Centre for US-Mexican Studies, University of California, La Jolla, 1990.
79. Ramos 1993, op. c*it.*
80. Garza, Gustavo, Dinimica Industrial de la Ciudad de Mexico, 1940-1988, Mimeo, 1991, quoted in Gilbert 1994, *op. cit.*
81. Clichevsy, Nora, Hilda Herzer, Pedro Pirez, David Satterthwaire and others, *Construction y Administration de la Ciudad Latinoamericana,* Grupo Editor Latinoamericano, Buenos Aires, 1990; Gilbert 1994, *op. cit.*
82. See for instance Portes, Alejandro, `Latin American urbanization during the years of the crisis', *Latin American Research Review, vol.* 24, no. 3, 1989, 7-44 on Uruguay and Chile.
83. Portes 1989, *op. cit.*
84. Tello, C., `Combating poverty in Mexico', in M. González de la Rocha and A. Escobar (eds.), *Social Responses to Mexico's Economic Crisis of the 1980s,* Centre for US-Mexican Studies, University of California, La Jolla, 1990.
85. Iglesias, Enrique V, *Reflections on Economic Development. Towards a New Latin American Consensus,* Inter-American Development Bank, 1992, quoted in Gilbert 1994, *op. cit.*
86. CELADE 1995, *op. cit.*
87. Infante, Ricardo and Emilio Klein, `The Latin American labour market, 1950-1990', *CEPAL Review,* no. 45, Dec. 1991, 121-35.
88. *Ibid.*
89. Gilbert 1994, *op. cit.*
90. Infante and Klein 1991, *op. cit.*
91. Clichevsky and others 1990, *op. cit.*
92. *Ibid.*
93. *Ibid.*
94. *Ibid.*
95. *Ibid.*
96. Arriagada, Irma, `Unequal participation by women in the working world', *CEPAL Review* no. 40, April 1990, 83-98.
97. Based on figures drawn from INDEC's permanent household survey in Arrossi, Silvina, `Latin America: Background paper for the Global Report on Human Settlements', IIED-America Latina, 1995.
98. CELADE 1995, *op. cit.*
99. This draws from chapter 2 of Clichevsky and others 1990 but using updated figures.
100. Lattes 1995, *op. cit.*
101. *Ibid.*
102. Hardoy, Jorge E. and David Satterthwaite, *Squatter Citizen: Life in the Urban Third World,* Earthscan Publications, London, 1989.
103. Hardoy, Jorge E., `Two thousand years of Latin American urbanization', in J. E. Hardoy (ed.), *Urbanization in Latin America: Approaches and Issues,* Anchor Books, New York, 1975.
104. Lattes 1995, *op. cit.*
105. Mexico City's pre-colonial precursor,

Tenochitlan, was the region's largest city in 1500 and among the world's largest cities at that time.

106. Han-chande, Roberto, `Demographic and urban aspects of Mexico's border with the United States', in Mutsuo Yamada (Co-ordinator), *Urbanization in Latin America: its Characteristics and Issues,* The University of Tsukuba, Tsukuba-shi, 1990,31-42.
107. Sklair, Leslie, `Global system, local problems: environmental impacts of transnational corporations along Mexico's northern border', in Hamish Main and Stephen Wyn Williams (eds.), *Environment and Housing in Third World Cities,* John Wiley and Sons, Chichester, 1994, pp. 85-105.
108. Gilbert 1994, op. *cit.*
109. *Ibid.*
110. Sklair 1994, op. *cit.*
111. *Ibid.*
112. Han-chande 1990, op. *cit.*
113. Davila 1995, op. *cit.*
114. *Ibid.*
115. Duarte 1991, op. *cit.*
116. Townroe, P M. and D. Keen, `Polarization reversal in the State of Sao Paulo', *Regional Studies, vol.* 18, no. 1, 1984,45-54.
117. Negrete, Mariá Eugenia and Héctor Salazar, 'Dinámica de crecimiento de la población de la ciudad de México: 1900-1980', in Gustavo Garza and others (eds.), *Atlas de la Ciudad de México,* Departamento del Distrito Federal y El Colegio de México, Mexico DF, 1987.
118. Rofman, A. B., `Argentina: a mature urban pattern', *Cities,* vol. 2, no. 1, Butterworth Press, 1985, 47-54.
119. See for instance United Nations, *Urban, Rural and City Population, 1950-2000, as assessed in 1978,* ESA/P/WP 66, New York, June 1980.
120. Davila 1995, op. *cit.*
121. *Ibid.*
122. Gugler, J., `A Minimum of Urbanism and a Maximum of Ruralism: the Cuban Experience' in *International Journal of Urban and Regional Research, vol.* 4, 1980, 516-3 5 and Hardoy, Jorge E., *Urban and Agrarian Reform in Cuba,* SIAP/IDRC, Ediciones SIAP, 1979, Buenos Aires.
123. Garza, Gustavo, `Dynamics of Mexican urbanization: Mexico City emerging megolopolis and Metropolitan Monterrey', Background Paper for the UN Global Report on Human Settlements, 1995. However, there are several Mexican cities that are growing rapidly and are close to 1 million inhabitants so the 2000 census may find an increased proportion in one million plus cities, as several cities have been added to the list of 'million-cities'.
124. Chapter 9 of Hardoy, Jorge E. and David Satterthwaite, *Squatter Citizen: Life in the Urban Third World,* Earthscan Publications, London, 1989.
125. Manzanal, Mabel and Cesar Vapnarsky, `The development of the Upper Valley of Rio Negro and its periphery within the Comahue Region, Argentina', in Jorge E. Hardoy and David Satterthwaite (eds.), *Small and Intermediate Urban Centres; their role in Regional and National Development in the Third World,* Hodder and Stoughton (UK) and Westview (USA), London, 1986.
126. Verduzco, Gustavo, `Crecimiento urbano y desarrollo regional: el caso de Zamora, Michoacan', *Revista Interamericana de Planificacion, vol.* 18, no. 71, September 1984, 67-80.
127. Chapter 9 of Hardoy, Jorge E. and David Satterthwaite, *Squatter Citizen: Life in the Urban Third World,* Earthscan Publications, London, 1989.
128. Hardoy and Satterthwaite 1989, op. *cit.*
129. del Olmo, Elvia, `Case study: Cuautla, Mexico', in UNCHS (Habitat), *The Management of Secondary Cities in Latin America,* Nairobi, 1994.
130. Abaleron, Carlos Alberto, `Marginal urban space and unsatisfied basic needs: the case of San Carlos de Bariloche, Argentina', *Environment and Urbanization, vol.* 7, no. 1, April 1995, 97-115.
131. Hernández de Padrón, Maria Inés, 'Case study: Merida, Venezuela', in UNCHS (Habitat), *The Management of Secondary Cities in Latin America,* Nairobi, 1994.
132. UNCHS (Habitat) 1994, op. *cit.*
133. Cline, W R., `Facilitating labor adjustment in Latin America', Unpublished document prepared for the Inter-American Development Bank, October 1991, quoted in Gilbert 1994, *op. cit.*
134. Iglesias 1992, op. *cit.*
135. This section draws heavily on Champion, A. G., `Internal migration, counterurbanization and changing population distribution, in R. Hall and P White (eds.), *Europe's Population: Towards the Next Century,* UCL Press, London, 1995 and on additional material supplied by A. G. Champion.
136. Eurostat, *Demographic Statistics 1991,* Luxembourg, 1991.
137. *Ibid.*
138. Champion 1995, op. *cit.*
139. See for instance Hopflinger, E, `The future of household and family structures in Europe', in *Seminar on Present Demographic Trends and Lifestyles in Europe: Proceedings,* Council of Europe, Strasbourg, 1991, 289-338.
140. Jones, H., `The French census 1990; the southward drift continues', *Geography* vol. 76, 1991, 358-61.
141. Champion, A. G., `International migration and demographic change in the Developed World', *Urban Studies, vol.* 31, nos. 4/5, 1994, 653-77.
142. *Ibid.*
143. *Ibid.*
144. Kemper, Franz-Josef, `New trends in mass migration in Germany', in R. King (ed.), *Mass Migrations in Europe,* Belhaven, London, 1993.
145. Council of Europe, *Recent Demograpic Developments in Europe,* Brussels, 1994.
146. Champion, Tony and Russell King, `New trends in international migration in Europe', *Geographical Viewpoint, vol.* 21, 1993, 45-56.
147. King, R. and K. Rybaczuk, `Southern Europe and the international division of labour: from emigration to immigration', in R. King (ed.), *The New Geography ofEuropean Migrations,* Belhaven, London, 1993, 175-206.
148. Hovy, B., `Asylum migration in Europe: patterns, determinants and the role of East-West movements', in R. King (ed.), *The New Geography of European Migrations,* Belhaven, London, 1993, 207-27.
149. Hovy 1993, op. *cit.*
150. Cheshire, P. C. and D. G. Hay, `Background and the use of Functional Urban Regions', in P C. Cheshire and D. G. Hay (eds.), *Urban Problems in Western Europe,* Unwin Hyman, 1989, page 15.
151. Kunzmann, Klaus R. and Michael Wegener, *The Pattern of Urbanization in Western Europe 1960-1990,* Report for the Directorate General XVI of the Commission of the European Communities, Institut fur Raumplanung, Universitat Dortmund, Dortmund, 1991.
152. *Ibid.*
153. See for instance Fielding, A. J., `Counterurbanization in Western Europe', *Progress in Planning, vol.* 17, 1982, 1-52; and Hall, P and D. Hay, *Growth Centres in the European Urban System,* Heinemann, London, 1980.
154. Hall and Hay 1980, op. *cit.* 87.
155. Champion, Anthony G. and Sven Illeris, `Population redistribution trends in Western Europe: a mosaic of dynamics and crisis', in Michael Hebbert and Jens Christian Hansen (eds.), *Unfamiliar Territory: The Reshaping ofEuropean Geography,* Avebury, Aldershot, 1990.
156. RECLUS, *Les Villes Européennes,* Rapport pour la DATA, La Documentation Francaise, Paris, 1989.
157. This approach has its roots in the `localities' research tradition-see for instance Cooke, R., *Localities: The Changing Face of Urban Britain,* Unwin Hyman, London, 1989 quoted in Champion 1995, op. *cit.*
158. This section draws heavily on a background paper by R W Carter of the Dept of Social Studies, School of Slavonic and East European Studies at London University on `East Europe: population distribution, urban change, housing and environmental problems'.
159. The United Nations now groups these three nations as part of Northern Europe.
160. This discussion draws on Musil, Jirí, `Changing urban systems in post-communist societies in Central Europe: analysis and prediction', *Urban Studies,* vol. 30, no. 6, June 1993, 899-906.

161. These include people from abroad on contracts-for instance business people from the West, specialists on cultural assignments or foreign workers on limited, short-term contracts.
162. Carter, E W, R. A. French and J. Salt, `International migration between East and West in Europe', *Ethnic and Racial Studies, vol.* 16, no. 3, 1993, 467-91.
163. Carter, E W , `Bulgaria', Chapter 4 in A. H. Dawson (ed.), *Planning in Eastern Europe,* Croom Helm, London, 1987.
164. This should not be confused with Katowice city that had 360,000 inhabitants in 1992 or the Upper Silesian Industrial Region which is a metropolitan area within Katowice county within which Katowice city is located.
165. For instance, seven of them had populations of 20,000 or more inhabitants in 1500 AD.
166. This section draws heavily on a background paper by Denis J. B. Shaw of the University of Birmingham (UK) on `Settlement and urban change in the former Soviet Union'.
167. Finansky i statistika 1990, 10-14.
168. Finansky i statistika 1990.
169. Both these cities were among the region's largest and most important during the 19th and early 20th centuries; Lvov lost part of its hinterland during the interwar period as it was in Poland and then lost its connections to the West after 1939; Riga suffered a loss of its hinterland during the interwar period when it was part of independent Latvia and then could not resume its overseas trading activities under Stalin's policies.
170. These include Naberezhnyye Chelny and Cheboksary, and Neftekamsk, Nizhnekamsk and Nococheboksarsk that had not existed in 1959; see Cole, John P, `Changes in the population of larger cities of the USSR, 1979-89', *Soviet Geography, vol.* 3 l, no. 3, March 1990,160-72.
171. Formerly Sverdlovsk.
172. See for instance Cooper, Julian, *Soviet Defence Industry, Conversion and Reform,* Royal Institute of International Affairs/Pinter, London, 1991.
173. Medvedkov, O., *Soviet Urbanization,* Routledge, London, 1990.
174. Cole, 1990, op *cit.*
175. *Ibid.*
176. This section draws on a series of background papers commissioned for the Global Report. These include a series of background papers and boxes prepared by Richard Kirkby on China, Yamada, Hiroyuki and Kazuyuki Tokuoka, `The trends of the population and urbanization in post-war Japan', Kundu, Amitabh, `Population growth and regional pattern of urbanization in India: an analysis in the context of changing macro-economic perspective', Islam, Nazrul, Professor `Dhaka; a profile' and `Urbanization in Bangladesh'; and Hasan, Arif, `Profiles of three Pakistani Cities: Karachi, Faisalabad and Thatta'.
177. United Nations 1995, op. *cit.*
178. *Ibid.*
179. K. Srinivasan, quoted in *The Economist,* 18 Feb. 1995, 76.
180. ESCAP, *State of Urbanization in Asia and the Pacific 1993,* Economic and Social Commission for Asia and the Pacific, ST/ESCAP/1300, United Nations, Bangkok, 1993.
181. Islam, Nazrul, `Dhaka; a profile', Background Paper for the Global Report on Human Settlements, 1994.
182. Hardoy and Satterthwaite 1989, op. *cit.*
183. If the urban population is that in city municipalities, 77.4 per cent of the population lived in urban areas in 1990. If the urban population is that in what are termed Densely Inhabited Districts, which seek to exclude the rural populations that fall within city municipal boundaries, then 63.2 per cent of the population lived in urban areas in 1990. If Standard Metropolitan Employment Areas are used, 73.6 per cent of the population lived in urban areas in this year. See Yamada, Hiroyuki and Kazuyuki Tokuoka, `The trends of the population and urbanization in Post-war Japan, Background Paper for the United Nations Global Report on Human Settlements, 1995.
184. This classification and analysis draws on McGee, Terence G. and C. J. Griffiths, `Global urbanization: towards the twenty-first century', in United Nations, Population Distribution and Migration, Proceedings of the United Nations Expert Meeting, ST/ESA/SER.R/133, UN Population Division, New York, 1994.
185. Figures from Merrill Lynch for 1992 quoted in *The Economist, 11* Feb. 1995.
186. United Nations 1995, op. *cit.*
187. *China City Planning Review, vol.* 2, 1988 and China Daily 12.8, 1988
188. Islam, Nazrul , `Urban research in Bangladesh and Sri Lanka: Towards an agenda for the 1990s', in Richard Stren (ed.), *Urban Research in the Developing World. Volume I-Asia,* Centre for Urban and Community Studies, Toronto, 1994,103-69.
189. ESCAP 1993, op. *cit.*
190. *Ibid.* 2-27.
191. Kirkby, Richard, `Country Report: China', Background Paper for the United Nations Global Report on Human Settlements, 1995.
192. Bose, Ashish, `Urbanization in India 1951-2001, in Bidyut Mohanty (ed.), *Urbanization in Developing Countries. Basic Services and Community Participation,* Concept Publishing Company, New Delhi, 1993, 107-24.
193. Yamada and Tokuoka 1995, op. *cit.*
194. Mboi, Nafsiah and Karen Houston Smith, `Urban research in Indonesia: its evolution and its future', in Richard Stren (ed.), *Urban Research in the Developing World: Volume I -Asia,* Centre for Urban and Community Studies, Toronto, 1994, 173-251.
195. Kundu, Amitabh, `Population growth and regional pattern of urbanization in India: an analysis in the context of changing macro-economic perspective', Background paper for the Global Report on Human Settlements, 1994.
196. Kirkby 1995, op. *cit.*
197. *Ibid.*
198. *Ibid.*
199. Mboi and Houston Smith 1994, op. *cit.*
200. McGee and Griffiths 1994, op. *cit.*
201. Kundu 1994, op. *cit.*
202. Along with 3 declassifications and 103 merging with other towns; see Kundu 1994, op. *cit.*
203. ESCAP 1993, op. *cit.*
204. McGee and Griffiths 1994, op. *cit.,* Kioe Sheng, Yap, personal communication.
205. Ginsberg, N., B. Koppel and T G. McGee (eds.), *The Extended Metropolis Settlement Transition in Asia,* University of Hawaii Press, Honolulu, 1991.
206. McGee, T G., `Urbanization or Kotadesasi-the emergence of new regions of economic interaction in Asia', Working paper, Environment and Policy Institute, East West Center, Honolulu, June 1987.
207. McGee 1987, op. *cit.*
208. Lo, Fu-chen and Yue-man Yeung, *Global Restructuring and Emerging Urban Corridors in Pacific Asia,* United Nations University, Tokyo, 1995.
209. Lo and Yeung 1995, op. *cit.*
210. U. Myint, personal communication quoted in ESCAP 1993, op. *cit.*
211. United Nations, *Human Settlements Situation in the ESCWA Region: Development Trends in the Housing Sector during the last Two decades',* Economic and Social Commission for Western Asia, E/ESCWA/HS/1993/1, 1993.
212. Hasan, Arif, `Profiles of three Pakistani Cities: Karachi, Faisalabad and Thatta', background paper prepared for the Global Report on Human Settlements, 1994.
213. Hasan 1994, op. *cit.*
214. Yamada and Tokuoka 1995, op. *cit.*
215. Fujita, Masahisi and Ryoichi Ishii, `Location behaviour and spatial organization of multinational firms and their impact on regional transformation in East Asia: a comparative study of Japanese, Korean and US electronics firms', *ISEAD Intermediate Research Report,* University of Pennsylvania, draft, quoted in Lo and Yeung 1995, op. *cit.*
216. Kirkby 1995, op. *cit.*
217. For more details, see census data in Prakash Mathur, Om, `Responding to the urban challenge: a research agenda for India and Nepal', in Richard Stren (ed.), *Urban Research in the Developing World. Volume I-Asia,* Centre for Urban and Community Studies, Toronto, 1994,49-100.
218. Kirkby, Richard (1994), `Dilemmas of urbanization: review and prospects', in Denis Dwyer (ed.), *China: The Next*

Decades, Longman Scientific and Technical, Harlow, 140-1.

219. *Far Eastern Economic Review, 24.3.1988*

220. Zweig, D. *(1991),* `Institutionalizing China's countryside: the political economy of exports from rural industry', *China Quarterly, vol. 128, 716-41* quoted in Kirkby *1995, op. cit.*

221. This is a condensed version of a paper by Stren, Professor Richard, `Population and urban change in Africa' prepared for the Global Report on Human Settlements, 1995.

222. In United Nations *1995 (op. cit.),* for half of all African nations, the latest census listed was *1983* or earlier while for *12* countries, there was no census listed since the early *1970s.*

223. United Nations *1995, op. cit.*

224. UNDP, *Human Development Report,* 1994, Oxford University Press, *1994.*

225. For *1985-90,* the United Nations estimates that the average rate of growth of Africa's urban population was *4.34%* annually; for the period *1990-5,* it was estimated at *4.38%* and for *1995-2000,* projected to be *4.29%-see* United Nations *1995 op. cit.*

226. Stambouli, Fredj, *The Urban Profile of Tunis City Today,* Background Paper for the Global Report, *1994.*

227. *Ibid.*

228. At the height of their development, African cities rivalled in size and urban form both contemporary European and Middle Eastern cities. Thus, a Portuguese traveller; writing in *1694,* described the town of Benin (in present day Nigeria) in glowing terms,'. . . as larger than Lisbon; the streets are aligned in a rectilinear pattern as far as the eye can see. The houses are large- particularly that of the King, which is elaborately decorated with fine columns. The town is rich and active. It is so well governed that theft is unknown, to the point that, because of a feeling of security, the people do not have gates for their houses.' (Quoted in Catherine Coquery-Vidrovitch, *Histoire des villes d Afrique noire; Des origines á la colonisation,* Albin Michel, Paris, *1993, 181).* Another traveller described the city of Djenné (near the town of Timbuktu in what is currently Mali) as `great, flourishing and prosperous ... one of the great markets of the Muslim world' (Abdurahman es Sa'di, as quoted in Basil Davidson (ed.), *The African Past,* New York, *1967, 94).* Some of these settlements (such as Great Zimbabwe, Kano or Ife) began as spiritual centres, to evolve over time into secular towns. Others (such as Kampala or Kumasi) were originally the seat of a powerful king or ruling group.

229. Gervais-Lambony, Philippe, *De Lomé à Harare; Le fait citadin,* Karthala, Paris, *1994.*

230. Attahi, Koffi `Planning and Management in Large Cities. A Case Study of Abidjan, Côte d'Ivoire' in UNCHS (Habitat), *Metropolitan Planning and Management in the Developing World: Abidjan and Quito,* Nairobi, *1992, 35-6.*

231. Mandy, Nigel, *A City Divided: Johannesburg and Soweto,* St. Martin's Press, New York, *1984, 1-3.*

232. Poinsot, Jacqueline, Alain Sinou and Jaroslav Sternadel, *Les villes d'Afrique noire. Politiques et operations d'urbanisme et d'habitat entre* 1650 *et* 1960, La Documentation Française, Paris, *1989,* 11.

233. One of the most influential sources of colonial legislation was the British Town and Country Planning Act of *1932,* which was the source of the urban planning legislation in Kenya, Tanzania and the Rhodesias and was behind the Nigeria Town and Country Planning Ordinance, proclaimed in *1948,* which eventually became the model for post-independence planning in the various states of the federal union.

234. Kulaba, Saitiel, *Urban Management and the Delivery of Urban Services in Tanzania,* Ardhi Institute, Dar es Salaam, *1989,226-7.*

235. Stren, Richard `Urban Policy', in Joel Barkan and John J. Okumu (eds.), *Politics and Public Policy in Kenya and Tanzania,* Praeger, New York, *1979, 186.*

236. White, Rodney, `The Impact of Policy Conflict on the Implementation of a Government-assisted Housing Project in Senegal', *Canadian Journal of African Studies, vol. 19,* no. *3, 1985, 512.*

237. Adjavou, Akolly and others, *Economie de la construction à Lomé,* L'Harmattan, Paris, *1987, 20-1.*

238. The estimate, which is accepted by other researchers, was offered by Heather Joshi, Harold Lubell and Jean Mouly, *Abidjan: Urban development and employment in the Ivory Coast,* ILO, Geneva, *1976, 66.*

239. For a survey of this research see Charles M. Becker, Andrew M. Hamer and Andrew R. Morrison, *Beyond Urban Bias in Africa: Urbanization in an Era of Structural Adjustment,* James Currey, London and Portsmouth, NH: Heinemann, *1994,* ch. *4.*

240. *Ibid.* ch. *5.*

241. See, for example, Alan Gilbert and Joseph Gugler, *Cities, Poverty and Development: Urbanization in the Third World,* Oxford University Press, New York, *1992, 94-100;* and Lisa Peattie, `An Approach to Urban Research in the *1990s',* forthcoming in Richard Stren (ed.), *Urban Research in the Developing World, vol. 4,* Centre for Urban and Community Studies, Toronto.

242. Becker, Hamer and Morrison *1994, op. cit. 159-60.*

243. International Labour Organization, *Informal Sector in Africa,* Jobs and Skills Programme for Africa, ILO, Addis Ababa, *1985, 13-15.*

244. Touré, Abdou, *Les Petits métiers à Abidjan. L'imagination au secours de la `conjoncture',* Karthala, Paris, *1985, 18.*

245. World Bank, *Urban Policy and Economic Development. An Agenda for the* 1990s, Washington DC, *1991, 38.*

246. Dulucq, Sophie and Odile Goerg (eds.), *Les Investissements publics dans les villes africaines* 1930-1985, L'Harmattan, Paris, *1989, 149.*

247. *Ibid. 41-4.*

248. Kulaba, Saitiel, *Urban Management and the Delivery of Urban Services in Tanzania,* Ardhi Institute, Dar es Salaam, *1989, 118.*

249 DHS and Mazingira Institute, *Nairobi: The Urban Growth Challenge,* Mazingira Institute, Nairobi, *1988.*

250. Stren, Richard, `Large Cities in the Third World', in UNCHS, *Metropolitan Planning and Management in the Developing World. Abidjan and Quito,* Nairobi, *1992, 10-11.*

251. Stren, Richard, `The Administration of Urban Services', in Richard Stren and Rodney White (eds), *African Cities in Crisis. Managing Rapid Urban Growth,* Westview, Boulder, *1989, 47.*

252. Kulaba *1989, op. cit. 133-41.*

253. Godard, Xavier and Pierre Teurnier, *Les Transports urbaines en Afrique à l'heure de l'ajustement,* Karthala, Paris,1992, 52.

254. See Chapter 8 for more details.

255. Godard and Teurnier *1992, op. cit.*

256. World Bank, *World Development Report* 1994: *Infrastructure for Development,* Oxford University Press for the World Bank, New York, *1994, 115.*

257. Antoine, Philippe and Amadou Ba, `Mortalité et santé dans les villes africaines' in *Afrique contemporaine* (Numéro spécial, `Villes d'Afrique') no. 168, Oct./Dec. 1993, 140.

258. Antoine and Ba *1993, op. cit. 144.*

259. Lee-Smith, Diana, Mutsembi Manundu, Davinder Lamba and P Kuria Gathuru, *Urban Food Production and the Cooking Fuel Situation in Urban Kenya,* Mazingira Institute, Nairobi, *1987.*

260. Rakodi, Carole `Urban agriculture: research questions and Zambian evidence' *Journal ofModern African Studies, vol. 26, no.3, 1988, 495-515.*

261. Freeman, Donald,A *City of Farmers: Informal Urban Agriculture in the Open Spaces of Nairobi, Kenya,* McGill-Queen's University Press, Montreal and Kingston, *1991.*

262. Maxwell, Daniel and Samuel Zziwa, *Urban Farming in Africa: The case of Kampala, Uganda,* ACTS Press, Nairobi, *1992, 29.*

263. Schilter, Christine, *L'agriculture urbaine à Lomé: Approches agronomique et socio-économique,* Karthala and IUED, Paris and Geneva, *1991.*

3 Social Conditions and Trends

3.1 Assessing Progress

Introduction

Over the last 30-40 years, almost all countries have achieved considerable economic and social gains. The social gains can be seen in much increased life expectancy and the reduction in the proportion of the world's population facing hunger, life-threatening deprivation and easily preventable or curable diseases. They are also evident in the improvements in housing and living conditions and in the increased proportion of the world's population with access to piped water, sanitation, health care and education. But there is a growing body of data showing a slowing in social progress or even a halt and decline in some countries during the 1980s. In absolute terms, the proportion of the population living below the `poverty line' increased during the 1980s. In the South, much of this is associated with economic stagnation and/or debt crises and with structural adjustment. In most of the transition countries, this is linked to the collapse of communism and the disintegration of the Soviet Union, although in many countries, social progress had also slowed in the years prior to these changes.

In several of the wealthiest countries, the slowing in social progress was less associated with economic stagnation and more associated with changes in the labour market, including a growth in long-term unemployment and with political changes that reduced expenditures on social welfare and gave a low priority to addressing such issues as structural unemployment and rising homelessness. In many such nations, inequalities in income distribution also grew. Changing labour markets also increased the number of people with inadequate incomes.

There are two great uncertainties about the long-term impact of structural adjustment in the South and the fundamental political and economic changes within the transition countries. The first is whether they provide the basis for a more stable and prosperous economy. The second is whether improved economic performance will then be translated into social progress. As Chapter 2 noted, the economic performance of many countries in Latin America during the early 1990s improved considerably, when compared to the 1980s, but there also remains a large backlog of social problems that need to be addressed, many of them considerably increased by the economic measures taken to provide more economic stability and better prospects for economic growth. There are also doubts about the extent to which the renewed economic growth will be sustained, especially after the economic difficulties that Mexico faced from late 1994.

How best to assess social progress

Any review of social progress is faced with considerable difficulties in assessing conditions and how these changed. First, it is difficult to measure social progress or improvements in the quality of life. This is both in what should be measured and in what it is possible to measure (and whether it is measured for most countries). Ideally, a range of indicators should be measured that reflect two aspects of wellbeing: the *constituents* of well-being such as health, life expectancy, civil and political rights, and the main *determinants* of well-being-such as income, housing quality (that should include adequate provision for water, sanitation and drainage within neighbourhoods), and the quality and accessibility of schools, health care services and other social facilities.1 But for most nations, there is very inadequate data available for most of these constituents and determinants of well-being to allow progress to be assessed. As Chapter 6 will describe, basic data on the quantity and quality of the housing stock is not available in most nations. In addition, the quality and accuracy of the little data that is available is open to question. Chapter 8 will describe the uncertainties as to whether the figures on the proportion of national populations with access to water and sanitation are accurate and question whether the statistics that show a considerable increase in the proportion of the world's population adequately served are valid. There is also a tendency for all international comparisons on social conditions and trends to fall back on a few indicators that are easily measured and for which there is data for most countries and use these as the basis for judging the extent of social progress-and perhaps too little critical consideration as to the quality of the data used or the extent to which the indicators chosen reflect social progress.

To give a broad overview of social progress worldwide, this chapter will mainly concentrate on a review of changes in *life expectancy at birth* which is probably the indicator that most accurately reflects the quality of housing and living conditions and provision for basic services. There will also be a brief review of progress in reducing

infant mortality and increasing adult literacy, and a consideration of the Human Development Index that combines progress on per capita income, life expectancy and adult literacy.

The links between life expectancy and social progress

The life expectancy at birth in a country i.e. the average number of years a person will live from birth-is among the most valuable single indicators of social achievement. It is a measure of the extent to which economic, social and political factors within a country have made it possible for citizens to avoid premature death and, in general, lead a healthy life. A study of living standards in 48 low-income countries in 1980 developed an aggregate indicator based on four socio-economic indicators and one each for civil and political rights: among these six indicators, life expectancy at birth proved to have the strongest correlation with the aggregate indicator. The authors of this study suggested that `if we had to choose a single, ordinal indicator of aggregate well-being, life expectancy at birth would seem to be the best'.[2]

Life expectancy at birth also has other advantages as a social indicator. Both the concept and the statistic itself is easily understood by all groups-unlike more sophisticated compound indicators.[3] It is sometimes possible to obtain figures for life expectancy disaggregated by income group, ethnic group or region-and in some instances for particular groups within nations, to see whether they are below or above the national average. For instance, a finding that the homeless in London have a life expectancy of over 2 5 years less than the national average gives some indication of their level of deprivation. Life expectancy figures can also be disaggregated by age groups; for instance, figures for the average life expectancy for a social group at a particular age-

TABLE 3.1 A summary of changes in social and economic indicators for regions and selected countries over the last few decades

Country or region	Real GDP per capita (ppp U$)		Life expectancy at birth (years)		Infant mortality rate		% of mal-nourished children		% of popn. with access to safe water		Adult literacy rate	
	1960	1991	1960	1992	1960	1992	1975	1990	1975/80	1988/91	1970	1992
World		5,490	53.4	65.6	128	60						
'The North'		14,860	69.0	74.5	35	13						
'The South'	950	2,730	46.2	63.0	149	69	40	35	36	70	46	69
'Least developed countries'	580	880	39.0	50.1	170	112	46	40	21	45	29	46
Latin America and the Caribbean	2,140	5,360	56.0	67.7	105	47	17	10	60	79	76	86
Arab States	1,310	4,420	46.7	64.3	165	54	25	20	71	79	30	57
South Asia	700	1,260	43.8	58.5	164	94	69	59	–	–	33	47
East Asia	730	3,210	47.5	70.5	146	27	26	21	–	–	–	-
South-EastAsia	1,000	3,420	45.3	62.9	126	55	46	34	15	53	67	86
Sub-Saharan Africa	–	1,250	40.0	51.1	165	101	31	31	25	45	28	51
North America	9,780	21,860	70.0	75.8								
Europe												
European Community	5,050	16,760	69.7	76.3								
Nordic countries	5,770	17,230	71.9	76.5								
Southern Europe	3,390	14,100	67.6	76.9								
Countries with the largest increase in the human development index, 1960-92												
Malaysia	1,783	7,400	53.9	70.4	73	14	31	18	–	–	60	80
Botswana	474	4,690	45.5	60.3	116	61	37	27	–	–	41	75
Korea, Republic of	690	8,320	53.9	70.4	85	21	–	–	66	92	88	97
Tunisia	1,394	4,690	48.4	67.1	159	44	17	9	35	99	31	68
Thailand	985	5,720	52.3	68.7	103	26	36	13	25	76	79	94
Syrian Arab Republic	1,787	5,220	49.8	66.4	135	40	20	13	–	–	40	67
Turkey	1,669	4,840	50.1	66.7	190	57	15	11	68	92	52	82
China	723	2,946	47.1	70.5	150	27	26	21	–	–	–	–
Examples of countries with among the smallest increase in the human development index 1960-92												
Zambia	1,172	1,010	41.6	45.5	135	84	17	26	42	48	52	75
Uganda	371	1,036	43.0	42.6	133	104	28	26	35	15	41	51
Malawi	423	800	37.8	44.6	207	143	19	24	51	53	–	–
Ethiopia	262	370	36.0	46.4	175	123	45	40	8	28	–	–
Afghanistan	775	700	33.4	42.9	215	164	19	40	9	21	8	32

Source: Statistics drawn from UNDP, Human Development Report 1994, Oxford University Press, New York and Oxford, 1994.

rather than from birth-can highlight an above average mortality that demands attention.

The figure for a country's average life expectancy tells one much about the overall state of its human settlements. It is impossible for a country to achieve a high life expectancy without most of its inhabitants having good quality housing that includes safe and sufficient water supplies and adequate provision for sanitation. It is also impossible without a wide coverage by health care, including special provision for infants and children and women's reproductive health. The often very large differences in average life expectancy between countries with comparable levels of per capita income are closely linked to the quality of housing and the extent of basic service provision-although there is considerable controversy over the relative merits of improved housing, improved water and sanitation, improved health care and improved education-see Box 3.1. As Chapter 4 will describe, it tends to be the infectious and parasitic diseases and the very high maternal and peri-natal mortality rates that keep average life expectancies low-and much of the improvement in life expectancy at least up to 60-65 years or so arises from the improvements in health care and disease control, and in housing quality and the basic services associated with good quality housing.

Figures for a country's average life expectancy are also particularly sensitive to infant and child mortality rates and to maternal mortality rates since a high average life expectancy is impossible if there is a significant proportion of infants, children or young mothers dying. Even prosperous countries cannot become among the nations with the'highest life expectancies, if a significant proportion of their population lack the income, living conditions and access to services that protect against premature death. However, among the more prosperous countries, increasing life expectancy also becomes a matter of encouraging healthy lifestyles and limiting the health costs of high consumption lifestyles, as well as ensuring all citizens have the basis for a healthy life.

Changes in life expectancy at birth

The world average for life expectancy increased by 12 years between 1960 and 1992 from 53.2 to 65.6 years. The average for the South increased by 17 years, although it began from a base of only 46.2 years in 1960. An average life expectancy of 46.2 years might seem very low but less than 100 years ago, this was also the life expectancy in the United States and in England and Wales.[4] Less than 100 years ago, in 1900, life expectancy at birth throughout Africa, Asia and Latin America was a mere 25-28 years.[5] Even the world average in 1992 of 65.6 years may seem low, yet the life

BOX 3.1

Does improved housing raise life expectancy?

There is considerable debate about which basic services and what aspects of health care are most cost-effective in terms of improving life expectancy. In recent years. relatively little consideration has been given to the role within this of good quality, adequate size and reasonably priced housing for which the inhabitants have secure tenure-although historic studies have sought to separate out the role of housing from other factors.6 There is also a considerable debate about which basic services provide the greatest reductions in mortality-for instance the proponents of 'selective primary health care' argue for a concentration on a limited range of cheap interventions such as immunization against the many vaccine-preventable diseases and oral rehydration therapy for rapidly treating diarrhoeal diseases and give a lower priority to water supply and sanitation.[7]

It may be that there are few generalizable guidelines as the relative importance of the housing structure and size itself as distinct from housing-related infrastructure and services (piped water supply, provision for sanitation and drainage and, where needed, solid waste collection), education and health care. Their relative importance is likely to vary from settlement to settlement. In very densely populated squatter settlements-with an average of four or more persons per room, in shacks made of temporary materials, with little room between shacks, and where people cook on open fires-the size and physical quality of the shelters-with high levels of indoor air pollution, ready transmission of communicable diseases linked to overcrowding (including acute respiratory infections, TB, influenza and meningitis), and the frequent burns, scalds and accidental fires associated with the overcrowding and temporary materials-may be a major factor in premature death. Certainly accidents and respiratory infections that are linked to high levels of indoor air pollution take a major toll in infant and child health in such settlements. In densely populated settlements with very inadequate provision for piped water and surface drainage and with provision for sanitation no more than pits or bucket latrines, shared by thirty or more persons, the inadequacy in provision for piped water, sanitation and drainage may be the main factor in premature death.

In urban centres, especially cities, the cost of housing becomes increasingly important as capacity to pay for housing influences housing quality and the amount of income available for food and medicines. In addition, choices as to what should be the concentration of any government or donor agency should also consider what the inhabitants themselves regard as priorities and what they themselves would be prepared to contribute in both time and money. A water supply piped into the home of each squatter household might be considered 'too expensive' by the government or donor agency but might actually be very cheap where this is a high priority for the households who are themselves prepared to pay a high proportion of the costs. Perhaps the most important lesson is the difficulty of establishing general guidelines as to 'most effective intervention' to improve life expectancy since it is going to vary greatly from settlement to settlement, as is the contribution that the inhabitants themselves are able and/or willing to make towards each intervention. Identifying the most appropriate use of limited resources within each particular context will usually depend on greatly increasing the power of low income groups and their community organizations to influence priorities and how limited resources are used; the participatory tools and methods by which external agencies can do so are described in Chapter 9.

expectancy of the United States was around 66 years in 1950.[8] Thus, the world's average life expectancy at birth today is the same as that of the world's wealthiest country some 45 years ago. Table 3.1 presents statistics for the average life expectancy by region for 1960 and 1992.

Table 3.2 presents the increase in life expectancy for the five countries with the highest and the lowest increase in life expectancy at birth within eight country-categories. Countries were allocated to these categories according to their life expectancy in 1960. This is because it becomes increasingly difficult to increase life expectancy, as life expectancy increases.[9] It is easier for countries to achieve large increases in life expectancy, if they begin from a low base, since so much premature death is avoided through better nutrition, environmental health and health care. In commenting on these, note will also be made where a much increased life expectancy coincides with a much increased per capita income-and where it does not.

As might be expected, countries in the Group with the highest life expectancies in 1960 already had life expectancies of 70 or more years and had the smallest increase of any of the groups. What is also notable is the smaller range between the best and the worst performing countries, compared to other groups. Part of the reason for the relatively low levels of increase among countries such as Sweden, Netherlands and Norway is that they had already achieved life expectancies in excess of 73 years in 1960.

In Group 2, the five countries with the largest increase in life expectancy were also among the countries with the most rapid increase in their per capita income 1960-91. Not surprisingly they include Japan, which during this period became one of the world's wealthiest countries and also one of the major influences on the global economy. They also include Hong Kong, also with a leading role in the world economy (and among the countries with the most rapid growth in per capita income) and Greece and Spain from Southern Europe. Southern Europe had one of the most rapid growth rates for per capita income of any region during this period. The top-performing countries in this group had achieved levels of life expectancy comparable to those in the best-performing countries in Group 1. By contrast, most of the countries with the smallest growth in life expectancy in this period were from East Europe and Central Europe or from the former Soviet Union. Life expectancies fell in many countries in East Europe during the 1980s. In the countries that formerly made up the USSR, life expectancy at birth declined by nearly two years between 1970 and 1980 and by 1990, was back at around the same level that it had been in 1970.[10] Although Central and East European countries now have lower life expectancies than countries in Western Europe, there was a period in the late 1940s and the mid-1960s when they converged.[11] There is considerable debate as to what underlies this. Explanations in the West have generally concentrated on bureaucratic inefficiencies in health services and in food production and distribution, on industrial pollution and on increased alcohol consumption.[12] However, an alternative explanation has been advanced that the young adult group .in the Second World War suffered major deprivation and that a considerable proportion of healthy males were killed during the war-and so when this age group aged significantly in the mid-1960s, it was peculiarly vulnerable to mortality.[13] In addition, an analysis of the demographic impact of sudden impoverishment in Eastern Europe between 1989 and 1994 suggests that `none of the traditional risk factors (environmental degradation, smoking, diet and alcohol consumption) appear to explain much of the recent increase in mortality, either because there is sufficient evidence that the variable in question has moved in a favourable direction (as in the case of industrial emissions and smoking) or because the existing information is either ambiguous or apparently un-correlated with the observed mortality outcomes'.[14] This study suggested instead that the drops in life expectancy were more related to economic stress and poorer quality health services-and also pointed out how in most countries, it was sharp increase in mortality among middle-aged males that was a major contributor to falling life expectancies.[15]

In Group 3, several of the countries with the largest increase in life expectancy were also the ones with the most rapid economic growth (for instance Portugal and Singapore). Others achieved large increases in life expectancy without rapid growth in per capita income-for instance Cuba and Costa Rica. As in Group 2, several of the countries in this Group with the largest increases in life expectancy had achieved among the world's highest levels of life expectancy by 1992. Three of the countries with the lowest increase in life expectancy were also those with among the smallest increases in per capita income (Sri Lanka, Argentina and Trinidad and Tobago). Paraguay had a relatively rapid increase in per capita income but much the lowest increase in life expectancy within this group.

In Group 4, the largest increases in life expectancy were achieved by three Latin American countries with among the highest increases in per capita income in their region and two wealthy oil-producing states. The two countries with the smallest increases also had among the lowest increases in per capita income and, in the case of Lebanon, extensive civil strife for much of the period under consideration.

TABLE 3.2 Countries with the highest and the lowest increases in life expectancy, 1960-1992

Countries with the highest increase in life expectancy 1960-1992				Countries with the lowest increase in life expectancy 1960-1992			
Country	Life Expectancy		Increase in life exp.	Country	Life Expectancy		Increase in life exp.
	1960	1992	1960-1992		1960	1992	1960-1992
1. Countries where life expectancy exceeded 70.0 years in 1960							
Switzerland	71.2	77.8	6.6	Sweden	73.1	77.7	4.6
France	70.3	76.6	6.3	New Zealand	70.9	75.3	4.4
Canada	71.0	77.2	6.2	Netherlands	73.2	77.2	4.0
Australia	70.7	76.7	6.0	Norway	73.4	76.9	3.5
Belgium	70.3	75.7	5.4	Denmark	72.1	75.3	3.2
2. Countries where life expectancy was between 65.0 and 69.9 in 1960							
Hong Kong	66.2	77.4	11.2	Bulgaria	68.5	71.9	3.4
Japan	67.9	78.6	10.7	Estonia	68.8	71.2	2.4
Greece	68.7	77.3	8.6	Czechoslovakia	69.9	72.1	2.2
Spain	69.0	77.4	8.4	Hungary	68.1	70.1	2.0
Cyprus	68.7	76.7	8.0	Latvia	69.6	71.0	1.4
3. Countries where life expectancy was between 60.0 and 64.9 in 1960							
Costa Rica	61.6	76.0	14.4	Sri Lanka	62.0	71.2	9.2
Panama	60.7	72.5	11.8	Bahamas	63.2	71.9	8.7
Cuba	63.8	75.6	11.8	Trinidad & Tobago	63.5	70.9	7.4
Brunei Darussalam	62.3	74.0	11.7	Argentina	64.9	71.1	6.2
Portugal	63.3	74.4	11.1	Paraguay	63.8	67.2	3.4
4. Countries where life expectancy was between 55.0 and 59.9 in 1960							
Bahrain	55.5	71.0	15.5	Fiji	59.0	71.1	12.1
Kuwait	59.6	74.6	15.0	Venezuela	59.6	70.1	10.5
Chile	57.1	71.9	14.8	Mauritius	59.2	69.6	10.4
Mexico	57.1	69.9	12.8	Lebanon	59.6	68.1	8.5
Colombia	56.6	69.0	12.4	Guyana	56.1	64.6	8.5
5. Countries where life expectancy was between 50.0 and 54.9 in 1960							
Solomon Islands	50.3	70.0	19.7	Dominican Repub.	51.8	67.0	15.2
United Arab Em.	53.0	70.8	17.8	El Salvador	50.5	65.2	14.7
Korea, Dem. Rep.	53.9	70.7	16.8	Ecuador	53.1	66.2	13.1
Turkey	50.1	66.7	16.6	Philippines	52.8	64.6	11.8
Qatar	53.0	69.6	16.6	Brazil	54.7	65.8	11.1
6. Countries where life expectancy was between 45.0 and 49.9 in 1960							
China	47.1	70.5	23.4	Botswana	45.5	60.3	14.8
Jordan	47.0	67.3	20.3	Egypt	46.2	60.9	14.7
Honduras	46.5	65.2	18.7	South Africa	49.0	62.2	13.2
Tunisia	48.4	67.1	18.7	Zimbabwe	45.3	56.1	10.8
Algeria	47.0	65.6	18.6	Ghana	45.0	55.4	10.4
7. Countries where life expectancy was between 40.0 and 44.9 in 1960							
Oman	40.1	69.1	29.0	Cambodia	42.4	50.4	8.0
Saudi Arabia	44.4	68.7	24.3	Burundi	41.3	48.2	6.9
Indonesia	41.2	62.0	20.8	Rwanda	42.3	46.5	4.2
Viet Nam	44.2	63.4	19.2	Zambia	41.6	45.5	3.9
Maldives	43.6	62.2	18.6	Uganda	43.0	42.6	-0.4
8. Countries where life expectancy was below 40.0 in 1960							
Cameroon	39.3	55.3	16.0	Afghanistan	33.4	42.9	9.5
Yemen	36.4	51.9	15.5	Mozambique	37.3	46.5	9.2
Togo	39.3	54.4	15.1	Guinea-Bissau	34.0	42.9	8.9
Nepal	38.4	52.7	14.3	Central Af. Rep.	38.5	47.2	8.7
Bangladesh	39.6	52.2	12.6	Malawi	37.8	44.6	6.8

Notes and Sources: Countries are grouped into eight categories, according to their life expectancy at birth in 1960, since in general, it is easier to achieve large increases in life expectancy if beginning from a low base. Statistics drawn from UNDP, The Human Development Report 1994. Oxford University Press, Oxford and New York, 1994.

Group 5 is interesting for the fact that South Korea, Thailand and Malaysia are in this group and had among the world's most rapid growth in per capita income but none of them figure among the five countries with the most rapid increase in life expectancy. However, in all three of these countries, life expectancy did increase by around 16.5 years. Brazil, which also had among the most

rapid growths in per capita income of any country, is also the country with the smallest increase in life expectancy in this group.

In Group 6, China had among the largest increases in life expectancy of any country in the world between 1960 and 1992. The achievement is particularly notable, given that China contains around one-fifth of the world's entire population-and more people than Africa and North and South America combined. It is also worth recalling that China was certainly not free of social and political turmoil during this period-including the catastrophic famine of 1960/1 and the cultural revolution. Although Botswana, Egypt and South Africa all increased average life expectancy by between 13 and 15 years, this was a relatively small increase in relation to their economic performance. For South Africa, this is not surprising given that the apartheid policies of the (then) government limited greatly the possibilities for improvements in income and housing and living conditions for most of the population on the basis of their colour. For Ghana, with the lowest increase in life expectancy within this group, this is more associated with economic performance in that per capita income declined overall during these 32 years.

For Group 7, two of the countries with the largest increase in life expectancy were also among the world's most rapidly growing economies-Indonesia and Oman. The large increase in life expectancy in Indonesia might also be partially explained by the fact that inequality decreased during this period.[16] Four of the countries with the lowest increases in life expectancy were ones in which there were serious and prolonged wars (Cambodia) or civil wars (Rwanda, Burundi, Uganda) during these years while for the fifth (Zambia) there was an absolute decline in per capita income during this period.

The link between wars and relatively small increases in life expectancy can also be seen in Group 8 for Afghanistan and Mozambique. Group 8 is also notable in having none of the world's most rapidly growing economies; it contains none of the 20 countries with the largest overall increase in life expectancy during this period, even though, as noted earlier, the lower the average life expectancy in 1960, the more that social and economic progress is likely to be translated into large increases in life expectancy. Group 8 is also dominated by countries from sub-Saharan Africa. Twenty-three of the twenty-nine countries in this group are in sub-Saharan Africa-a reminder of how low life expectancies were in much of sub-Saharan Africa as most countries in the region gained independence in the late 1950s and the 1960s. Most countries in Group 8 began and finished the period under consideration (1960-92) with little or no success within the world economy. A regional analysis of improvements in life expectancy between 1950 and 1990 found that sub-Saharan Africa was the region in the South showing the slowest improvement, although the rate of improvement still compares well with European experience in the nineteenth century.[17] The former socialist countries of Europe showed a rapid improvement during the 1950s and 1960s but the rise was much slower in the 1970s and 1980s.[18]

Life expectancy, human settlement policies and inequality

Two themes related to life expectancy are of particular relevance to human settlements. The first is the extent to which `human settlement policies' in the widest sense (including policies on housing and the basic services associated with housing, especially water, sanitation and health care) can increase the average life expectancy of a country. The second is the extent to which it is the scale of inequality within nations in terms of income and assets that helps explain their national `average life expectancy'.

The countries with the highest life expectancy are also generally the countries with the highest per capita income while the countries with the largest increases in life expectancy 1960-1992 are also those with the largest increases in per capita income. There are large variations in the life expectancy of countries with similar levels of per capita income-although beyond a certain level of per capita income, the variations become smaller. For instance, countries with per capita incomes of around $US500 in 1991 can have average life expectancies ranging from 43 to 53 years. At per capita incomes of $US1,000, average life expectancies can be under 45 years or close to 60 years. At per capita incomes of around $US2,000, the range is from 55 to over 65; at per capita incomes of around $US3,000, the range is from under 55 to over 70.

There are also large variations in the increase in life expectancy between 1960 and 1992 among countries with similar increases in per capita income who also had similar life expectancies in 1960. Among the two most important factors in explaining these variations in the proportion of the population with below poverty line incomes and the quality of housing and basic service provision. In general, countries that were well above and well below the average range for life expectancy in 1960 were also there in 1992. Among the countries that showed the greatest increase in life expectancy relative to increases in per capita income in these 32 years were Japan, Costa Rica, China, Cuba, Chile, Trinidad and Tobago, Barbados, Hong Kong and Jamaica.

A recent study highlighted how the extent of

inequality and of basic service provision are a major influence on the life expectancy achieved for any low income country.[19] This study looked at twenty-two low-income countries for which there was data on the proportion of people with below poverty-line incomes and public expenditure on social services, as well as on fife expectancy and per capita income. This found that the significantly positive relationship between fife expectancy and per capita income disappears in a regression of fife expectancy against poverty incidence, public health spending and average income. The results also suggested that one-third of the increase in fife expectancy was due to reduced poverty and two-thirds to increased spending on social services associated with higher incomes. As the study notes, `this does not imply that economic growth is unimportant in expanding life expectancy but it says that the importance of growth lies in the way that its benefits are distributed between people and the extent to which growth supports public health services'.[20] The study noted that despite the small size of the sample and the lack of specificity in regard to health expenditures-it is clear that health expenditures concentrated on preventive rather than curative services are more effective in improving health and life expectancy in low income countries-'this cross-country evidence does offer some provisional support for the view that, at least for basic health, the main channels by which growth promotes human development in a typical developing country are through its impact on income poverty and the public provisioning of health services. Average income matters but only insofar as it reduces poverty and finances key social services'.[21]

The association between life expectancy and per capita income is also weak within the wealthiest countries but strongly associated with the level of inequality. The countries with the highest life expectancies are generally those with the smallest gap between the highest and the lowest income groups.[22] An examination of changes in income distribution in twelve European Union countries between 1975 and 1985 showed a more rapid improvement in life expectancy following a fall in the prevalence of relative poverty.[23] In the United States, mortality reduction to achieve a high level of life expectancy appropriate for its very high per capita income may be prevented by the fact that a sizeable segment of its population belong to groups who are severely disadvantaged .[24]

Progress in other social indicators

Infant mortality rates (the number of infants who die between birth and the age of 1) and child mortality rates (the number who die between birth and the age of 5) are also widely used as a measure of social progress. Given the vulnerability of infants and children to malnutrition and to many infectious and parasitic diseases, infant and child mortality rates are much influenced by levels of poverty and by the quality and extent of provision of health care (including special provision for infant, child and maternal health) and for water supply and sanitation. Infant and child mortality rates are the major influence on average life expectancy, for countries with a low life expectancy. The countries that had the largest increases in life expectancy between 1960 and 1992 are also generally those with the largest decreases in infant and child mortality. However, as reductions in poverty and improvements in health care and in housing and living conditions decrease these rates, so reductions in adult mortality become particularly important for achieving further increases in life expectancy. For instance, most of the recent gains in life expectancy in countries in the North have been the result of reduction in mortality among elderly people.[25] More than half the increase in life expectancy in Japan in the early 1980s was due to the reduction in mortality among elderly people.[26]

Worldwide, there were major improvements in both infant and child mortality rates over the last 30-40 years. As shown in Table 3.1, infant mortality rates in 1992 were less than half what they were in 1960 both as a world average (60 per 1,000 live births compared to 128 in 1960) and as an average for the South (69 compared to 149 in 1960).[27] Again, progress has been swift in the North and most of the South, especially in East Asia and the Arab states. But in 1992, there were still fifty countries with child mortality rates that exceeded 100 (i.e. with one child in ten who was born alive dying before their fifth birthday). In at least seven of these fifty countries, child mortality rates did not fall or increased between 1980 and 1992: Niger, Angola, Mozambique, Rwanda, Zambia, Uganda and Ghana. The statistics in Table 3.1 also show how progress in reducing infant mortality rates was least in Sub-Saharan Africa and South Asia and, in general, among countries designated as the `least developed'.

A recent review of health and mortality within Europe noted that between 1980 and 1990, there was considerable progress in most European countries in lowering what were already among the lowest infant mortality rates in the world. In 1980, only eight among thirty-four European countries had infant mortality rates of 10 or less per 1,000 live births; by 1990, twenty-four countries had infant mortality rates of 10 or less. Only 30 years ago, infant mortality rates of 10 were considered the `biological limit'.[28]

Among other indicators showing significant improvements worldwide or for the South are the proportion of the population with access to safe water (see Chapter 8). Adult literacy rates also

increased significantly between 1970 and 1992 with the proportion of adults who are literate reaching 86 per cent in Latin America and the Caribbean and in South-East Asia by 1992. But worldwide, one adult in three is still illiterate.[29] Adult literacy rates remain lowest in South Asia and sub-Saharan Africa where only half the adult population was literate in 1992.

Significant increases were also achieved in the proportion of children enrolled in schools and immunized against common childhood diseases and in the proportion of the population with access to health care.[30] Primary school enrolment increased from less than 70 per cent to more than 80 per cent between the early 1970s and the early 1990s while secondary school enrolment grew from less than 25 per cent to 40 per cent.[31] However, what is uncertain in many instances is the quality of the schools and health care services-and whether the initial investment in extending these services is maintained. Most sub-Saharan African nations that managed large increases in the proportion of children in primary schools and the proportion of the population reached with primary health care services during the 1970s and early 1980s had great difficulties in maintaining coverage and quality during the late 1980s and early 1990s.

Various composite indicators of development have been developed over the last 30 years that seek to overcome the concentration on per capita income as the most widely used indicator of development. For instance, there was considerable debate in the late 1970s about the use of the `Physical quality of life index' that was based on an average of life expectancy at age 1, infant mortality and literacy rates.[32] A recent review of composite development indicators also noted other indices developed in the late 1960s and early 1970s.[33] The most well known of these `alternative' indicators that seek to ensure that social progress is monitored within development indicators is the human development index, developed by a team working with the United Nations Development Programme (UNDP). This index combines national statistics for life expectancy at birth, adult literacy rates and per capita income;[34] the index is also constructed in such a way as to diminish the influence of per capita income above a certain ceiling.

Table 3.1 includes a list of countries with the largest and among the smallest increase in their `human development index' between 1960 and 1992. The influence of life expectancy on the human development index can be seen from the fact that among the countries that had the smallest increase in their human development index between 1960 and 1992 were also the countries with the smallest increases in life expectancy. The influence of increases in life expectancy is less strong among countries with the most successful economic performance. Thus, among the eight countries noted for the largest increase in their human development index between 1960 and 1992, only China had achieved an above average performance in increasing life expectancy relative to increases in per capita income. Among the other six, all but Botswana had been within the `average' range for improving life expectancy relative to per capita income.

Inequality in social progress within countries

There are also major differences in social progress between population groups within national societies that reflect differences in their economic and political power and per capita incomes. They also reflect discrimination against particular groups-for instance by caste or ethnic group or by gender, as women face discrimination in labour markets and in access to services. The scale and nature of such inequality is often difficult to assess, as most statistics on social progress are not available, disaggregated by income-group. However, some are available by region or district within countries and these reveal the differences in social progress between those living in high quality, predominantly high-income areas and those living in poor quality, predominantly low-income areas. Some statistics on social progress are also available by ethnic group or (occasionally) by sex or age group.

Where statistics are available on life expectancy by region within a country, average life expectancies in the poorest regions can be many years less than the national average-or as much as 17-20 years less than the wealthiest regions (see Box 3.2). The same is true for cities-as in the example given in Box 3.2 where in 1988 there was a 22-year difference between average life expectancy in Fortaleza and Porto Alegre in Brazil. There are also differences in life expectancy between high-income and low-income regions in countries in the North, although the scale of the differences is much less-especially where there are effective measures to ensure that those with inadequate incomes can still obtain adequate food and access to adequate quality housing and basic services (including health care and education). Where statistics are available on life expectancy by `ethnic group', where there are large differentials in income between such groups, there are usually large differentials in life expectancy-see Box 3.2.

Infant mortality rates can also vary greatly between districts or regions-sometimes by a factor of 10 or more when the poorest regions are compared to the wealthiest regions. They can also vary by this much or more between the wealthiest and poorest districts or municipalities

BOX 3.2

Examples of geographic, ethnic and gender-based inequalities in social progress

Differences in life expectancy. Within Brazil, life expectancy in the poor North-East is 17 years lower than in the much more wealthy South, while in Nigeria, there is a 20-year difference in life expectancy between Borno State and Bendel State.[35] Among cities, in 1988, average life expectancy in Fortaleza was just 51 years compared to 67 years in Sao Paulo, 68 years in Curitiba and 73 years in Porto Alegre.[36]

Differences between ethnic groups. In Canada, the aboriginal population (the Indians, Inuits and Metis) are reported to have a life expectancy 5.6 years lower than the rest of the population.[37] The legacy of apartheid in South Africa is even more dramatic where the life expectancy at birth for the small minority of whites is 9 years more than for the blacks.[38]

Differences in infant mortality rates. In China, the infant mortality rate in Beijing province is 11 per 1,000 live births; the national average is 35 and for some provinces, it is over 50 including Yunnan (74) and Guizhou (68).[39] Infant mortality rates in the different municipalities that make up Greater Sao Paulo in 1992 vary from 18 (in Sao Caetano do Sol) to 60 in Biritiba-Mirim-although these are much lower than the figures for 1980.[40] The infant mortality rate in the Easterhouse estate in the northeast of Glasgow, one of the poorest areas of Glasgow, was 46.7 per 1,000 births around 1990 compared to 10 for the middle-class suburb of Bishopbriggs.[41]

Differences in maternal mortality rates. In China, the maternal mortality rate per 100,000 live births in Beijing province is 40; the national average is 88 and in some provinces, it is 170 (Sichuan, Yunnan, Guizhou).[42] In South Africa, in 1989, the maternal mortality rate was 8 per 100,000 for whites and more than 58 per 100,000 for Africans.[43]

within cities. For instance, infant mortality rates in the municipalities that make up Greater Sao Paulo vary by a factor of three with the highest rate being 60 per 1,000 live births in 1992-although this represents great progress since 1980 when infant mortality rates between municipalities varied by a factor of 5 with the highest being 154.[44] Large differentials in infant mortality rates between the lower income, poor quality areas and city averages (or high income areas) have also been found in many other cities.[45] Again, differentials in infant mortality rates are generally less between districts within cities in the North-although around 1990, Easterhouse, one of the poorest areas within Glasgow (Scotland) had an infant mortality rate that was close to five times that of a middle class suburb[46] (see Box 3.2). New techniques have also been developed to document intra-urban differentials in mortality and morbidity, disaggregated by age, gender and geographic area, and these have confirmed that mortality rates are higher in areas with the poorest quality housing.[47]

Certain inequalities in social progress have less to do with income-inequality and more to do with political systems that determine priorities for social provision. The two examples given in Box 3.2 of large differences in maternal mortality rates are more about the scale and nature of government priority for women's reproductive health than about individual or household income.

The fact that most statistics on inequality are by geographic region or ethnic group has led to some confusion between social and spatial inequalities. Governments often react to what appear to be spatial inequalities with spatial programmes when it is the inequality in the distribution of income or of government resources for social programmes that underlies these inequalities. For instance, fiscal incentives to encourage new industrial investment in a 'low-income' region will do little to improve social indicators if the new investment does not bring increased incomes for a significant proportion of the lower income groups there. And the cost to the government in providing the incentives may have been far more effectively spent in working with the low-income population there in developing their livelihood opportunities and in improving infrastructure and service provision.

3.2 Poverty[48]

Introduction

Our knowledge about the nature of urban poverty and its causes increased considerably during the 1980s-linked perhaps to the rapid increase in urban poverty in many nations in the South and at least in several in the North. However, much of the recent research on urban (and rural) poverty is not so much on estimating its scale as on questioning the very basis on which such estimates are made. Poverty had come to mean what was measured and measurable[49] which may lead to a situation where the figures produced for the scale of poverty bear little relation to the number of people suffering serious deprivation.

Between a fifth and a quarter of the world's population live in absolute poverty, without adequate food, clothing and shelter.[50] More than 90 per cent of these live in the South. There is considerable debate about the exact number, and about how the number of people who are suffering from absolute poverty should be measured. This is especially so in urban areas where estimates range from under 200 million to at least 600 million. However, there is general agreement

about the considerable growth in the number of urban dwellers living in absolute poverty during the 1980s. By 1990, at least 600 million people in the urban areas in Latin America, Asia and Africa were living in housing of such poor quality and with such inadequate provision for water, sanitation and drainage that their lives and health were under continuous threat.[51] United Nations estimates suggest that the urban population in the South will grow by more than 600 million during the 1990s and without major improvements in housing markets and in the expansion and improved provision of infrastructure and services, the number of people living in such conditions will expand very rapidly.

The definition of poverty

Poverty implies deprivation or human needs that are not met. It is generally understood to arise from a lack of income or assets. In all countries, it is possible to identify individuals or households who are poor because their income or asset base is too small to permit them to meet physical needs-for instance to obtain an adequate diet and to find (or build) adequate quality housing with basic services such as safe and sufficient water supplies and provision for sanitation. There is general agreement on other aspects of poverty-for instance those who cannot obtain health care when sick or injured and those who have no means of subsistence when unemployed, ill, disabled or too old to work are generally considered poor. There are other aspects about which there is less agreement-for instance should people who are denied basic civil and political rights or whose physical needs are met but who lack the resources that enable them to meet social obligations,[52] or who in other ways are excluded from work or social activities be considered poor? Box 3.3 defines how the term poverty and also deprivation and vulnerability that are associated with poverty are understood within this section.

The measurement of `poverty' both in the sense of how many people suffer deprivation as a result of poverty and the intensity of that deprivation is one of the most important means to monitor development and to assess the performance of public agencies both within nations and internationally. Simple and quantifiable definitions of `poverty' are needed to permit its measurement. Definitions that set a 'poverty line' to divide the population into the 'poor' and the 'non-poor' are often the most inaccurate because they simplify and standardize what is highly complex and varied. 'What is measurable and measured then becomes what is real, standardizing the diverse, and excluding the divergent and different.',[53]

Most estimates as to the scale of poverty within nations and worldwide set an income level as the poverty line; those with per capita incomes below this line are considered to be poor. But the link between income level and level of deprivation is often weak as many with incomes above the poverty line income suffer serious deprivation and some below the poverty line do not. As a recent WHO report noted,

> poverty defined solely by level of personal income cannot cover health, life expectancy, literacy or access to public goods or common property resources. Clean drinking water, for example, is essential for a reasonable standard of living but is not reflected in consumption or income as usually measured. Many poor households have lost access to common property resources which has meant a decline in the availability of fuel, fodder, food and building materials but this is not reflected in income statistics. Likewise, such aspects of a minimum quality of life as security against crime and physical violence and participation in the economic, cultural and political activities of the community are also not revealed in income-based poverty definitions.[55]

There are many people in both North and South that have above-poverty-line incomes but

BOX 3.3
Some definitions

Poverty is more than low or inadequate income. It refers to lack of physical necessities, assets and income. A loss of assets is often what precipitates poverty. Assets include tangible assets (savings, stores, resources) and intangible assets (for instance claims that can be made for help or resources when in need).

Deprivation encompasses more than poverty as it includes other dimensions such as isolation, vulnerability, and powerlessness. In physical terms, people can be considered deprived if they lack the goods and services that are ordinarily available in their society-for instance the diet, clothing, housing, household facilities, and working and living conditions. In this sense, physical deprivation centres on the conditions experienced; poverty on the lack of income or other resources available that so often underpins deprivation. Powerlessness is important in that it weakens people's capacity to bargain for political and legal rights, access to services and goods allocated by governments.

Vulnerability means 'defencelessness, insecurity and exposure to risk, shocks and stress'.[54] Many low-income households have sufficient income to avoid deprivation until they have to cope with a sudden shock-for instance a sudden increase in the price of staple foods or in school fees or a serious injury or illness for an income-earner. Poor housing and living conditions and a lack of basic services makes people particularly vulnerable to illness and injury.

Source: Drawn largely from Chambers, Robert, 'Poverty and livelihoods; whose reality counts?', an overview paper prepared for the Stockholm Roundtable on Global Change, 22-4 July 1994, 40 pages; Townsend, Peter, The International Analysis of Poverty, Harvester/Wheatsheaf, New York, 1993.

who are still exposed to unacceptable levels of environmental risk, crime and physical violence in their home but who cannot afford to move. There are also many individuals or households who have become poor because they lost assets, not income-for instance those evicted from their homes and lands to make way for 'development' projects and those who have lost access to common property resources that were previously important parts of their livelihood. Box 3.4 outlines some of the inadequacies in the use of income-based poverty lines.

In considering the extent of poverty worldwide and recent trends, this Global Report would prefer to concentrate on what has been termed 'housing-poverty'[56] rather than 'income-poverty' i.e. on the individuals and households who lack safe, secure and healthy shelter with basic infrastructure such as piped water and adequate provision for sanitation, drainage and the removal of household wastes. However, most data on the extent of poverty is on 'income-poverty' i.e. on the proportion of people with incomes below an income-based poverty line. There are obvious links between those with low incomes and those with poor quality housing in all locations where housing markets are monetized and where access to adequate quality housing is determined by a person's or a household's capacity to pay. However, as Chapter 6 will describe, the proportion of the population living in housing of inadequate quality is often much higher than the proportion with below-poverty-line incomes. Very poor housing conditions in many urban areas in the South are due as much to inadequacies in the capacity of city and municipal governments to expand infrastructure and service provision, constraints on land markets for housing and other institutional constraints as on the incomes of those in very poor quality housing.[57]

The extent of rural poverty

A study of rural poverty in 114 developing countries found close to one billion people had incomes and consumption levels that fell below nationally defined poverty lines (see Table 3.3).[58] Two-thirds are in Asia with just over a fifth in sub-Saharan Africa. In forty-two of the poorest countries, more than two-thirds of the rural population lived in poverty. Table 3.3 provides a profile of the rural poor and highlights how 52 per cent of them are in households with landholdings too small to provide them with an adequate income; 24 per cent of them are landless. Thus, for at least half of the rural poor, it is the lack of an adequate asset base-land-rather than a lack of income that underlies their poverty. The proportion of the rural poor that are nomadic/pastoralists is notable in sub-Saharan Africa and among the `least developed' countries. Latin America and the Caribbean is notable for having much the lowest proportion of smallholder farmers and much the highest proportion of landless among its poor rural population. This is likely to be related to among the world's most inequitable land-owning structures and a higher level of commercialization of agriculture and agricultural land markets.

The proportion of rural households headed by women is also notable, especially in sub-Saharan Africa. This is not a new phenomenon since under colonial rule, this separation was encouraged to provide cheap labour for mines, plantations or urban labour markets. But the proportion of split households may be increasing in many countries as more husbands migrate in search of work elsewhere, leaving their families behind in the rural areas and because of widowhood, divorce, separation and the disintegration of family bonds.[59]

In recent years, many countries have had an increase in the proportion of their rural population living below the poverty line. Among forty-one countries for which data exists to compare the percentage of the rural population below the poverty line for 1965 (or the closest year) and 1988, in twenty-three, the percentage increased. For all forty-one countries, the percentage decreased-from 35 per cent to 33 per cent of their rural population with incomes below the poverty line, but their number increased from 511 million to 712 million.

The extent of urban poverty

There are no accurate figures for the proportion of the world's population living in absolute poverty in urban areas. Estimates have been made for the number of `poor' people living in urban areas in the South, based on per capita income. They vary from an estimate made in 1989 of 130 million of the South's `poorest poor' living in urban areas to an estimate for 1988 made by the World Bank of 330 million people.[60] The first implies that 90 per cent of the South's urban population are not among the poorest while the second still implies that three quarters of the South's urban population are not living in poverty. Neither of these figures can be reconciled with the many national studies or studies of particular urban centres which show that a third to a half of a nation's urban population or a city's population have incomes too low to allow them to meet human needs. National studies in several of the poorest African, Asian and Latin American countries suggest that more than half the urban population are below the poverty line.[61]

There are two reasons why the above global estimates understate the scale of urban poverty.

BOX 3.4

The inadequacies of income-based poverty lines

Few economists would suggest that human welfare can be adequately described by income alone yet in practice, level of income (or consumption) is the most frequently used proxy for human welfare. People whose per capita income falls below an income-defined poverty line are defined as 'poor'. Income is defined as command over resources over time or as the level of consumption that can be afforded while retaining capital intact.[62]

Income-defined poverty lines are problematic for a number of reasons:

The obscuring of social and health dimensions of poverty: The deprivation caused by inadequate income is much reduced if those with low income have access to good quality housing (with adequate provision for water and sanitation) and health care. But income-based poverty lines obscure this. For instance, according to official Indian statistics, the Indian state of Kerala has virtually the same proportion of its urban population under the poverty line as the average for India but life expectancy in Kerala is 11-12 years higher than India as a whole.[63] In most countries in the South, the proportion of the urban population living in very poor quality, overcrowded dwellings with inadequate or no provision for water supply, sanitation, garbage collection and health care is considerably higher than the proportion officially recognized as living with below poverty-line-incomes.

Failure to allow for the very large variation in living costs within and between nations: National and international income-based 'poverty lines' usually fail to make allowances for the large differences in living costs between different locations. For instance, in most countries or regions in the South, the cost of housing, basic services and food for those whose livelihood is in the centre of a major city (whether they live there or have a long and expensive journey to and from work) is generally many times higher than those living in rural areas or small towns.

Failure to take into account intra-household differentials: Households that appear to be above the poverty line may have members who suffer deprivation because they face discrimination in the allocation of resources within the household. For instance, women often receive less than men and girls less than boys. Older people may receive less.

Failure to distinguish between different size households: Using per capita incomes as the poverty line fails to take account of the differences in incomes available to different size households. Given the economies of scale that benefit larger households in such things as shelter costs per person and food purchase and preparation, such households may be much better off than a person living alone, despite having the same per capita income. Small single-parent households and single elderly people with per capita incomes just above the 'poverty line' are likely to be among the 'poor' who are not counted as poor.

Failure to account for non-monetary income sources: The measurement of household income rarely takes into account or gives adequate attention to goods or services that are obtained free or far below their monetary value. For instance, in many rural settlements and small urban centres, a significant proportion of households obtain some foodstuffs, fuel and building materials from open access or common property resources. If they are denied access to this land-as has often been the case-their real incomes can decline very significantly although their monetary income does not. Many urban households engage in urban agriculture and the food so produced represents a significant part of their dietary needs; denying these people access to the land or water sources they need or limiting their right to cultivate foodcrops may not affect their monetary income.

Failure to understand the role of assets: Households with low incomes have often built up an asset base that allows them to avoid destitution when faced with a sudden economic shock (for instance a rise in food or fuel prices or school fees for their children) or an illness or injury to one of their income-earners. Programmes that help low-income households to build their asset base or that help them cope with shocks (for instance to pay for health care and provide a minimum income when income-earners are sick) may be more important for poverty reduction than conventional policy responses. The level of education and training of household members can also be understood as part of their asset base since it influences their capacity to find adequately paid work.

Ease with which income-based poverty lines can be manipulated: Changing the income level at which poverty lines are set or failing to increase the official poverty line to reflect a currency's decreasing purchasing power can decrease the number of people said to be 'poor'.

The way that income-based poverty lines obscure the underlying causes: Characterizing poverty as a 'lack of income' obscures the structural causes and processes that create or exacerbate poverty. In so doing, it helps encourage policy responses that do not address these structural causes. For instance, the more that poverty is equated only with insufficiency of income, the more easy it is to argue that economic growth should receive priority-rather than admit that addressing the root causes of poverty requires a complex combination of growth and redistribution and improved services and facilities.[64]

Source: This draws mainly from Wratten, Ellen, Conceptualizing Urban Poverty, Background paper for the Global Report on Human Settlements, 1994.

The first is the failure of income-based poverty lines to act as an accurate proxy for the resources needed to avoid deprivation. The second is that income-based poverty lines set for whole countries do not allow for the higher costs of living in cities. In some instances, income-based poverty lines are also set unrealistically low in relation to the cost of 'a minimum basket of goods and services' that people need to avoid deprivation. Box 3.5 outlines some differences between rural and urban populations in living costs and in their vulnerability to economic change and environmental hazards.

Poverty lines based on one single income level applied in both rural and urban areas will underestimate the scale of urban poverty, because in many urban locations, the costs of certain essential goods and services are substantially higher than in rural areas. No single poverty line can take into account the large differences in the availability and cost of the food, shelter, water, sanitation and health care services. For example, within nations in the South, the costs of fuel, food and shelter in central areas of major cities are generally much higher than in rural areas. In rural areas where subsistence production remains important, those with almost no income may be able to meet many of their nutritional, fuel and building material requirements from crops they grow and from drawing on 'wastelands', forests or woodlands which are open access or common

TABLE 3.3 The scale and nature of the rural poor in Africa, Asia and Latin America

	Asia	Sub-Saharan Africa	Near East & North Africa	Latin America & Car.	All 114 countries	`Least developed' countries
Total rural population (millions, 1988)	2,019	337	106	123	2,584	368
Total rural population below the poverty line	633	204	27	76	939	253
Percent of rural population below the poverty line	31	60	26	61	36	69
Percentage of rural population that are:						
- Smallholder farmers	49	73	42	38	52	67
· Landless	26	11	23	31	25	18
· Nomadic/pastoralists	2	13	5	-	6	16
· Ethnic/indigenous	4.5	0.9		27.1	7.3	1.1
- Small/artisanal fisherp.	4	3	2	5	4	5
- Internally displaced/refugee	5	6	13	1	6	7
Households headed by women as percentage of rural households	9	31	17	17	12	23

Source: Jazairy, Idriss, Mohiuddin Alanngir and Theresa Panuccio (1992), The State of World Rural Poverty: an Inquiry into its Causes and Consequences, IT Publications, London.

property resources. The inaccuracies in estimates for the scale of urban poverty are further increased where single poverty lines based on income levels are applied internationally. The income level needed for adequate food and a secure, uncrowded shelter in the centre of one of Latin America's largest cities is likely to be many times that needed for adequate food and a secure uncrowded shelter in most rural areas in sub-Saharan Africa and many rural areas in Asia. It would also be wrong to assume uniform living costs among different urban centres in a country-or even among different locations within a single large city.

BOX 3.5

Rural-urban differences that affect the scale and nature of poverty

Below are outlined some differences between rural and urban areas that will affect the scale and nature of rural and urban poverty. These highlight the disadvantaged position of urban dwellers, relative to rural dwellers. This is not meant to imply that rural dwellers have major advantages over urban dwellers since most urban dwellers have significant advantages over most rural dwellers in such aspects as access to health care, schools and literacy programmes and more diverse job markets. The disadvantages outlined below are also not universal; many are linked to markets for labour, land and commodities that are also influential in some rural areas. Thus, certain rural populations or those living in particular rural areas may face higher living costs than those in urban areas nearby.

Higher living costs: In most nations or regions in the South, urban dwellers generally face higher living costs than rural dwellers, as many items that have to be purchased in urban areas can be obtained free or cheaper in many rural areas as they are growing or produced locally-e.g. fuel, freshwater, traditional building materials (industrial building materials will usually be much more expensive in rural areas), and housing itself. Urban areas are characterized by a greater degree of commercialization for goods, services and land than rural areas, with urban dwellers being more reliant on incomes or wages earned to obtain access to shelter, food, freshwater, fuel and other goods and services. Within the most urbanized societies, this distinction diminishes and may reverse itself as the costs of housing and basic foodstuffs becomes higher in some rural areas than in urban areas. There are also significant differences in living costs between different urban areas and, within cities, between different neighbourhoods. Urban households that work in or close to the centre of major cities perhaps face the highest costs either in housing or in transport to and from work.

Greater vulnerability to changes in income: The greater dependence of urban households on cash incomes noted above will usually mean a greater vulnerability to price rises and falls in income. In rural areas, there are greater possibilities for subsistence production or foraging, if prices rise or wage incomes fall-although commercialization of land and markets in rural areas is often diminishing this. In addition, subsistence production is also important in many urban areas in the South-for instance through urban agriculture and livestock raising.[65] In many rural areas, landless labourers may be as dependent as urban dwellers on cash incomes and also have limited or no means for subsistence production

`Intangible assets': The nature of support networks based on family, kinship and neighbourhood are generally different in urban areas and may be less effective in providing support or assistance, when needed. However, urban-based community organizations and mobilization may in certain circumstances obtain significant concessions for urban households from the state; in Latin America, urban social movements based on the recognition of collective class interests are important means by which the poor lobby for land rights and infrastructure.[66] Community based organizations also provide means of saving and arranging income earning opportunities.

Greater vulnerability of faecal contamination and certain other environmental hazards: In the absence of adequate provision for sanitation and drainage, urban populations face more serious environmental hazards than rural dwellers. Higher population densities and larger population concentrations mean that in the absence of piped water, drains, sewers and regular garbage collection, urban populations are more at risk from faecal contamination (see Chapter 4).

When allowance is made for differences in living costs between urban and rural areas, the scale of urban poverty increases. This is illustrated by a study of urban poverty for Latin America. The Economic Commission for Latin America estimated the magnitude of poverty in the region based on the number of people lacking the income to afford a minimum `basket of goods'.[67] This meant poverty lines set for each nation which reflected the cost within that nation of this basket of goods. Some adjustments were also made to allow for differences in living costs between major cities, smaller urban centres and rural areas. This study suggested that 170 million people were living in poverty in urban areas in Latin America which is more than twice the number suggested by the World Bank estimates for 1985.

This and other studies suggest that poverty lines must be set within the context of each nation and that international estimates based on a single poverty line are inaccurate. It cautions against taking too aggregated a view of poverty; case studies of poverty reveal a complex set of causal and contributory factors-and show that the nature of poverty and who is poor or at risk of poverty and the relative importance of different causal or contributory factors vary for different individuals and social groups within nations. For some, poverty is seasonal or associated with particular circumstances-for instance poor rains or seasonal changes in food prices. Although seasonal variations in the number of poor people has long been understood in rural areas, there are also examples of similar variations in the scale of urban poverty as seasonal changes affect food prices and labour markets there.[68] The fact that a considerable proportion of the low-income population of many cities lives on floodplains or slopes vulnerable to land- or mudslides also means particular problems for these people during periods of high rain. For others, it is associated with an economic downturn which removed their source of livelihood or reduced their purchasing power. For others, it is associated with a particular point in their family cycle-for instance within households when children are young and not able to contribute to household income and where one parent (usually the mother) has few if any income-earning possibilities because of the need to care for the children and undertake household tasks. For many low-income people, poverty is the result of a sudden shock: a sudden or serious injury or death of an adult family member who was an income-earner; the confiscation of their street-trader's stock because they lacked a licence; the demolition of their home because it was on illegally occupied land; the loss of possessions and serious damage to their home from a flood; the depletion of any cash reserves spent on medicine and treatment for a family member that becomes ill. For a considerable proportion of the poor in sub-Saharan Africa, poverty is also associated with wars and civil strife, and the disruption they bring to their daily lives and livelihoods, as well as the threats to their lives.

National and regional statistics for urban and rural poverty

Table 3.4 provides estimates for the proportion of the rural, urban and national population that fall below a poverty line that was set, based on the income needed to satisfy basic `minimum' needs. Virtually all the figures are derived from income-based poverty lines applied to data from household budget, income or expenditure surveys. The process used to define the income level at which the poverty line is set is rarely entirely objective and poverty lines often change as the criteria by which they are set are changed to exaggerate or deflate the number living `below the poverty line'. Most of the figures are for the early 1980s and for the many countries that underwent economic decline during the late 1980s and early 1990s-often combined with structural adjustment-the proportion of the population below the poverty line would have increased. For reasons outlined already, many of the figures for the proportion of the urban population living below the poverty line are likely to be too low. However, note should be made of the many instances where some allowance was made for this by setting a higher poverty line for urban areas than for rural areas. This lessens the tendency to under-count the proportion of urban populations with below poverty-line incomes.

The figures in Table 3.4 are of interest for three reasons. The first is the extent of poverty in both rural and urban areas, even in relatively wealthy countries. In even the wealthiest countries, 10 per cent or more of the population is living in absolute poverty. In none of the countries listed in Europe and North America has the proportion of people living in `absolute' poverty dropped below 10 per cent-and in many (France, Ireland, Spain and the UK) it was 18 per cent or more of the population. The proportion is much higher in some of the wealthier countries in the south such as in Venezuela and Mexico, compared to lower income countries. The second is the fact that it is not necessarily the wealthier countries that have a lower proportion of their rural and urban populations living below the poverty line. Although the figures for different countries are not directly comparable since different assumptions have been made when setting the poverty line-the very low proportion of the population of China and Tunisia with incomes below the poverty line are worth noting. This is consistent with these two countries'

TABLE 3.4 The extent of 'absolute' rural and urban poverty in selected countries.

Country or Region	Proportion of the population below the poverty line: in urban areas	in rural areas	in whole nation	Date	Separate rural/urban poverty lines
Africa	29.0	58.0	49.0	1985	
Botswana	30.0	64.0	55.0	1985/6	
Cote d'Ivoire	30.0	26.0	28.0	1980/86	
Egypt	34.0	33.7	33.8	1984	Yes
Gambia	63.8	57.7		1989	Yes
Ghana			59.5	1985	
Morocco	28.0	32.0		1985	
Mozambique	40.0	70.0	55.0	1980/89	
Swaziland	45.0	50.0	49.0	1980	Yes
Tunisia	7.3	5.7	6.7	1990	Yes
Uganda	25.0	33.0	32.0	1989/90	
Zambia	40.0		80.0	1993	
Asia (excluding China)	34.0	47.0	43.0	1985	
Bangladesh	58.2	72.3		1985/86	Yes
China	0.4	11.5	8.6	1990	Yes
India	37.1	38.7		1988	
Indonesia	20.1	16.4	17.4	1987	Yes
Korea, Republic of	4.6	4.4	4.5	1984	
Malaysia	8.3	22.4	17.3	1987!	
Nepal	19.2	43.1	42.6	1984/85	
Pakistan	25.0	31.0		1984/85	
Philippines	40.0	54.1	49.5	1988	
Sri Lanka	27.6	45.7	39.4	1985/86	Yes
Europe					
France			16.0	c.1990	
Germany			10.0	C.1990	
Hungary			15.4	1991	
Ireland			19.0	C.1990	
Italy			15.0	C.1990	
Poland			22.7	1987	
Spain			19.0	c.1990	
United Kingdom			18.0	C.1990	
Latin America	32.0	45.0		1985	
Argentina	14.6	19.7	15.5	1986	Yes
Brazil	37.7	65.9	45.3	1987	Yes
Colombia	40.2	44.5	41.6	1986	Yes
CostaRica	11.6	32.7	23.4	1990	
El Salvador	61.4			1990	
Guatemala	61.4	85.4	76.3	1989	
Haiti	65.0	80.0	76.0	1980-86	
Honduras	73.9	80.2	77.5	1990	
Mexico	30.2	50.5	29.9	1984	Yes
Panama	29.7	51.9	41.0	1986	Yes
Peru	44.5	63.8	51.8	1986	Yes
Uruguay	19.3	28.7	20.4	1986	Yes
Venezuela	24.8	42.2	26.6	1986	Yes
North America					
Canada			15.0	C.1990	
United States of America			13.0	C.1990	

Notes: These are all estimates based on data from a household budget, income or expenditure survey and are based on the concept of an'absolute poverty line' expressed in monetary terms. The figures for different countries are not necessarily comparable since different assumptions will have been made for setting the poverty line. (NB comparisons between these countries should be avoided, as different criteria were used to set poverty lines).

Sources: For countries in Africa, Asia and Latin America, Tabatabai, Hamid with Manal Fouad, The Incidence of Poverty in Developing Countries; an ILO Compendium of Data, A World Employment Programme Study, International Labour Office, Geneva, 1993. India: Planning Commission, Report of the Expert Group on the Estimation of Proportion and Number of Poor, Government of India, New Delhi 1993. Zambia, Wratten, Ellen, Zambia Peri-Urban Self-Help Project, Report prepared for the Overseas Development Administration, London, October 1993. For countries in Europe and North America, Townsend, Peter, The International Analysis of Poverty, Harvester/Wheatsheaf, New York, 1993.

performance in terms of increased life expectancy since as noted earlier, these countries had among the highest increase in life expectancies of any nations between 1960 and 1992. These two countries also generally have above average provision for such aspects as health care, piped water provision and education, relative to their income per capita. However, it is difficult to accept the estimate that only 0.4 per cent of China's vast urban population live in absolute poverty.

The third point to note is that in many countries listed in Table 3.4, the proportion of the population with below-poverty-line incomes in urban areas is almost as high or higher than in rural areas. The countries where this takes place tend to be countries where different poverty lines were set for rural and urban areas to reflect the higher living costs in urban areas. This also suggests that the extent of urban poverty has been underestimated, although a certain caution is needed in that it is not clear whether a single poverty line set for all urban areas is realistic. Living costs for those engaged in poorly paid jobs or working in informal activities tied to central locations in major cities are likely to be much higher than for those living and working in small market towns-or in the less expensive areas within large cities.

Changes in the scale of poverty

There is great variation between countries in terms of recent trends in the scale and intensity of rural and urban poverty. There is also great variation between regions within countries, especially in the larger and larger-population countries. In some countries, there is evidence of a decline in the proportion of households with incomes below the poverty line during recent years. For instance, large falls in the proportion of the population living in absolute poverty during the 1980s were reported for many of most successful Asian economies-for instance China, Malaysia, South Korea and Indonesia.[69] In Indonesia, the proportion of the urban population living below the poverty line is reported to have fallen from 39 percent in 1976 to 15 per cent in 1990,[70] although the numbers of urban dwellers with below poverty line incomes fell much less because of the rapid growth in the urban population during this period.[71]

In other countries, there is evidence of an increase in the proportion below the poverty line-for instance in most of Latin America during the 1980s. For this region per capita income was reported to have fallen by 11 per cent and in many countries the income of low-income groups declined more than the average. Six out of seven countries for which there are comparable estimates (Argentina, Colombia, Costa Rica, Mexico, Panama, Uruguay, and Venezuela) showed higher indices of poverty in 1992 than around 1980.[72] In almost every country in Latin America, the rise of urban poverty was greater than in rural poverty; the number of poor people was estimated to have increased by more than 30 million in the urban centres compared to around 10 million in the rural areas.[73] In many countries, this increase in poverty during the 1980s was a reversal of trends, since there had been a decline in the proportion of people with below poverty line incomes. For instance, in Mexico, during the 1960s and the 1970s, there was a substantial decrease in the proportion of households considered poor; the percentage of such households fell from 81 per cent in 1963 to 53 per cent in 1981.[74] Most of the population had rising real incomes in this period-although the poorest ten percent of the population, most of them rural labourers, experienced little or no increase; their share of national income fell from 2.4 per cent in 1950 to 1.1 per cent in 1977.[75] The proportion of households considered poor increased significantly during the 1980s; from 53 per cent in 1981 to 63 per cent in 1988.[76] According to another source, by 1990, 41 million Mexicans were unable to satisfy their basic needs while 17 million lived in extreme poverty.[77] The average national minimum wage in 1990 had only 39.4 per cent of its 1978 value.[78] Official figures claim that there was a small fall in the number of households in extreme poverty between 1989 and 1992, although this has been questioned, because of bias in the 1992 survey.[79]

National statistics are less reliable for sub-Saharan Africa but the proportion of the population living below an absolute poverty line is likely to have grown significantly in most countries in this region. This is certainly borne out by studies of poverty for particular' populations whose findings will be presented later in this chapter.

The extent of `housing poverty'

In the absence of reliable statistics on poverty based on people's incomes and assets, one possible way of estimating the scale of poverty is to base it on how many people live in poor-quality homes or neighbourhoods that lack the basic infrastructure and services that are essential for good health. As noted earlier, at least 600 million urban dwellers in Africa, Asia and Latin America live in `life- and health-threatening' homes and neighbourhoods because of the very poor housing and living conditions and the lack of adequate provision for safe, sufficient water supplies and provision for sanitation, drainage, the removal of garbage, and health care.[80] If these 600 million urban dwellers are considered 'poor'-for it is their lack of income and assets that makes them unable to afford better quality housing and basic services-it greatly increases the scale of urban poverty, when compared to conventional income-based poverty lines.

Of these 600 million people, most live in cramped, overcrowded dwellings with four or more persons to a room in tenements, cheap boarding houses or shelters built on illegally occupied or subdivided land. Tens of millions are homeless and they sleep in public or semi-public spaces-for instance. pavement dwellers and

those sleeping in bus shelters, streets, graveyards, train stations, parks or other public places. [81] Perhaps as many as 600 million also have inadequate or no access to effective health care which means that the economic impacts of disease or injury is much magnified. The same World Bank report that underestimated the scale of urban poverty also noted that

> although urban incomes are generally higher and urban services and facilities more accessible, poor townd wellers may suffer more than rural households from certain aspects of poverty. The urban poor, typically housed in slums and squatter settlements, often have to contend with appalling overcrowding, bad sanitation and contaminated water. The sites are often illegal and dangerous. Forcible eviction, floods and landslides and chemical pollution are constant threats.[82]

Although estimating levels of poverty based only on poor quality housing and an absence or basic infrastructure and services rather than levels of incomes and assets can be misleading,[83] this gives a more realistic estimate for the number of people living in poverty in urban areas of the South. It also emphasizes the fact that improving levels of infrastructure and service provision and support for housing improvement can reduce poverty. For a significant proportion of the 600 million people living in life- and health-threatening homes and neighbourhoods, this can be achieved at low cost and often with good possibilities of cost recovery. The reasons for the very poor housing and living conditions in which a sizeable proportion of these people live are not because they lack a capacity to pay for housing with basic services but that such housing is unnecessarily expensive or not available. Chapter 6 will describe how this is linked to the failure of governments to keep down land, housing and building material prices and to ensure efficient provision of infrastructure and services. Chapter 5 will also outline how national governments have consistently denied city and municipal authorities the financial base to permit them to improve infrastructure and service provision. Although increasing the supply and reducing the cost of good quality housing is not normally considered part of `poverty reduction', government measures to increase the supply and reduce the cost of land for housing and to improve infrastructure and service provision can considerably reduce the number of people living in such poor conditions.

Data about the extent of `housing poverty' in rural areas is more limited, except in relation to provision for infrastructure and services. Chapter 8 will describe the extent of provision for safe water supplies and provision for sanitation in rural areas-and this makes clear the extent to which rural populations are poorly served. For instance, in 1991, around one billion rural households lacked water supplies where some provision was made to ensure it was uncontaminated and of reasonable quality.[84] Around half the rural population in the South also lack hygienic means to dispose of excreta while several hundred million rely on simple latrines that do not necessarily ensure the users are guarded against the many diseases associated with inadequate provision for the disposal of excreta. And even though space is less of a constraint than in urban areas, a high proportion of rural households are too poor to build sufficient rooms to keep down overcrowding; the number of persons per room within the homes of poor rural households is often as high as within the homes of poor urban households.

Part of `housing poverty' is a large burden of injury, disease and premature death, most of which disappears as housing conditions and levels of service provision improve. This in turn is linked not only to low incomes but also to the low priority given by governments and development assistance agencies to those measures that greatly reduce infectious and parasitic diseases. When low-income groups have the chance to present their views regarding poverty, good health or the avoidance of injury or disability is often given a high priority.[85] Weakness, sickness or disability are stressed as being bad in themselves and bad in their effects on others; having a household member who is physically weak, sick or handicapped, unable to contribute to household livelihood but needing to be fed and cared for is a common cause of income poverty and deprivation.[86]

Absolute and relative poverty

The inaccuracies inherent in a single income-based poverty line and the fact that it excludes all the non-monetary aspects of deprivation have led many governments to develop another poverty line that measures relative poverty. The absolute poverty line remains and seeks to identify people who are destitute-for instance lacking an income or asset base and the access to social services that mean that individuals or households cannot obtain sufficient food to eat, shelter and health care. In effect, their life is threatened by this level of deprivation.[87] The second poverty line, to identify those living in `relative poverty', defines a minimum `basket' of, goods and services about which there is some agreement within a society that all citizens should have. `People are relatively deprived if they cannot obtain ... the conditions of life, that is the diets, amenities, standards and services, which allow them to play the roles, participate in the relationships and follow the customary behaviour which is expected of them by virtue of their membership of society.[88] The range of goods and services within this

socially determined level of need will vary greatly, not only related to the wealth and structure of a society but also to societal attitudes. There are usually major disagreements within any society as to what constitutes need and the income and level of service provision required to meet this need.

However, there is general agreement that poverty lines or other means to identify those suffering from deprivation have to be determined within each country so that the needs defined match the real needs in that particular society and culture. Poverty definitions also have to change as social and economic changes affect people's needs and their access to resources-for instance as people lose the use of common property resources that have long been central to their livelihoods as land and freshwater resources are appropriated by public agencies or private interests.[89] People's needs also change as they have to move in response to changing economic circumstances and this often means a deterioration in informal social support systems based on community and kinship that in the past helped to reduce poverty or alleviate its worst effects. Where such support systems are ineffective, there is a greater need for governments or other agencies to provide safety nets that allow individuals and households to eat and be adequately housed, and illnesses or injuries treated, when income earners are sick or lose their source of income.

One relatively new approach to considering the multiple dimensions of poverty which has some similarity to the concept of relative poverty is social exclusion.[90] The concept of social exclusion includes not only people's exclusion from basic needs because of a lack of income or assets but also their exclusion from labour markets and from civil and political rights. And because it seeks to identify the mechanisms by which they are `excluded', it helps identify the social, economic and political underpinnings of poverty. It has proved particularly useful in Europe to describe what is sometimes called the `new poverty' that is associated with technological change and economic restructuring-for instance, the rapid growth in the number of long-term unemployed and the inability of many young people to enter the labour market for the first time. It is also used to include the growing number of people in many countries in the North who can no longer obtain access to housing, education and health care, as they cannot afford these when purchased in private markets and as public provision has been cut back and is no longer available to them.

Economic decline, structural adjustment and poverty

Although there have long been serious problems with urban poverty in the South, it was only in the 1980s that it was given more attention as economic crises and the impacts of structural adjustment increased the number of households with incomes below the poverty line and increased the intensity of their deprivation. As Box 3.5 outlined, low-income groups in urban areas are generally hit more than those in rural areas by falling wages and rises in prices for food and other basic goods.

The international debt crisis forced many countries to agree to IMF conditions in order to secure the additional foreign currency then needed. Typical measures included both short-term stabilization policies and longer-term structural adjustment. By 1989, 64 countries had accepted adjustment loans from the World Bank.[91] Over thirty of these countries are in Africa.[92] A further twenty countries had accepted support from the IMF for adjustment programmes.[93] The fact that urban poverty grew with structural adjustment is well established[94]-although there are two reasons why it is not possible to separate the impacts of the structural adjustment from other economic, social and political forces. First, structural adjustment programmes have long-term objectives. Those arguing in favour of these programmes stress that short-term suffering will be replaced by long-term economic growth. Second, any measurement of the relative success of structural adjustment programmes has to consider-'what would otherwise have happened'. Some of the social and economic costs attributed to structural adjustment may have been there even if the policies associated with structural adjustment had not taken place-for instance, part of the growth in urban poverty in Africa arises from the general decline in urban wages that has been evident since the 1970s.[95]

The immediate impact of structural adjustment programmes is deflationary: scaling-down domestic demand to reduce inflation and encourage exports, and reducing government expenditure to encourage private-sector expansion. The urban population may be in a particularly difficult situation. As a recent World Bank publication notes, the poor in urban areas may `bear the burden of relative price changes in the form of increasing prices of essential basic commodities, including food. They also may face severe unemployment and income loss as a result of fiscal and monetary contraction. They may also experience constraints on access to basic social services such as education and health because of contractions in public expenditure.'[96]

In most countries undergoing economic crisis and structural adjustment, large numbers of people lost what had been relatively stable jobs and very few received an income from social security or welfare systems. For instance, in Zimbabwe, between 1991, when the economic structural adjustment programme began and 1993, over

45,000 jobs were lost in the public and private sector.[97] There were retrenchments in the agriculture, textile, clothing, leather and construction industries and the number of people employed by the government in the civil service is set to fall by 25 per cent between 1991 and 1995.[98] Reductions in public expenditure have impacted directly on those employed by the public sector either through falling real wages for public sector employees and/or lower public sector employment. There have been substantial cuts in the civil service in most countries where structural adjustment programmes have been implemented including Bolivia (where the equivalent of 25 per cent of the public sector labour force was cut), Chile, Jamaica, Niger, Panama, Tanzania and Togo.[99] In most countries, wage levels for government employees also dropped significantly in the years after structural adjustment began.[100] Since most government employees live and work in urban centres, this will affect urban areas most with the greatest impact in urban centres with high concentrations of public employees. The impact will usually be greatest in national capitals, especially in centralized government systems and in poorer and less industrialized nations where public employees represent a substantial proportion of the urban employment base.

Most of those who lost their jobs had to compete for income sources or jobs within the 'informal economy' but falling incomes and declining production within the formal sector also meant declining demand for the goods and services supplied by many informal enterprises. Those who had to find new jobs or income sources also had to compete with women, youths and children who had previously not worked or had worked only part-time. Households had to send more members to seek new sources of income, however small, to avoid a drastic reduction in food consumption.[101]

The economic crisis also revealed the limited absorption capacity of the informal economy. A distinction should be drawn between informal activities that provide a reasonable income for those working there and those activities that are really `survival' activities that people do when no other income source is available to them. For instance, the number of people who seek some income from waste picking and the number of children working on the street as part of their household's survival strategy often rises with economic recession. The limited absorption capacity of the informal economy became evident in most nations as entry into the more lucrative informal sector activities is often controlled and as increasing numbers working in the same `survival' activities reduced returns.

The World Bank has suggested that the `new poor' and the `borderline poor' whose poverty is a direct consequence of macro adjustment should be distinguished from the chronic poor who were poor before the structural adjustment programme.[102] The new poor are those who fall below the poverty line as a result of losing their jobs as a direct consequence of structural adjustment. The borderline poor include those who became poor as their purchasing power fell in real terms-for instance public or private sector employees whose salaries fail to keep up with inflation and pensioners with fixed pensions which do not rise with inflation. The chronic poor may also find themselves even worse off after such adjustments.[103] Some studies have shown a dramatic increase in the number of poor individuals or households-for instance, a study in Buenos Aires suggested that the number of poor people tripled between 1980 and 1988 with a significant number of poorer groups coming from people who had previously had adequate incomes as professionals, public employees or salaried workers in small and medium-sized industries.[104] There is also evidence from Latin America not only of the poorest groups becoming even poorer during the 1980s but also for a very large downward mobility of middle-income groups.[105]

Household responses to the process of impoverishment during the 1980s

In countries with little or no provision for social security, poor households cannot afford not to respond to impoverishment. A review of *Urban Poverty in the Context of Structural Adjustment* in 1993 stressed that poor households are not passive and there is a need to consider how they respond to changes arising from structural adjustment programmes.

Evidence from cities as diverse as Manila, Dar es Salaam, Guayaquil, Mexico City and Guadalajara indicate that households modified their consumption and dietary patterns and adjusted household expenditures, in many instances in the direction of cheap and less nutritious substitutes. The cultivation of staples on `family plots' has also been intensified. In addition, the participation of both women and children in the labour market has increased. At the community level, local authorities actively encouraged communities to bulk purchase staple food items.[106]

In some cities, there is evidence of decreasing unemployment with the economic recession as increasing numbers of people work as a response to the economic crisis. Unemployment can go down, while the number of people earning incomes below the poverty line increase, because incomes have become so low. This process was evident in many Latin American nations during the 1980s. For instance, one study of seven countries

BOX 3.6

The response of households to economic crisis in Guadalajara, Mexico

Households responded to the economic crisis in Mexico through a number of changes that cushioned the impact of lower wages and a stagnant formal economy.

Increase in the number of workers per household. The groups that had the largest increase in labour participation were women over 15 years of age and young males (14 years old or younger) who left school to do so. [107]

- **Increasing reliance on informal employment.** For women this meant mostly domestic and other personal services while for men it usually meant self-employment.
- **Increased household sizes and increased presence of extended families.** The increase in household size was not simply through births but also daughters and sons-in-law staying in the parental houses. Although not new, this became more common as it saved money on housing expenses and in many other shared expenses and expanded the number of income earners within the house. Other relatives and'non relatives also helped expand average household size. The increase in the number of extended families was also evident in many other Mexican cities. [108] When sons and daughters were married, it became important to keep them at home with their spouses instead of losing economically active members.

Lower expenditures on goods and services other than food, especially clothes and services such as household maintenance. Food consumption did decline but not as severely as the decline in individual wages. Consumption of beef and milk decreased. Household work loads often increased as clothes had to last longer (and be continually mended) and many goods and services that had previously been purchased now had to be undertaken within the home.

Emigration to the USA. The scale of such migration increased and became more heterogeneous since it now included male and female urban residents from working- and middle-class backgrounds as well as rural males who had previously been dominant in these emigration flows.

There were obvious differences between households in the extent to which they could respond. Among household members, women generally suffered most as they had to find jobs or earn incomes or increase the hours they worked while continuing to meet their responsibilities for household management and child-rearing. In many households, women and children were more vulnerable than men to falls in food intake-as working-class men generally received priority in the consumption of high-protein foodstuffs. The increased stress brought about by increased workloads and reduced real income is likely to have

Source: Escobar Latapí, Augustin and Mercedes González-de la Rocha,'Crisis, restructuring and urban poverty in Mexico', Environment and Urbanization vol. 7, no. 1, April 1995, 57-75.

that contain most of the region's population found that the total number of employed persons increased faster than the population of working age between 1980 and 1989. [109] A household survey in Guadalajara that began to monitor changes in households in 1982 was among the first to document this[110] but other studies have since revealed comparable processes in other cities. Box 3.6 summarizes the changes made by households in Guadalajara in response to the economic crisis.

A study in Harare, Zimbabwe, also shows how households rearrange their activities to try to cope with economic crisis and the social impacts of structural adjustment. One of the most important points arising from the evidence presented in Box 3.7 is the range of impacts on households-from the drop in expenditures to changes in food intake, rises in rents, increases in costs for education, falls in income and in capacity to save and a rise in gender-based conflicts. It is this multiplicity of impacts on households and their social effects that is so difficult to understand and measure, without detailed studies.

The example in Box 3.7 also shows how some sectors of the informal economy had become saturated. Here, women could not increase their incomes from knitting, sewing and crocheting as they faced declining demand, increasing competition and rising input costs.[111] This situation of very limited possibilities of finding reasonable income-earning opportunities in the informal economy during a severe economic crisis is likely to have been common in most of the lower-income and less-urbanized economies during the 1980s.[112] It is also likely that those already working in the informal economy had to work longer hours to maintain their income. [113]

The processes that underlie impoverishment

Whether a household becomes temporarily or permanently poor is influenced by many factors.[114] They include the size and nature of any asset base to draw on, their capacity to send more household members to earn an income or to forage (for instance withdrawing a child from school to do so) and the extent of social relations and networks (for instance whether temporary help can be obtained from extended family, friends or through patron-client relations). For most of the world's urban population, it is the position of the individual or household in the labour market that is most influential in whether they can or cannot avoid poverty.[115] It is not only the income earned that affects the level of poverty but also the nature of employment-related social benefits such as health insurance-if any are provided. Thus, there are important distinctions between protected and unprotected wage labour-with the former having some security and often some provision for social security-and among unprotected wage labour, between regular workers and casual workers.[116]

For households, the capacity to avoid poverty also centres on the number of household members

BOX 3.7

The short-term impact of structural adjustment-the case of Kambuzuma, Harare

To obtain a detailed understanding of the short-term effects of structural adjustment, a study was made of 100 randomly selected households in Kambuzuma, Harare. Most were male-headed households (85 per cent in 1991, 84 per cent in 1992). Kambuzuma is a fairly typical low-income settlement in Harare-and not among the poorest-with considerable variation in incomes among its households. The households were interviewed in mid-1991 as the economic structural adjustment programme began and one year later in mid-1992 to see what changes had occurred. The changes that occurred between 1991 and 1992 are summarized below.

- **Expenditures:** Household expenditure rose by 34 per cent with expenditures on food, electricity, rent and money given to other family members all rising significantly. However, in real terms, expenditures fell as the cost of living rose by 45 per cent during this same period. Expenditure fell more sharply for the lower income groups than for the higher income groups.
- **Food intake:** Expenditure on food declined in real terms by 14 per cent with the greatest decline evident among lower-income households. Most households made some changes to their diet such as substituting food of higher bulk for high-protein foods, eating meat less frequently and buying cheaper cuts of meat.
- **Tenants:** tenant households faced very large rent rises between 1991 and 1992 as their landlords tried to buffer themselves from the increased cost of living. Many tenants felt that they no longer had any chance of owning their own land and developing their own house.
- **Transport:** Fewer households were able to pay for transport to work and a number of men and women had begun walking to work or had arranged lifts which cost less than the bus service.
- **Education:** In January 1992, fees for primary schools had been introduced for the first time and secondary school fees raised in urban areas. All the lower-income households and higher-income households with three or four children had difficulties paying for school fees and school uniforms.
- **Incomes and employment:** Incomes fell by 24 per cent in real terms and the decline in women's own income-earning activities such as petty commerce and sewing, knitting and crocheting was particularly notable. Women generally had to work longer hours and still received lower returns-for instance as demand fell for the goods or services they provided, input costs rose and competition increased. Women were much more dependent than men on non-wage income and had a greater decline in earnings and activities between 1991 and 1992. The proportion of households with monthly incomes below the official Poverty Datum Line increased from 23 per cent in 1991 to 43 per cent in 1992.
- **Savings and debt:** The proportion of households able to save on a regular basis dropped from 68 per cent in 1991 to 50 per cent in 1992. In 1991, no household was spending savings on consumption; in 1992, four were using savings for food and school fees. The proportion of households in debt rose from 8 to 12 per cent, with money borrowed to cover such consumption items as food, school fees and rent. Families in 1992 expressed greater concern about their children being unable to find jobs when they finished school-aware that this implied taking financial responsibility for their children for longer periods and making it less likely that children could help look after their parents in their old age.
- **Expansion of household size but not of income-earners:** The main change in household structure was the increase in the number of dependants per paid worker from 3.2 to 3.8 per household. This was caused by an influx of dependent relatives from rural areas due to the drought and from other settlements in Harare.
- **Gender-based conflict at household level:** Women modified their lives more than men in response to economic difficulties. They took greater cuts in their own consumption, spent more time shopping to look for cheaper goods, worked longer and harder hours in informal sector activities for poorer returns and engaged in fewer leisure activities. It was seen as women's responsibility to ensure sufficient food was on the table and other household tasks met despite falling household incomes. The decline in women's earnings from informal sector activities also meant less control by the women of household budgets, lower self-esteem and increased conflict with husbands. Several of those interviewed felt that the men were not fulfilling their obligations as husbands and fathers.
- **Social dimensions of adjustment:** No household among the sample had benefited in any way from the special government programme to alleviate the negative short term impacts of adjustment on poverty and employment.

Source: Kanji, Nazneen, 'Gender, poverty and structural adjustment in Harare, Zimbabwe', Environment and Urbanization vol. 7, no. 1, April 1995, 37-55.

who can find some source of income. The higher the educational level of potential income-earners, the greater their income potential. Households with many dependants relative to income-earners will obviously be at a disadvantage-whether they have children, working-age adults who are sick, injured or disabled or elderly people also unable to work. Even if the children who are often sent. out to work as a way of coping with impoverishment earn very little, it is often an important supplement to adult wages-just as it was for the tens of thousands of children also sent out to work in European cities during the nineteenth century.[117] Single-parent households will obviously be greatly disadvantaged, as the one parent has to combine income-earning with child-rearing and household management. If the single parent is a woman-as is usually the case-they are often further disadvantaged by the discrimination that women face within the labour market or the earlier discrimination within education that had limited the possibilities of obtaining qualifications. Any group that faces discrimination in labour markets will also be more at risk of poverty-for instance particular castes, immigrant groups or ethnic groups. It is thus not surprising to find in both the North and the South a great range of studies showing associations between households with inadequate incomes and households with unskilled workers, low educational attainment by adults there, households with many dependants and single-parent households with higher rates of poverty among particular ethnic or immigrant communities.[118]

The scale and nature of poverty within the world's wealthiest countries has also been underpinned by changes in labour markets and the fact

that during the late 1970s and the 1980s, unemployment rose to levels that were unprecedented since the Second World War. In most countries, there was a considerable growth in the number of long-term unemployed people. In most countries, the scale and nature of welfare benefits for those who lost their jobs were cut substantially; what taxpayers proved willing to support in benefits to the unemployed when they represented only a few per cent of the workforce was rapidly revised downwards when changes in the labour market greatly increased the number of the unemployed. Here, as in most other instances, a variety of factors contributed to increased levels of poverty-for instance lower wages for unskilled and casual workers, fewer jobs, much reduced benefits for most of the unemployed, a decline in the services on which only those with low incomes depended and, as Chapter 6 will describe, a decline in the availability of cheap accommodation.[119] It has been suggested in Europe that the key economic divide in society is now much less that between the `blue-collar' and `white-collar' workers and more between those with relatively secure jobs and those with no jobs,[120] with those working in part-time or casual work located somewhere between these two. [121]

The influence of changes in the labour market on poverty levels can be seen in changes in Latin America, evident during the 1980s. First, open unemployment grew steadily and in countries where it stabilized, this stabilization took place at a much higher level than in previous years. For instance, open unemployment in Latin America's urban centres was 6.8 per cent in 1970 and 6.9 per cent in 1980; by 1985 it had reached 11.1 per cent and rose each year between 1980 and 1985.[122] Figures for open unemployment do not reflect the real scale of the problem. For instance, there are the large numbers of people who cannot afford to be unemployed since they are not covered by any social security or unemployment insurance scheme so receive no income at all if they cannot find work-and they have no assets or savings to fall back on. These people usually take on part time work although they want full time work (under-employment) or they work in jobs or become self-employed within the informal economy that provide very inadequate incomes. The data available for the period 1980-5 for selected urban centres in Argentina, Colombia, Peru and Costa Rica shows a growth in the number of people in both these categories.[123] There are also considerable numbers of people who are discouraged from seeking employment because of the unavailability of work opportunities.

The impact of the 1980s crisis in Latin America can also be seen in three processes within urban employment. The first is the growth in the relative importance of informal activities and this probably represents a change in that the historic trend before the crisis was a slow decrease in the proportion of the urban labour force working in informal activities. The second is the decline in the number of secure jobs-for instance through a growth in short-term contract work, part-time jobs, employment through job agencies, homework and greater use of casual labour. The third is the loss of social security previously achieved through labour legislation, although a large proportion of the workforce was generally outside such provision. In most countries, there was also a decline in industrial employment and a rise in the importance of tertiary activities-although the significance of this is much more in what tertiary activities grew most and the incomes they generated since term `tertiary' covers such a wide range of jobs from among the most productive and highest paid to among the least productive and lowest paid.

Although most case studies of impoverishment are in economies that were stagnant or in crisis, there could also be a substantial increase in poverty within growing economies, linked to changes in the labour market. This was the case in the United States. During the 1980s, many of the jobs in manufacturing that had paid relatively high wages to people with relatively little formal education disappeared and the incomes of lower-income groups declined.[124] In many countries, there has also been a general trend towards lowering wages for many semi-skilled or unskilled jobs and the replacement of experienced industrial workers with cheaper, younger, often female labour. For instance, in Mexico, many manufacturing industries have turned to younger unmarried men and women with secondary schooling who are not skilled but are willing to work for lower wages than the previous skilled worker-and wages have dropped significantly.[125] In general, the level of job security has deteriorated in many countries around the world-both North and South.[126] Changes in the labour market underlie the growth of what has been termed the `new urban poverty' in cities in the North-the growth in homelessness and begging, high rates of unemployment and low-paid insecure employment. It has also been cited as a major reason for rises in crime, drug and alcohol abuse and many other social problems.[127] Box 3.8 outlines some of the problems of youth unemployment in Africa, although much of what it says is relevant to youth in other regions of the world.

Gender and economic vulnerability

Poverty and vulnerability are not synonymous. For instance, within urban centres, inadequate incomes are the main cause of poverty but it is

BOX 3.8

Youth, cities, employment: a high-risk triad

There is a great need for concrete action on youth employment in African cities. The process of urban decay has been accelerating while at the same time the urban authorities have never seemed so unable to meet the expectations of the younger generations for social integration, especially through the job market. The scale of the problem has also greatly increased as urban populations have grown very rapidly. A high proportion of the urban population is made up of children and youth; about two-thirds of the urban population in Africa is made up of the 0-25 age group.

Young graduates are no longer guaranteed public sector jobs and they are in competition with the elderly for jobs within community-based systems. The informal sector is saturated to the point where its spirit of initiative has been perverted by the exploitation of child and youth labour. While people all around them have been made redundant by the implementation of adjustment policies, the young have not benefited from social-support programmes.

The urgent need to get out of the economic vicious cycle should not result in ignoring the social and political risks of having large numbers of unoccupied and very frustrated young people. Having sparked off the democratization process, the young now see themselves as the "moral generation" whose members are quick to denounce the abuses committed by the "rentier" state'. But these same young people are prone to plunge into any of a number of temptations: more or less politicised urban violence, fundamentalist or mafioso activities, the idealization of somewhere else considered as perfect, in spite of the evidence to the contrary.... But no other mobilizing utopia is offered to them, because even the most authentically democratic regimes have been forced, by a whole series of constraints to implement realistically stringent policies. As they are convinced that they legitimately have a major social role to play in the face of change, the young will not accept to behave as those who, in the beautiful words of the Senegalese singer Ismaël Lo 'push the broken down car of democracy only to be left by the wayside when it finally starts up again'.

Source: Emile Le Bris, 'Youth, Cities, Employment: a high risk triad', in Villes en Développement, No 18, Dec. 1992.

inadequate assets which underlie low-income groups' vulnerability to economic shocks or to the economic consequences of ill-health.[128] However, a low income means that it is harder for individuals and households to save and to build up some assets, to reduce their vulnerability to sudden changes in income or loss of income from illness. Low incomes also make it difficult for households to `invest' in social assets such as education that can help reduce their vulnerability in future. Box 3.7 is a reminder of how much low-income parents will often sacrifice to keep their children in school, so their children have the education that is such an important asset within the labour market.

Women are generally more vulnerable than men because of the differentials between men and women in terms of access to income, resources and services. Such differentials may occur within households between men and women or between individuals (i.e. between single men and single women) or between households with women-headed households at a disadvantage to male-headed households. Women generally have fewer income-earning opportunities than men and they earn less.

Women may also face particular problems in the income-earning activities in which only (or mostly) women engage. For instance, most hawkers in Nairobi are women and thus suffer most from the harassment which usually involves the confiscation of their goods.[129] Low-income households are likely to be far more vulnerable in societies where there are major barriers that limit the possibilities of women to work.[130]

Women's income-earning activities cannot be considered in isolation from their roles within households and communities since each affects the other.[131] Within households, women usually take on most of the responsibilities for household management and, where there are children, it is almost always the women who take primary responsibility for looking after them. Women often contribute more than men to community organization and to initiatives to address the lack of provision by governments for infrastructure and services.[132] Meeting their responsibilities for childcare, household management and community action limits their capacity to earn an income. And the services that would help them combine these responsibilities with income-earning are also often deficient. For instance, crèches and child-care centres that can make it much easier for women with young children to earn incomes rarely receive government support and, where they do, their opening hours and locations are often inappropriate to low-income women's needs.[133] Public transport systems often overlook or misunderstand women's travel needs. Public transport systems are often oriented to meeting demand from main income-earners early in the morning and in the early evening. They do not serve the needs of secondary income earners (often women) who journey to and from work at different times and often to different destinations. They are rarely organized to help those responsible for shopping, taking children to and from school and visits to health centres.[134] Cost-cutting in public transport inevitably reduces off-peak services which means that the journeys that women make are often by foot or on extremely overcrowded public transport.[135]

Within low-income households, it is often women and older children who do most to absorb economic shocks-for instance through women having to increase the time devoted to income-earning. The increased time they have to devote

to income-earning does not mean a lessening of their other responsibilities; men have not increased their role in caring for the children and household management to help women meet the extra demands on their time from income-earning.[136] There is also the issue of the division of work and income within households between men and women. Women often experience discrimination in the share of resources they receive, relative to the work they do-especially their responsibilities for child rearing and household management whose economic value is not considered. Women and children within households whose income is above `the poverty line' may face deprivation because of the disproportionately small share of household income the woman controls from which she has to feed and clothe the family and meet health care needs.[137] In many societies, female children also experience discrimination in comparison to male children; in some countries in the South, child mortality rates are higher for female children than for male children; in the North, the reverse is true.

Among 'low-income households', those headed by women usually face particular problems in that the women experience discrimination in labour markets or in attempts to secure support for income generating activities or household improvement. To this is added the particular difficulties faced by all single-parent households in having to combine the triple role of child rearing, household (and community) maintenance and income generation.[138] In many low income settlements, 30 or more per cent of households are headed by women either because a male partner is temporarily absent or because of separation or death. [139] In many societies, widowed or abandoned women face particular problems in finding employment and studies of low-income communities often find a concentration of such women in the community. [140]

However, in many societies, cities may offer particular benefits to women. In Latin America, women find greater opportunities for work.[141] In parts of Africa, customary law excludes women from owning rural land in their own right and the city offers a means for their independent survival after marital separation.[142] In parts of Asia, widows or divorced women may face considerable prejudice in rural areas with urban areas offering them better possibilities for an independent livelihood.

Conclusions

This section has noted the inadequacy in the conventional means of measuring poverty and how a concern for quantification led to a considerable underestimation in the scale of urban poverty. It also helped contribute to an simplified understanding of both urban and rural poverty and the processes underlying impoverishment.

Here, as in many other subsections of this Report, our current state of knowledge does not permit accurate estimates as to the relative size of the urban and rural people living with unsatisfied basic needs or with incomes too low to permit them to meet such needs. Accurate global and regional estimates are only possible when they can be based on an aggregation from national studies that consider the scale and nature of urban and rural poverty within that particular national context. The many empirical studies on poverty on which this section has drawn suggests that far more attention should be paid by governments and international agencies to reducing urban poverty. But the fact that in most of the world's predominantly rural nations, so little has been achieved in reducing rural poverty also suggests a need, at the same time, for far more attention to reducing rural poverty. The empirical studies that look at rural-urban linkages also suggest that every national or sub-national programme on poverty reduction has to have both rural and urban components and these will vary greatly from place to place. In some areas, stimulating urban development and expanding urban employment may be an essential part of reducing rural poverty. In others, stimulating and supporting increased agricultural production and changes in the crops grown to those with higher value will be an essential part of reducing poverty in nearby market towns and service centres.

Low-income groups or groups suffering some form of deprivation often have their own criteria as to what constitutes well-being or deprivation. Their own conceptions of disadvantage and deprivation have often been found to differ markedly from those of `experts'.[143] Great value is often placed on qualitative dimensions such as independence (including freedom from a need to rely on a patron's support), less powerlessness (and thus the possibility to organize and negotiate for, for instance, public services), security, health, self respect, identity, close and non-exploitative social relations, decision-making freedom and political and legal rights.[144] For them, the opposite of poverty may not be wealth but'security-through command over sufficient assets and freedom from debt; both are linked to independence rather than dependence (on a landlord or patron) and self respect (through freedom from subservience and exploitation).[145] The importance to many low-income groups of both monetary and non-monetary assets as the best defence against poverty was also highlighted. The development of gender-aware planning during the 1980s highlighted the different needs and priorities of men and women within the same household. These led to new initiatives that

involved `low income' groups in defining what was deprivation and its underlying causes, and what resources are to hand from individuals, households and communities to address these (see Chapter 9).

3.3 Urban Crime and Violence[146]

The scale of crime in cities

At least once every five years, more than half the world's population living in cities with 100,000 or more inhabitants are victims of a crime of some kind-see Table 3.5. Among the world's regions, only in Asia does the proportion fall below 50 per cent and in Africa and the Americas, it is two-thirds or more. The overall rate fell in Asian cities but crimes against property, organized violent crime and drug-trafficking increased considerably. Even if criminal syndicates have an increasingly important role, most crime is not organized in this way.

Table 3.5 shows how most crime in these cities was against property-through the theft of vehicles, burglary or other thefts. Most theft is consumer items that are easily resold. The increase of crime against property is not only a phenomenon of the rich neighbourhoods but is also spread within many low-income areas, including tenements and illegal settlements.

Worldwide, urban violence is estimated to have grown by between 3 and 5 per cent a year over the last two decades,, although there are large variations between nations and between different cities within nations in the scale of urban violence and in the extent of its growth. Violent crime has increased in most cities in recent years-and generally as a proportion of all crimes. It includes murder (or homicide), infanticide, assault, rape and sexual abuse and domestic violence and it now makes up between 25 and 30 per cent of urban crimes in many countries.[147] Violent crime is also growing in rural areas, though more slowly.

One aspect of the increase in violent crime is the increase in murders. This can be seen by considering the number of murders per 100,000 persons in the late 1980s in different countries and cities. These vary by a factor of 50 or more between countries. In most European countries and some wealthy Asian countries, using standardized death rates, there are less than 2 murders per year per 100,000 people with the rate falling below 1 for some countries.[148] In the United States, there were more than 8 in the late 1980s, in the former Soviet Union, more than 6-although the murder rate in Russia was reported to be twice that in the United States by the early 1990s.[149] In Latin America, the murder rate varied greatly from countries such as Uruguay with relatively low rates to countries such as Ecuador and Mexico with more than 12 murders per 100,000 persons per year. The murder rate in Colombia in 1992 was reported as being 86 per 100,000 inhabitants.[150]

The murder rates for particular cities can be much higher than those for the national averages. For instance, the murder rate in Rio de Janeiro in Brazil was reported to have reached 59 per 100,000 people in 1989[151] and over 60 in 1990 when 6,011 people were reported to have been murdered.[152] Sao Paulo had a murder rate of 35 per 100,000 inhabitants by the early 1990s.[153] The rate in Bogotá in 1993 was even higher than that in Rio de Janeiro with more than 5,000 murders in a city whose population stood at around 6 million. In the early 1990s, Cali, Colombia's third largest city had a murder rate of 87 per 100,000 people.[154] Several cities in the North also had high murder rates-for instance the murder rate in Washington DC was reported to be over 70 per 100,000 inhabitants in the early 1990s.[155] The combination of very large populations and high murder rates means that in several of the world's largest cities, more than 2,000 people are murdered each year, including Los Angeles, Rio de Janeiro, Bogotá and Sao Paulo.[156]

The murder rate for a whole country or for a city obscures the fact that it is particular groups who are most at risk from murder. For instance, murder rates are generally much higher for men than for women[157]-with the rate being particularly high among young men. Murders now figure as among the leading causes of death

TABLE 3.5 Per cent of the population who are victims of crime in urban areas with more than 100,000 inhabitants over a 5-year period

	Per cent of the population who over a 5-year period are victims of				
	Theft and damage of vehicles	Burglary	Other theft	Assault and other crimes of personal contact*	All crimes
West Europe	34%	16%	27%	15%	60%
North America	43%	24%	25%	20%	65%
South America	25%	20%	33%	31%	68%
East Europe	27%	18%	28%	17%	56%
Asia	12%	13%	25%	11%	44%
Africa	24%	38%	42%	33%	76%
TOTAL	29%	20%	29%	19%	61%

* Includes mugging, aggravated theft, grievous bodily harm, sexual assault.

Source: UNICRI (United Nations International Crime and Justice ResearchInstitute) (1995), Criminal victimisation of the developing world, Rome, drawing from UNICRI and Ministry of Justice of the Netherlands, international survey of victims of crime (1988-1994), based on a sample of 74,000 persons in 39 countries.

for young males in certain countries or regions-and the leading cause for certain population groups, as in young African-American males in California in 1988 with a murder rate of 156 per 100,000.[158] But care is needed when making comparisons between different countries or cities, as the causes of murders and the perpetrators of the murders vary considerably. For instance, in Sao Paulo, one of the reasons for the very high murder rate was the fact that in the early 1990s, the military police were killing more than 1,000 suspects a year.[159] By contrast, one of the main causes of murder in Maharashtra, the Indian state in which Bombay is located, is young brides being burnt to death for not bringing enough dowry.[160] In Bangladesh, the murder of wives by husbands accounts for a high proportion of all murders.[161] In the United States, a large proportion of murders are young men being shot with firearms by other young men. This includes many murders by school-age children; in the decade from 1980 to 1989, an estimated 11,000 people were killed by high school aged youths, two-thirds of them by firearms.[162]

For every murder, there are many times more non-fatal assaults. In the United States, different estimates suggest there are seventy to a hundred times as many non-fatal assaults as murders.[163] The figures in Table 3.5 suggest that over a period of five years, around a third of the population in the cities in South America and Africa were victims of assault, mugging, rape or other crimes of personal contact. Asia had much the lowest rate of the regions shown with only one person in ten being a victim of these kinds of crimes over the five year period.

There is also a lot of crime that goes unreported, including vandalism or hooliganism. Although often considered `petty' in the legal sense of the word, such incidents can make life very unpleasant for city dwellers.

The impact on urban centres

High levels of urban crime and perhaps especially of violent crime are bringing major changes in the spatial form of many cities and of their built up areas and public spaces. Violent crimes are more visible in cities, and they help create a sense of insecurity that generates distrust, intolerance, the withdrawal of individuals from community life, and in some instances, violent reactions.[164]

For instance, the increase in violence, insecurity and fear in Sao Paulo are changing the city's landscape and the patterns of daily life, people's movements and the use of public transport-as crime and violence discourages people from using the streets and public spaces altogether.[165] Streets where children used to play, where neighbours used to congregate and where it was common for people to stroll are now much less used. Increasingly, higher-income groups are living, working, shopping and taking their leisure in what are essentially fortified enclaves and are no longer making use of streets or public spaces which are abandoned to the homeless and the street children.[166] Similar developments are evident in many cities around the world as middle- and upper-income groups journey by private automobile between apartment complexes, shopping centres or malls and office complexes each with sophisticated security systems and their own secure car parks so there is little or no necessity to walk on the streets or to use open spaces. High levels of crime and fear of violence have helped to push shopping malls, office complexes and leisure activities to suburban areas and in some cities, this has reached the point where it is increasingly rare for middle- and upper-income groups to visit the city centre.

High levels of crime can have a very serious impact on the economy of a neighbourhood or city centre:

> The abandonment of neighbourhoods by the most positive elements, the decrease in traffic and the risks of break-ins and armed robbery drive business out. House values drop, and buildings deteriorate. Urban services departments spend less and less to maintain and upgrade ageing and vandalized infrastructures. Industries opt for other sites because these areas no longer have the labour force they are looking for and the physical conditions they need to operate. Tourists are very careful to avoid venturing into these areas. The juxtaposition of these pockets of poverty and more affluent areas generates envy on one hand and fear on the other.[167]

Violence against women

The most common form of violence against women is domestic violence and in recent years, it has become acknowledged that in most countries, there are very serious problems with domestic violence. Surveys in a variety of countries in the South found that between a third and half (or more) of women surveyed report being beaten by their partner.[168] In the United States, battering is the leading cause of injury to women and accounts for nearly one-third of all emergency room visits by women.[169] It is also acknowledged that statistics collected from police records or from other official sources usually greatly underestimate the scale and the seriousness of the problem, as those who suffer domestic violence are reluctant to report the abuse.[170]

But it is not only in the domestic arena that violence against women is a serious and often growing problem. For instance, an estimate made by a US Senate Judiciary Committee suggested that at least one women in five in the United States will

be sexually assaulted in her lifetime.[171] Rape and sexual abuse are now known to be far more common than was thought a few years ago-with generally a high proportion of those who perpetrate sexual abuse being known to their victims and often with a considerable proportion of victims being 15 years of age or under. [172]

Causes of urban violence

As one specialist on the study of violence commented:

> It is not the city that generates violence: poverty, political and social exclusion, and economic deprivation are all working against the solidarity that would enable city inhabitants to live together peacefully despite their conflicts. [173]

There is a growing understanding that violence should be considered a public health problem for which there are prevention strategies. Many cities have very low levels of violence while others with high levels of violence have managed to reduce them by addressing some of the underlying causes.[174]

Urban violence is the result of many factors which affect each city depending on the specific local context–and there is considerable debate about the relative importance of different factors. Certain specialists stress the significance of inadequate incomes which are usually combined with very poor and overcrowded housing and living conditions, and often insecure tenure, as fertile ground for the development of violence. This view was stressed in the conclusions of the 1989 Montreal Conference of Mayors: `the basic causes of violence increase: urban growth, with the marginalisation of the underprivileged and the isolation of groups at risk, qualitative and quantitative insufficiency of social housing programmes and community amenities, unemployment of young people.[175] It is also more difficult for parents living in very poor quality housing and also usually working long hours to provide children with the social support they need both at school and at home. An unsupportive home life can lead to non-adaptation at school and to a lack of personal discipline and self-esteem which increase the risk of anti-social or criminal activity. [176]

Other explanations, while not contradicting those noted above, emphasize more the contemporary urban environment in which attractive goods are continuously on display and create targets for potential criminals. In cities, particularly in the South, the ostentatious display of luxury and prosperity (shops, cars) in certain areas, provokes those who have not accepted their unfavourable social situation, and engenders an attitude that legitimizes the `distribution of wealth' through criminal activity. In addition, police forces are usually unable to protect all individuals and businesses against theft and the police and the judicial system do not provide sufficient deterrent with low clear-up rates for most theft and violence. Meanwhile, insurance against theft, for those who can afford it, does not resolve the problem of prevention since it does not halt the theft itself (the breaking of the law) or its consequences.

Finally, oppression in all its forms, including the destruction of original cultural identities, together with racism and discrimination, is one of the root causes of many forms of violence. [177] It is difficult for any individual or household to identify with a culture if subjected to racism or discrimination in finding employment and in finding housing or obtaining access to social services-or for children, at school. This, in turn, inhibits their integration within schools, workplaces and neighbourhoods.

There are also many risk-factors associated with crime. There are the factors connected with the built environment itself and with the lack of a stable population within many residential areas. For instance, in many city areas such as those with a high proportion of short-term tenants or boarding houses, the constant movement of people in and out of the area inhibits the development of community actions and informal community surveillance that can deter crime or help identify the criminal. The nature and quality of street-life has a considerable influence on the incidence of crime and vandalism. So too does the physical design of housing areas, including the extent to which public areas are subject to informal supervision and the extent to which there is a clear visual definition as to who has the right to use it and is responsible for its maintenance.[178] The inadequate provision for or deterioration of public space and public facilities (parks, plazas, playgrounds, recreational centres, libraries, health centres, schools, bus, railway and metro stations) also discourages their use as well as the community-networks that they help reinforce.

Other risk-factors have been identified in the United States: the easy availability of guns; the level of violence on television and other media; the lack of priority in public policy to violence prevention; alcohol abuse; and the witnessing of acts of violence.[179] One factor in the increase in murders and violent crimes in many cities has been the growth in the drug traffic which has provided criminal syndicates with more financial power than ever. In many cities of Latin America, young people with very little prospect of employment in the formal labour markets have found considerably more profit in selling drugs. The struggle to control the drug trade is one factor behind the increase in violent crime in many cities.

Notes and References

1. This distinction between the constituents and the determinants of well-being is drawn from Dasgupta, Partha and Martin Weale, `On measuring the quality of life', *World Development, vol.* 20, no. 1, 1992, 119-31.
2. *Ibid.* 124.
3. However, there is often some confusion in many people's minds between longevity and life expectancy.
4. Jones, Huw, *Population Geography*, 2nd edn, Paul Chapman Publishing, London, 1990.
5. Arriaga, E. and K. Davis, `The pattern of mortality change in Latin America', *Demography*, vol. 6, 1969, 223-42, quoted in Jones 1990, op. *cit.*
6. Woods, R. J. and J. H. Woodward (eds.), *Urban Disease and Mortality in Nineteenth Century England*, Batsford, 1984.
7. See Briscoe, John, `Selected primary health care revisited', in Joseph S. Tulchin (ed.), *Health, Habitat and Development,* Lynne Reinner, Boulder, 1986 for a robust defence of full primary health care.
8. World Bank, *World Development Report* 1993, Oxford University Press, 1993, 19.
9. Dasgupta and Weale 1992, op. *cit.*
10. Okolski, Marek, `Health and mortality', chapter 2 in the Proceedings of the European Population Conference vol. 1, March, GV.E.94.0.15, United Nations, Geneva, 1994, 119-92.
11. Power, Chris, `Health and social inequality in Europe', *British Medical Journal, vol.* 308, no. 6937, 30 April, 1994,1153-56.
12. Feshbach, M., `The Soviet Union: population trends and dilemmas', *Population Bulletin, vol.* 37, no. 3, 1982 quoted in Jones, 1990, op. *cit.*
13. Dinkel, R., `The seeming paradox of increasing mortality in a highly industrialized nation: the example of the Soviet Union', *Population Studies, vol.* 39, 87-97' quoted in Jones 1990, op. *cit.*
14. Cornia, Giovanni Andrea, with Renato Paniccià, `The demographic impact of sudden impoverishment: Eastern Europe during the 1989-94 transition', Paper presented at the Seminar on Demography and Poverty, IUSSP-UNICEF-University of Florence, Florence, 2-4 March 1995, 39.
15. *Ibid.*
16. Anand, S. and M. Ravallion, `Human development in poor countries: on the role of private incomes and public services', *Journal of Economic Perspectives,* vol. 7, no. 1, Winter, 1993, 133-50.
17. World Bank 1993, op. *cit.*
18. *Ibid.*
19. Anand and Ravallion 1993, op. *cit.*
20. *Ibid.*
21. *Ibid.*
22. Power 1994, op. *cit.*
23. Wilkinson, R. G., `Income distribution and life expectancy', *British Medical Journal, vol.* 304, 1992, 165-8, quoted in Power 1994, op. *cit.*
24. Jones 1990, op. *cit.*
25. World Health Organization, *World Health Statistics Annual,* 1977-1989, quoted in WHO, *Our Planet, Our Health*, Report of the Commission on Health and Environment, Geneva, 1992.
26. WHO, *Our Planet, Our Health,* Report of the Commission on Health and Environment, Geneva, 1992.
27. Statistics drawn from UNDP, *Human Development Report* 1994, United Nations Development Programme, Oxford University Press, Oxford and New York, 1994.
28. Okolski 1994, op. *cit.*
29. UNDP, *Human Development Report* 1993, Oxford University Press, 1993
30. UNDP, *Human Development Report* 1992, Oxford University Press, 1992.
31. UNDP 1993, op. *cit.*
32. McLaughlin, Martin M. and the staff of the Overseas Development Council, *The United States and World Development Agenda* 1979, Praeger Publishers, New York, 1979.
33. McGillivray, M., `The human development index: yet another redundant composite development indicator?', *World Development, vol.* 19, no. 10, 1991, 1461-8.
34. UNDP 1994, op. *cit.*
35. UNDP 1994, op. *cit.*
36. Mueller, Charles C., `Environmental problems of a development style: the degradation from urban poverty in Brazil', *Environment and Urbanization,* vol. 7, no. 2, Oct. 1995, 68-84.
37. UNDP 1994, op. *cit.*
38. ANC, *A National Health Plan for South Africa,* Prepared by the ANC Health Department with the support and technical assistance of WHO and UNICEF, no date.
39. Unadjusted 1990 census (first 6 months' deaths and births data), quoted in *World Bank News, vol.* 13, no. 39, Oct. 1994.
40. EMPLASA 1994, op. *cit.*
41. ANC n.d. op. *cit.*
42. MMRs for 1989-91 derived from the National Surveillance System that produces regional averages; quoted in *World Bank News, vol.* 13, no. 39, Oct. 1994.
43. ANC n.d. op. *cit.*
44. EMPLASA, Plano Metropolitan da Grande Sao Paulo; 1993/2010, Empresa Metropolitana de Planejamento da Grande Sao Paulo SA, Sao Paulo, 1994.
45. These are summarized in Hardoy, Jorge E., Diana Mitlin and David Satterthwaite, *Environmental Problems in Third World Cities,* Earthscan Publications, London, 1992. See for instance Rodhe, J. E., `Why the other half dies: the science and politics of child mortality in the Third World', *Assignment Children,* 1983, 35-67; Trudy Harpham, Tim Lusty and Patrick Vaughan (eds.), *In the Shadow of the City: Community Health and the Urban Poor,* Oxford University Press, 1988; Guimaraes, J. J. and A. Fischmann, `Inequalities in 1980 infant mortality among shantytown residents and non-shanty town residents in the municipality of Porto Alegre, Rio Grande do Sul, Brazil', *Bulletin of the Pan American Health Organization,* 19, 1985, 235-51.
46. Pacione, Michael, `The tale of two cities: the mitigation of the urban crisis in Glasgow', *Cities,* vol. 7, no. 4, Nov. 1990, 304-14.
47. See for instance Stephens, Carolyn, Ian Timaeus, Marco Akerman, Sebastian Avle, Paulo Borlina Maia, Paulo Campanerio, Ben Doe, Luisiana Lush, Doris Tetteh and Trudy Harpham, *Envirnnment and Health in Development Countries: an Analysis of Intra-urban Differentials Using Existing Data,* London School of Hygiene and Tropical Medicine, London, 1994.
48. This section on poverty draws in particular on three sources. The first is a background paper prepared for the Global Report on *Conceptualizing Urban Poverty* by Ellen Wratten. The second is the work of Robert Chambers. The third is the CROP-IIED Workshop on *Urban Poverty* held in Bergen in October 1994 to review the scale and nature of urban poverty; this section draws to a considerable extent on the papers presented at this workshop and on the discussions during it.
49. Chambers, Robert, `Poverty and livelihoods; whose reality counts?', an overview paper prepared for the Stockholm Roundtable on Global Change, 22-24 July 1994, subsequently published in *Environment and Urbanization, vol.* 7, no. 1, April 1995. See also Beck, Tony, *The Experience of Poverty: Fighting for Respect and Resource in Village India,* Intermediate Technology Publications, London, 1994,4.
50. Different sources suggest different figures; these will be discussed later in this chapter.
51. Cairncross, Sandy, Jorge E. Hardoy and David Satterthwaite, `The urban context', in Jorge E. Hardoy, Sandy Cairncross and David Satterthwaite (eds.), *The Poor Die Young: Housing and Health in Third World Cities,* Earthscan Publications, London, 1990.
52. For more details, see Wisner, Ben, *Power and Need in Africa: Basic Human Needs and Development Policies,* Earthscan, London, 1988; also Townsend, Peter, *The International Analysis of Poverty*, Harvester/ Wheatsheaf, New York, 1993.
53. Chambers 1994, op. *cit. 10*
54. Chambers, Robert, `Editorial introduc-

tion: vulnerability, coping and policy', in *Vulnerability: How the Poor Cope,* IDS Bulletin, vol. 20, no 2, April 1989, 1-7.

55. WHO 1992, op. *cit.*
56. Pugh, Cedric (1995), `The role of the World Bank in housing' in B. Aldrich and R. Sandhu (eds.), *Housing the Poor: Policy and Practice in Developing Countries,* Zed, London, 1995.
57. See also Pugh 1995, op. *cit.*
58. Jazairy, Idriss, Mohiuddin Alamgir land Theresa Panuccio, *The State of World Rural Poverty: an Inquiry into its Causes and Consequences,* IT Publications, London, 1992.
59. *Ibid.*
60. The first figure comes from Leonard, H. Jeffrey, `Environment and the poor: development strategies for a common agenda', in H. Jeffrey Leonard and contributors, *Environment and the Poor: Development Strategies for a Common Agenda,* Overseas Development Council, Transaction Books, New Brunswick (USA) and Oxford (UK), 1989, 3-45. The second comes from the World Bank, *Urban Policy and Economic Development: an Agenda for the 1990s,* The World Bank, Washington DC, 1991.
61. Tabatabai, Hamid with Manal Fouad, *The Incidence of Poverty in Developing Countries; an ILO Compendium of Data,* A World Employment Programme Study, International Labour Office, Geneva, 1993.
62. Piachaud, David, `The Definition and Measurement of Poverty and Inequality', in Nicholas Barr and David Whynes (eds.), *Current Issues in the Economics of Welfare,* Macmillan, Basingstoke and London, 1993, 105-29,
63. The work of Amartya Sen develops this point about how certain societies with relatively low per capita incomes have social indicators that show much greater progress than others with comparable levels of per capita income. One of the examples he uses is the state of Kerala and the statistics about Kerala and India in this paragraph are drawn from Sen, Amartya, *Beyond Liberalization: Social Opportunity and Human Capability,* Development Economics Research Programme DEP no. 58, London School of Economics, London, 1994.
64. Townsend 1993, op. *cit.*
65. See for instance Egziabher, Axumite G., Diana Lee-Smith, Daniel G. Maxwell, Pyar Ali Memon, Luc J. A. Mougeot and Camillus J. Sawio, *Cities Feeding People: An Examination of Urban Agriculture in East Africa,* International Development Research Centre, Ottawa, 1994; Smit, Jac and Joe Nasr, `Urban agriculture for sustainable cities: using wastes and idle land and water bodies as resources', *Environment and Urbanization, vol.* 4, no 2, Oct. 1992, 141-52; Lee-Smith, Diana, Mutsembi Manundu, Davinder Lamba and P Kuria Gathuru, *Urban Food Production and the Cooking Fuel Situation in Urban Kenya-National Report: Results of a 1985 National Survey,* Mazingira Institute, Nairobi, Kenya, 1987; and Mbiba, Beacon, *Urban Agriculture in Zimbabwe,* Avebury, Aldershot, 1995.
66. Castells, Manuel, *The City and Grass Roots: A Cross-Cultural Theory of Urban SocialMovements,* Edward Arnold, London, 1983; and Friedmann, John, `The Latin American *Barrio* movement as a social movement: contribution to a debate', *International Journal of Urban and Regional Research,* vol. 13, no. 3, 1989, 501-10.
67. Feres, Juan Carlos and Arturo Leon `The magnitude of poverty in Latin America', *CEPAL Review,* no. 41, Aug. 1990,133-51.
68. Amis, Philip, `Making sense of urban poverty', *Environment and Urbanization,* vol. 7, no. 1, April 1995, 145-57; Harriss, John, `Urban poverty and urban poverty alleviation', *Cities, vol.*6, no. 3, Aug. 1989, 186-94.
69. The World Bank, *Implementing the World Bank's Strategy to Reduce Poverty: Progress and Challenges,* World Bank, Washington DC, 1993; World Bank, *World Development Report 1990: Poverty,* Oxford University Press, Oxford, 1990.
70. Central Bureau of Statistics, Jakarta quoted in ESCAP, *State of Urbanization in Asia and the Pacific 1993,* Economic and Social Commission for Asia and the Pacific, ST/ESCAP/1300, United Nations, 1993.
71. ESCAP 1993, op. *cit.*
72. Minujin, Alberto, `Squeezed: the middle class in Latin America', *Environment and Urbanization, vol.* 7, no. 2, Oct. 1995, 153-66.
73. World Bank 1993, op. *cit.*
74. Escobar Latapí, Augustín and Mercedes González de la Rocha, `Crisis, restructuring and urban poverty in Mexico', *Environment and Urbanization, vol.* 7, no. 1, April 1995, 57-75; Tuirán, Rodolfo, `Estrategias familiares de vida en época de crisis: el caso de México', *Cambios en el Perfil de la Familia: La Experiencia Regional,* Naciones Unidas/Comisión Económica para América Latina y el Caribe, Santiago de Chile, 1993.
75. Escobar, Agustín and Bryan Roberts, `Urban stratification, the middle classes, and economic change in Mexico', in González de la Rocha, Mercedes and Agustín Auscobar Latapí (eds.), Social *Responses to Mexico's Economic Crisis of the 1980s,* Center for US-Mexican Studies, University of California at San Diego, La Jolla, 1991; and Reyes Heroles G.G., Jesús, `Político económica y bienestar social: elementos de una estrategia para redistribuir el ingreso en México' in *Igualdad, Desigualdad y Equidad en España y México,* Instituto de Cooperación Económica, Madrid, 1985.
76. Hernández Laos, Enrique, *Crecimiento Económico y Pobreza en México; Una Agenda para la Investigación,* Universidad Autónoma de México, Centro de Investigaciones Interdisciplinarias en Humanidades, Mexico City, 1992, quoted in Escobar Latapí and González de la Rocha 1995, op. *cit.*
77. Tello, Carlos, `Combating poverty in Mexico', in González de la Rocha, Mercedes and Agustín Escobar Latapí (eds.), *Social Responses to Mexico's Economic Crisis of the 1980s,* Center for US-Mexican Studies, University of California at San Diego, La Jolla, 1991.
78. Tuirán 1993, op. *cit.*
79. Escobar Latapí and González de la Rocha 1995, op. *cit.*
80. Cairncross, Hardoy and Satterthwaite 1990, op. *cit.*
81. See Section 6.4 on homelessness for more details.
82. World Bank, *World Development Report 1990,* Oxford University Press, 1990.
83. Townsend 1993, op. *cit.*
84. More details are given in Chapter 8.
85. Chambers 1994, op. *cit.*
86. *Ibid.*
87. In some countries, those that fall well below the absolute poverty line are considered destitute or extremely poor- see Rakodi, Carole, `Poverty lines or household strategies? a review of conceptual and methodological issues in the study of urban poverty', Paper presented to the CROP-IIED Workshop on Urban Poverty, October 1994. A revised version of this paper was subsquently published as Rakodi, Carole, `Poverty lines or household strategies? A review of conceptual issues in the study of urban poverty', *Habitat International, vol.* 19, no. 4, 1995, 407-26.
88. Townsend 1993, op. *cit.* 36.
89. Ecologist, The, *Whose Common Future: Reclaiming the Commons,* Earthscan Publications, London, 1992.
90. This paragraph is drawn largely from Gore, Charles, `Introduction: markets, citizenship and social exclusion', in Gerry Rodgers, Charles Gore and José B. Figueiredo, *Social Exclusion: Rhetoric, Reality, Responses,* International Labour Organization, Geneva, 1995, 1-40.
91. Grootaert, Christiaan and Ravi Kanbur, *Policy-OrientedAnalysis of Poverty and the Social Dimensions of Structural Adjustment. A Methodology and Proposed Application to Côte d'Ivoire, 1985-88,* The World Bank, Washington DC, 1990.
92. World Bank 1990, op. *cit.*
93. Woodward, David, *Structural Adjustment Policies: What are they? Are they working?,* Catholic Institute for International Relations, London, 1993, 27 pages.
94. Moser, Caroline O. N., Alicia J. Herbert and Roza E. Makonnen, *Urban Poverty in the Context of Structural Adjustment; Recent Evidence and Policy Responses,* TWU Discussion Paper DP #4, the Urban Development Division, World Bank, Washington DC, May 1993.
95. Amis 1995, op. *cit.*
96. Moser, Herbert and Makonnen 1993, *op. cit.* 78. This in turn drew from World Bank 1991, op. *cit.*

97. The Zimbabwe Congress of Trade Unions puts the figure at 60,000; see Kanji, Nazneen, `Gender, poverty and structural adjustment in Harare, Zimbabwe', *Environment and Urbanization, vol.* 7, no. 1, April 1995, 37-55.
98. Kanji 1995, *op. cit.* This paper also points to the droughts of 1990-1 and 1991-2 as also have a negative impact on macro-economic growth
99. Moser, Herbert and Makonnen 1993, *op. cit.*
100. See for instance: Hartmut, Schneider, in collaboration with Winifred Weekes-Vagliani, Paolo Groppo, Sylvie Lambert, Akiko Suwa, Nghia Nguyen Tinh, *Adjustment and Equity in Côte d'Ivoire,* OECD, Paris, 1992; and Grootaert and Kanbur 1990, and Moser, Herbert and Makonnen 1993, *op. cit.*
101. This point is made by Escobar Latapí and González de la Rocha 1995, *op. cit.* for Latin America but is also valid for other regions.
102. Moser, Herbert and Makonnen 1993, *op. cit.* drawing on World Bank, *Targeted Programs for the Poor During Structural Adjustment 1988: a Summary of a Symposium on Poverty and Adjustment,* World Bank, Washington DC, 1988.
103. Moser, Herbert and Makonnen 1993, *op. cit.*
104. Minujin, Alberto, `En la rodada', in A. Minujin, E. Bustelo, M. del Carmen Feijoo, S. Feldman, A. Gershanik, H. Gonzales, J. Halperin, J.L. Karol, M. Murmis and E. Tenti Fanfini, *Cuesta Abajo; Los Nuevos Pobres—Efectos de la Crisis en la Sociedad Argentina,* UNICEF, Buenos Aires, 1992.
105. Minujin 1995, *op. cit.*
106. Moser, Herbert and Makonnen 1993, *op. cit.* 13.
107. González de la Rocha, Mercedes, `Economic crisis, domestic reorganization and women's work in Guadalajara, Mexico', *Bulletin of Latin American Research, vol.* 7, no. 2, 1988, 207-23; and González de la Rocha, Mercedes, `Family well-being, food consumption, and survival strategies during Mexico's economic crisis', in González de la Rocha, Mercedes and Agustín Escobar Latapí (eds.), *Social Responses to Mexico's Economic Crisis of the 1980s,* Center for US-Mexican Studies, University of California at San Diego, La Jolla, 1991.
108. Chant, Sylvia, *Women and Survival in Mexican Cities: Perspectives on Gender, Labour Markets and Low Income Households,* Manchester University Press, Manchester, 1991; and Selby, Henry, Arthur Murphy and Stephen Lorenzen, The Mexican Urban *Household; Organizing for Self-Defense,* University of Texas Press, Austin, 1990.
109. CEPAL, Serie A. no. 247,1992, Table 4 in Escobar Latapí and González de la Rocha 1995, *op. cit.*
110. See for instance González de la Rocha, Mercedes and Agustín Escobar Latapí (1986), `Crisis y adaptación: hogares de Guadalajara', paper presented at III *Encuentro de Investigatión Demográfica,* SOMEDE, Mexico City, November; and González de la Rocha, Mercedes (1988), `Economic crisis, domestic reor ganization and women's work in Guadalajara, Mexico', *Bulletin of Latin American Research, vol.* 7, no. 2, 207-23. See Escobar Latapí and González de la Rocha 1995, op.*cit.* for a review of these and other studies.
111. Kanji 1995, *op. cit.*
112. *Ibid.* See also Brydon, L., `Draft summary of findings on process and effects of SAPS in Ghana', mimeo for the ESRC, 1993, and Vandemoortele J., `Labour market informalisation in sub-Saharan Africa', in G. Standing, and V Tokman (eds.) *Towards Social Adjustment: Labour* Market *Issues in Structural Adjustment,* ILO, Geneva, 1991, 81-114.
113. Kanji 1995, *op. cit.;* see also Tibaijuka, A. K, `The impact of structural adjustment programmes on women: the case of Tanzania's economic recovery programme', report prepared for the Canadian International Development Agency (CIDA), Dar-es-Salaam, Tanzania, 1988.
114. See Rakodi 1994, *op.cit.*
115. Harriss 1989, *op.cit.*
116. *Ibid.*
117. Hibbert, Christopher, *London: A Biography* of a *City,* Penguin Books, London, 1980.
118. For overview see Rakodi, Carole, `Poverty lines or household strategies? A review of conceptual issues in the study of urban poverty', *Habitat International,* vol. 19, no. 4, 1995, 407-26.
119. See for instance Burt, Martha R., *Over the Edge; the Growth of Homelessness in the 1980s,* The Urban Institute Press, Washington DC, 1992.
120. See for instance Veenhoven, Rout, *Did the Crisis Really Hurt?* Rotterdam University Press, 1989.
121. Hutton, *Will, The State We're In,* Jonathan Cape, London, 1995.
122. Clichevsy, Nora and others, *Construccion y Administracion de la Ciudad Latinoamericana,* Grupo Editor Latinoamericano, Buenos Aires, 1990, drawing on PREALC data.
123. CEPAL, *Estudio económico de América Latina y el Caribe, 1986,* CEPAL, Santiago, 1986 and Clichevsky and others 1990, *op. cit.*
124. Burt 1992, *op. cit.*
125. Escobar Latapí and González de la Rocha 1995, *op. cit.*
126. Standing, G. `Structural adjustment and labour market policies: towards social adjustment?' in G. Standing and V Tokman (eds.), *Towards Social Adjustment: Labour Market Issues in Structural Adjustment,* ILO, Geneva, 1991, 5-52.
127. See Section 3.3
128. Chambers 1989 *op. cit.* pointed to this distinction; Pryer 1989 illustrated it through a case study-see Pryer, Jane, `When breadwinners fall ill: preliminary findings from a case study in Bangladesh', in *Vulnerability: How the Poor Cope,* IDS Bulletin, vol. 20, no. 2, April 1989,49-57.
129. Mitullah, Winnie, `Hawking as a survival strategy for the urban poor in Nairobi: the case of women', *Environment and Urbanization,* vol. 3, no. 2, Oct. 1991,13-22.
130. See for instance the detailed description of this in Pryer, Jane, `The impact of adult ill-health on household income and nutrition in Khulna, Bangladesh', *Environment and Urbanization,* vol. 5, no. 2, Oct. 1993, 35-49.
131. Beall, Jo, *The Gender Dimensions of Urbanisation and Urban Poverty,* Paper prepared for the seminar on Women in Urban Areas, Division for the Advancement of Women, United Nations Office at Vienna, 8-12 Nov., Vienna, 1993.
132. See for instance Moser, Caroline O. N., `Mobilization is women's work: struggles for infrastructure in Guayaquil, Ecuador', in Caroline O. N. Moser and Linda Peake (eds.), *Women, Housing and Human Settlements,* Tavistock Publications, London and New York, 1987, 166-94.
133. Moser, Caroline O. N., *Gender Planning and Development; Theory, Practice and Training,* Routledge, London and New York, 1993.
134. Moser, Caroline O. N., `Women, human settlements and housing: a conceptual framework for analysis and policy-making', in Caroline O. N. Moser and Linda Peake (eds.), *Women, Housing and Human Settlements,* Tavistock Publications, London and New York, 1987,12-32.
135. Levy, Caren, `Gender and the environment: the challenge of cross-cutting issues in development policy and planning', *Environment and Urbanization,* vol. 4, no 1, April 1992,120-35.
136. Moser, Herbert and Makonnen 1993, *op. cit.*
137. Oruwari, Yomi, `The changing role of women in families and their housing needs: a case study of Port Harcourt, Nigeria', *Environment and Urbanization,* vol. 3, no. 2, Oct. 1991, 6-12.
138. Moser 1993, *op. cit.*
139. Moser 1987, *op.cit.*
140. See for instance Pryer 1993 op. cit.and Huysman, Marijk, `Waste picking as a survival strategy for women in Indian cities', *Environment and Urbanization,* vol. 6, no. 2, Oct. 1994,155-74.
141. Brydon, Lynne and Sylvia Chant, *Women in the Third World. Gender Issues in Rural and Urban Areas,* Edward Elgar, Aldershot, 1989.
142. Schlyter, Ann, *Women Householders and Housing Strategies: the case of George, Lusaka,* Social and Behavioural Sciences Series No. 14, National Swedish Institute for Building Research, Stockholm, 1988; and Schlyter, Ann, *Women Householders and Housing*

Strategies. The Case of Harare, Zimbabwe, The National Swedish Institute for Building Research, Stockholm, 1990.

143. See for instance Jodha, N. S., `Poverty debate in India: a minority view', *Economic and Political Weekly*, Special Number, Nov. 1988, 2421-8.
144. *Ibid.*
145. Chambers 1994, *op. cit.*
146. This draws on a background paper by Franz Vanderschueren on `From violence to justice and security', UNCHS, Nairobi, 1995. This will be published in *Environment and Urbanization, vol. 8.*, no. 1, April 1996.
147. United Nations International Crime and Justice Research Institute (UNICRI), *Criminal Victimisation of the Developing World*, Rome, 1995.
148. Bourbeau, Robert, `Analyse comparative de la mortalité violente dans les pays développés et dans quelques pays en développement durant la période 1985-89', *World Health Statistics Quarterly*, vol. 46, no. 1, 1993, 4-33.
149. *Urban Age, vol. 1*, no. 4, Summer 1993, 17.
150. Gilbert, Alan, *The Latin American City*, Latin American Bureau, London, 1994.
151. Zaluar, Alba, `La drogua, el crimen, el diablo' and Sader, Emir, `La violencia urbana en Brasil; El caso de Rio de Janeiro', in Concha, Albert, Fernando Carrion and German Cobo (eds.), *Ciudad y violencias en America Latina*, UMP Serie Gestión Urbana, Quito, 1995.
152. Carvalho de Noronha, José, `Drug markets and urban violence in Rio de Janeiro: a call for action', *Urban Age*, vol. 1, no. 4, Summer 1993, 9.
153. Caldeira, Teresa, `Building up walls: the new pattern of spatial segregation in Sao Paulo', *International Social Science Journal*, no. 147, March 1996.
154. Guerrero, Rodrigo, `Cali's innovative approach to urban violence', *Urban Age*, vol. 1, no. 4, Summer 1993, 12-13.
155. Pinheiro, Paulo Sérgio, `Reflections on urban violence', *Urban Age, vol. 1*, no. 4, Summer 1993, 3.
156. Los Angeles was reported in the *Urban Age*, vol. 1, no. 4, Summer 1993 to have had 2,062 homicides in 1991. See also Weiss, Billie, `Violence prevention coalition', *World Health*, 46th Year, no. l, Jan.-Feb. 1993, 30-1.
157. See the tables in Bourbeau 1993, *op. cit.*
158. State of California Department of Health Services, `Data summary: homicide among young males, by race/ethnicity', Dec. 1990, quoted in Cohen, Larry and Susan Swift, `A public health approach to the violence epidemic in the United States', *Environment and Urbanization*, vol. 5, no. 2, Oct. 1993, 50-66.
159. Caldeira 1996, *op. cit.*
160. Rai, Usha, `Escalating violence against adolescent girls in India', *Urban Age*, vol. 1, no. 4, Summer 1993, 10-11.
161. `The Hidden problem' quoting Denise Stewart, `The global injustice', *Viz-a-Viz*, Canadian Council on Social Development, 1989 in Davies, Miranda, (ed.), *Women and Violence: Realities and Responses Worldwide*, Zed Books, London and New Jersey, 1995.
162. `Weapon carrying among high school students', *Morbidity and Mortality Weekly Report, vol.* 40, no. 40, 1991, 681-4, quoted in Jeanneret, Olivier and E.A. Sand, `Intentional violence among adolescents and young adults: an epidemiological perspective', *World Health Statistics Quarterly*, vol. 46, no. 1, 1993, 34-51.
163. National Crime Survey cited in Jeanneret and Sand 1993, *op. cit.*
164. International Centre for the Prevention of Crime (ICPC), `Urban policies and crime prevention', paper presented to the IX UN Congress for the Prevention of Crime, Montreal, 1995.
165. Caldeira 1996, op. *cit.*
166. *Ibid.*
167. International Centre for the Prevention of Crime (ICPC), Workshop on urban violence, 9th UN Congress on Crime Prevention, Cairo, Feb. 1995.
168. See Heise, Lori, `Violence against women: the hidden health burden', *World Health Statistics Quarterly*, vol. 46, no. 1, 1993, 78-85 for a summary of the findings from many different studies.
169. Cohen and Swift 1993, op. *cit.*
170. `The Hidden problem', *op. cit.*
171. US Senate Judiciary Committee, 'Violence against women: the increase of rape in America 1990', a majority staff report prepared for the use of the Committee on the Judiciary, United States Senate, 1990.
172. Heise 1993, *op. cit.*
173. Pinheiro 1993, op. cit.
174. For more details, see Vandeschueren 1996, Guerrero 1993 and Cohen and Swift 1993, *op. cit.* See also Banaynal-Fernandez, Tessie, `Fighting violence against women: the Cebu Experience', *Environment and Urbanization, vol.* 6, no. 2, Oct. 1994, 31-56 for details of a programme in Cebu that is addressing the problem of violence against women, including sexual abuse and domestic violence.
175. Montreal meeting of Mayors.
176. Cohen and Swift 1993, *op. cit.*
177. *Ibid.*
178. Newman, Oscar, *Defensible Space: Crime Prevention through Urban Design*, MacMillan, New York, 1972; Coleman, Alice, *Utopia on Trial: Vision and Reality in Planned Housing*, Revised Edition, Hilary Shipman Ltd, London, 1990.
179. Cohen and Swift 1993, op. *cit.*

4 Environmental Conditions and Trends

4.1 Introduction

The environmental problems of the world's cities, towns and rural settlements are creeping up the political agenda of most governments and many international agencies. This is especially so for the major cities, where environmental problems are generally most visible. This has been helped by the Earth Summit (the United Nations Conference on Environment and Development) in 1992 whose recommendations point to the need for a renewed effort to address such problems. In many countries in Eastern Europe and the South, it has also been spurred by the return to democracy which often revealed a large legacy of environmental degradation that had been hidden under non-democratic regimes. Democracy also permitted environmental groups and citizen groups more space to demand a higher priority to environmental problems. The International Drinking Water Supply and Sanitation Decade and the international agencies involved in it helped promote a greater interest in improving water supply and sanitation and greatly increased the knowledge about the best ways and means of achieving this, even if, as Chapter 8 reports, ambitious targets for improved provision were not fully met. A greater attention to environmental problems in the South has also been encouraged by the increasingly detailed documentation of environmental problems and their impacts on the health and livelihoods of people and on the eco-systems within which settlements are located. This documentation has come from diverse sources-including the international agencies,[1] international research institutions[2] and national and local environmental groups in the South.[3]

The economic costs of poor environment

An increasing priority to environmental problems in settlements has also been spurred by unexpected recurrent disease epidemics-for instance, the return to Latin America in 1991 of cholera, when it had been assumed that this health threat had been eliminated from the region in the early twentieth century through improvements in water, sanitation, sewage treatment and food safety.[4] The scare regarding an apparent outbreak of plague in the Indian city of Surat in 1994 also heightened fears of what a lack of attention to water supply, sanitation, drainage and regular collection of solid wastes can cause. Although less dramatic diseases such as tuberculosis and diarrhoea continues to have a much more serious health impact, these sudden epidemics gained far more coverage from the media. These epidemics also made governments aware of the large sums of money they could lose, as the epidemics (or perhaps the sensational reporting about them) deterred tourists and private investments. The cholera epidemic in Peru not only caused over 320,000 cases and 2,600 deaths but an estimated $1 billion in losses from reduced agricultural and fisheries exports and tourism, less than the capital needed to radically improve water and sanitation in Peru's settlements.[5] The cost to India as a result of the `plague scare' in terms of lost tourism revenues and the deterrence to foreign investment will also be very considerable and may outweigh the costs of greatly improving water and sanitation in cities like Surat. It is not even as if Surat is a particularly poor city; indeed, it has had a prosperous economy since the late 1960' and is regarded as a showcase of its State's economic upsurge-and it should have easily generated the capital needed to eliminate the conditions that permit large scale epidemics of infectious diseases.[6]

The most telling evidence of the inadequacy of response by governments and international agencies remains the scale of disease, injury and premature death that good environmental management and a basic health care system should eliminate. The scale of this easily preventable health burden is described in Section 4.2; it is certainly one of the most dramatic examples of inequality between the North and the South (for country level statistics) and between high income and low income groups (within countries). For instance, in 1990, the health burden per person from new cases of infectious and parasitic diseases caught in 1990 in sub-Saharan Africa was 50 times that in the North.[7]

However, it is difficult to assess environmental conditions and trends in the world's settlements when the term `environment' encompasses so much, and means different things to different people. In addition, the scale and nature of environmental hazards in relation to human health and to the continued functioning and integrity of ecosystems varies enormously from country to country. There is also tremendous variation within nations as to the scale and nature of envi-

ronmental hazards facing people depending on (for instance) occupation, income, sex, gender, age and, in some instances, race. This brief review of environmental conditions and trends in the worlds' cities, towns and villages concentrates on three aspects. The first is outlining the link between environment and health within settlements. The second is a summary of the health burden that arises from poor housing and living conditions. The third is summarizing the main environmental problems and their underlying causes at different geographic scales: the indoor environment, the workplace, the village or neighbourhood, the city, the region and the globe.

More attention is given to the environmental `hazards that are responsible for or contribute most to ill health, injury and premature death worldwide. This limits coverage of many environmental hazards that are a major concern in wealthier nations but which, globally, are not among the main causes of death, disease or injury. In addition, because the focus is on settlements, little attention is given to environmental hazards that arise primarily from lifestyles and personal choices-for instance the enormous health impacts of tobacco smoking both for those who smoke and for those exposed to their smoke.

Urban management and health

The built environment within villages and urban areas of all sizes should be a safe environment-places where environmental hazards are minimized and where environmental factors do not figure as major causes of serious injuries or illnesses or premature death. The costs of achieving this are not very high and the social returns as well as the economic benefits are also very high.[8] However, to achieve this requires competent environmental management.

In all settlements, the health of the inhabitants has always depended on their ability to manage their environment. This can either be done cooperatively or through the delegation of this management to some city or village `authority'. Some of the earliest co-operative `management' schemes were to protect settlement's communal water sources and to control surface water-either for irrigation or for flood control. As the size of a settlement grows and as its economic base expands and demands increase on local resources, so does the need for a system to manage three environmental tasks:

- the safeguarding of basic resources-for instance to ensure that all inhabitants receive freshwater while the sources from which the freshwater is drawn is protected;
- to ensure wastes are removed; and
- to prevent any individual or enterprise dumping their environmental costs on others.

Officially, government agencies and local authorities have the main responsibilities for these three tasks. In practice, their failure or inability to do so in many settlements in the South have led to serious environmental health problems.

Although any person's state of health is the result of interactions between their human biology (including their genetic inheritance), lifestyle, the health-care system and the environment,[9] historically, the environment has always had a major role. In urban and rural settlements, environmental hazards, especially biological pathogens in the air, water, soil or food-have always been among the main causes of disease and death. A considerable part of the history of cities is the technical and managerial innovations that were developed in cities to address these three environmental tasks. There are many historical examples of ingenious ways through which cities solved their problems of freshwater supply and the removal and disposal of industrial, commercial and household wastes, although these were the exceptions and were implemented without any detailed knowledge of the processes by which diseases were transmitted.

What is unprecedented is the extent to which, over the last hundred years, the knowledge and resources have become available to make the environments of cities far less hazardous for their inhabitants. This has reached the point where, in a healthy city, environmental factors would have a relatively minor role in ill health and premature death. This can be seen in the decline in infant mortality rates. Today, infant mortality rates in healthy, well-served cities should be less than 10 per 1,000 live births and may be as low as 5. In a healthy city, it is very rare for an infant or child to die from an infectious or parasitic disease. Only 100 years ago, most prosperous European cities still had infant mortality rates that exceeded 100 per 1,000 live births; in Vienna, Berlin, Leipzig, Naples, St Petersburg and many of the large industrial towns in England, the figure exceeded 200 and in Moscow, it exceeded 300[10]-and infectious diseases were the main cause of such high infant mortality rates.[11]

In almost all cities, towns and villages in West Europe, North America, Australia and Japan, it is now very unusual for someone to die of acute respiratory infections, diarrhoeal diseases, tuberculosis, typhoid, typhus and yellow fever-yet all were major causes of death until relatively recently. The same is also true for measles, diphtheria and the other 'vaccine-preventable' childhood diseases that were major causes of infant and child death only a few decades ago in Europe and North America. What is also probably unprecedented over the last 100 years is the extent to which low-income groups have benefited in cities where this knowledge and capacity

BOX 4.1

Lessons from recent history on environmental health

Only in the second half of the nineteenth century did systematic action begin to be taken in the rapidly growing cities of North America and Europe to improve environmental health. Cities of unprecedented size were developing[a] where all the environmental hazards of rapid industrial growth and very poor housing and living conditions were added to more traditional concerns of freshwater supplies and the removal of household and commercial wastes. Then, as is often common now, city populations were doubling or tripling within two or three decades with very limited change in the form of government and thus in any capacity to manage the three environmental tasks. Manchester's population grew more than sixfold in less than sixty years (between 1774 and 1831) and 'many of its problems had been due to the fact that it had had to cope with mass immigration and dramatically rapid expansion, equipped with little more than the administrative powers of a village'. [14] New York City's population expanded more than ninefold between 1800 and 1850, also with few changes to its structure of government that still remained weak and very dependent on a (generally) hostile state government for funds.[15] The high population growth rates achieved in such cities were all the more dramatic, as health conditions were so poor that death rates often exceeded birth rates. Most or all city population growth was the result of net in-migration.[b]

During the late eighteenth and first half of the nineteenth centuries, the population of many cities in the nations undergoing the industrial revolution grew very rapidly. Densities were very high; in the absence of cheap mass transport, most people had to live within working distance of work. In the absence of effective governance to ensure safe and sufficient water supplies, the removal of waste and the control of industrial pollution and occupational hazards, health conditions for the majority were so poor than life expectancy in many cities was well below that of smaller towns or rural areas. [16] Average life expectancies in the industrial centres were often below 30-and below 18 years for the lowest income groups. [17]

The early development of what might be termed modern urban government and town planning has its roots in public health concerns that promoted much improved water supplies and public action to ensure the hygienic removal of excreta and other household wastes and commercial and industrial wastes. Such action was much stimulated by a series of cholera epidemics that swept through Europe and North America during the nineteenth century, often causing thousands to die in a single epidemic in one city. Although other diseases transmitted by contaminated water-for instance typhoid, typhus and diarrhoeal diseases-and certain air-borne diseases such as acute respiratory infections and tuberculosis probably had a more serious health impact, cholera's impact was all the greater as it was concentrated in sudden, large epidemics. In addition, the epidemics helped overcome the reluctance of city businesses and households to contribute towards the cost of improved water and sanitation since the epidemics threatened their health and also, increasingly, their business as wealthier groups fled from cities, as cholera epidemics approached.[18]

Notes: [a] Some of the capitals of large nations or empires had grown to more than a million before the industrial revolution -when few of the major industrial towns grew to this size during the 19th century-but what made the industrial centres unusual was the rapidity of their growth, their growing numbers and their concentration of industry and very poor housing and working conditions that much exacerbated the more traditional environmental problems.

[b] Cities in the South are often thought to have had unprecedented rates of in-migration but it may be that the main industrial centres in Europe and North America experienced a more rapid in-migration in the 19th century in terms of the number of in-migrants per year relative to total population as natural increase contributed little or nothing-or wbs even natural decrease.

has been applied. While low-income groups invariably have worse health and lower life expectancies than richer groups, as described in Chapter 3, the scale of these disparities have been greatly reduced in cities where environmental hazards have been much reduced. Ensuring that lower-income groups can obtain reasonable quality housing and are adequately served by water supplies, provision for sanitation and drainage and health care remain among the most effective means of reducing the disparities in health status between higher- and lower-income groups.

The speed of this transformation in the health of human populations and the means to protect against diseases that formerly thrived, especially in crowded cities, has been under-appreciated-as has the contemporary relevance of the means by which it occurred (see Box 4.1). However, this transformation has yet to take place for a large proportion of the world's urban centres and villages. In addition, in many cities the transformation has occurred, but only for a proportion of the population; in many Latin American and Asian cities, middle- and upper-income groups are as well protected against the diseases noted above as those in Europe and North America while up to half the population with low incomes lack such protection. An estimate in 1990 suggested that 600 million urban dwellers in the South lived in shelters and neighbourhoods in which their life and health was continually threatened because of the inadequacies in provision for safe, sufficient water supplies, sanitation, removal of solid and liquid wastes and health care and emergency services.[12] Probably twice this number living in rural settlements face comparable risks.[13]

Perhaps the most important contemporary lesson from this historic experience is the extent to which these changes were driven by increasingly well-articulated and organized demands from those who suffered most from the lack of water supply, sanitation and health care. The importance of increasingly more competent and accountable urban governments should also be stressed.

4.2 The health burden of poor housing

Any study of the health burden of poor housing has to consider the health burden arising not only within the home but also in the area around the home. It is difficult to separate out the health effects of poor quality housing from other important influences-especially the quality of health care and emergency services, the income level (which below a certain point has a crucial influ-

ence on nutritional levels) and the level of education. An individual's level of education is important not only because it affects their income-earning capacity but also because it improves knowledge about how to promote health, prevent disease and rapidly treat illness or injury and encourages greater use of health services. Infant and child mortality rates tend to be lower, the better educated the mother.[19] Within the house, there are also so many different factors that influence health that it is difficult to generalize about what promotes good health there. Box 4.2 gives more details of the nine features of the housing environment that the World Health Organization has singled out as having important direct or indirect effects on the health of their occupants.

A few studies have sought a more detailed understanding of the health costs faced by people living in very poor-quality housing. One such study in a low-income, poor quality settlement in Khulna, Bangladesh's second largest city, documented the loss of income and nutritional problems in households where the main income earner was too sick to work.[20] In the case study settlement, the lower-income households not only lost more work days to illness or injury and more income than richer households but also a much higher proportion of their income. Most such households were heavily in debt. Many of their incapacitated income-earners had chronic illnesses that imply a continuous limitation on their capacity to work. Households with severely incapacitated earners were also much more likely to have severely undernourished children. In addition, among the households with severely undernourished children and incapacitated income-earners, most family members were undernourished. If the economic and nutritional consequences of sickness among poorer households in this settlement in Khulna are not untypical to those experienced by those living in illegal settlements in other urban centres in the South, the health burden associated with very poor housing conditions is greatly underestimated.

Most of the health costs for the lowest income group households in the settlement in Khulna could have been prevented or much reduced at low cost. A recent analysis of the global disease burden for each of the world's regions shows that much remains to be done.[21] Around half of the world's population still suffers from diseases or injuries that are easily prevented or cured. There are two underlying causes. The first is the low priority given by most governments and aid agencies to the measures that are most cost effective in preventing injury or disease or in limiting their health impact. This includes a failure to give priority to water and sanitation provision that is appropriate to the needs and purchasing powers of low-income groups. The second underlying cause is the considerable proportion of the world's population who lack the income (or assets) to afford a good quality house within a neighbourhood where basic services are provided.

In 1993, the World Health Organization and the World Bank produced the first detailed estimates of the `global disease burden' and its main causes. These allow some estimation of the health costs associated with poor quality housing and living conditions and a lack of basic services. They also reveal the scale and nature of differences in health burdens between the poorer and richer regions of the world. When this is supplemented with health data from particular countries, or from particular regions within countries, it also shows the enormous differences in health burdens between countries with similar per capita incomes. This highlights how the distribution of income within a society and the extent and com-

BOX 4.2

Features of the housing environment that have important direct or indirect effects on the health of the occupants

- The structure of the shelter (which includes a consideration of the extent to which the shelter protects the occupants from extremes of heat or cold, insulation against noise and invasion by dust, rain, insects and rodents).
- The extent to which the provision for water supplies is adequate-both from a qualitative and a quantitative point of view.
- The effectiveness of provision for the disposal (and subsequent management) of excreta and liquid and solid wastes.
- The quality of the housing site, including the extent to which it is structurally safe for housing and provision is made to protect it from contamination (of which provision for drainage is among the most important aspects).
- The consequence of over-crowding-including household accidents and airborne infections whose transmission is increased: acute respiratory infectious diseases; pneumonia, tuberculosis.
- The presence of indoor air pollution associated with fuels used for cooking and/or heating.
- Food safety standards-including the extent to which the shelter has adequate provision for storing food to protect it against spoilage and contamination.
- Vectors and hosts of disease associated with the domestic and peri-domestic environment.
- The home as a workplace-where occupational health questions such as the use and storage of toxic or hazardous chemicals and health and safety aspects of equipment used need consideration.

Source: World Health Organization, Shelter and Health, WHO/EHE/RUN/87.1, Geneva, 1987.

petence of measures to reduce the health burden for low-income groups has a major influence on the scale of any country's total disease burden.

Table 4.1 presents estimates for the number of life-days lost per person through disability or premature death as a result of new cases of diseases or injuries acquired in one year (1990). The data is presented for each of the world's regions. It allows inter-regional comparisons as to the scale of the total burden of disease and injury acquired in this one year and of the relative importance of different causes.[22]

The disease and injury burden for each person in sub-Saharan Africa was nearly five times that for each person in the wealthiest market economies-Western Europe, North America, Japan and Australasia.[23] The disease and injury burden per person for all other regions falls between these two extremes. The disease burden per person in China is notable for being so low, relative to the country's per capita income. It is lower than for Latin America and the Caribbean (where the average per capita income is higher than in China, even when adjusted for purchasing power parity) and almost as low as the countries in East and Central Europe.

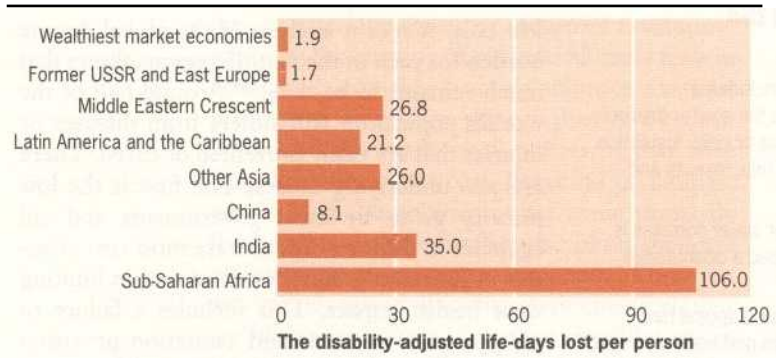


FIGURE 4.1 The disease burden per person from new cases of infectious and parasitic diseases acquired in one year (1990)

NB The figures for the disease burden in Figure 4.1 represent the average current and future disease burden per person in disability-adjusted life-days lost from new cases of infectious and parasitic diseases in one year (1990). Thus, they include the disability-adjusted life-days lost in later years that arose from an infectious or parasitic disease caught in 1990 but do not include the life-days lost in 1990 from diseases caught in years prior to, or subsequent to, 1990. For more details, see World Bank, World Development Report 1993; Investing in Health, Oxford University Press, 1993

Source: The original statistics on which this figure is based are drawn from tables B.2 and B.3 in the World Bank, World Development Report 1993; Investing in Health, Oxford University Press, 1993. Their conversion in disability-adjusted life-days and this figure is drawn from David Satterthwaite, Roger Hart, Caren Levy, Diana Mitlin, David Ross, Jac Smit and Carolyn Stephens, The Environment for Children, Earthscan Publications and UNICEF, London, 1996.

The differences in the health burden per person between regions are much larger for the infectious and parasitic diseases that are closely associated with poor quality housing and a lack of basic services. Most of the disease burdens arising from these can be considered as the health costs of this combination of low income and the incapacity or unwillingness of the government to install and maintain basic health care systems and to ensure widespread provision of water and sanitation and measures to keep down costs and increase supplies of good quality housing. Figure 4.1 shows the regional differences in life-days lost per person to new cases of infectious and parasitic diseases acquired in 1990.

For the wealthy market economies, on average, less than two life-days are lost per person to the new cases of infectious and parasitic diseases caught in 1990. In Sub-Saharan Africa, 106 life-days are lost, more than 50 times the disease burden per person. For the other regions, except for China, the disease burden per person is between 11 and 18 times that in the wealthy market economies (Japan and the countries in West Europe, North America and Australasia). Again, the performance of China is notable in that the disease burden per person from infectious and parasitic diseases was much less than for other regions in the South.

The health burden from communicable diseases (which include infectious and parasitic diseases, respiratory diseases and maternal and perinatal diseases) becomes very low when a very high proportion of the population lives in good quality housing and has ready access to good quality health care. For instance, the number of infant deaths due to communicable diseases is as low as 0.4 per 1000 live births in Western Europe;[24] it is several hundred times higher among those living in the rural and urban settlements with the poorest quality housing and health care in Africa, Asia and Latin America. Communicable diseases contribute more to infant mortality in other parts of Europe-for instance to 4.7 infant deaths per 1000 live births in Central and Eastern Europe and 9.2 in the former Soviet Union. This can be attributed at least in part to poorer sanitary conditions in human settlements (e.g. lack of piped water supply at home).[25]

Table 4.1 also shows how the differences between regions are much smaller for the health burden per person from new cases of non-communicable diseases-i.e. diseases that are not contagious and include heart diseases and cancers. However, this table does show that the health burden per person from this category of diseases is as high or higher per person in the lowest income continents as in the wealthiest regions. This demonstrates that these are not the 'diseases of affluence' as they are sometimes called, even if they may partly be associated with the lifestyles and hazards from urban and industrial development.

Among the infectious and parasitic diseases, worldwide, diarrhoeal diseases and the vaccine-preventable childhood infections cause the largest number of life-days lost. The differentials in life-days lost per person to diarrhoeal diseases between different regions of the world are also very large. For instance the disease burden per

TABLE 4.1 The number of life-days lost per person through disability or premature death by region and by cause, 1990

Cause	World	Sub-Saharan Africa	India	China	Other Asia and islands	Latin America & the Caribbean	Middle Eastern Crescent	Formerly socialist economies of Europe	Wealthy market economies
Proportion of									
-the world's population	100	9.7	16.1	21.5	13.0	8.4	9.6	6.6	15.2
-the world's disability adjusted life days	100	21.5	21.4	14.8	13.0	7.6	10.6	4.3	6.9
The number of life-days lost per person to different diseases or injuries									
Infectious and parasitic diseases	25.8	106.0	35.0	8.1	26.0	21.2	26.8	1.7	1.9
Tuberculosis	3.2	9.8	4.6	1.9	4.8	2.1	2.9	0.4	0.1
Human immunodeficiency virus (HIV)	2.1	13.1	1.7	0.0	0.7	3.6	0.2	0.2	0.7
Other sexually transmitted diseases	1.5	5.3	1.6	1.1	0.7	2.0	0.5	0.5	0.7
Diarrhoea	6.9	21.7	12.0	1.4	7.9	4.8	11.2	0.2	0.1
Vaccine-preventable childhood infections	4.7	20.1	8.4	0.6	4.3	1.3	6.2	0.0	0.0
(Measles)	2.4	11.5	4.0	0.1	2.2	0.3	2.8	0.0	0.0
(Tetanus)	1.1	4.1	2.2	0.2	1.1	0.2	1.8	0.0	0.0
Malaria	2.5	22.6	0.4	0.0	1.4	0.4	0.2	0.0	0.0
Tropical cluster	0.9	4.6	0.8	0.2	0.2	2.4	0.2	0.0	0.0
(Chagas' disease)	0.2	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0
(Schistosomiasis)	0.3	2.5	0.1	0.1	0.1	0.1	0.1	0.0	0.0
(Leishmaniasis)	0.1	0.3	0.5	0.0	0.1	0.0	0.1	0.0	0.0
Trachoma	0.2	0.6	0.1	0.2	0.5	0.1	0.4	0.0	0.0
Worm infections	1.2	0.6	0.9	2.0	3.1	2.0	0.4	0.0	0.0
(Ascaris)	0.7	0.3	0.5	1.2	1.7	1.1	0.4	0.0	0.0
(Trichuris)	0.4	0.2	0.2	0.7	1.3	0.7	0.0	0.0	0.0
Pneumonia and other respiratory infections	8.5	22.6	13.6	4.2	10.5	5.2	12.0	1.6	1.1
Maternal causes	2.1	5.7	3.4	0.8	2.3	1.5	3.1	0.5	0.3
Perinatal causes	6.9	14.9	11.5	3.4	7.0	7.7	11.4	1.5	0.9
Non communicable diseases	39.9	40.7	50.7	37.6	37.9	36.2	37.7	45.9	33.6
Cancer	5.5	3.2	5.1	6.0	4.2	4.4	3.5	9.1	8.2
Nutritional deficiencies	3.7	5.9	7.8	2.1	4.4	3.9	3.8	0.8	0.7
Cardiovascular	10.2	8.7	12.2	9.1	9.2	7.8	9.2	18.1	10.0
Injuries	11.3	19.6	11.5	10.8	10.7	12.7	13.6	10.2	5.1
Motor vehicle	2.2	2.7	1.4	1.5	2.2	4.9	3.5	2.3	1.5
Falls	1.4	2.1	2.1	1.4	1.5	0.8	1.0	0.9	0.7
Intentional	3.5	8.8	1.5	3.3	3.0	3.6	5.4	2.9	1.7
(homicide and violence)	1.3	1.9	0.5	1.1	1.8	2.8	1.1	1.4	0.8
(war)	1.0	5.7	0.1	0.0	0.2	0.5	3.6	0.0	0.0
TOTAL: The average per person of life-days lost through disability or premature death*	94	210	126	65	94	85	105	61	43

* This is the sum of infectious and parasitic diseases, pneumonia and other respiratory infections, maternal and perinatal causes, non-communicable diseases and injuries.

** Western Europe, North America, Japan, Australia and New Zealand.

NB The original tables on which this is based list 109 different causes of disease and injury. In this table, the diseases associated with poor housing and living conditions and inadequate health care have been highlighted, with less detail given for other disease categories. The units have also been converted from hundreds of thousands of 'disability-adjusted life-years'to'disability-adjusted life-days'.

person for new cases of diarrhoeal diseases caught in 1990 was around 200 times larger in Sub-Saharan Africa than in the wealthiest market economies. They are also particularly high in India and the Middle East-see Figure 4.2.

For diarrhoeal diseases, the links with the built environment are particularly strong as risk factors include overcrowding, poor sanitation, contaminated water and inadequate food hygiene.[26] A study of household environmental problems in Accra (Ghana) found that the environmental risk factors associated with a high prevalence of childhood diarrhoea were: overcrowded toilets (because each is shared by many households), fly infestation, interruptions to water supplies, questionable water-storage practices and children practising open defecation in the neighbourhood.[27] In the metropolitan areas of Southern Brazil, those without easy access to piped water were 4.8 times more likely to die from diarrhoea than those with water piped to their house. Those with water piped to their plot but not into their house were 1.5 times more likely to die from diarrhoea.[28] Many studies of poor urban districts have shown diarrhoeal diseases to be a major cause of premature death (especially among infants) and illness.[29] Where

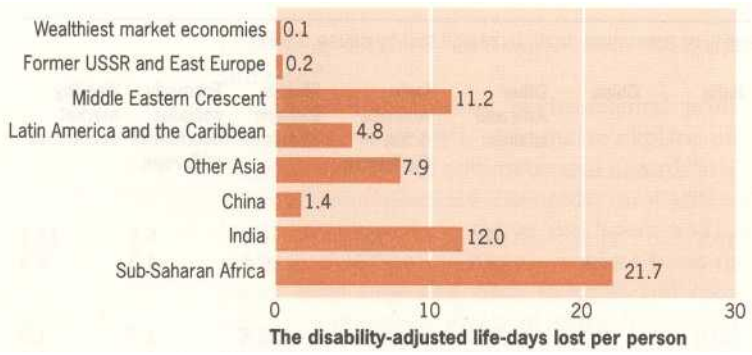


FIGURE 4.2
The disease burden per person from new cases of diarrhoeal diseases acquired in one year (1990)

NB The figures for the disease burden in Figure 4.2 represent the average current and future disease burden per person in disability-adjusted life-days lost from new cases of diarrhoeal diseases in one year (1990). Thus, they include the disability-adjusted life-days lost in later years that arose from a diarrhoeal disease caught in 1990 but do not include the life-days lost in 1990 from diseases caught in years prior to, or subsequent to, 1990. For more details, see World Bank, World Development Report 1993; Investing in Health, Oxford University Press, 1993

Source: The original statistics on which this figure is based are drawn from tables B.2 and B.3 in the World Bank, World Development Report 1993; Investing in Health, Oxford University Press, 1993. Their conversion in disability-adjusted life-days and this figure is drawn from Satterthwaite, David, Roger Hart, Caren Levy, Diana Mitlin, David Ross, Jac Smit and Carolyn Stephens, The Environment for Children, Earthscan Publications and UNICEF, London, 1996.

water supplies and provision for sanitation are inadequate for high proportions of the entire population, diarrhoeal diseases can remain one of the most serious health problems within city-wide averages.[30] More than 80 per cent of the life-days lost from diarrhoea were the result of infections in children under 5 years of age.[31] Safe and sufficient water supplies and adequate sanitation could reduce infant and child mortality by more than 50 per cent and prevent a quarter of all diarrhoeal episodes.[32] Reductions of between 40 and 50 per cent in morbidity from diarrhoeal diseases is possible through improved water and sanitation (see Box 4.3).

Box 4.3 also shows the dramatic reductions in morbidity from many other diseases that can be achieved through improvements in water supply and sanitation. It shows how improved water supply and sanitation would greatly reduce morbidity from schistosomiasis (with its very considerable disease burden in Africa shown in Table 4.1) and trachoma and ascaris (with less dramatic disease burdens but ones that are evident in all regions in the South). Box 4.3 also highlights the extent to which increased water availability helps to control skin infections and infections carried by body-lice.[33] Various historical studies show how improvements in water and sanitation were major influences on improved life expectancy in Europe and even show that the timing of such improvements varies, according to when major investments were made in water and sanitation.[34]

Some of the diseases shown in Table 4.1 are related to inadequate provision for site drainage, garbage collection and the removal of household and human wastes since open water and household and human wastes provide opportunities for many disease vectors to live, breed or feed within or around houses and settlements. The diseases they cause or carry include malaria (*Anopheles* mosquitoes who breed in still, open water) and diarrhoeal diseases (cockroaches, blowflies and houseflies who often breed and/or feed in garbage).

Note should be made of the scale of the disease burden for malaria, especially in sub-Saharan Africa where it is estimated to cause a tenth of all life-days lost to illness or injury. Figure 4.3 shows its geographic scope. Malaria strikes as many as 300 million people a year (with over 100 million clinical cases).[35] Malaria is often considered as a predominantly rural problem but there are now severe problems with malaria in urban areas in large parts of Africa, Asia and Latin America. In many cities or poor peripheral city districts, malaria is one of the main causes of illness and death.[36] A community-focused programme that combines prevention (for instance draining sites where *anopheles* mosquitoes breed), improved protection against bites (including screens for houses or nets, especially to protect infants and children) and rapid and easily available treatment would greatly reduce this health burden.

The vaccine-preventable childhood infections show up in Table 4.1 as causing a very high health burden in sub-Saharan Africa and a high health burden for most Asian nations and for the Middle East. This is linked primarily to a lack of health care services that can implement effective immunization programmes. Table 4.1 highlights the role of measles and of tetanus in this; neither of these diseases should figure in statistics of health burdens as both can be avoided through immunization. Yet measles remains a major cause of infant and child morbidity and mortality in rural and urban areas.[37]

Tuberculosis is another vaccine-preventable

BOX 4.3
The potential reductions in morbidity for different diseases, as a result of improvements in water and sanitation

Diseases	Projected reduction in morbidity (per cent)
Cholera, typhoid, leptospirosis, scabies, guinea worm infection	80-100
Trachoma, conjunctivitis, yaws, schistosomiasis	60-70
Tularaemia, paratyphoid, bacillary dysentery, amoebic dysentery, gastro-enteritis, lice-borne diseases, diarrhoeal diseases,ascariasis, skin infections	40-50

Source: WHO, Intersectoral Action for Health, Geneva, 1986.

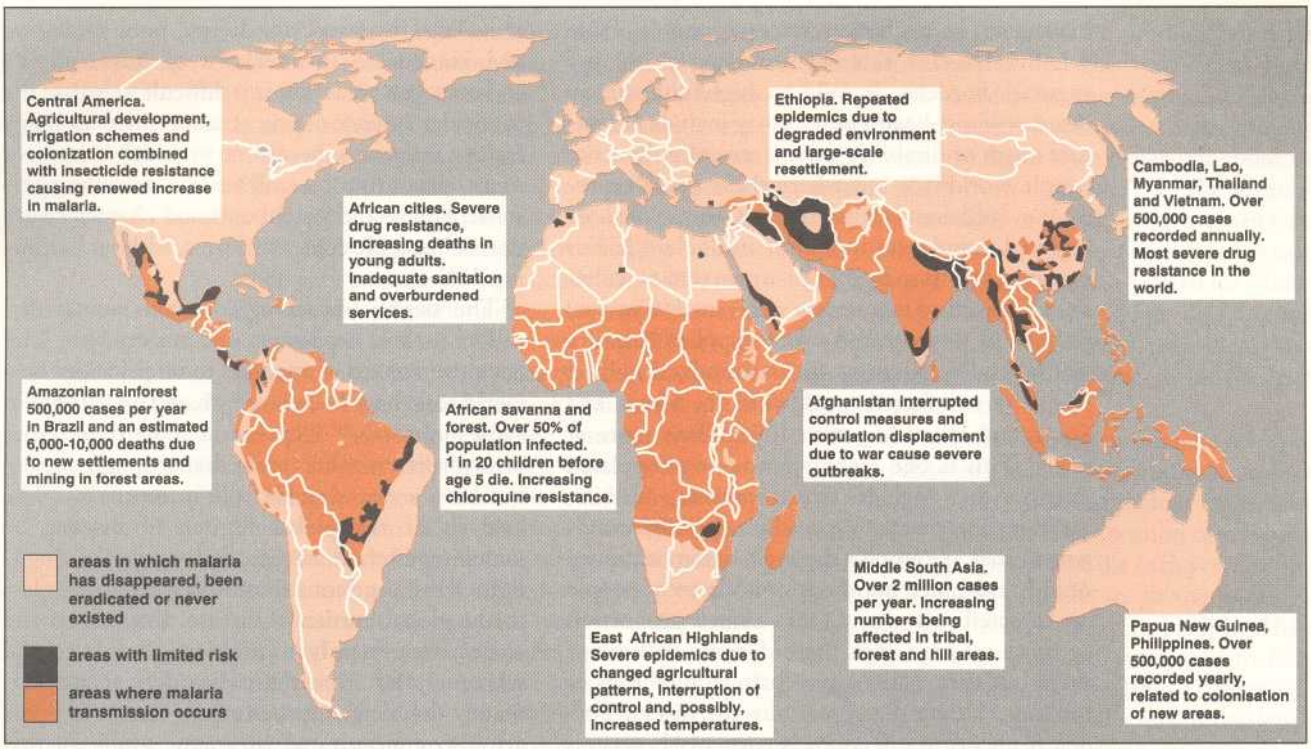


FIGURE 4.3
The distribution of malaria worldwide, highlighting problem areas

disease that has a high health burden, especially in sub-Saharan Africa, but also in India and other Asian nations and in the Middle East (see Figure 4.4). The impact of Tuberculosis is all the greater, since it is the single largest cause of adult mortality worldwide, accounting for some 3 million deaths a year.[38] As noted earlier, the incidence of tuberculosis is also linked to overcrowded conditions.

Acute respiratory infections (that include pneumonia, influenza and bronchitis) show up in Table 4.1 as having one of the largest disease burdens, especially in sub-Saharan Africa, the Middle East, India and the rest of Asia (although the health burden in China is relatively low per person). These, especially pneumonia, are among the main causes of infant and child death and ill health in rural and urban areas in these regions.

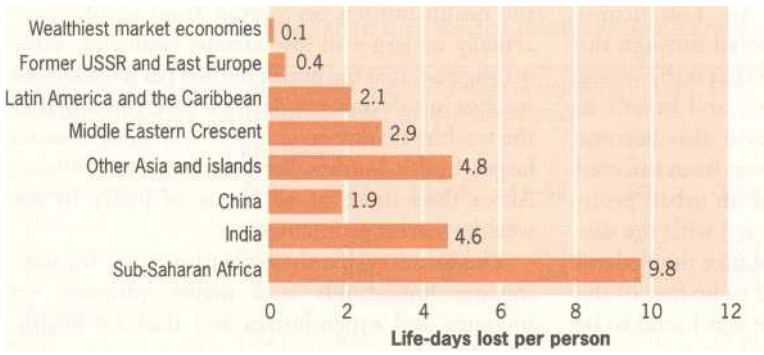


FIGURE 4.4
The disease burden per person for new cases of tuberculosis acquired in 1990

NB The figures for the disease burden in Figure 4.4 represent the average current and future disease burden per person in disability-adjusted life-days lost from new cases of Tuberculosis in one year (1990). Thus, they include the disability-adjusted life-days lost in later years that arose from an infectious or parasitic disease caught in 1990 but do not include the life-days lost in 1990 from diseases caught in years prior to, or subsequent to, 1990. For more details, see World Bank, World Development Report 1993; Investing in Health, Oxford University Press, 1993.

Source: The original statistics on which this figure is based are drawn from tables B.2 and B.3 in the World Bank, World Development Report 1993; Investing in Health, Oxford University Press, 1993. Their conversion in disability-adjusted life-days and this figure is drawn from Satterthwaite, David, Roger Hart, Caren Levy, Diana Mitlin, David Ross, Jac Smit and Carolyn Stephens, The Environment for Children, Earthscan Publications and UNICEF, London, 1996.

The full extent of acute respiratory infections, their health impact and the risk factors associated with them remain poorly understood.[39] However, household surveys in many cities in the South have begun to reveal their health impact. For instance, a survey of a representative cross section of households in Jakarta found that of the 658 households with children under 6 who were interviewed, 27 per cent of the children had suffered from respiratory disease in the two weeks prior to the interview.[40] A comparable survey in Accra (Ghana) found that 12 per cent of children under six had suffered from acute respiratory infection in the two weeks prior to the interview.[41] A survey of households in Porto Alegre (Brazil) found that one-fifth of all infant deaths were caused by pneumonia. Mortality rates from pneumonia were six times higher in illegal settlements than in other areas (and the main cause of infant death there).[42] The quality of the indoor environment has an important influence on the incidence and severity of respiratory infections. Risk factors for respiratory infections probably include over-crowding, inadequate ventilation, dampness and indoor air pollution from coal or biomass combustion for cooking and/or heating.

It would be a mistake to assume that all the most serious health problems associated with poor-quality housing and living conditions and

inadequate or no basic services appear in Table 4.1. Because this Table is measuring global and regional burdens, it fails to highlight certain diseases whose health impact may include premature death or disability among tens of millions of people worldwide but where these never represent a sufficient proportion of the global or regional population to appear in Table 4.1. For instance, infection by guinea-worm (dracunculiasis) as a result of ingesting a small snail (Cyclops) present in unprotected water supplies causes a painful and debilitating disease-and ten million people are infected worldwide in Africa and South and West Asia with 100 million more at risk.[43] This is one among various water-related diseases that include schistosomiasis, filariasis and intestinal worms (especially ascariasis/roundworm) that are among the most common causes of ill health since hundreds of millions of people are infected with them. Only a small proportion of those infected with these diseases will die of them but they cause severe pain to hundreds of millions.[44] Table 4.1 shows how the disease burden from worm infections is particularly serious in China and much of Asia and in Latin America.

One disease strongly associated with housing conditions that shows up in Table 4.1 is Chagas' disease (American trypanosomiasis).[45] This is a debilitating parasitic disease that is widespread only in Latin America; Table 4.1 suggests that it accounts for close to 3 per cent of the region's total disease burden. An estimated 18 million people suffer from it and some 100 million are at risk. There is no effective treatment for this disease, although the risk of infection can be much reduced by preventive action (for instance plastering walls and regular spraying with insecticide) at relatively low cost. Most of those who are infected with Chagas' disease are low-income rural dwellers who become infected through the bites of the blood-sucking insect that is the vector for this disease. The insect rests and breeds in cracks in house walls. Some have also become infected through blood transfusion from infected donors. However, it has become an urban problem too as people who are infected with the disease move to urban areas; for instance the Federal District in Brasilia is considered to be free of the insect vector yet Chagas' disease was found to be responsible for around one death in ten among people of between 2 5 and 64 years of age.[46]

Many psycho-social disorders are associated with poor-quality housing-for instance depression, suicide, drug and alcohol abuse, and violence including child and spouse mistreatment and abuse, delinquency, rape and teacher assault.[47] Many physical characteristics of the housing and living environment can influence the incidence and severity of psycho-social disorders through stressors such as noise, overcrowding, inappropriate design, poor sanitation and inadequate maintenance of infrastructure and common areas. But it is difficult to isolate the particular impact of any stressor since so many factors influence the extent to which a stressor causes or contributes to ill health-including personal, family and neighbourhood characteristics that help people cope with stress, without becoming ill.[48]

The health impact of common mental disorders such as depression and anxiety have long been overlooked as attempts to set priorities on a world scale have been largely based on data about causes of death.[49] Depression and anxiety cause little direct mortality (other than through suicide) but have a considerable role in morbidity. The analysis of the global burden of disease, by including both mortality and morbidity, highlighted the large contribution of mental disorders to the global burden of disease. Depression and anxiety are mainly a problem in adults and women suffer from these disorders at approximately double the rate of men. These disorders are also concentrated in young adults so that among the population of between 15 and 44 years of age, depressive disorders are the fifth largest contributor to disease burdens in young adult women and the seventh for young adult men.[50]

Other health burdens associated with low incomes, poor quality housing and inadequate health care

Injuries are among the most serious health burdens in most countries. As with non-communicable diseases, injuries may contribute a much smaller proportion to the total disease burden in poorer countries than in richer countries but the scale of the health burden per person from injuries may actually be larger in low-income countries. Table 4.1 suggests that the health burden per person from injuries in sub-Saharan Africa is four times that in the wealthy market economies. War alone causes a larger health burden per person in sub-Saharan Africa than those of all forms of injury in the wealthy market economies.

The location of a shelter within a city for low-income households is a major influence on incomes and expenditures and thus on health. The best locations minimize time and costs of travel-to and from work (for primary and secondary income-earners), to school, health facilities and other services needed by urban households. For instance a shelter located on the outer periphery of a city far from income-earning possibilities means increased costs in time and fares for income-earners and this can restrict expenditures on food or health care. However, one important reason why health improvements among low income groups are often very consid-

erable as their real incomes rise is that they choose to spend more on housing (either improving their existing shelter or moving to a better quality, better located shelter) and on health care.

There are also the health impacts of evictions. Chapter 7 will describe how several million people are forcibly evicted from their homes each year. The health impact of most such evictions is likely to be very considerable, especially on individuals, households and communities, most of whom had very low incomes prior to the evictions. The health impact arises not only because they lose their homes-in which they have often invested a considerable proportion of their income over the years. They usually lose their possessions, as no warning is given, before the bulldozers destroy their settlement. They also lose their friends and neighbours as they scatter to seek other accommodation, and so lose the often complex reciprocal relationships they had with many of them which provided a safety net to protect against the cost of ill health or income decline or losing a job and allowed many tasks to be shared.[51] They often lose one or more sources of livelihood as they are forced to move away from the area where they had jobs or sources of income. Where provision is made for resettling them, this is almost always a distant site where they are expected once again to build their homes but on land with little or no provision for infrastructure and services. They rarely receive any financial support for rebuilding. The land site on which they are relocated is also very often of poor quality.[52] Many evictions are also violent, with injuries and accidental deaths being part of the eviction process.

Gender and age differentials

In most regions, women have a higher disease burden than men for the infectious and parasitic diseases (although not in the sub-Saharan Africa and Latin America and the Caribbean) but a lower disease burden for non-communicable diseases and for injuries. Females lost fewer life-days from premature death than males but about the same as males from disability.[53] In the formerly socialist economies of East Europe, women's disease burden is 30 per cent less than that for men. In China and India, the health burden for women is higher than for men. In China, illegal female infanticide and in the recent past illegal sex-selective abortion are thought to be the main reason.[54]

The low priority given by most countries in the South to reducing maternal mortality would certainly be one of the most prominent examples of bias against women in the allocation of resources. Of the 500,000 women who die each year in childbirth, 99 per cent of them are in the South. Of every 100,000 women who give birth in Africa, from 200 to 1500 may die, compared to fewer than 10 among the world's wealthiest countries.

Table 4.2 illustrates how the health burdens of many diseases fall particularly on certain age groups. For instance more than 80 per cent of the health burden from diarrhoea is the result of infections in children under age 5 while the health burden of worm infections are concentrated among children of between 5 and 14 years of age. More than half the health burden from tuberculosis is borne by the 15-44 age group.[55]

TABLE 4.2 The burden of five major diseases by age of incidence and sex, 1990 (millions of life-years lost through disability and premature death)

	Age (years)					
Disease and sex	**0-4**	**5-14**	15-44	45-59	60+	Total
Diarrhoea						
Male	42.1	4.6	2.8	0.4	0.2	50.2
Female	40.7	4.8	2.8	0.4	0.3	48.9
Worm infection						
Male	0.2	10.6	1.6	0.5	0.1	13.1
Female	0.1	9.2	0.9	0.5	0.1	10.9
Tuberculosis						
Male	1.2	3.1	13.4	6.2	2.6	26.5
Female	1.3	3.8	10.9	2.8	1.2	20.0
Ischemic heart disease						
Male	0.1	0.1	3.6	8.1	13.1	25.0
Female	**	**	1.2	3.2	13.0	17.5

** Less than 0.05 million

Source: World Bank, World Development Report 1993; Investing in Health, Oxford University Press, 1993

4.3 The Indoor Environment[56]

Poor quality indoor environments bring high levels of environmental risk. Despite the many different forms that poor quality housing takes, from one room housing in rural areas to rooms rented in tenements or illegal settlements, beds rented in boarding houses and houses or shacks built on illegally occupied or subdivided land-almost all share three characteristics which contribute to poor environmental health: inadequate provision for water and sanitation; high levels of indoor air pollution; and overcrowding which increases the transmission of airborne infections and increases the risk of accidents. Each of these are considered below.

A lack of readily available drinking water, of sewage connections (or other systems to dispose of human wastes hygienically) and of basic measures to prevent disease can result in many debilitating and easily prevented diseases being endemic among poorer households-including diarrhoeal diseases, typhoid, many intestinal parasites and food poisoning.[57] Waterborne diseases account for more than 4 million infant and child deaths per year and hold back the physical and mental development of tens of millions more.

Most are caused by diarrhoeal diseases. Virtually all such deaths and much of the illness they cause would be stopped with adequate provision for water, sanitation and health care.[58]

There is also a large range of waterborne or waterwashed diseases that are only a serious cause of ill-health where provision for water and sanitation is inadequate. These include most intestinal worms, guinea worm (dracunculiasis) and filariasis, all of which cause severe pain to millions of people. They also include many infectious eye and skin diseases.

High levels of indoor air pollution arising from the use indoors of open fires or relatively inefficient stoves for cooking and/or heating probably represents the single most serious health impact from air pollution worldwide. The extent of exposure depends on many factors including provision for ventilation, how long is spent within the room with the fire or stove and even where in this room time is spent.[59] Box 4.4 gives more details of the health impacts that can arise.

The scale and nature of health problems associated with indoor air pollution are closely linked to household income as most households prefer cleaner, more healthy fuels, if they can afford them. The smoke, smell and dirt of the more polluting fuels are among the reasons why they are less preferred.[60] A study of cooking fuel use by households in Java in a large range of urban areas in 1988 found a general switch from wood (the dirtiest fuel) to kerosene to liquified petroleum gas (the cleanest fuel), the higher the household's income and the larger the urban Centre.[61]

There is a considerable range of indoor air pollutants other than those associated with fuel combustion that are causing concern. The documentation about these is concentrated in the North, where there are far fewer problems with indoor air pollution from coal or biomass fuel. Among the most serious are asbestos fibres from asbestos used as insulation, various organic solvents used in building materials, wood preservatives and cleaning agents and radon gas.[62] A recent report on Europe's environment noted that some 2 million people in the region were at risk from ionizing radiation from naturally occurring radon and its decay products; miners and residents of particular areas where radon is emitted naturally from the soil were most at risk.[63] Recent studies from Finland, Norway and Sweden suggest that as many as 10-20 per cent of all lung cancer cases in these countries can be attributed to residential radon exposure.[64]

As with indoor air pollution from open fires and stoves, people's exposure to such indoor air pollutants depends on many factors including ventilation rates, building materials, the time spent indoors and aspects of personal behaviour (for instance smoking or living with others who smoke). This makes it difficult to quantify the health impacts of indoor air pollutants, even if the risks are relatively well known.[65] Pollution from traffic may also have important effects on the quality of indoor air in urban areas.[66]

BOX 4.4

The health impacts of indoor pollution from coal or biomass fuels

The combustion of raw biomass products produces hundreds of chemical compounds including suspended particulate matter, carbon monoxide, oxides of nitrogen and sulphur, hydrocarbons, aldehydes, acenaphthelene, benzene, phenol, cresol, toluene and more complex hydrocarbon compounds including polyaromatic hydrocarbons. Although indoor concentrations vary considerably, it is very common for health guidelines to be exceeded by several orders of magnitude.

The most serious health risks are from burns and smoke inhalation-with the severity of such risks dependent on the length and level of exposure. The principal adverse effects on health are respiratory but in poorly ventilated dwellings, especially when biomass fuels such as charcoal (and coal) are used to heat rooms in which people sleep, carbon monoxide poisoning is a serious hazard.

Exposure to carcinogens in emissions from biomass fuel combustion has been confirmed in studies in which exposed subjects wore personal monitoring equipment and women who spend two to four hours a day at the stove and have high exposure levels of total suspended particulates and Benzo-a-pyrene. This must be presumed to cause some risk of respiratory cancer.

Chronic effects include inflammation of the respiratory tract caused by continued exposure to irritant gases and fumes, which reduces resistance to acute respiratory infections; and infection in turn enhances susceptibility to inflammatory effects of smoke and fumes, establishing a vicious circle of pathological changes. These processes may lead to emphysema and chronic obstructive pulmonary disease which can progress to the stage where impaired lung function reduces the circulation of blood through the lungs, causing right-side heart failure (cor pulmonarye). Cor pulmonarye is a crippling killing disease, characterized by a prolonged period of distressing breathlessness preceding death.

Those people within the household who take responsibility for tending the fires and doing the cooking (generally women and girls) inhale larger concentrations of pollutants over longer periods of time. Infants and children may be heavily exposed because they remain with their mothers-for instance strapped to their backs, while fires are tended and cooking done. The added exposure to pollutants combined with malnutrition may retard growth, lead to smaller lungs and greater prevalence of chronic bronchitis. When infants and children are exposed to these irritant fumes and develop respiratory tract inflammation, their reduced resistance can lead to repeated episodes of acute respiratory infections, paving the way for early onset of chronic obstructive lung disease.

Another cluster of effects arises when the cook (with infants and small children) crouches close to the fire and sustains heat damage to the conjunctiva and cornea. These become chronically inflamed. Prolonged exposure can lead to keratitis, causing impaired vision and probably also increasing the risk of recurrent infection, cataract and ultimately blindness.

Source: WHO Commission on Health and the Environment, Our Planet, Our Health, WHO, Geneva, 1992.

Many health problems affecting poorer groups are associated with overcrowding, including household accidents, acute respiratory infections (of which pneumonia is perhaps the most serious), tuberculosis and other airborne infections. In the predominantly low income residential areas in cities in the South, there is often an average of four or more persons per room and in many instances less than one square metre of floor-space per person. A considerable proportion of the rural population in the South live in small one or two room shelters with an average of 2.5 or more persons per room. Infectious diseases are easily transmitted from one person to another. Their spread is often aided by low resistance among the inhabitants due to malnutrition.

Acute respiratory infections (especially pneumonia) are a major cause of infant and child death and ill health in rural and urban areas. An estimated 4-5 million infants and children die each year of these infections (mostly from pneumonia or influenza) while they are also a major cause of ill health among children and adults.[67] A child who contracts bronchitis or pneumonia in the South is 50 times more likely to die than a child in Europe or North America.[68] For those children who survive, their growth is often set back since a severe case of one of these infections will weaken their body and make them more susceptible to further infection and further malnutrition.[69] A WHO report summarized the problem:

> Acute respiratory infections tend to be endemic rather than epidemic, affect younger groups, and are more prevalent in urban than in rural areas. The frequency of contact, the density of the population and the concentration and proximity of infective and susceptible people in an urban population promote the transmission of the infective organisms. Poorer groups ... are much more at risk because of the greater proportion of younger age groups, limited health and financial resources, and over-crowded households in congested settlements with limited access to vaccines and antibacterial drugs. The constant influx of migrants susceptible to infection and possible carriers of new virulent strains of infective agents, together with the inevitable increase in household numbers fosters the transfer of nasopharyngeal microorganisms.[70]

The incidence of tuberculosis (the single largest source of premature death among adults worldwide) is also linked to overcrowded conditions in both rural and urban areas. The highest incidence tends to be among populations living in the poorest areas, with high levels of overcrowding and high numbers of social contacts.[71] In low-income areas in cities, a combination of overcrowding and poor ventilation often means that TB infection is transmitted to more than half the family members.[72]

A combination of overcrowded conditions and a lack of health-care services that can implement effective immunization programmes help ensure that the, diseases spread by airborne infection or contact which are easily prevented by vaccines, such as measles, and pertussis (whooping cough) remain major causes of ill health and infant and child death. Measles is a major cause of infant and child morbidity and mortality in poor urban areas.[73] Rheumatic fever and meningococcal meningitis are also among other diseases transmitted by biological pathogens where overcrowded conditions increase the likelihood of transmission.[74] Both are common causes of death in many countries in the South yet good housing conditions and an adequate health-care system should greatly reduce their incidence. Crowded cramped conditions, inadequate water supplies and inadequate facilities for preparing and storing food also greatly exacerbate the risk of food contamination.[75]

The combination of overcrowding and poor quality housing also greatly increases the risk of accidents within the home. The true extent of accidental injuries is often grossly underestimated, especially in the South to the point where accident prevention and emergency services for rapid treatment receive little or no attention in environmental improvement programmes. An analysis of accidents in children in ten nations in the South found that they were the main cause of death for 5-9 year olds and 10-14 year olds.[76] For every accidental death, there are several hundred accidental injuries.[77]

Worldwide, domestic accidents represent about one third of all accidental deaths[78]–But probably a much higher proportion in countries where housing conditions are particularly poor. Many accidental injuries are linked to poor quality, overcrowded housing. Burns, scalds and accidental fires are more common in overcrowded shelters, especially when four or more persons often live in one room and there is little chance of providing occupants (especially children) with protection from open fires, stoves or kerosene heaters.[79] The risk of accidental fires is further increased in many urban dwellings because they are partially or wholly constructed with flammable materials (wood, cardboard, plastic, canvas, straw). Overcrowded dwellings and limited amounts of indoor space also make it difficult for parents to create a safe yet stimulating home environment for their children-including provisions to keep medicines and dangerous household chemicals (such as bleach) out of children's reach.[80] Here, as in many environmental problems, the level of risk is usually compounded by social factors such as a lack of adult supervision if most adults have to work. The health impact of accidents is also compounded by the lack of a health service that can rapidly provide emergency

treatment, followed by longer-term treatment and care.[81]

In considering indoor environmental problems, those associated with the workplace are often forgotten. But environmental hazards arising in the workplace are among the most serious health problems in cities in the South and in many in the North. They are evident in workplaces from large and small factories and commercial institutions down to small `backstreet' workshops and people working from home. They include dangerous concentrations of toxic chemicals and dust, inadequate lighting and ventilation, and inadequate protection for workers from machinery and noise. One global estimate suggests that there are *32.7* million occupational injuries each year with about 146,000 deaths.[82]

Many industries have long been associated with high levels of risk for their workforce-for instance in factories extracting, processing and milling asbestos, chemical industries, cement, glass and ceramics industries, iron and steel industries, factories making rubber and plastics products, metal and non-ferrous metal industries and textile and leather industries.[83] Some of the most common environment-related occupational diseases are silicosis, byssinosis, lead and mercury poisoning, pesticide poisoning, noise-induced hearing loss and occupational skin diseases.[84]

In most countries, the scale of occupational injuries and diseases is greatly under-reported. For example, in Mexico, official estimates reported an average of 2,000-3,000 cases of work-related illnesses across the country in 1988 but a study in just one large steel mill found 4,000-5,000 cases alone, with more than 80 per cent of the workers exposed to extreme heat, loud noise and toxic dust.[85] It is also rare for sufficient attention to be paid to occupational injuries and diseases in smaller enterprises and in all enterprises within the informal economy. In many countries, enterprises are only classified as a factory or workplace if they exceed a certain size-for instance, having more than 10 or 20 employees. Enterprises too small to be classified or enterprises that are not registered for other reasons are not subject to occupational health provisions or to factory pollution controls-even if a high proportion of a city's labour force work in such enterprises. New approaches need to be developed to promote occupational health and safety in small enterprises and within the informal economy.[86]

4.4 Environmental Hazards in the Neighbourhood

In villages or urban districts where inadequate or no attention is paid to environmental management, there are usually large health risks because of no collection of garbage and a lack of drainage and all-weather roads. These bring direct health risks such as more severe flooding and the health hazards posed by garbage and also more indirect health hazards as in the many disease vectors who breed or feed in garbage or waste water.

Many fatal or serious accidents occur within the roads, paths or open spaces within or around settlements. One of the most common is road accidents-responsible worldwide for some 885,000 deaths each year and many times this number of serious injuries.[87] There are also the physical hazards of the land sites on which housing develops. In most cities in the South, between a quarter and half the population live in illegal or informal settlements.[88] Many develop on dangerous sites. Tens of millions of urban inhabitants in Africa, Asia and Latin America are at risk and in nearly all cities in these regions, there are large clusters of illegal housing on dangerous sites (for instance steep hillsides, floodplains or desert land) or housing built on polluted sites (for instance around solid waste dumps, beside open drains and sewers or in industrial areas with high levels of air pollution). Most cities have large areas of unused and well-located land not subject to such hazards.[89] As Chapter *7* describes, the problem is rarely a shortage of the resource (safe land sites) but the fact that poorer groups have no means of getting access to such sites and governments do not intervene in their favour.

Without adequate provision for the collection of garbage and for draining waste water, a great range of disease vectors will live, breed or feed within or around houses and settlements. The diseases they cause or carry include some of the major causes of ill-health and premature death-especially malaria *(Anopheles* mosquitoes) and diarrhoeal diseases (cockroaches, blowflies and houseflies). There are many other diseases caused or carried by insects, spiders or mites, including bancroftian filariasis *(Culex* mosquitoes), Chagas' disease (triatomine bugs), dengue fever *(Aedes* mosquitoes), hepatitis A (houseflies, cockroaches), leishmaniasis (sandfly), plague (certain fleas), relapsing fever (body lice and soft ticks), scabies (scabies mites), trachoma (face flies), typhus (body lice and fleas), yaws (face flies), and yellow fever *(Aedes* mosquitoes).[90]

Many of these vectors thrive when there is poor drainage and inadequate provision for garbage collection, sanitation and piped water supply. *Anopheles* mosquitoes breed in standing water. The sandflies which transmit leishmaniasis can breed in piles of refuse or in pit latrines while the *Culex quinquefasciatus* mosquitoes that are one of the vectors for bancroftian filariasis can breed in open or cracked septic tanks, flooded pit latrines and drains.[91] Leptospirosis outbreaks have been associated with flooding in Sao Paulo

and Rio de Janeiro-the disease passing to humans through water contaminated with the urine of infected rats or certain domestic animals.[92] Many of the diseases passed on by insect vectors have been considered predominantly rural problems but many are now serious problems in urban areas, as the expansion of urban areas can also change the local ecology in ways which favour the emergence or multiplication of particular disease vectors (see Box 4.5).[93]

4.5 The city environment

As the most serious communicable diseases described in the previous sections are tackled-through a combination of improved water supply and provision for sanitation, drainage, the collection of household wastes and health-care service-so other environmental hazards become important as they or the health impacts to which they contribute can be greatly reduced. Some such as exposure to chemical hazards are associated with more industrialized and urbanized economies, although the very rapid growth in the use of agrochemicals in the South has also greatly increased the number of rural people exposed to chemical hazards.[100] Increased urbanization and industrial development is also generally associated with a growth in physical hazards, road accidents and with noise, although these are not only evident in urban areas.

Four of the most serious city-wide environmental problems are air pollution; water pollution; the collection and management of solid wastes (including toxic and hazardous wastes); and noise pollution. Many cities or city-districts are also at risk from natural hazards or hazards whose origin may be natural but where the level of risk and the number of people at risk is much increased by human actions. These will be considered below-although the inadequacies in the provision for the collection and management of solid wastes and water pollution are considered in more detail in Chapter 8.

Ambient air pollution[101]

In many cities, the mix and concentration of air pollutants are already high enough to cause illness in more susceptible individuals and premature death among the elderly, especially those with respiratory problems.[102] Studies in several cities in Europe and the United States have found that disease and death rates increase when air pollution levels increase.[103] A rise in the number of asthma attacks, especially for children, was associated with high levels of nitrogen dioxide while high ozone concentrations were associated with an increase in chronic breathing problems among

BOX 4.5

The adaptation of rural disease vectors to urban areas

Some diseases transmitted by insect vectors have long been an urban problem; for instance reports on malaria in Freetown (Sierra Leone) date from 1926,[94] while colonial town-planning regulations in Nigeria sought to protect the colonial populations from malaria by insisting on a building-free zone between European and non-European residential areas.[95] Other diseases remain concentrated in rural areas-especially those such as schistosomiasis that are associated with water reservoirs and irrigation canals and ditches-although even schistosomiasis is widespread in many cities.[96] One reason for this is the number of infected rural inhabitants who move to urban areas. Another is that some disease vectors have adapted to urban environments or the expanding urban areas have produced changes in the local ecology that favour the emergence or multiplication of a particular disease vector.

The expansion of the built-up area, the construction of roads, water reservoirs and drains together with land clearance and deforestation can effect drastic changes to the local ecology. Natural foci for disease vectors may become entrapped within the suburban extension and new ecological niches for the animal reservoirs may be created. Within urban conurbations, disease vectors may adapt to new habitats and introduce new infections to spread among the urban population. For instance in India, where the vector of lymphatic filariasis is a peridomestic mosquito, there has been a rapid increase in the incidence of the disease and in the vector population associated with the steady increase in the growth of human populations in these endemic areas. Anopheline mosquitoes generally shun polluted water yet A. stephensi, the principal vector for urban malaria, is also reported in India and the eastern Mediterranean region to have adapted to survive in the urban environment and other species of anophelines have also adapted to breed in swamps and ditches surrounding urban areas in Nigeria and Turkey. *Aedes* aegypti, the vector of dengue and urban yellow fever proliferates in tropical urban settlements and has been frequently found to breed in polluted water sources such as soak-away pits, septic tanks and other breeding sites which have been found to contain a high amount of organic matter. Aedes albopictus was introduced to the Americas from Asia around 1986 and within five years, it had spread in the United States to 160 counties in 17 states. It was also introduced into Brazil where is reported to be present in four states. This species is a peri-domestic species like Ae. aegypti and an excellent vector of dengue and other mosquito-borne viruses.

The diseases spread by the Aedes group of mosquitoes (which include dengue, dengue haemorrhagic fever and yellow fever) are serious health problems in many cities; pots and jars, small tanks, drums and cisterns used for storing water in houses lacking regular piped supplies can provide breeding habitats for these mosquitoes.[97] So too can small pools of clean water within residential areas in, for instance, discarded tin cans and rubber tyres.[98] Chagas' disease, with an estimated 18 million people infected in Latin America, primarily affects poor rural households, as the insect vector rests and breeds in cracks in house walls. But it is increasingly an urban problem too, both through the migration of infected persons to urban areas (there is no effective treatment for the disease) and through the peri-urban informal settlements where the insect vectors are evident.[99]

Source: Based on material drawn from WHO, Our Planet, Our Health, the report of the World Commission on Health and Environment, Geneva, 1992.

elderly people and in respiratory tract infections for children.[104] Air pollution is also causing or contributing to widespread ecological damage through, for instance, acid precipitation. This section will review conditions and trends in air pollution in cities, where the health problems are most serious while the impact of air pollution outside cities will be considered in a later section.

Most ambient air pollution in urban areas comes from the combustion of fossil fuels-in industrial processes, for heating and electricity generation, and by motor vehicles. [105] The use of fossil fuels in each of these tends to expand with economic growth; so too does air pollution unless measures are taken to promote efficient fuel use, the use of the least polluting fuels (for instance natural gas rather than coal with a high sulphur content for domestic and industrial use and unleaded petrol for motor vehicles) and the control of pollution at source. [106] In some cities, domestic heating is one of the major sources of air pollution as a considerable proportion of households use firewood or poor quality coal in open fires or inefficient house stoves-although this source of air pollution will tend to diminish with economic growth, just as it did in the North.

Cities have often been associated with air pollution, especially since the industrial revolution, although the burning of coal and biomass fuels in households probably made air pollution a serious problem in many cities prior to this. To what can be termed the `traditional' pollutants that arise from the burning of coal, heavy oil or biomass were added the pollutants that come primarily from motor vehicle traffic: the photochemical pollutants, lead and carbon monoxide. There are also various toxic and carcinogenic chemicals that are increasingly found in urban air, although in low concentrations. These include selected heavy metals, trace organic chemicals and fibres (e.g. asbestos). [107]

In certain cities, industrial pollution can be so serious that it becomes a significant cause of above average infant and child mortality or reduced life expectancy. [108] This can be seen in statistics for Katowice, the industrial centre of the Upper Silesian Industrial Region. In Katowice Voivodeship, life expectancy is one year lower than the national average.[109] Urban male life expectancy has also fallen over the past 15-20 years. In Katowice city, the 1989 infant mortality rate was 25.5 per 1,000 live births which compares unfavourably with the national average of 16.1. A study undertaken in the sub-regions of. the Voivodeship suggested that infant mortality is correlated with dust fall, ambient level of lead, tar, phenols, formaldehyde and benzo(a)pyrene. The Voivodeship also had the highest incidence of premature births, genetic defects and spontaneous miscarriages. Chronic bronchitis is reported in 35 per cent of children living in heavily polluted industrial areas.

Although most cities have some problem with air pollution, there are enormous variations in the scale of air pollution and in the relative importance of the different pollutants. Pollution levels often change dramatically from season to season. In most of the cities in the North, they have also changed over the last 20-30 years, reflecting changes in fuel use and economic structure (especially the much decreased importance of heavy industry) and, in some cases, tighter environmental regulations. For instance, in most cities in Europe and North America, it is no longer the traditional pollutants from the combustion of coal or heavy oil that are the main problem. Motor vehicles have become the major source of air pollution, as the number of motor vehicles in use has risen rapidly (and so too have conditions that exacerbate motor vehicle pollution such as congestion) while heavy industry has declined and major steps have been taken to limit the use of coal or heavy oil or to control the air pollutants associated with their combustion. Thus, cities such as Tokyo, New York and London have relatively low levels of sulphur dioxide and suspended particulates but all have problems with one or more of the pollutants from motor vehicles. Motor vehicle emissions also pose a serious problem for many larger cities in the South.

Sulphur dioxide and suspended particulates. An estimated 1.4 billion urban residents worldwide are exposed to annual averages for suspended particulate matter or sulphur dioxide (or both) that are higher than the minimum recommended WHO standards.[110] Based on exposure to suspended particulate matter alone, rough estimates indicate that if unhealthy levels of particulates were reduced to the average yearly level the World Health Organization considers safe, between 300,000 and 700,000 premature deaths a year would be avoided in the South. This is equivalent to 2-5 per cent of all deaths in those urban areas where levels of particulates are excessive.[111] The problem is not confined to the South. In Europe, as many as 15 per cent of asthma cases and 7 per cent of obstructive airways disease are estimated to be possibly related to prolonged exposure to high concentrations of particulates. [112]

In a study of air pollution in twenty of the world's largest cities (which between them have more than 200 million inhabitants), sulphur dioxide was not a major problem in twelve of them (see Table 4.3) although sulphur dioxide concentrations might exceed WHO guidelines in certain locations in these cities for certain parts of the year. The most serious problems were found in Beijing, Mexico City and Seoul where ambient levels exceeded WHO guidelines by a factor of

TABLE 4.3 Overview of air quality in 20 of the world's largest cities

City	Sulphur Dioxide	Suspended Partic.	Airborne Lead	Carbon Monoxide	Nitrogen Dioxide	Ozone
Bangkok	Low	Serious	Above guideline	Low	Low	Low
Beijing (Peking)	Serious	Serious	Low	(no data)	Low	Above guideline
Bombay	Low	Serious	Low	Low	Low	(no data;
Buenos Aires	(no data)	Above guideline	Low	(no data)	(no data)	(no data;
Cairo	(no data)	Serious	Serious	Above guideline	(no data)	(no data;
Calcutta	Low	Serious	Low	(no data)	Low	(no data;
Delhi	Low	Serious	Low	Low	Low	(no data;
Jakarta	Low	Serious	Above guideline	Above guideline	Low	Above guideline
Karachi	Low	Serious	Serious	(no data)	(no data)	(no data;
Manila	Low	Serious	Above guideline	(no data)	(no data)	(no data)
Mexico City	Serious	Serious	Above guideline	Serious	Above guideline	Serious
Rio de Janeiro	Above guideline	Above guideline	Low	Low	(no data)	(no data)
Sao Paulo	Low	Above guideline	Low	Above guideline	Above guideline	Serious
Seoul	Serious	Serious	Low	Low	Low	Low
Shanghai	Above guideline	Serious	(no data)	(no data)	(no data)	(no data)
Moscow	(no data)	Above guideline	Low	Above guideline	Above guideline	(no data)
London	Low	Low	Low	Above guideline	Low	Low
Los Angeles	Low	Above guideline	Low	Above guideline	Above guideline	Serious
New York	Low	Low	Low	Above guideline	Low	Above guideline
Tokyo	Low	Low	(no data)	Low	Low	Serious

Source: UNEP/WHO (1992), Urban Air Pollution in Megacities of the World, Blackwell, Oxford. Note that these are based on a subjective assessment of monitoring data and emissions inventories.

Notes:
Serious: WHO guidelines exceeded by more than a factor of 2.
Above guideline: WHO guidelines exceeded by up to a factor of two (short-term guidelines exceeded on a regular basis at certain locations).
Low: WHO guidelines normally met (short-term guidelines may be exceeded occasionally).
(no data): No data available or insufficient data for assessment.

nearly three for annual average concentrations. These three cities also had serious problems with suspended particulate matter with long term averages and peak concentrations many times that of WHO guidelines. Nine other cities also had comparable problems with suspended particulates, although for several of these and for Mexico City and Beijing, wind-blown dust was a major influence.

In Table 4.3, all the cities in the North had low levels of sulphur dioxide and significant reductions in sulphur dioxide levels in the air have been achieved in Northern and Western European cities and, to a lesser extent in Southern European cities.[113] But in many cities, this is a relatively recent achievement. Annual mean concentrations of sulphur dioxide in London up to the mid-1960s were still ten to twenty times those of today and many times what the World Health Organization now sets as its long-term guidelines.[114] New York and Tokyo also had much higher levels of sulphur dioxide in the 1960s and early 1970s.[115] However, in many cities in the North, WHO guidelines for air quality are exceeded for short periods during the year for sulphur dioxide and/or for total suspended particulates. In Eastern and Central Europe, air quality in cities has generally improved but still remains unacceptably high and several Central, Eastern and Southern European cities regularly exceed WHO guidelines for sulphur dioxide concentrations many times over. In general, concentrations of suspended particulate matter have also declined in Europe, although with considerable variation between cities.

Lead. Lead remains a particular concern, especially for children, since relatively low concentrations of lead in the blood may have a damaging and permanent effect on their mental development.[116] Children's exposure to lead comes not only from the exhausts of petrol-engined motor vehicles where lead additives are still used but also from lead water pipes (especially where water supplies are acidic), lead in paint, and lead in some industrial emissions. Airborne lead can also contaminate the soil and dust near busy roads[117]-affecting crops grown in gardens or other open spaces. A study in Bangkok which sought to rank urban environmental problems on the basis of their health risks suggested that lead should be ranked with airborne particulates and biological pathogens (primarily acute diarrhoea, dengue fever, dysentery and intestinal worms) as the highest risk environmental problems.[118]

Among the twenty major cities, airborne lead concentrations were well above the WHO guidelines in Cairo and Karachi; these cities also had among the highest concentrations of lead in petrol. Airborne lead was also above WHO guideline figures in Bangkok, Jakarta, Manila and Mexico City. In the other cities for which data was available, ambient levels of airborne lead were relatively low-in some instances because of the increasing use of lead-free petrol, in others because of relatively low traffic density. In general, in wealthy countries, airborne lead should not be a problem if lead levels in petrol are minimized and the use of lead-free petrol promoted-while industrial emissions are kept down. Countries with expanding economies and increasing numbers of motor vehicles can also take steps to keep down lead levels in petrol and to ensure that most or all new vehicles can use lead-free petrol. The problem is greatest in cities

where there is already a high concentration of motor vehicles that cannot use lead-free petrol and where there is a slow turnover in replacing these with vehicles that can. However, high ambient levels of lead can also arise from industries-and this remains a problem in several Central and Eastern European cities where in certain locations, mainly around lead-emitting industries, the exposure to lead is still high, possibly resulting in impaired mental development of children and in behavioural problems. It is estimated that at least 400,000 children in eastern parts of Europe maybe affected.119

Ozone. Ozone is formed by the reactions in the air between nitrogen dioxide, hydrocarbons and sunlight and it is present in photochemical smog along with other hazardous chemicals. The cities with the highest ozone concentrations tend to be the ones with the highest concentration of motor vehicles and a high degree of sunshine; among the twenty major cities, ozone pollution represented the most serious problems in Mexico City, Sao Paulo, Los Angeles and Tokyo. In Los Angeles, in 1988, national air quality standards for ozone were exceeded on half the days in the year; for Mexico City, they were exceeded on 70 per cent of days.'" Ground-level ozone has recently attracted considerable attention because of the health problems with which it is associated and since it is a problem in some of the world's largest and wealthiest cities. However, in most urban centres around the world, it will not figure as among the most serious problems since they lack a concentration of motor vehicles and other sources of the chemicals from which ozone is formed that is in any way comparable to, say, Los Angeles.

Carbon Monoxide. Carbon monoxide is formed by the incomplete combustion of fossil fuels. The main danger in cities is high concentrations in particular areas, from motor vehicle emissions-for instance on or near major roads. Among the twenty cities, Mexico City had the most serious problems of carbon monoxide with London, Los Angeles and several other cities having less severe problems but with air quality standards being exceeded quite frequently.[121] High concentrations of carbon monoxide have also been recorded along busy roads or in central areas in many other cities[122] although too few cities monitor carbon monoxide levels to know how serious a problem this is.

Water pollution

Many cities in the North and virtually all cities in the South cause serious water pollution as local water bodies are used as a dumping ground for untreated or only partially treated sewage and storm and urban runoff and for industrial effluents. Most rivers in cities in the South are literally large open sewers.

The problems of controlling such pollution are much increased where much of the urban area has no drains and has no service to collect garbage-as in most urban centres of the South. In such instances, most of the liquid wastes from households and businesses (and often from industries) and a considerable proportion of the solid wastes end up washed into nearby streams, rivers or lakes, adding greatly to water pollution. Many cities face additional problems because of a shortage of freshwater which then adds, greatly to the problem of disposing of liquid wastes, especially industrial effluents and sewage.

Solid wastes

An earlier section described the health problems that usually arise from a lack of a regular service to collect household wastes-while Chapter 8 describes in detail the inadequate provision for the collection and disposal of solid wastes in many cities in the South. To these problems must be added those connected to toxic or hazardous wastes-the industrial and institutional wastes that are categorized as `hazardous' or `toxic' because of the special care needed when handling, storing, transporting and disposing of them, to ensure. they are isolated from contact with humans and the natural environment. Reports of health and environmental problems arising from the careless disposal of such wastes are increasingly frequent.[123]

There are many different kinds of hazardous wastes. Some are highly inflammables in many solvents used in the chemical industry. Some are highly reactive-and can explode or generate toxic gases when coming into contact with water or some other chemical. Some have disease-causing agents; sewage sludge or hospital wastes often contain bacteria, viruses and cysts from parasites. Some wastes are lethal poisons-for instance cyanide and arsenic and many heavy-metal compounds; many are carcinogenic (i.e. cancer inducing). Only in the last 20 years has the scale of the problem of hazardous wastes and the potential risk to people's health been recognized. Many countries in the North face a large and expensive backlog of clearing up toxic or otherwise hazardous wastes that were dumped on land sites with inadequate provision for their safe storage. The very high cost of safely storing or treating these was the main reason why many attempts were made to export such wastes to the South.

In many countries worldwide, especially in the South, a large proportion of the toxic or otherwise hazardous wastes are either disposed of as liquid wastes which run untreated into sewers or drains or direct into rivers, streams or other

nearby water bodies, or are placed on land sites with few safeguards to protect those living nearby or nearby water sources from contamination.[124] Many nations still lack effective government systems to control the disposal of hazardous wastes. Many do not even have regulations dealing specifically with such wastes (or even the legal definition of toxic wastes), let alone the system to implement them.

Noise

Noise is a nuisance to increasingly large sections of the world's population. Within the wider urban environment, there are usually four principal sources of noise-aircraft, industrial operations, construction activities and highway traffic.[125] The proportion of a city's population adversely affected by noise depends on what level is considered acceptable. If a 70 dB(A) threshold is chosen that is well above the acceptable level of noise, 47 per cent of the urban population of Sofia is exposed to more than 70 dB(A) as are 25 per cent in Budapest, 20 per cent in St Petersburg and 19 per cent in Crakow; only 2 per cent of the population of Amsterdam and 4 per cent of Copenhagen's population are exposed to comparable noise levels.[126]

Current noise levels are probably posing a serious nuisance to hundreds of millions of people and a serious health threat to tens of millions, although the scale and nature of its precise health impacts are not known. Adverse effects include sleep disturbance (especially during night hours), poorer work performance and increased anxiety. High noise levels and repeated exposure can lead to hearing loss;[127] high noise levels are also known to be one of the critical stress factors which influence mental disorders and social pathologies.[128] The most intense, continuous and frequent exposure to high noise levels is generally within particular jobs in particular industries.

Those living in particular locations in cities experience above average noise levels. Large areas of many cities have high levels of noise from aircraft landing and taking off in nearby airports; for instance, in Latin America, many major airports are in the middle of densely populated areas (the international airport of Mexico City and airports in Lima, Bogotá, Quito, Guayaquil, Buenos Aires, Port-au-Prince and Santiago de Chile).[129] Noise from major roads or highways is a major problem; in Shanghai, noise levels were reported to reach an average of 75 decibels at rush hour and 90 decibels in certain locations.[130] In Bangkok, noise from trucks, buses, motor-cycles and motorboats often mean noise levels greater than 70 decibels in many locations.[131] Perhaps not surprisingly, it tends to be low-income groups whose residential areas have the highest noise levels, especially those living in illegal or informal settlements that develop by major roadways or in and around major airports because high noise levels discourage their development for other uses.

Citizen pressures for governments to control noise probably increases as the more basic environmental problems are addressed. For instance, public opinion polls within the last ten years in the former West Germany found that between 22 and 33 per cent of the population of cities with 100,000 or more inhabitants were strongly/severely annoyed by street noise; in smaller urban centres, the proportion of people strongly/severely annoyed was considerably less.[132]

Natural and human-induced hazards[133]

Many cities are located on sites that are at risk from natural hazards. Others developed on sites that were safe but as their population expanded, so did the settlement of nearby sites that are on floodplains or slopes subject to landslides. The high concentration of population in major cities can also mean very large losses of life and property in the event of a disaster. For instance, the earthquakes that hit Mexico City in September 1985 and their aftershocks are estimated to have killed at least 10,000 people, injured 50,000 and made 250,000 homeless.[134] The October 1986 earthquake in San Salvador caused 2,000 deaths and 10,000 injuries.[135] But what is notable in both these earthquakes is the extent to which the injuries and losses of life were concentrated among the low income groups who either lived in the most dangerous areas (for instance on slopes subject to landslides) or in housing structures least able to stand the shocks.[136]

In most cities in the South, each year, there are less dramatic natural disasters. Earthquakes, floods, landslides or other forms of natural disaster do not kill or injure as many people but they still damage or destroy the homes of hundreds or even thousands of people. They also get less attention since they almost always fall most heavily on low-income groups. For instance, in Caracas, each year there are dozens of landslides, most of them affecting only low-income groups.[137]

There are also the large-scale industrial accidents such as the release of methyl iso-cyanate in Bhopal (India) that caused the death of over 3,000 with perhaps 100,000 or more seriously injured (and 200,000 people evacuated)[138] or the explosion in Islamabad (Pakistan) in 1988 (over 100 dead, some 3,000 injured).[139] or the 210 people killed, 1,500 injured and the vast damage to property in Guadalajara (Mexico) in 1992 as a result of explosions of gas which had accumulated in the sewers.[140] Among the accidents involving nuclear

installations and facilities, the fire at the Chernobyl nuclear power plant in the Russian Federation is much the most serious to date; the full health impact of this accidental release of radioactive material is not known although it caused 31 immediate deaths, harmed over 1,000 people and necessitated the evacuation of 115,000 people from a 30 Ian zone around the power-plant where the worse contamination was measured. [141]

4.6 Cities' Regional Impact

Introduction

The growth and expansion of a city has various environmental impacts on the region within which it is located. Cities transform natural landscapes not only within the built-up area but also for considerable distances around them because of the demand they concentrate for the products of fertile land, watersheds and forests. There are also the massive changes wrought in the local ecology as a result of the mining or extraction of bulky, low-value materials that go into building materials, roads, foundations and other parts of the built environment, and the waste materials dumped as a result of excavations. [142]

The scale of this environmental impact rises, as the demand for resources grows from both industries and consumers and as levels of waste also grow. Liquid, gaseous and solid wastes generated by city-based enterprises and consumers often have significant environmental impacts on the region surrounding the city, even when these wastes are `biodegradable'.

Regionally there are four impacts of particular concern: [143]

- *Unplanned and uncontrolled city expansion.* In the-absence of any plan or development control, cities generally expand haphazardly-defined by where different residential areas and productive activities locate, legally and illegally. The result is what might be termed a `patchwork' of different developments, including many high density residential settlements interspersed with vacant land (often held for speculative purposes). In cities where a significant proportion of the population can only find accommodation in illegal or informal settlements, city expansion will be much influenced by where illegal settlements develop. This whole process has serious social and environmental impacts. These include the segregation of the poor in the worst located and most dangerous areas and the greatly increased costs of providing basic infrastructure (such as roads and pavements, water mains and sewage pipes), public transport and social services.[144] Illegal or informal settlements will also often grow on land sites subject to flooding or at risk from landslides or other natural hazards, especially where these offer the best located sites on which low income settlers can avoid eviction.

- *Disposal of liquid wastes.* Rivers, lakes or estuaries close to cities are also often polluted; many are also highly contaminated with heavy metals. River pollution from city-based industries and untreated sewage can lead to serious health problems in settlements downstream. Rivers that are heavily contaminated as they pass through cities may become unusable for agriculture downstream, or particular contaminants in the water may damage crops or pose risks to human health.

The possibilities for improvement vary greatly. In many of the largest cities in Europe and North America that are located on rivers or by lakes, great improvements have been achieved in reducing water pollution-mostly through stricter controls on industrial emissions and more sophisticated and comprehensive treatment of sewage and water run off collected in drains. Rather less success has been achieved in reducing polluting discharges to the sea. In most cities in the South, the problems are not so easily addressed as they have much more serious `nonpoint' sources of water pollution than cities in the North because of the lack of sewers and drains and the inadequate services to collect solid wastes. A lack of solid waste collection adds to water pollution problems since many of the uncollected wastes are washed into streams, rivers or lakes, increasing the biochemical oxygen demand.

Fisheries are often damaged or destroyed by liquid effluents from city-based industries. Thousands of people may lose their livelihood as a result, as some of the largest cities are close to some of the world's most productive fishing grounds. Among the places where major declines in fish catches have been documented are many rivers and estuaries in India, China and Malaysia, Lake Maryut in Alexandria, the Gulf of Paria between Venezuela and Trinidad, Manila Bay, Rio de Janeiro's Guanabara Bay, the Bay of Dakar and the Indus delta near Karachi.[145] In cities on or close to coasts, untreated sewage and industrial effluents often flow into the sea with little or no provision for piping them far enough out to sea to protect the beaches and inshore waters. Most coastal cities have serious problems with dirty, contaminated beaches and the water there is a major health risk to bathers. Oil pollution often adds to existing problems of sewage and industrial effluents.

- *Solid waste disposal*. It is still common for most of the solid wastes that are collected within urban centres to be dumped on some site outside the city with no preparation of the site to minimize the threat of seepage and leaching contaminating local water resources and with no provision to cover the wastes to reduce the breeding of disease vectors and uncontrolled burning (as in sanitary landfill). Dump sites are often ecologically valuable wetlands. The inadequacies in provision for handling hazardous wastes was noted earlier; it is also common for hazardous wastes which require special handling, storage and treatment to ensure safe disposal to be dumped on the same land sites as conventional solid wastes, with few (if any) safeguards to protect those living nearby or nearby water sources from contamination.
- *Acid precipitation.* Sulphur and nitrogen oxides discharged by power stations burning high sulphur coal or oil, and from automobile exhausts can turn rain into acid rain which falls to earth a considerable distance from the emission source. The result can be declining or disappearing fish populations and damage to soils and vegetation. Toxic metals may also be leached from the soil into water used for animal or human consumption or copper, lead, cadmium or copper mobilized by acidic drinking water supplies from piped water systems. Acid precipitation is causing concern in the areas surrounding many cities in the North and South including the areas around the Rhine-Ruhr, many major industrial centres in Eastern and Central Europe, many cities in China, Petaling Jaya (Malaysia), several Indian cities and Cubatao, Brazil.[146]

The air pollutants that cause the most damage to forests, soils and agriculture are sulphur dioxide, oxides of nitrogen and ozone (and other photochemical oxidants) and, in certain instances, fluorides.[147] Sulphur dioxide and the oxides of nitrogen resulting from fossil fuel combustion in cities can be deposited directly from the air onto farmers' fields (dry deposition) or from rain, clouds/fog or snow acidified by these chemicals. Both can damage plants at high concentrations (causing acute damage, especially to certain species of plants that are particularly sensitive to exposure) although reaching the concentrations necessary to achieve this are rare, except in the immediate vicinity of intense sources of emission (for instance metal smelters with no pollution controls and lacking high chimneys). At lower concentrations, both sulphur dioxide and the oxides of nitrogen are associated with reductions in yields and growth for many crops, although there are many other factors which can influence this.[148] Soils are also at risk since, in many tropical and subtropical countries, the soils are already acidic and are unable to buffer any further increases in acidity.

Cities' ecological footprints

A city's environmental impact on its region or on eco-systems beyond this region is principally the result of the demand it concentrates for renewable resources drawn from forests, rangelands, farmlands, watersheds or aquatic ecosystems from outside its boundaries. The concept developed by William Rees of cities' `ecological footprints'[149] illustrates this phenomenon-see Box 4.6.

Wealthy and powerful cities have always had the capacity to draw resources from far beyond their immediate regions. For instance, imperial Rome drew timber, grain, ivory, stone and marble from North Africa.[150] But the scale of this capacity to draw on the productivity of distant ecosystems has been greatly increased in the last few decades as incomes have risen and transport costs declined. City-based consumers and industries in the wealthy nations have increasingly appropriated the carrying-capacity of rural regions in other nations. This separates the environmental impact of the demand the city concentrates for natural resources from the city itself-to the point where city inhabitants and businesses have no idea of the environmental impact for which they are responsible. One of the advantages of having this environmental impact in a city's own surrounds was the visible evidence of environmental damage that could spur actions to reduce it.

Certain natural resources are essential to the existence of any city-fresh water, food and fuel supplies. Many of the economic activities on which a city's prosperity depends require regular supplies of renewable resources; without a continuing supply of fresh water, agricultural goods and forest products, many cities would rapidly decline in size and have reduced employment opportunities for their residents. Many other formal and informal economic activities, although not directly linked to resource exploitation, depend on such exploitation to generate the income to support their own activities. In the past, the size and economic base of any city was constrained by the size and quality of the resource endowments of its surrounding region. The cost of transporting food, raw materials and fresh water always limited the extent to which a city could survive by drawing resources from outside its region. The high costs of transporting city-generated wastes away from the surrounding region promoted local solutions, and there was a need to ensure that such wastes did not damage the soils and water on which local agricultural production (and often fishing) depended. If local

BOX 4.6

The ecological footprint of cities

All cities draw on natural resources produced on land outside their built-up areas (e.g. agricultural crops, wood products, fuel) and the total area of land required to sustain a city (which can be termed its ecological footprint) is typically at least ten times or more greater than that contained within the city boundaries or the associated built-up area. In effect, through trade and natural flows of ecological goods and services, all cities appropriate the carrying-capacity of other areas. All cities draw on the material resources and productivity of a vast and scattered hinterland.

Ecologists define 'carrying-capacity' as the population of a given species that can be supported indefinitely in a given habitat without permanently damaging the ecosystem upon which it is dependent. For human beings, carrying-capacity can be interpreted as the maximum rate of resource consumption and waste discharge that can be sustained indefinitely in a given region without progressively impairing the functional integrity and productivity of relevant ecosystems.

Preliminary data for industrial cities suggest that per capita primary consumption of food, wood products, fuel, waste-processing capacity, etc., co-opts on a continuous basis several hectares of productive ecosystem, the exact amount depending on individual material standards of living. This average per capita index can be used to estimate the land area functionally required to support any given population. The resultant aggregate area can be called the relevant community's total 'ecological footprint' on the Earth.

Regional ecological deficits do not necessarily pose a problem if import-dependent regions are drawing on true ecological surpluses in the exporting regions. A group of trading regions remains within net carrying-capacity as long as total consumption does not exceed aggregate sustainable production. The problem is that prevailing economic logic and trade agreements ignore carrying-capacity and sustainability considerations. In these circumstances, the terms of trade may actually accelerate the depletion of essential natural capital thereby undermining global carrying-capacity.

Because the products of nature can so readily be imported, the population of any given region can exceed its local carrying-capacity unknowingly and with apparent impunity. In the absence of negative feedback from the land on their economy or life-styles, there is no direct incentive for such populations to maintain adequate local stocks of productive natural capital. For example, the ability to import food makes people less averse to the risks associated with urban growth spreading over locally limited agricultural land. Even without accelerated capital depletion, trade enables a region's population and material consumption to rise beyond levels to which they might otherwise be restricted by some locally limiting factor. Ironically then, the free exchange of ecological goods and services without constraints on population or consumption, ensures the absorption of global surpluses (the safety net) and encourages all regions to exceed local carrying-capacity. The net effect is increased long-range risk to all.

This situation applies not only to commercial trade but also to the unmonitored flows of goods and services provided by nature. For example, Northern urbanites, wherever they are, are now dependent on the carbon sink, global heat transfer, and climate stabilization functions of tropical forests. There are many variations on this theme, touching on everything from drift-net fishing to ozone depletion, each involving open access to, or shared dependency on, some form of threatened natural capital.

Source: Rees, William E., 'Ecological footprints and appropriated carrying capacity: what urban economics leaves ouf, Environment and Urbanization vol. 4, no. 2, October 1992, 121-30.

ecosystems were degraded, the prosperity of the city suffered-or in extreme cases, its viability as a city was threatened. A city's ecological footprint remained relatively local.

Motorized transport systems introduced the possibility of disassociating the scale of renewable resource-use in cities from the productivity of its region. Prosperous cities in the North now draw from the entire planet as their `ecological hinterland' for food and raw materials. If consumers in (say) London or New York are drawing their fruit, vegetables, cereals, meat and fish from an enormous variety of countries, how can a link be established between this consumption and its ecological consequences?

Fresh water can also be drawn from distant watersheds and even pumped hundreds of metres up hills, as long as little consideration is given to the high energy costs that this entails (usually coming from thermal power stations that also mean high levels of greenhouse gas emissions). Such technology and its high energy requirements obscure the link between a city's renewable resource use and the impact of this use on the ecosystem where the resource is produced. Prosperous cities can also transport their wastes and dispose of them beyond their own region-in extreme cases, even shipping them abroad. Or they can 'export' their air pollution to surrounding regions through acid precipitation and urban pollution plumes with sufficiently high concentrations of ozone to damage vegetation in large areas downwind of the city. Perhaps only when the cost of oil-based transport comes to reflect its true ecological cost in terms both of a depleting non-renewable resource and its contribution to greenhouse gas emissions will a stronger connection be re-established between resource use within cities and the productive capacity of the regions in which they are located.

Fresh water

One example of a scarce 'renewable resource' is fresh water. Many cities around the world are facing serious shortages of fresh water, and this is even the case in cities where half the population are not adequately served with safe, sufficient supplies. Many cities have outgrown the capacity of their locality to provide adequate, sustainable water supplies. For instance, in Dakar (Senegal), water supplies have to be drawn from ever more distant sources. This is both because local groundwater supplies are fully used (and polluted) and local aquifers over-pumped, resulting in saltwater intrusion; a substantial proportion of the city's water has to be brought in from the Lac de Guiers, 200 kilometres away (see Box 4.7).[151] Mexico City has to supplement its ground water supplies by bringing water from ever more distant river systems and pumping this water up

several hundred metres to reach the Valley of Mexico where the city is located; the energy needed to pump this water represents a significant part of Mexico City's total energy consumption. Over-exploitation of underground water has also made the city sink-in some areas by up to 9 metres-with serious subsidence damage for many buildings and sewage and drainage pipes.[152] Ensuring sufficient water supplies for Los Angeles has meant that the water authorities have had to tap ever more distant watersheds and with considerable ecological damages caused to these watersheds by the freshwater supplies diverted to the metropolitan population. In Europe, the need to find clean water sources has led to the extraction of deep ground-water around cities; in Germany, this has caused irreversible changes of heathland around cities and in the Netherlands, to drying out of nature conservation areas. [153]

Hundreds of urban centres in relatively arid areas have also grown beyond the point where adequate water supplies can be drawn from local or even regional sources. Examples include many of the coastal cities in Peru (including Lima), La Rioja and Catamarca in Argentina and various cities in Northern Mexico. Many urban centres in Africa's dryland areas face particularly serious problems because of a combination of rapid growth in demand for water and unusually low rainfall in recent years, with the consequent dwindling of local freshwater resources. Many other cities face problems in financing the expansion of supplies to keep up with demand. Bangkok and Jakarta are among the many major coastal cities with serious subsidence problems as a result of drawing too much water from underground aquifers; they also face problems from saline intrusion into such groundwaters. In Jakarta, many shops, houses and offices can no longer drink the water from the wells they use because of saline intrusion. [154]

Rural-urban linkages

For most urban centres worldwide, an examination of their resource use reveals a scale and complexity of linkages with rural producers and ecosystems within their own region or nation which implies that `sustainable urban development' and `sustainable rural development' cannot be separated. The rural-urban linkages can be positive in both developmental and environmental terms. For instance, demand for rural produce from city-based enterprises and households can support prosperous farmers and prosperous rural settlements, where environmental capital is not being depleted. Few governments in the South appreciate the extent to which productive, intensive agriculture can support development goals in both rural and urban areas.[155] Increasing agricultural production can support rising prosperity for rural populations and rapid urban development within or close to the main farming areas-the two supporting each other. There are also many examples of organic solid and liquid wastes, that originate from city-based consumers or industries, being returned to soils.

These rural-urban links can also have negative aspects. For instance, agricultural land can be lost

BOX 4.7

Meeting Dakar's water needs

In 1961, on the eve of independence, Dakar was a city of approximately 250,000 people. It occupied a peninsular site, open to cooling winds and scoured by ocean currents. Most of the drinking water was drawn straight from the basalt aquifer on which the city was built. By 1988, the population of Dakar had reached 1.5 million.

As the city expanded it overran and polluted the local groundwater supplies, while overpumping of the aquifer resulted in saltwater intrusion. As the basalt aquifer became inadequate, supplies were drawn from sedimentary aquifers 80 kilometres distant. Later, as these were unable to keep up with demand, water was drawn from sedimentary strata further north. As these too were surpassed a pumping station was established in the Lac de Guiers, a shallow reservoir created in a fossil river valley, 200 kilometres from Dakar. By 1978 the Lac de Guiers was providing approximately 20 per cent of Dakar's water supply, although this figure varied greatly according to the amount of water in the lake. In the late 1970s plans were made for the doubling and tripling of the capacity of the water pipes from the Lac de Guiers to Dakar. The money was never found to finance these schemes. A much larger plan is now on the drawing board, to bring water from the southern end of the Lac de Guiers by an open canal, known as the Canal de Cayor. There is virtually no recycling of water; it is widely believed that there would be serious cultural objections to such a proposal.

An important effect of the overall lack of water is that the sewage and waste water canals and drains are inadequately flushed. To reduce the amount of household garbage dumped in the canals, some have been cemented over, hiding a growing problem. Sewage and semi-liquid waste are usually the first to have visible negative impacts on the urban system, resulting in increased coliform counts, beaches closed for swimming and reduced catches from the inshore fishery. In 1986 the Senegalese Department of the Environment put into operation its first (mobile) water quality laboratory. It carried out coliform counts for the beaches around the city and it presented the results in the annual (September) warning regarding storms and dangerous tides, which was published in the national newspaper. The results were appalling; for some samples the coliforms were too numerous to count. In the meantime the combination of household and industrial wastes has polluted the Baie de Hann so badly that algal growths have killed off the inshore fishery. Few local fishermen have the equipment to fish further from the shore. From simply being a nuisance, environmental decline has now begun to undermine the local economy beginning with fishery and tourism.

Source: White, Rodney R., 'The international transfer of urban technology: does the North have anything t0 offer for the global environmental crisis?', Environment and Urbanization, vol. 4, no. 2, 1992, 109-20.

as built-up areas expand without control and land speculation on urban fringes drives out cultivators; this appears more common in most Third World nations. Box 4.8 gives an example of some of the impacts of Rio de Janeiro on the wider region and also outlines the economic cost to the city of not paying attention to the control of environmental degradation.

4.7 Global Impacts

Introduction

This section concentrates on the global impact of settlements on the depletion of non-renewable resources, the emission of greenhouse gases and the emission of gases that are depleting the stratospheric ozone layer. There are also the international dimensions of the concerns raised in the previous section on cities' regional impacts. Much of the 'ecological footprint' of the largest cities in the North is within the South, as most renewable resources are drawn from there.

In addition, the trade in environmental resources is not one way; the converse is pollution export from the North to the South. Attempts by businesses and municipal authorities in the North to export municipal or other wastes (including hazardous wastes) to the South, or by multinational corporations to move their dirtier industries there, are examples of the transfer of ecological costs from local sinks in the North to local sinks in the South. Certain dirty industries have been transferred from the North to the

BOX 4.8
Environmental problems in Rio de Janeiro

By 1990, Rio de Janeiro's population had grown to 9.6 million in a metropolitan area that covered almost 6,500 square kilometres.* Developing on a narrow piece of land between the sea and the mountains, the city developed within one of the world's most beautiful natural sites, beside Guanabara Bay; despite its name, there is no rio or river; the Portuguese navigators who named it had assumed that the entrance of the bay was the mouth of a river. This natural beauty is an important economic asset for residents and for tourists (the city alone has 80 kilometres of recreational beaches that can be enjoyed all year).
The main problems include:

- Water pollution is a serious problem from both point and non-point sources. The main point sources are collected but inadequately treated domestic sewage and industrial effluent from chemicals, petrochemicals and petroleum refining, iron and steel production and other metal-refining industries. The main non-point sources are uncollected and untreated domestic wastes, agricultural run-off, storm water run-off and improperly disposed of solid waste. Water contaminated by untreated human excreta has a major role in the transmission of enteric and diarrhoeal diseases.

  The lack of control over water pollution also means widespread coastal pollution, especially around Guanabara and Sepetiba Bays, largely because of uncontrolled disposal of wastes from commercial and industrial activities.
- Increasing income disparities, high unemployment and high and growing crime rates that have accompanied a growing distinction between the 'official' city and the 'non-official' city, much of it located on the periphery of the urban agglomeration.
- The incapacity of the municipal government to manage the vast quantity of solid and liquid wastes generated within Rio de Janeiro; much of this waste goes uncollected. In 1990, more than a quarter of households were not served with garbage collection. Most sewage is dumped untreated into rivers, bays and nearshore oceanic waters and ends up in Guanabara and Sepetiba bays; the only exception is sewage collected from approximately two million people in the Ipanema area that is disposed of through an outfall located some 3.5 km offshore.
- The rapid and uncontrolled expansion of urban settlements over land on the city's periphery sometimes on unsafe land in areas where local governments lack the capacity to guide the expansion of settlements, protect fragile slopes from settlements and provide basic services and infrastructure. By 1991, close to half of the population lived in peripheral municipalities, compared to 32 per cent in 1960. In 1990, 16 per cent of Rio's households still lacked piped water and 17 per cent lacked adequate sanitation. The annual expenditure per person on sanitation and health care in some of the poorest municipalities was US$8 or less per person 1988-91.
- Region-wide deforestation has led to severe erosion and degradation of water sources. The removal of vegetative cover from slopes combined with the development of lowland areas has led to very poor natural drainage. Rainwater and earth from eroded soils pour down from the mountains during the summer rains, often causing stream channels to overflow and an inundation of floodplains.

One of the main constraints on effective action is the complex institutional structure, combined with a long-established reluctance of state and federal authorities to fund investments in Rio de Janeiro. Municipal authorities do not have total control over development decisions at local level much less at metropolitan level. Most local governments lack the staff and funds to administer urban and environmental planning. Many responsibilities for environmental control have been transferred to them from the state but without the resources to permit them to do so. Responsibilities for land use and zoning regulations rest with local governments but there are many problems of co-ordination between the different public agencies. Local governments have the authority to regulate commercial and residential use as long as their regulations do not conflict with federal and state laws; zoning at federal government level focusing on protection of forests and ecological reserves while at state level, it is meant to control the location of polluting firms. But overlapping jurisdictions often discourage co-ordination between different bodies and restrict effective action. To compound the problem, all municipalities other than the central Rio de Janeiro municipality have outdated property and other cadaster information, making it difficult to reach efficiency in implementing projects and enforcing law.

* This does not fully encompass the urban agglomeration. Different government agencies use different boundaries which can consist of anything between 12 and 17 municipalities. For instance, the population is sometimes set at 11.2 million in 1990 if larger boundaries are set on the metropolitan region that then encompasses 14 municipalities.

Source: Kreimer, Alcira, Thereza Lobo, Braz Menezes, Mohan Munasinghe, Ronald Parker and Martha Preece, 'Rio de Janeiro-in search of sustainability and other papers in Alcira Kreimer, Thereza Lobo, Braz Menezes, Mohan Munasinghe and Ronald Parker (eds.), Towards a Sustainable Urban Environment. The Rio de Janeiro Study, World Bank Discussion Papers no. 195, World Bank, Washington DC, 1993.

South-for instance industries manufacturing asbestos and pesticides.[156] There is also the export of hazardous wastes to countries in the South, with minimal provision for their safe storage, and often to the poorest nations which lack the knowledge and the institutional capacity to manage them. While international action has sought to control this trade, the incentives to export hazardous wastes are considerable, given the high costs of storing or destroying them in the North.

Non-renewable resources

Per capita consumption of non-renewable resources such as metals and fossil fuels in the richest nations and cities of the world has reached unprecedented levels. In 1991, the average commercial energy consumption per capita in Africa was 12 gigajoules; in Canada, the United States, Australia and many of the richest European nations, it was between 15 and 30 times this figure with most of the more wealthy European nations and Australia having between 160 and 220 gigajoules and the United States and Canada having around 320.[157] Among the poorer African and Asian countries, the per capita average was between 1 and 10.

The average per capita consumption of steel within OECD nations is 450 kilograms compared to 43 kilograms in the South.[158] Per capita consumption of aluminium in the North is 20 times that in the South while that of copper is 17 times that in the South.[159] Comparable contrasts exist between per capita consumption in rich and poor nations for most other non-renewable resources.

There are fewer comparisons of city populations' non-renewable resource consumption but those that do exist also reveal an enormous disparity between North and South. By the late 1980s, the average waste generation for each urban citizen in North America was 826 kilograms a year compared to 394 kilograms for Japan and 336 for the European OECD nations; the average for low-income countries is between 150 and 200 kilograms a year and in many cities (or poor city districts) in the South the average can be as low as 50 per person per year.[160] Disparities in the quantities of non-renewable resources thrown away in the garbage (especially metals) are much higher because of the higher proportion of metals discarded in the wastes in cities in the North.

The highest levels of non-renewable resource use and waste generation by consumers tend to be in the wealthiest cities and among the wealthier groups within cities. Levels of resource use are generally much smaller in low-income countries or in small urban centres in poorer regions.[161] The main reason is simply the very low incomes of most urban dwellers so they have too few capital goods to represent much of a drain on the world's finite non-renewable resource base. Low-income households in most cities in the South generate very little solid waste and much of the metal, glass, paper and other items in their wastes is reused or recycled. Many low-income households make widespread use of recycled or reclaimed materials when constructing their houses and little use of cement and other materials with a high energy input. Most rely on public transport (or walk or bicycle) which ensures low averages for oil consumption per person.

Thus, comparisons of per capita non-renewable resource consumption between nations or between cities are misleading. Worldwide, it is the middle- and upper-income groups which account for most resource use and most generation of household wastes; this only becomes a North-South issue because most of the world's middle- and upper-income people with high consumption lifestyles live in Europe, North America and Japan. High-income households in cities such as Lagos, Sao Paulo and Bangkok may have levels of non-renewable resource use comparable to high-income households in Los Angeles or Houston; it is the fact that there are many fewer of them within the city population which keeps city averages much lower.

But levels of household wealth alone are insufficient to explain the disparities between cities in terms of per capita resource use. For instance they do not explain why gasoline use per capita in cities such as Houston, Detroit and Los Angeles in 1980 was between four and eight times that in most European cities.[162] The study from which these figures were drawn suggested that larger vehicles, greater wealth and cheaper gasoline in the United States explain only between 40 and 50 per cent of the variation; other key factors are urban density and the pattern of land use which in turn are linked to public transport performance and level of traffic restraint.[163] The influence of density on per capita gasoline use can also be seen in the comparisons made between the core, inner suburbs and outer suburbs of Toronto; on average, each person in the outer suburbs had twice the gasoline consumption of each person in the core.[164] The disparities are even larger in New York, those in the outer area averaging five times the gasoline use per person of those in the central city (mainly Manhattan).

The dates when the price of non-renewable resources will begin to rise rapidly, reflecting depletion of their stocks, may have been overstated in the various reports produced during the 1970s, but the finite nature of non-renewable resource stocks is not in doubt. There may be sufficient non-renewable resources to ensure

that 9-10 billion people on earth, late into the next century, have their needs met. But it is unlikely that the world's resources and ecosystems could sustain a world population of 9 or 10 billion with a per capita consumption of non-renewable resources similar to that enjoyed by the richest households today or even the average figure for cities such as Houston and Los Angeles.

Global environment

Discussions on the impact of human activities on global life-support systems centre on their contribution to atmospheric warming and to reducing the stratospheric ozone layer. There are also large disparities between countries or cities in the North and South in terms of greenhouse gas emissions and emissions of stratospheric ozone-depleting chemicals per person. Cities such as Canberra, Chicago and Los Angeles have carbon dioxide emissions 6-9 times greater per capita than the world's average and 25 times (or more) that of cities such as Dhaka.[165]

In regard to global warming, there is still much uncertainty about its possible scale in the future and its likely direct and indirect effects. But atmospheric concentrations of the most important greenhouse gases-carbon dioxide, halocarbons and methane-are increasing. There is evidence of an increase in the global average temperature over the last 120 years and many of the warmest years on record have been in the last 15 years. Glaciers in virtually all parts of the world are receding. These are consistent with global warming induced by greenhouse gases released by human activities but there are uncertainties as to the extent to which the increase in global temperature is the result of human activities and the extent (and rate) at which it will continue. For instance non-human induced factors such as volcanic eruptions are also important. The warming trend might be part of a natural variation that may reverse itself. But if global warming arising from human-induced releases of greenhouse gases does continue, it could bring major problems for a large part of the world's settlements. These can be divided into direct and indirect effects.

The main direct effects are higher global mean temperatures, sea level rises, changes in weather patterns (including those of rainfall and other forms of precipitation) and changes in the frequency and severity of extreme weather conditions (storms, sea surges).[166] Sea level rises will obviously be most disruptive to settlements on coastal and estuarine areas and this is where a considerable proportion of the world's population lives. Sea level rises will also bring rising groundwater levels in coastal areas that will threaten existing sewerage and drainage systems and may undermine buildings. Most of the world's largest cities are ports and the high cost of land in the central city and/or around ports has often encouraged major commercial developments on land reclaimed from the sea or the estuary and these will often be particularly vulnerable to sea level rises. So too will the many industries and thermal power stations that are concentrated on coasts because of their need for cooling water or as the sea becomes a convenient dumping ground for their waste.[167] Ports and other settlements on the coast or estuaries are also most at risk from any increase in the severity and frequency of floods and storms induced by global warming. For instance, in the unprotected river deltas of Bangladesh, Egypt and Vietnam, millions of people live within one metre of high tide in unprotected river deltas.[168] The lower reaches of many major rivers that also have high population concentrations present particular difficulties-for instance on the Mississippi (USA) and the Hwang Ho and Yangtze (China).[169] The Maldives, the Marshall coastal areas, archipelagos and island nations in the Pacific and Indian Oceans and the Caribbean are likely to lose their beaches and much of their arable land.[170] Global warming may also increase the incidence and severity of tropical cyclones and expand the areas at risk from them-bringing particular dangers to such places as the coastal areas of Bangladesh that are already subject to devastating cyclones.[171]

Global warming will also mean increased human exposure to exceptional heat waves. The elderly, the very young and those with incapacitating diseases are likely to suffer most.[172] Those living in cities that are already heat islands where temperatures remain significantly above those of the surrounding regions will also be particularly at risk. High relative humidity will considerably amplify heat stress.[173] Increased temperatures in cities can also increase the concentrations of ground-level ozone (whose health effects were discussed earlier), as it increases the reaction rates among the pollutants that form ozone.

Warmer average temperatures permit an expansion in the area in which `tropical diseases' can occur-for instance global warming is likely to permit an expansion of the area in which mosquitoes that are the vectors for malaria, dengue fever and filariasis can survive and breed.[174] The areas in which the aquatic snail that is the vector for schistosomiasis may expand considerably.

The indirect effects of global warming will probably have as dramatic an impact on settlements as their direct effects. Increasing temperatures and changes in weather patterns will lead to changes in ecosystems that in turn impact on the livelihoods of those that exploit or rely on natural

resources for their livelihoods. For instance, changes in the areas most favoured by rainfall and temperature for high value crops and for fresh water will change the pattern of settlements. Forests and fisheries may also be subject to rapid change. Both traditional and modern agricultural practices may be vulnerable to the relatively rapid changes in temperature, rainfall, flooding and storms that global warming can bring. The problems are likely to be most serious in the countries or areas where the inhabitants are already at the limits of their capacity to cope with climatic events-for instance populations in low-lying coastal areas and islands, subsistence farmers, and populations on semi-arid grasslands.[175]

One aspect of global warming is difficult to predict-the capacity and readiness of societies to respond to the changes that warming and its associated effects will bring. Societies have evolved a whole series of mechanisms to reduce risk from natural hazards-from those within traditional societies where house design and settlement layout often includes measures to limit loss of life and property from earthquakes or storms to those that have passed into law and statute books in industrial societies. These can be seen in the building and planning codes and in health and safety regulations, and the institutional measures developed to enforce them. Where these are appropriate to that particular society and its resources, and where they are enforced, they reduce risk and ensure that the built environment can cope with high winds, accidental fires or sudden heavy rainstorms. Their effectiveness can be seen in the great reductions achieved in accidental death and injury. For instance, even as late as the last century, it was common for accidental fires to destroy large areas of cities in the North. This complex set of institutional measures and the built environment that they have influenced will have to change to reflect new hazards or a much-increased scale of existing hazard. There is the vast stock of buildings, roads, public transport systems and basic urban infrastructure that was built without making allowance for the changes that global warming will bring.[176]

4.8 Solving the Most Serious Environmental Problems

This chapter has highlighted how the most serious environmental problems in the world's settlements still remain the biological disease-causing agents (pathogens) in the air, water, soil and food or the vectors that spread diseases.[177] The diseases they cause such as acute respiratory infections, diarrhoeal diseases, tuberculosis and malaria remain among the major causes of death and disease in most settlements in the South. Most should not figure among the significant causes of death and most should also not be a significant cause of ill health.

Improving human settlements management. Adequate human settlements management becomes the most important way of addressing these environmental problems, both through reducing overcrowding and in ensuring that all households have adequate provision for water, sanitation, garbage collection and health care. Less crowded and better quality housing should also bring fewer household accidents. A prevention-oriented primary health-care system is an essential complement to this, not only because it can rapidly treat diseases but also for its capacity to ensure people are immunized against the many infectious diseases for which innnunizations are cheap and effective.

But this chapter also made clear that urgent action is needed to reduce the chemical, physical and psychosocial hazards within homes and wider settlements or cities. These include reducing life- and health-threatening physical hazards from dangerous sites (for instance the cities or settlements within cities that are subject to floods/mudslides/rockfalls). They include provision for traffic management and ensuring adequate provision for play for children and recreation for the entire city population. They include the full range of measures needed to promote healthy and safe working practices in all forms of employment and to penalize employers that contravene them. They also include measures to control air and water pollution. As cities become larger, more industrialized and more wealthy, so too does the need for more comprehensive and effective control of emissions and wastes from industries and motor vehicles and the protection of workers from occupational exposures.

There are also the important regional dimensions. A considerable part of the `solution' to rising levels of solid, liquid and gaseous wastes is to dispose of such wastes in the wider region. This chapter noted the ecological impacts that this can bring to the surrounding region. City populations and businesses also draw on regional resources and often with damaging environmental consequences-for instance the soils and gravels needed for buildings.

Finally, there are the global dimensions-ensuring that a city's ecological impact on global resources and systems is compatible with limits at a global level in terms of resource use, waste and the emission of stratospheric ozone-depleting chemicals and greenhouse gases. The world's wealthiest cities have, to a considerable degree, transferred the environmental costs that their concentration of production and consumption represents from their region to other regions and to global systems. While there is considerable

disagreement as to where ecological limits exist and exactly where the limit is, it is clear that the level of waste and greenhouse gas emissions per capita created by the lifestyles of most middle- and upper-income households in the North (and South) could not be sustained if most of the world's population came to have a comparable level of consumption.

The great variety of different environmental problems evident in cities and the great differences between cities in their range and relative importance make it difficult to establish priorities. But there are certainly misplaced priorities within the growing interest in environmental problems in the South.[178]

Give consideration to settlements of all sizes. There is probably too much attention given to the environmental problems of the largest cities, relative to those in other settlements (both rural and urban) where the majority of the world's population lives. Reliable environmental data should be collected from these areas and resources for environmental protection should be allocated on an equitable basis.

Focus on the brown agenda: In the South, too little attention is given to the most basic of environmental problems-the provision of safe, sufficient supplies of water to households and enterprises and provision for the collection and disposal of faecal matter and other liquid and solid wastes-what the World Bank has dubbed the `brown agenda' as distinct from the `green agenda'.[179] Most aid agencies and development banks still give a low priority to water and sanitation-in both rural and urban areas-as Chapter 11 will describe. There is still a tendency for Northern and middle-class perceptions as to what is `an environmental problem' to bias environmental priorities. Ambient air pollution in cities and the pollution of rivers, lakes and estuaries often receive more attention than the inadequacies in water supply, sanitation and drainage and the reduction of physical and chemical hazards within the home and workplace-although this latter group of problems usually takes a far greater toll on the health of citizens than the former.[180]

Build capacity for capacity. In addition, one of the lessons of the 1970' and 1980s is the limited impact of heavy investment in improved water-supply systems if no institutions exist to maintain and extend them and to fund their costs-and to ensure complementary investments in the collection and disposal of waste water. Many internationally funded water-supply and sanitation projects in the late 1980' and early 1990' were to rehabilitate or repair water and sanitation systems installed by these agencies not too many years earlier.[181] These are critical policy issues to which this Report will return in later Chapters.

Notes and References

1. For instance Bartone, Carl, Janis Bemstein, Josef Leitmann and Jochen Eigen, *Towards Environmental Strategies for Cities; Policy Considerations for Urban Environmental Management in Developing Countries,* UNDP/UNCHS/World Bank Urban Management Program, No. 18, World Bank, Washington DC, 1994; ESCAP, *State of Urbanization in Asia and the Pacific 1993,* Economic and Social Commission for Asia and the Pacific, ST/ESCAP/1300, United Nations, New York, 1993.
2. For instance, the results of the research by the Stockholm Environment Institute working with teams in Accra, Sao Paulo and Jakarta and published in Benneh, George, Jacob Songsore, John S. Nabila, A. T Amuzu, K. A. Tutu, Yvon Yangyuoro and Gordon McGranahan, *Environmental Problems and the Urban Household in the Greater Accra Metropolitan Area (GAMA) Ghana,* Stockholm Environment Institute, Stockholm, 1993, and McGranahan, Gordon and Jacob Songsore, `Wealth, health and the urban household; weighing environmental burdens in Accra, Jakarta and Sao Paulo', *Environment,* vol. 36, no. 6, July/Aug. 1994, 4-11 and 40-5; and the results of the research programme of the University of Hawaii-see Douglass, Mike, `The political economy of urban poverty and environmental management in Asia: access, empowerment and community-based alternatives', *Environment and Urbanization, vol.* 4, no. 2, Oct. 1992.
3. For instance in India the Centre for Science and Environment, *The State of India's Environment-a Citizen's Report,* Delhi, India, 1983; Centre for Science and Environment, *The State of lndia's Environment: a Second Citizens' Report* Delhi, India, 1985; and the fortnightly journal published by CSE: *Down to Earth.*
4. WHO, *Our Planet, Our Health,* Report of the Commission on Health and Environment, Geneva, 1992.
5. World Bank, *Water Resources Management,* World Bank Policy Paper, Washington DC, 1993.
6. Shrivastava, Rahul, `A plague on this country', *Down to Earth,* 31 Oct. 1994, 5-11.
   The basis for this statistic and more details about it are given in Section 4.2.
8. Satterthwaite, David, Roger Hart, Caren Levy, Diana Mitlin, David Ross, Jac Smit and Carolyn Stephens, *The Environment for Children,* Earthscan Publications and UNICEF, London, 1996.
9. Foster, Harold D., *Health, Disease and the Environment,* John Wiley and Sons, Chichester, 1992; WHO 1992, op. *cit.*
10. Bairoch, Paul, *Cities and Economic Development: From the Dawn of History to the Present,* Mansell, London, 1988,23 1, Wohl, Anthony S., *Endangered Lives: Public Health in Victorian Britain,* Methuen, London, 1983.
11. Undernutrition was also a major factor.
12. Cairncross, Sandy, Jorge E. Hardoy and David Satterthwaite, `The urban context', in Jorge E. Hardoy, Sandy Cairncross and David Satterthwaite (eds.), *The Poor Die Young: Housing and Health in Third World Cities,* Earthscan Publications, London, 1990. The estimate was subsequently endorsed by WHO 1992, op. *cit.*
13. Water Supply and Sanitation Collaborative Council, *Water Supply and Sanitation Sector Monitoring Report 1993,* WHO and UNICEF, 1993.
14. Girouard, Mark, *Cities and People: A Social and Architectural History,* Yale University Press, New Haven and London, 1985, 268.
15. Pye, Michael, *Maximum City: the Biography of New York,* Picador, 1994.
16. Wahl, Anthony S., *Endangered Lives: Public Health in Victorian Britain,* Methuen, London, 1983, 440 pages;

Waller, P J., *Town, City and Nation; England 1850-1914,* Oxford University Press, Oxford and New York, 1983.

17. Wohl 1983, op. *cit.,* and Woods, Robert and John Woodward, `Mortality, poverty and the environment', in R. J. Woods and J. H. Woodward (eds.), *Urban Disease and Mortality in Nineteenth Century England,* Batsford, 1984, 19-36.
18. Rosenberg, Charles E., *The Cholera Years,* University of Chicago Press, Chicago, 1962.
19. Caldwell, John C. and Pat Caldwell, `Education and literacy as factors in health', in Scott B. Halstead, Julia A. Walsh and Kenneth S. Warren (eds.), *Good Health at Low Cost,* Conference Report, The Rockefeller Foundation, New York, 1985, 181-5.
20. Pryer Jane, `The impact of adult ill-health on household income and nutrition in Khulna, Bangladesh', *Environment and Urbanization, vol.* 5, no. 2, Oct. 1993, 35-49.
21. World Bank, *World Development Report 1993; Investing in Health,* Oxford University Press, Oxford, 1993.
22. This table is based on the findings of a report prepared by WHO and the World Bank that sought to measure the global burden of disease for 1990 by combining losses from premature death and the loss of healthy life resulting from disability See Tables B.2 and B.3 in World Bank, *World Development Report 1993; Investing in Health,* Oxford University Press, 1993.
23. The *World Development Report 1993; Investing in Health* termed these the ,established market economies'.
24. European Environment Agency, *Europe's Environment: the Dobris Assessment,* Copenhagen, 1995.
25. European Environment Agency 1995, *op. cit.*
26. Rossi-Espagnet, A., G. B. Goldstein and 1. Tabibzadeh, `Urbanization and health in developing countries; a challenge for health for all', *World Health Statistical Quarterly, vol.* 44, no. 4, 1991, 186-244.
27. McGranahan and Songsore 1993, op. *cit.*
28. Victera, C. G., P G. Smith, J. P Vaughan and others, `Water supply, sanitation and housing in relation to the risk of infant mortality from diarrhoea', *International Journal of Epidemiology,* vol. 17, no. 3, 1988, 651-4 quoted in Williams, Brian T, *The Health Burden of Urbanization,* Background Paper for WHO Expert Committee on Environmental Health in Developing Countries, RUD/WP/90.4, Geneva, 1990.
29. See for instance Songsore and McGranahan 1993, op. *cit.;* Misra, Harikesh, `Housing and health problems in three squatter settlements in Allahabad, India' in Jorge E. Hardoy and others (eds.), *The Poor Die Young: Housing and Health in Third World Cities,* Earthscan Publications, London, 1990; and Adedoyin, M. and S. Watts, `Child health and child care in Okele: an indigenous area of the city of Ilorin, Nigeria', *Social Science and Medicine, vol.* 29, no. 12, 1989, 1333-41.
30. See for instance Songsore and McGranahan 1993, op. *cit.,* and Surjadi, Charles, *Health of the Urban Poor in Indonesia,* Urban Health Problems Study Group paper no. 29, Atma Jaya Research Centre, Jakarta, 1988.
31. World Bank, *World Development Report 1994; Infrastructure for Development,* Oxford University Press, Oxford and New York, 1994.
32. Esrey, Steven A., James B. Potash, Leslie Roberts and Clive Shiff, *Health Benefits from Improvements in Water* Supply *and Sanitation: Survey andAnalysis of the Literature on Selected Diseases,* WASH Technical Report No. 66, US AID, Washington DC, 1990.
33. WHO 1992, op. *cit.;* Prost, A. and A. D. Negrel, `Water, trachoma and conjunctivitis', *Bulletin of the World Health Organization, vol.* 67, no. 1, 1989, 9-18.
34. Preston, S. and E. van de Walle, `Urban French mortality in the nineteenth century', *Population Studies, vol.* 32, 1978, 275-97 quoted in Jones, Huw, *Population Geography,* 2nd edn., Paul Chapman Publishing, London, 1990.
35. WHO 1992, op. *cit.*
36. Rossi-Espagnet, Goldstein and Tabibzadeh 1991, op. *cit.*
37. Foster, S.O., `Measles, the ultimate challenge in urban immunization', in *Universal Child Immunization-Reaching the Urban Poor,* Urban Examples 16, UNICEF, New York, 1990.
38. WHO 1992, op. *cit.*
39. Bradley, David, Carolyn Stephens, Sandy Cairncross and Trudy Harpham (1991), *A Review of Environmental Health Impacts in Developing Country Cities,* Urban Management Program Discussion Paper no. 6, The World Bank, UNDP and UNCHS (Habitat), Washington DC.
40. Surjadi, Charles, `Respiratory diseases of mothers and children and environmental factors among households in Jakarta', *Environment and Urbanization,* vol. 5, no. 2, Oct. 1993, 78-86.
41. Songsore and McGranahan 1993, op. *cit.*
42. Guimaraes, J. J. and A. Fischmann, `Inequalities in 1980 infant mortality among shantytown residents and non-shantytown residents in the municipality of Porto Alegre, Rio Grande do Sul, Brazil', *Bulletin of the Pan American Health Organization, vol.* 19, 1985, 235-51.
43. Warner, D. B. and L. Laugeri, `Health for all: the legacy of the water decade', *Water International, vol.* 16, 1991, 135-41; and WHO, *Our Planet, Our Health,* Report of the Commission on Health and Environment, Geneva, 1992.
44. WHO 1992, op. *cit.* and WHO, *Global Estimates for Health Situation Assessments and Projections 1990,* Division of Epidemiological Surveillance and Health Situation and Trend Analysis, World Health Organization, WHO/HST/90.2. Geneva. 1991.
45. The information about Chagas' disease in this paragraph is drawn from WHO, *Our Planet, Our Health,* Geneva, 1992; Briceno-Leon, Roberto, *La Case Enferma: Sociologia de la Enfermedad de Chagas,* Consorcio de Ediciones Capriles, Venezuela, 1990, and WHO Technical Report Series, no. 811, *Control of Chagas Disease: report of a WHO Expert Committee,* Geneva, 1991.
46. Gomes Pereira, Mauricio, `Characteristics of urban mortality from Chagas' disease in Brazil's Federal District', *Bulletin of the Pan American Health Organization, vol.* 18, no. 1, 1984.
47. WHO 1992, op. *cit.*
48. Ekblad, Solvig, Chen Changhui, Li Shuran, Huang Yueqin, Li Ge, Li Yongtong, Zhang Weixi, Liu Mian, Xu Liang, Wang Qin, Shan Shuwen, Ran Wei and Zhang Suzhen, *Stressors, Chinese City Dwellings and Quality of Life,* Swedish Council for Building Research, Stockholm, 1991.
49. This and the following paragraph are largely drawn from Blue, Ilona and Trudy Harpham, `The World Bank World Development Report: Investing in Health, reveals the burden of common mental disorders but ignores its implications', *British Journal of Psychiatry,* Editorial, vol. 165, 1994, 9-12 with the statistics drawn from World Bank 1993, op. *cit.*
50. Blue and Harpham 1994, op. *cit.*
51. Murphy, Denis and Ted Anana, `Evictions and fear of evictions in the Philippines', *Environment and Urbanization, vol.* 6, no. 1, April 1994; Fernandes, Kenneth, `Katchi abadis: living on the edge', *Environment and Urbanization, vol.* 6, no. 1, April 1994, 50-8.
52. Fernandes 1993, op. *cit.;* Hunsley Magebhula, Patrick, `Evictions in the new South Africa: a narrative report from Durban', *Environment and Urbanization, vol.* 6, no. 1, April 1994, 59-62.
53. World Bank 1993, op. *cit.*
54. *Ibid.*
55. *Ibid.*
56. This consideration of environmental problems in settlements through considering their impact on human health at these different scales (indoor home/workplace, neighbourhood, city, city-region and globe) was first suggested in Hardoy, Jorge E. and David Satterthwaite, `Third World Cities and the Environment of Poverty'-*Geoforum,* vol. 15, no. 3, July 1984, and elaborated in Hardoy, Jorge E., Diana Mitlin and David Satterthwaite, *Environmental Problems in Third World Cities,* Earthscan Publications, London, 1992. This section draws on this latter book.
57. Hardoy, Mitlin and Satterthwaite 1992, *op. cit.*
58. Satterthwaite, Hart, Levy and others 1996, op. *cit.*

59. McGranahan, Gordon, *Environmental Problems and the Urban Household in Third World Countries,* The Stockholm Environment Institute, Stockholm, 1991.
60. McGranahan 1991, op. *cit.*
61. World Bank, *Indonesia Urban Household Energy Strategy Study,* Energy Sector Management Assistance Programme, Report No. 1071/90, Washington DC, 1990, quoted in McGranahan 1991 op. *cit.*
62. WHO 1992, op. *cit.*
63. European Environment Agency 1995, *op. cit.*
64. Pershagen, G. and L. Simonato, `Epidemiological evidence on indoor air pollution and cancer', in I. Tomatis (ed.), *Indoor and Outdoor Pollution and Cancer,* Springer-Verlag, Berlin, 1993, 119-34.
65. European Environment Agency 1995, *op. cit.*
66. *Ibid.*
67. Surjadi 1993, op. *cit.;* Songsore, Jacob and Gordon McGranahan, `Environment, wealth and health; towards an analysis of intra-urban differentials within Greater Accra Metropolitan Area, Ghana', *Environment and Urbanization, vol.* 5, no. 2, Oct. 1993, 10-24.
68. Pio, A., `Acute respiratory infections in children in developing countries: an international point of view', *Pediatric Infectious Disease Journal, vol.* 5, no. 2, 1986,179-83.
69. UNICEF, *State of the World's Children* 1986, Oxford University Press, 1986.
70. WHO 1992, op. *cit.*
71. *Ibid.*
72. Cauthen, G. M., A. Pio and H. G. ten Dam, *Annual Risk of Tuberculosis Infection,* WHO, Geneva, 1988
73. Foster 1990, op. *cit.*
74. WHO 1992, op. *cit.,* and Schofield, C. J., R. Briceno-Leon, N. Kolstrup, D. J. T Webb and G. B. White, `The role of house design in limiting vector-borne disease', in Hardoy, Jorge E. and others (eds.) *The Poor Die Young: Housing and Health in Third World Cities,* Earthscan Publications, London, 1990.
75. McGranahan 1991, op. *cit.*
76. Manciaux, M. and C. J. Romer, `Accidents in children, adolescents and young adults: a major public health problem', *World Health Statistical Quarterly, vol.* 39, no. 3, 1986, 227-31.
77. *Ibid.*
78. WHO 1991, op. *cit.*
79. Hardoy, Mitlin and Satterthwaite 1992, *op. cit.*
80. Satterthwaite, Hart, Levy and others 1996, op. *cit.*
81. Goldstein, Greg, `Access to life saving services in urban areas', in Hardoy, Jorge E. and others (eds.), *The Poor Die Young: Housing and Health in Third World Cities,* Earthscan Publications, London, 1990.
82. WHO 1991, op. *cit.* Note that this includes occupational hazards for those working outdoors as well. In rural settlements, environmental hazards are often a significant health risk for farmers, pastoralists or foresters, those making a living from hunting and fishing, as well as those working indoors in related industries such as abattoir workers, tanners and furriers. `Each group has its own particular occupational hazards but the first and second groups have most of their hazards specifically determined by environmental factors such as climate, close contact with animals and disease vectors and work with a variety of agrochemicals' (WHO 1992, op. *cit.* 77).
83. WHO, *Report of the Panel on Industry,* WHO Commission on Health and Environment, WHO/EHE/92.4 WHO Geneva, 1992.
84. WHO 1991, op. *cit.*
85. Castonguay, Gilles, `Steeling themselves with knowledge' report on the work of Cristina Laurell, *IDRC Reports vol.* 20, No 1, April 1992, 10-12.
86. Greg Goldstein, WHO, personal communication.
87. WHO, *The World Health Report 1995: Bridging the Gaps,* Geneva, 1995.
88. Hardoy, Jorge E. and David Satterthwaite, *Squatter Citizen: Life in the Urban Third World,* Earthscan Publications, London, 1989.
89. *Ibid.;* Sarin, Mahdu, `The rich, the poor and the land question', in Shlomo Angel, Raymon W Archer, Sidhijai Tanphiphat and Emiel A. Wegelin (eds.), *Land for Housing the Poor,* Select Books, Singapore, 1983,237-53.
90. Schofield, Briceno-Leon, Kolstrup and others 1990, op. *cit.*
91. Cairncross, Sandy and Richard G. Feachem, *Environmental Health Engineering in the Tropics; an Introductory Text* (2nd edn.), John Wiley and Sons, Chichester (UK), 1993.
92. Sapir, D., *Infectious Disease Epidemics and Urbanization: a Critical Review ofthe Issues,* Paper prepared for the WHO Commission on Health and Environment, Division of Environmental Health, WHO, Geneva, 1990.
93. WHO 1992, op. *cit.*
94. Blacklock, D. B. and A. M. Evans, `Breeding places of Anopheline mosquitoes in and around Freetown, Sierra Leone', *Annals of Tropical Medicine and Parasitology, vol.* 20, 1926, 59-86, quoted in Rossi-Espagnet, Goldstein and Tabibzadeh 1991, *op. cit.*
95. Aradeon, David, Tade Akin Aina and Joe Umo, 'South-West Nigeria', in Jorge E. Hardoy and David Satterthwaite (eds.), *Small and Intermediate Urban Centres; their Role in Regional and National Development in the Third World,* Hodder and Stoughton (UK) and Westview (USA), 1986,228-78.
96. Rossi-Espagnet, Goldstein and Tabibzadeh 1991, op. *cit.*
97. *Ibid.*
98. Cairncross and Feachem 1993, op. *cit.*
99. Gomes Pereira, M., `Characteristics of urban mortality from Chagas' disease in Brazil's Federal District', *Bulletin of the Pan American Health Organization, vol.* , 18, no. 1, 1989; Briceno-Leon, Roberto, *La Casa Enferma: Sociologia de la Enfermedad de Chagas,* Consorcio de Ediciones, Capriles C.A. Caracas, 1990.
100. Conway, Gordon R. and Jules N. Pretty, *Unwelcome Harvest,* Earthscan Publications, London, 1991.
101. This section draws to a considerable extent on UNEP and WHO, *Urban Air Pollution in Megacities of the World,* Blackwell, Oxford, 1992.
102. WHO 1992, op. *cit.*
103. See for instance Patel, Tara, `Killer smog stalks the boulevards', *New Scientist* no. 1947, 15 Oct. 1994, 8.
104. *Ibid.*
105. WHO 1992, op. *cit.*
106. World Bank, *World Development Report 1992; Development and the Environment,* Oxford University Press, 1992.
107. UNEP and WHO 1992, op. *cit.*
108. This paragraph draws its information from Bartone and others 1994, op. *cit.*
109. Hertzmann, Clyde, *Environment and Health in Eastern Europe,* World Bank, 1994.
110. UNEP and WHO, *Assessment of Urban Air Quality,* Global Environment Monitoring Service, United Nations Environment Programme and World Health Organization, 1988.
111. World Bank, *World Development Report 1992,* Oxford University Press, 1992 quoted in Bartone and others 1994, op. *cit.*
112. In cities with the highest dust concentrations, the proportion of cases attributable to pollution reaches 23 per cent of asthma and 11 per cent of obstructive airways disease; see European Environment Agency 1995, op. *cit.*
113. This paragraph about Europe draws its information from European Environment Agency 1995, op. *cit.*
114. Annual mean concentrations of sulphur dioxide in London of between 300 and 400 pg per cubic metre were typical up to the mid 1960s and are now around 20-30, UNEP and WHO 1992, op. *cit.*
115. UNEP and WHO 1992, op. *cit.*
116. Needleman, Herbert L., Alan Schell, David Bellinger, Alan Leviton and Elizabeth N. Allred, `The long-term effects of exposure to low doses of lead in childhood: an eleven year follow up report', *The New England Journal of Medicine, vol.* 322. no. 2, Jan. 1991, 83-8.
117. WHO 1992. op. *cit.*
118. US AID, *Ranking Environmental Health Risks in Bangkok,* Office of Housing and Urban Programs, Washington DC, 1990.
119. European Environment Agency 1995, *op. cit.*
120. UNEP and WHO 1992, op. *cit.*

121. *Ibid.*

122. Hardoy, Mitlin and Satterthwaite *1992, op. cit.;* Sani, S., `Urbanization and the atmospheric environment in Southeast Asia', in *Environment, Development, Natural Resource Crisis in Asia and the Pacific,* Sahabat Alam Malaysia, 1987.

123. Hardoy, Mitlin and Satterthwaite *1992, op. cit.*

124. *Ibid.*

125. Lee, James A., *The Environment, Public Health and Human Ecology,* The World Bank, Johns Hopkins University Press, Baltimore and London, *1985*

126. European Environment Agency *1995, op. cit.*

127. WHO *1992, op. cit.*

128. *Ibid.*

129. Hardoy, Mitlin and Satterthwaite *1992, op. cit.*

130. Zhongmin, Yan, `Shanghai: the growth and shifting emphasis of China's largest city', in Victor F S. Sit (ed.), *Chinese Cities: the Growth of the Metropolis since* 1949, Oxford University Press, Hong Kong, *1988, 94-127.*

131. Phantumvanit, Dhira and Wanai Liengcharensit, `Coming to terms with Bangkok's environmental problems', *Environment and Urbanization, vol. 1,* no. l, April *1989, 31-9.*

132. European Environment Agency *1995, op. cit.*

133. It is obviously not only in cities that natural hazards take a large toll on human health. Some of largest losses of life have come in densely populated rural areas-as in the tens of thousands of people who lost their lives in floods and cyclones in Bangladesh in *1991* and the *24,000* or so people in Colombia who lost their lives in *1985* from the volcanic eruption in Nevado del Ruiz and the associated landslides-see UNEP, *Environment Data Report* 1993-94, prepared by GEMS Monitoring and Assessment Research Centre, Blackwell, Oxford, *1993.* This section also draws from this document.

134. Davis, Ian, `Safe shelter within unsafe cities: disaster vulnerability and raid urbanization', *Open House International, vol. 12,* no. *3, 1987, 5-15;* Cuny, Frederick C. `Sheltering the urban poor: lessons and strategies of the Mexico City and San Salvador earthquakes', *Open House International, vol. 12,* no. *3, 1987, 16-20;* Degg, Martin R., `Earthquake hazard assessment after Mexico', *Disastersvol. 13,* no. *3, 1989, 237-46.*

135. Davis *1987, op. cit.;* Barraza, Ernesto, `Effectos del terremoto en la infraestructura de vivienda', and Lungo Ucles, Mario, `El terremoto de octubre de *1986* y la situacion habitacional de los sectores populates', in `El terremoto del 10 de octubre de *1986',* a special issue of *La Universidad,* Nino CXII No *5,* San Salvador, Jan.-March, *1987;* Lungo Ucles, Mario, `San Salvador: el habitat despues del terremoto', *Medio Ambiente y Urbanization,* no. *24,* Sept. *1988,46-52.*

136. See references in previous two notes.

137. Jimenez Diaz, Virginia, `Landslides in the squatter settlements of Caracas; towards a better understanding of causative factors', *Environment and Urbanization, vol. 4,* no. *2,* Oct. *1992.*

138. Centre for Science and Environment *1985, op. cit.*

139. UNEP *1993, op. cit.*

140. *Ibid.*

141. *Ibid.*

142. Douglas, Ian, `Urban Geomorphology', in P G. Fookes and P R. Vaughan (eds.), *A Handbook ofEngineering Geomorphology,* Surrey University Press (Blackie and Son), Glasgow, *1986, 270-83,* and Douglas, Ian, *The Urban Environment,* Edward Arnold, London, *1983.*

143. Hardoy, Mitlin and Satterthwaite *1992, op. cit.*

144. Hardoy and Satterthwaite *1989, op. cit.*

145. For India: Agarwal, Anil, `The poverty of nature: environment, development, science and technology', *IDRC Report No. 12,* Ottawa, Canada, *1983, pp. 4-6.* For China: Smil, Vaclav, *The Bad Earth: Environmental Degradation in China,* M. E. Sharpe, New York, and Zed Press, London, *1984.* For Malaysia: Consumers Association of Penang, *Development and the Environment Crisis -A Malaysian Case, 1982;* and reports in *Environmental News Digest, 1982.* For Alexandria: Hamza, Ahmed, `An appraisal of environmental consequences of urban development in Alexandria, Egypt', *Environment and Urbanization, vol. 1,* no. 1, April *1989, 22-30.* For Gulf of Paria: Cover Story, *The Siren,* no. *38,* UNEP, Nairobi, Oct. *1988.* For Manila Bay: Jimenez, Rosario D. and Sister Aida Velasquez, `Metropolitan Manila: a framework for its sustained development', *Environment and Urbanization, vol. 1,* no. 1, April *1989.* For the Bay of Dakar: Kebe, Moctar, `The West and Central African Action Plan', Interview in *The Siren,* No. *37,* July *1988, 31-4.* For Indus Delta: Sahil, `Marine pollution and the Indus Delta', vol. 1 (House journal of National Institute of Oceanography, Karachi, Pakistan), *1988, 57-61;* and Beg, M. Arshad Ali S. Naeem Mahmood, Sitwat Naeem and A. H. K. Yousufzai, `Land based pollution and the marine environment of the Karachi coast', *Pakistan Journal of Science, Industry and Resources, vol. 27,* no. *4,* Aug. *1984, 199-205.*

146. For China: Smil *1984, op. cit.* For Malaysia: Sahabat Alam Malaysia; *The State ofMalaysian Environment* 1983-4-Towards Greater Environmental Awareness, *1983.* For India: Centre for Science and Environment, *The State of India's Environment-a Citizen's Report,* Delhi, India, *1983.* For Cubatao: Bo Landin, *Air Pollution,* film produced as part of the Television Series `Battle for the Planet', Television Trust for the Environment, *1987.*

147. This paragraph draws on Conway and Pretty *1991, op. cit.*

148. Conway and Pretty *1991, op. cit.*

149. Rees, William E., `Ecological footprints and appropriated carrying capacity: what urban economics leaves out', *Environment and Urbanization, vol. 4,* no. *2,* Oct. *1992.*

150. Giradet, Herbert, *The Gaia Atlas of Cities,* Gaia Books, London, *1992.*

151. White, Rodney R., `The international transfer of urban technology: does the North have anything to offer for the global environmental crisis?', *Environment and Urbanization, vol. 4,* no. *2,* Oct. *1992.*

152. Damián, Araceli, `Ciudad de Mexico: servicios urbanos en los noventas', *Vivenda, vol. 3,* no. 1, Jan.-April *1992, 29-40;* and Postel, Sandra, *The Last Oasis, Facing Water Scarcity,* Worldwatch Environmental Alert Series, Earthscan Publications, London, *1992.*

153. European Environment Agency *1995, op. cit.*

154. Douglass, Mike, `The environmental sustainability of development-coordination, incentives and political will in land use planning for the Jakarta Metropolis', *Third World Planning Review, vol. 11,* no. *2,* May *1989, 211-38.*

155. Tiffen, Mary and Michael Mortimore, `Environment, population growth and productivity in Kenya; a case study of Machakos District', *Development Policy Review, vol. 10, 1992, 359-87;* Manzanal, Mabel and Cesar Vapnarsky, `The Comahue Region, Argentina' in Hardoy, Jorge E. and Satterthwaite, David (eds.), *Small and Intermediate Urban Centres; Their Role in National and Regional Development in the Third World,* Hodder and Stoughton (UK), *1986* and Westview (USA), *1986.*

156. Castleman, Barry I., `Workplace health standards and multinational corporations in developing countries' in Charles S. Pearson (ed.), *Multinational Corporation, the Environment and the Third World,* Duke University Press, Durham, USA, *1987,149-72.*

157. Table *21.2* in World Resources Institute, *World Resources* 1994-95: *a Guide to the Global Environment,* Oxford University Press, Oxford, *1994.*

158 OECD, *The State of the Environment,* Organization for Economic Co-operation and Development, Paris, *1991.*

159. World Resources Institute *1994, op. cit. 9.*

160. OECD *1991, op. cit.*

161. Hardoy, Jorge E., Diana Mitlin and David Satterthwaite, `The future city', in Johan Holmberg (ed.), *Policies for a Small Planet,* Earthscan publications, London, 1992,124-56.

162. Newman, Peter W G and Jeffrey R. Kenworthy, *Cities and Automobile Dependence: An International Sourcebook,* Gower Technical, Aldershot, 1989.

163. *Ibid.*

164. Gilbert, Richard, `Cities and global warming', in James McCulloch (ed.),

Cities and Global Climate Change, Climate Institute, Washington DC, 1990, 182-90.

165. Nishioka, Shuzo, Yuichi Noriguchi and Sombo Yamamura, `Megalopolis and climate change: the case of Tokyo', in James McCulloch (ed.), *Cities and Global Climate Change*, Climate Institute, Washington DC, 1990, 108-3 3.
166. Scott, M. J., Draft paper on Human settlements-impacts/adaptation, IPCC Working Group II, WMO and UNEP, 1994.
167. Parry, Martin, `The urban economy', presentation at *Cities and Climate Change*, a conference at the Royal Geographical Society, 31 March 1992.
168. Scott 1994, op. *cit.*
169. *Ibid.*
170. *Ibid.*
171. WHO 1992, op. *cit.*
172. *Ibid.*
173. *Ibid.*
174. *Ibid.*
175. Scott 1994, *op. cit.*
176. Satterthwaite, Hart, Levy and others 1996, op. *cit.*
177. WHO 1992, op. *cit.*
178. Hardoy, Mitlin and Satterthwaite 1992, *op. cit.*
179. Bartone and others 1994, op. *cit.*
180. Hardoy, Mitlin and Satterthwaite 1992. *op. cit.*
181. Hardoy, Jorge E. and David Satterthwaire, `Environmental problems in Third World cities: a global issue ignored' *Public Administration and Development, vol. 11,* 1991, 341-61.

5 Institutional Trends and the Crisis of Governance

5.1 The Governance of Settlements[1]

Introduction

The governance of settlements has become a major issue over the last decade. The term 'governance' means more than government or management for it refers to the relationship not only between governments and state agencies but also between government and communities and social groups. `Governance' is a broader and more inclusive term than `government', just as `local governance' is a more inclusive term than `local government', in that it encompasses the activities of a range of groups-political, social and governmental-as well as their interrelationships. `Local governance' thus subsumes the operations of local governments, their relationships with the societies within which they operate, and even the technical area of `urban management', the term that has come to connote the actual management of local government services and infrastructure.

Three factors have helped `local governance' emerge as a key issue in the discussion of policies for human settlements:

- The elaboration and implementation of decentralization policies in many countries including the emergence of the concept of subsidiarity.
- The introduction of or return to democratic principles of government in many countries during the 1980s and early 1990s, at both the national and local levels.
- the increased importance of citizen and community pressure-including urban social movements-combined with the growth worldwide of an environmental movement that have helped to place a greater emphasis on local control and involvement in decision making.

Decentralization

During the 1980s, concern grew about the inability of many governments to deliver development programmes to their people at the local level. In Africa, which was perhaps the most problematic region in terms of development over this decade, the World Bank stated that one of the continent's most urgent needs was to improve institutional capacity. This included a recommendation that local governments could play a greater role if allowed more autonomy and regular, independent sources of revenue, especially in managing the expanding urban networks that link the towns to their hinterlands. In rural areas local services, such as water supply, could be better run at the communal level. This too requires genuine delegation of responsibilities.[2]

Another analysis put it more bluntly:

> We will argue ... that ethnic conflict, political inefficacy, administrative weaknesses, and economic stagnation can be understood in part as caused by attempts over the last two decades to impose a high level of centralization in contemporary African states, and that these explanations argue forcefully for changes in political structure and development strategy.[3]

It was not until the 1980s that a wide debate began in many countries about the balance of power and distribution of functions between national and local governments. Decentralization policies of different kind have been or are being implemented in most countries-including countries in Europe, North America and Africa, Asia and Latin America-and also in countries with centralized and decentralized structures.[4] Among the 75 countries in the South and in East and Central Europe that had 5 million or more inhabitants in the early 1990s, all but twelve were engaged in some form of transfer of power from national to local levels of government.[5]

There is great variety in the forms that decentralization takes. Assuming that decentralization involves the delegation of authority from a higher, or more general level of the state to a lower, or more specialized unit (or area),[6] four major variants have been identified:

- *Deconcentration,* or the transfer of functions, but not power, from a central unit to a local administrative office. This is one of the `weakest' forms of decentralization and has become a common response by higher levels of government to deflect the blame for inadequate service provision from central to local authorities.
- *Delegation,* which involves, in most cases, the transfer of certain powers to parastatal agencies of the central state. While the parastatals have a certain autonomy in day-to-day management, they are usually controlled ultimately by government.
- *Devolution,* considered by some as 'real decentralization', since power and functions are

actually transferred to sub-national political entities, who, in turn, have real autonomy in many important respects.

- Privatization, which involves the transfer of power and responsibility for certain state functions to private groups or companies.[7]

With so many cases of decentralization underway, and so many differences in the form that the decentralization takes, it is virtually impossible to generalize about either the reasons for any particular exercise, or the success or failure of the decentralization effort as a whole. However, a number of cogent arguments can be put forward to explain why so many countries have adopted decentralization strategies.[8] The first is because of the diversity between localities i.e. that the demand for public services varies from place to place both in quantity and quality, so that only decentralization of the provision for these services can ensure an efficient response to this variation in demand. A second argument is based on efficiency, in that locally financed and provided services can be produced at a lower cost-and with local government also able to work more easily with local community-based or voluntary sector organizations in ways that allow significant cost reductions. While this may be counterbalanced by the argument for larger units of service provision that achieve greater efficiency than smaller units at the lower level, it is still prevalent. A third argument is based on accountability-i.e. that a decentralized institution should in principle be more accountable to its constituents, who are more likely to have easy access to service providers and a better understanding of how institutions operate if services and institutions operate at a lower level than if they operate at a national, or centralized level. Finally, there is the argument for co-ordination. Many local services are interdependent. Improved water supply needs provision for sanitation and drainage, otherwise there are serious problems of waste water-and combining the installation of sewers, drains and street paving can considerably reduce costs. Street cleaning and solid waste collection are needed to keep drains unblocked, especially where open drains are used-and solid waste collection is often difficult or impossible without paved roads. The cost-savings from co-ordination can more easily be attained when it operates over a smaller, more local area.

All these arguments have merit, but they have been given particular relevance by the severe financial constraints in which most central governments have found themselves in recent years. In many countries in Latin America and Africa, structural adjustment programmes in effect since the 1980s, have increasingly reduced the resources from the centre to finance local services and public administrations. If locally provided services are more likely to receive financial support from recipient populations (through taxes and fees) than if they were provided by the centre, this provides a good reason to decentralize the provision of such services. Even in wealthy Northern nations such as Canada and the United States, where an important range of functions are already in the hands of territorial and local authorities, there is a tendency to `download' national support programmes such as social assistance and even medical care to local jurisdictions in order to reduce demands on central budgets. While decentralization has until recently been justified by arguments relating to efficiency and accountability, these arguments have been particularly attractive to central governments in recent years.

While there are good, or at least locally persuasive arguments for decentralization in the current economic climate-whether this decentralization involves privatization of services or localization of functions and responsibility-any shift of responsibility and financial power from one level of government to another level or agency brings both benefits and costs. Since arguments for central government provision of services include the presumption that they can be more equally distributed among the population as a whole, that they can be more effectively related to macroeconomic policy, and that they may benefit from higher levels of technology and information support, there can be costs when certain services are decentralized. One of these costs is the growth of disparities between local governments in terms of services provided, since some local governments have a greater ability to finance these services than others. The disparities can become very large, where many services are provided by local authorities from resources they raise within their own jurisdiction as local authorities in high income districts or municipalities have a much larger revenue base and capacity to pay among their populations than local authorities in low income districts. In many large cities, there are large disparities between neighbouring municipalities-for instance between the middle and upper income suburbs and the peripheral municipalities with high concentrations of illegal and informal settlements.

Another potential disadvantage of decentralization is central government's loss of control over fiscal policy, when some local and territorial governments spend or borrow disproportionately for their own needs and so contribute to inflation or increasing the debt service costs for the country as a whole. Finally, there is a question as to whether certain services-such as waste disposal, trunk sewers, public transportation, and secondary education-can and should be managed

effectively by very local units, or whether they should not be managed by intermediate levels of government.

There are also the potential disadvantages related to privatization. One is the reduced transparency and accountability of infrastructure and service provision, when what was previously a government responsibility is privatized. Here, one particular worry is with the privatization of those forms of infrastructure and services that are `natural monopolies'; once a piped-water system or electricity distribution network or sewage and storm drainage system is built and becomes the responsibility of one company, it is virtually impossible for another company to compete by building another water, sewage or electricity distribution system. Customers cannot turn to another supplier for water, drains or electricity, if the quality is poor and/or prices are too high. A second potential disadvantage of privatization is the loss of public assets if these are sold at below their real value. A third is the difficulty of ensuring that lower-income households and areas receive basic infrastructure and services. Privatization actually reinforces the need for competent, effective and accountable local government to act on behalf of the inhabitants in its jurisdiction to ensure that private companies maintain quality and coverage in infrastructure and service provision and do not abuse any natural monopoly position by raising prices. This is a point to which Chapter 10 will return in discussing public-private partnerships.

Democratization

The increased importance given to local governance is also related to a worldwide `wave' of democratization from the late 1970s through the early 1990s. A `democracy' in the twentieth century may be understood as a system in which the

> most powerful collective decision makers are selected through fair, honest, and periodic elections in which candidates freely compete for votes and in which virtually all the adult population is eligible to vote.[9]

Thus, democracy implies the concurrent existence of freedoms to speak, publish, assemble and organize. It also implies the active functioning of more than one major political party in order to give voters a choice of alternative leadership groups. Beginning in 1974 in Portugal, and eventually spreading outward, a wave of democratization engulfed more than thirty countries in both the North and the South. Important changes in regime from authoritarian structures to democratic systems took place in 11 one-party systems, 7 regimes based on personal rulers, 16 regimes which had been under military control, and 1 regime (South Africa) which had been dominated by a racial oligarchy.[10] The years from 1973 to 1990 saw an increase in what could be classified as `democratic states' from 30 to 59, and a decrease in 'non-democratic states' from 92 to 71.[11] While a few states slipped from democratic to non-democratic rule during this period, the overall democratic trend was particularly marked during the 1970s and 1980s in Latin America (with democratic transitions in such countries as Brazil, Peru, Ecuador, Chile, Argentina, Guatemala and Bolivia), and in the late 1980s and early 1990s in the former Soviet Union and in East and Central Europe.

In Africa, the overall direction of movement was more complex than in most major regions, perhaps because of the large number of countries, and the great variety of linguistic, cultural and historical traditions they represent. From a situation in the 1970s in which almost all regimes on the continent could have been considered `authoritarian' by current standards, changes began to take place in party systems, electoral structures, and the application of the rule of law. By 1991, it was estimated that, of 54 countries for which reliable data was available to outside observers, 8 countries could be considered clearly `democratic', 8 clearly `authoritarian', and 3 more governed by a system which could best be described as `directed democracy'. Apart from these, 3 5 countries were in various stages of 'transition' to more democratic government. A little more than three years later, based on the same criteria, 14 countries (including, by this time, South Africa) could be considered `democratic', 3 `authoritarian', and 3 governed by `directed democracy'. At this time, 7 countries were so unstable they could not be classified.[12] Thus, while more countries became thoroughly `democratic' in this period, a number of countries became highly destabilized, and the level of commitment to democracy of many more was lower than it had been three years earlier. The consolidation of democracy on the continent, in spite of some hopeful trends over the last decade, is still an open-ended process in many countries.

The causes of this worldwide trend towards greater democracy are complex. But one of its important consequences is the strengthening of a `political culture' in many countries which reinforces a closer relationship between, on the one hand, political leaders and governmental institutions, and on the other, major social and economic groups. Democratic governments, however competent or incompetent, are more likely to operate in response to public opinion, and-given the necessity of periodic and open elections-are less likely to take arbitrary and self-serving decisions than non-democratic governments. Governments which are democratic at the national level are also more likely to be democratic at the local level. Thus, a movement

towards regular, open municipal elections instead of the selection of mayors and councillors by higher levels of government has paralleled the overall democratic trajectory in almost all cases. This has sharpened the debate in many countries on the appropriate division of powers between local and national governments, particularly as local politicians attempt to achieve more control over their jurisdictions. Given the economic stagnation and uncertainty which has faced many regions of the world over the last ten to fifteen years, combined with the growth of urban populations, it is not a foregone conclusion that recently elected municipal governments will be able effectively to cope with their new responsibilities and challenges. The debate on the appropriate role and functions for municipal governments will be a continuous one in all parts of the world.

Local social and environmental movements and NGOs

Starting in the 1970s, the larger and the more prosperous cities in most countries in the South became the focus of an increasingly intense conflict between the public authorities and large numbers of the urban poor. The conflict centred on the fact that a large part of each city's population had incomes that were too low to be able to afford the cost of shelter in areas that were planned and provided with basic infrastructure and services-including paved roads, piped water, drainage and provision for sanitation and electricity. Partly as a result, so-called `squatter' or `popular' settlements (variously named in different countries) developed on urban land that was unserviced, and where the land was occupied illegally-or if not illegally, at least without the approval of the urban authorities. However, the massive increase in the number of people living in the `popular' settlements was not a challenge to the system of authority; they are much more an attempt by people with limited income or assets to gain a foothold in the urban economy which could serve as a first step toward integration into the labour market and integration within the institutions of the larger society. This helps explain why there have been so few radical challenges by these people to the established political order, despite this very large and usually growing number of people who are very poorly housed and serviced.

Following this logic, a number of policy innovations-such as sites and services schemes, and `squatter upgrading' programmes-were developed in order to capitalize on the need for the urban poor to gain entry, at minimal cost, to the urban economy. As Chapter 11 will describe in more detail, these innovations, promoted by such multilateral agencies as the World Bank, and a number of bilateral donor agencies, were the focus of urban policy innovation throughout the South during the 1970s and 1980s. Certain government institutions were also set up primarily to address the needs and priorities of those in illegal or informal settlements.[13]

The attempts by the urban poor to gain access to urban land and services were conceptualized-at least in Latin America-as an important component of what were called `urban social movements'. A social movement was considered to reflect broad-based, often multi-class, co-ordinated activity at the local level; at the same time, while demands are made on the state, political parties and other specialized institutions are not the primary vehicles through which pressure is brought to bear. Informal and illegal settlements developed where the inhabitants felt confident that they could exert sufficient pressure on the authorities to let them stay-or at least to receive an alternative land site.[14] Decisions about which site to occupy and when to do so often reflected careful planning, good timing and well-informed trade-offs between the best locations and the best possibilities of being allowed to stay there and avoid eviction.[15] And when political circumstances permitted, intense pressure was brought to bear on the public authorities either for infrastructure and services or for legal tenure or both. In many cities, large sections of the middle-class were also active in such lobbying as they too had to develop their homes in illegal settlements, as inefficient land markets and cumbersome government regulations pushed land prices for legal plots beyond their means. However as Chapters 6 and 7 describe in more detail, these were generally in illegal subdivisions where the purchase of the land was legal but no approval for its use for housing or its subdivision had been obtained from the relevant public authorities. Although the form of this `building cities from the bottom up' took many forms, each much influenced by a great range of local factors such as political and economic circumstances, landowning structures, income distribution and official rules and regulations governing land use and building, it was responsible for a high proportion of all the housing that exists in most cities in the South today.[16]

Since in most countries, national and local government agencies were either unable or unwilling to supply basic urban services to these burgeoning popular settlements-at least not at the pace and quality that the people were demanding various patterns of community organization and self-help activities developed almost everywhere. There also developed a diverse range of NGOs who worked with them. The role and scope of community action and of NGO support for this was usually restricted and often repressed under

non-democratic regimes. For instance, during the 1960s and 1970s, NGOs in Latin America occupied the narrow political space between local communities and formal institutions in the domain of social services and the promotion of local development. When many northern countries and foundations did not want to give assistance to authoritarian governments or government-dominated political parties, they were prepared to support local NGOs, which often worked with community groups. In some countries, NGOs helped to maintain political pluralism; in others, they helped keep authoritarianism at bay. But the political importance of community organization and of the NGO work associated with them increased considerably with democratic rule. As Albert Hirschman suggests, such developments may be part of a worldwide trend in which basic economic (and therefore political) rights are being demanded by all citizens.[17] For example, in Brazil, beginning in the late 1970s:

> civil society breathed the air of the political `opening', which heralded a return to democratic rule after 20 years of authoritarianism. Mobilization took root in the factories, but soon spread beyond the labour movement and political parties. In both poor neighbourhoods ... and middle-class areas, the population organized to demand the right to basic services-water supply, sewerage, school facilities, health facilities, roads-and protested against ecological dangers, development plans which ignored residents' interests, housing evictions and a host of other cuases.[18]

The emergence of urban social movements in Mexico and Peru, involving particularly the mobilization and organization of low-income communities predated the Brazilian awakening. But the 1985 earthquake in Mexico City, and a growing concern over urban environmental risk-especially as a result of high levels of air pollution in the capital-led to a diverse range of protests and popular activity in the area of human settlements. As most Latin American countries became predominantly urban, the link between protests and organizational activity to secure land and improved urban services, and demands for the reduction and control of air and water pollution in the cities became more pronounced. Both, in any case, were central to the democratization process in Latin America:

> social movements were crucial to democratic recovery; they served as a means of developing social identity and of organizing political mobilization against dictatorships in Peru, Uruguay, Argentina and Chile.[19]

Eventually, with the return of democracy in much of South America in the 1980s, the activity of social movements was considerably reduced-but community organization linked to particular sites or more widespread citizen mobilization against particular projects still remained. So too did the role of NGOs whose role often expanded, as governments or international agencies channelled funding through them.

In the countries in the North, the development of an environmental movement had important roots in local communities-very often as they mobilized against a new road, power plant, waste-site or some other development that they felt would threaten their environment. Well-publicized environmental disasters such as the accidental release of methyl iso-cyanate in Bhopal in 1985 or the fire and release of radioactive material from the Chernobyl nuclear power plant in 1986 or the release of oil by the Exxon Valdez in 1989 helped to create and maintain a high level of public apprehension over environmental risk. These concerns were nourished-both in Europe and North America-by the increasing prominence among the public at large of what may be called `postmaterialist' values. In the affluent societies of the postwar period, in which basic human needs such as employment security, housing and material possessions were satisfied to a relatively high degree, a shift to non-material needs such as self-expression, esteem and aesthetic satisfaction became much more prominent. Surveys in nine major European countries showed, for a large group of respondents, a strong clustering of five nonmaterialist goals: `more say on the job', `a less impersonal society', `more say in government', `ideas count', and `freedom of speech'. In seven of the nine countries (showing most strongly in West Germany), the goal of `more beautiful cities' was also strongly associated with the first five items. On the other hand, materialist goals such as `strong defence forces', `fighting rising prices', `achieving a stable economy', 'fighting against crime', `economic growth' and 'maintaining order' were strongly clustered for another group of respondents.[20]

Postmaterialist values have proved to be a strong support for environmentalism. Thus, in 1985, among `materialists' in an opinion survey of the countries of the European community, 3 7 per cent `strongly approved' of the ecology movement, while among `postmaterialists' the approval level was 5 3 per cent. While 0.5 per cent of the 'materialists' claimed to be members of an environmental group, 3.3 per cent of the `postmaterialists'-or almost seven times the proportion-did so.[21] In both Europe and North America, belief in environmental values are strongly correlated with education, and with youth. As one writer puts it in commenting on the situation in North America, `[e]volving environmental values were closely associated with rising standards of living and levels of education'.[22]

Support for the environmental movement has been strongest in the more affluent regions of Canada and the United States, and weakest in the

less developed regions.[23] Overall, support for environmental groups increased considerably during the 1970s and 1980s. In Canada, for example, in 1973, the government listed 344 `citizens' environmental organizations'.[24] By the late 1980s, the number had risen to some 1,800, with a membership exceeding 1 million, or about 4 per cent of Canada's total population.[25] In the United States, a poll found that 7 per cent of the whole population considered themselves `environmentally active', while another 55 per cent said they were sympathetic with the aims of the environmental movement.[26] In 1990, a Gallup poll found that 76 per cent of Americans `called themselves environmentalists, and half contributed to environmental organizations'.[27] By 1991, it was estimated that the larger national environmental organizations had a membership of no less than 14 million individuals, or about one in every seven adults in the country![28]

Although membership and contribution figures in the large environmental organizations were falling by the mid 1990s (largely, observers suggested, because of the parlous state of the economy which reduced the marginal propensity for donations), the environmental movement had already had a major impact on local activism. This was particularly evident in the area of solid waste management-whether the concern was toxic industrial wastes, or the siting of a refuse dumpsite at the neighbourhood level. This grassroots activism which was often focused on the municipalities that were responsible for the land-use and effluent-control regulations affecting the communities in which people lived and raised their children, was much more heavily influenced by the participation of women than were the large national organizations. One of the most lasting legacies of the environmental movement-at least in the North-has been a greater involvement of a wide range of local groups in the local governance process.

5.2 Changes in Urban Governance in Latin America

Introduction

In Latin America, three shifts in patterns of governance can be identified during the post-war era, each with a different relationship between civil society and the state. In the immediate post-war era, many Latin American countries were ruled by populist political parties and the role of political organizations in civil society was pronounced. Extending roughly from the mid-1960s to the mid-1980s, many of these populist regimes were replaced by military dictatorships of varying political tendencies. In most cases, the role of civil society in running the nations' affairs was significantly reduced. However, in response to mounting domestic and international pressure, and often to economic mismanagement, many of Latin America's military regimes were replaced by democratically elected governments. Once again, the role of civil society was on the rise.

The restoration of many democratically elected governments took place during the `lost decade' of the 1980s when, as Chapter 3 described, wages usually declined, prices increased and the proportion of people with below poverty-line incomes grew considerably. There was often a severe contraction of productive activity, and a significant reduction in the public sector. As a result, while the inauguration of democratic regimes restored civil society to its former role, its interlocutor, the state, was considerably reduced in size and importance. It is primarily during the last decade-with the widespread return to democracy-that the issue of local governance and local government reform has become a critical element in the larger project to improve governance as a whole.[29] There are two manifestations of this. The first is that many central governments have embarked on decentralization programmes designed to devolve a wide variety of powers and responsibilities to subnational governments. The second, and an integral part of the decentralization programs, is a democratization of local government to enhance civic participation in local government, and to provide mechanisms for more efficient and effective service delivery at the local level. Each is discussed below.

Decentralization and central-local government relations

The wave of democratization has brought with it an equally broad programme of decentralization of government power and authority to subnational levels of government. In Latin America, decentralization programmes have been implemented in the vast majority of countries, affecting over 90 per cent of the population.[30] Each programme is country specific and is predicated both on the previous governing structure and fiscal regimes. Some central governments have devolved power to regional governments while others have concentrated upon strengthening municipal governments directly. One of the preconditions for improving urban governance is reflected in changes in the level of public sector expenditure at the municipal level. As Table 5.1 shows, although municipal expenditures are increasing, they still constitute a relatively small proportion of overall expenditure. Two countries which have recently launched major decentralization programmes to the municipal level are Brazil and Bolivia. The impact of Brazil's programmes

launched in 1988 is still being worked out (see below for more details) while Bolivia only launched its reform in 1994. Under Bolivia's *Ley de Participacion Popular,* municipal governments will automatically receive 20 per cent of all central government revenues through fiscal transfers from the government.

TABLE 5.1 Municipal spending in selected countries

Country	Municipal Spending as a Percentage of Total Public Sector Expenditure by year (percentage)		
	1970-83	1985	1992
Colombia	10.5% (1980)	16.2%	15.7%
Argentina	5.4%(1983)		8.6%
Chile	4.7%(1970)		12.7%
Peru	2.2%(1980)	2.2%	9.2%

Source: Inter-American Development Bank, Economic and Social Progress in Latin America 1994 Report; Special Report: Fiscal Decentralization, Washington DC, 1994.

However, despite the adoption of decentralization programmes, attempts to assess the impact of decentralization upon urban governance are limited. Evaluations of various decentralization programmes tend to concentrate on legal and administrative analysis and relatively little work has been done to see whether the objectives of decentralization to enhance civic participation or improve service delivery in urban areas have been achieved.[31] Given this scenario, it is important to consider what exactly local governments are responsible for providing.

In Latin America, the heritage of the administrative structures of government, with the exception of Brazil, are based on the Spanish model which is a unitary structure. Brazil's political traditions emerge from the Portuguese tradition in which local governments have traditionally had much more autonomy than in Spain.[32] Brazil's 1988 Constitution transferred significant autonomy and power to municipal governments and as a result, urban governance in Brazil is widely seen to be amongst the leaders in the hemisphere. Brazilian municipalities are run by democratically elected mayors assisted by municipal councils. Municipalities are responsible for the provision of services-some exclusively, others in conjunction with state and central government. Municipalities are exclusively responsible for providing lighting, markets, local roads, urban public transport, fire protection, land-use control and armed night guards. The functions which they exercise concurrently with the state governments include education, public health, recreation, culture, social assistance, agriculture and public utilities. But the allocation of services is less straightforward than the clear divisions would appear, in part because federal and state governments have continued to invade municipal spheres, and in part because of a '*de facto* renunciation of functions by the municipalities themselves'.[33]

Revenues for Brazilian municipalities are generated from own sources as well as direct transfers from central and state governments. In Brazil, municipalities account for over 16 per cent of all public sector expenditure, one of the highest levels in Latin America. Local government elections based on the 1988 constitution returned a large number of 'Left-leaning parties'[34] to power but the impact of the new electoral system on urban governance is still under debate. A preliminary evaluation of the impact of the first wave of popularly elected municipal governments is:

> that the administrations experimenting with more democratic forms of municipal government have met with more success in altering the priorities in municipal budgeting, increasing the weight of social investment in low-income areas, than in constructing new effective channels for participation by urban movements. In particular, the territorially based forms of participation through popular councils to be set up in political administrative regions seem to have advanced little because of localism, fragmentation, corporatism, and the rejection of representation by the neighbourhood associations.[35]

In Ecuador, although the number of municipalities has increased dramatically during the last decade, municipalities have, since 1970, progressively lost functions and powers to the central government because much of the oil wealth has accrued to the central government and the funding formula for local governments has been haphazard.[36] This is despite the fact that the military period ended in 1978 and a new constitution established the basis for democratic government. Municipal governments are responsible for the provision of water and sewerage; solid and liquid waste disposal; public lighting; control of food products; land-use; markets; tourism promotion; and authorization for the functioning of industrial, commercial and professional services.[37] As in many countries in the region, the capacity to manage urban issues within municipalities is weak both in terms of human and financial resources, and it is characterized by ineffectual and obsolete administrative systems and weak social participation.[38]

The transition to democratic rule in Chile began with the gradual strengthening of municipal governments. One of the first steps in this direction was the passing of the Municipal Rents Law of 1979 which tripled the level of resources available to municipalities. This was followed in 1981 by the transfer to municipalities of the responsibility for the administration of education and health. The next step was the modification of

the Constitution in 1992 to allow for the direct election of local councillors and mayors.[39] Municipalities are responsible for public transport and traffic; urban planning; refuse collection; parks; promoting communal development; local roads; sewers, public lighting; managing health-care centres; and primary and secondary education. They are not responsible for the provision and treatment of water nor for regional public corporations. They share with the central government and other public institutions responsibility for social assistance, environmental protection, public housing, drainage, and support to special social programmes.[40]

Since the advent of the democratic period in 1988, Chile has embarked on a decentralization programme which has the potential of significantly strengthening the ability of local governments to play a more decisive role in urban governance. This decentralization has included both administrative and political aspects with the intention of enabling a more direct involvement of civic organizations in daily political life. In September 1992, the first popularly chosen mayors since 1972 were elected in 335 municipalities. Through various fiscal measures, real resources for municipalities increased by 36.1 per cent between 1985 and 1991.[41] In terms of urban governance the potential for greater civic participation is certainly evident and likely to increase as the democratic administration of municipalities is further entrenched.

In summary, compared to the period from the 1960s until the early 1980s, local governments in Latin America have been taking on an increasing share of public sector activity, usually leading to increased participation in health care, education, infrastructure, and basic services. An aspect of decentralization which is often overlooked, however, is that central and intermediate levels of government often continue to have a critical role in urban governance either through policy and regulatory reform, or through direct intervention. Decentralization from central to state and even to local governments has tended to be the focus of much of the discussion. The on-going relationship of the state to civil society, to which we turn in the next section, has received far less attention.

Character and functions of urban civil society

The very important political role of social movements in Latin America highlights the extent to which the daily livelihood (or survival) strategies of the urban poor can provide the foundation for more organized and articulate protest. While social movements are generally targeted at specific issues, it is clear that a number of them have had a significant impact upon urban governance in Latin America. Perhaps the most important dimension of civil society which social movements studies have illuminated is the critical role which women have had in the struggles for political and social change. Accounts of women's political participation in Guadalajara, Mexico; of neighbourhood handicraft organizations in Santiago, Chile; and of struggles for health care in Sao Paulo, Brazil are just some of the most salient examples.[42] Each points out the extent to which political participation in urban governance is gendered and should be understood in such a context.

Studies of social movements based on their social structure and dynamics highlight the important, and growing role, that organizations in civil society are taking in shaping political agendas and in dealing with local governments, parastatals, and central government bodies. Such studies tend to emphasize the horizontal nature of urban politics and the way in which social and political protest are focused on achieving very concrete goals. Other studies, which seek to come to terms with the nature of social movements in Latin America from the perspective of the state, have taken a different approach. Given the current focus on transforming local governments from a supply-driven to a demand-driven role, community participation has a much greater role in service delivery.[43]

The nexus between civil society and the state for local governance in Latin America centres on the important role of community participation in service provision and delivery. There has been a growing recognition of its importance for decades in various facets of urban development-especially land development and housing. Until recently, the participation of civil society in urban governance has been treated with suspicion by many, largely because of scepticism of the motive of governments to promote genuine community participation. The main objective of community-action programmes was

> less to improve conditions for the poor or to modify forms of decision making than to legitimate the state. The main object of community action is how to help maintain existing power relation in society. The aim is not to change conditions for the poor as much as to make sure they cause no problems. [44]

With democratization, some more recent assessments of community participation programmes are more generous. There is growing recognition of the important openings which local elections have generated. With more recent shifts in national governance and the increasingly large role taken by civil society both in decision-making and organizing service delivery, community participation in urban governance is coming

to be accepted as the norm, not the exception. In spite of these advances, the challenge of developing effective channels of communication and participation remains.

Local governance in the 1990s and beyond

As local governance takes on more importance in Latin America, two key issues will emerge. The first issue involves political participation while the second addresses the reform of the state and the development of new models of intergovernmental relations. As democratization in Latin America proceeds, the role of local governments in addressing local political issues and enabling civic participation to develop will take on greater significance. This includes not only the holding of elections at the local level, but also the ability of municipal governments to provide effective solutions to urban problems. Box 5.1 presents an assessment of recent municipal elections in La Paz, the largest urban concentration in Bolivia.[45] The emergence of the new party there suggests a dissatisfaction among many urban citizens with the traditional political parties. A study in Lima-Callao in Peru which examined data from four municipal elections (1980, 1983, 1986, and 1989) and three national elections found a similar dissatisfaction-that can be seen in a substantial rise in wasted ballots and absenteeism.[46] The study suggests that despite the presence of *Sendero Luminoso* (the `shining path' guerrilla movement) in Lima and its active campaign during this period for boycotting elections, a major variable explaining the declining proportion of citizens who voted was a general disaffection with traditional political parties and the political system itself As disaffection grew with solutions presented by the traditional Peruvian political parties, the electorate participated less and less in each election. The study's overall analysis of the voting pattern suggests that the previously nonexistent *Cambio 90* party of Ing. Fujimori swept to power in the 1990 elections on the basis of declining participation in municipal elections and the increasing fragmentation of the votes between different political parties. There is also some evidence of new kinds of city politicians being elected in Latin America who are not closely aligned to existing political parties[47] or who are trying new, more participatory, more socially oriented programmes.[48]

The second issue, which is posed in the context of the reform of the state apparatuses in many countries, is to develop more effective relationships between different levels of government. This involves both coming to terms with metropolitan government, as well as seeking more equitable and efficient forms of relationship between the various levels of government. Two issues are important here: first, the pressure to deal with metropolitanization of large cities; and second, the continuing role of all levels of government in urban governance.

The critical importance of central-local relations is highlighted by two issues which will need to be addressed during the coming decade as urban governance in Latin America takes on greater urgency. First, as civil society becomes increasingly concerned with urban poverty, the urban environment, and the urban economy, the need to manage cities on a metropolitan basis will become politically more significant. Following from this, the second issue, and one which will continue in each country, is working out the respective roles of the various levels of government in improving urban government. While local, or municipal governments are responsible for certain critical services in urban settings, the role of regional and national governments is also critical, and will continue to be so. The metropolitan mobilization in Buenos Aires was directed against the central government because there was no effective interlocutor at the metropolitan level with which to consult. There is

BOX 5.1

Municipal elections in Bolivia

A study of local politics in La Paz in Bolivia, including the adjacent El Alto, examined the emergence of one political party, Conciencia *de* Patria (CONDEPA) and its charismatic leader, Carlos Palenque and the important role the party has come to play in the Bolivian politics. The authors conclude that the strength of the movement lies in a complex mix of populism based upon charismatic, utopian, religious and indigenist factors. The effective use of the media, given these elements, led to the emergence of CONDEPA as a major political force in the department of La Paz and Bolivia itself.

CONDEPA was created as a political party by Carlos Palenque after the government censured, and then closed his radio station in June 1988 after almost twenty years of operation. On September 21, 1988, CONDEPA was formally launched as a political party in Tiwanancu, the ancient capital of the Aymara world. In May 1989, CONDEPA won the majority of the votes in the national elections in the department of La Paz, became the fourth largest political party in Bolivia, and acted as a major political broker in the Bolivian Congress. In December 1989, CONDEPA won a majority of the votes in the municipal elections in La Paz, but was denied the mayoralty because the election to that post was indirect. However, the party won a sweeping victory in El Alto and a CONDEPA representative became the city's mayor. By March 1995, CONDEPA controlled both the cities of La Paz and El Alto and their support continued to grow. One explanation of the success of CONDEPA was its appeal to recent urban migrants through populist, religico-utopian elements in the people's own language-Aymara.

Sources: Joaquin Saravia C. and Godofredo Sandoval Z. Jach'a Uru: ¿La Esperanza de un Pueblo? Carlos Palenque, RTP y Los Sectores Populares Urbanos en La Paz, CEP and ILDIS, La Paz, 1991.

also the complication that the central area of the city (the Federal District) is under the jurisdiction of the Federal Government while all the surrounding municipalities which have more than two thirds of the urban agglomeration's population are in the Province of Buenos Aires, and under the jurisdiction of the Provincial Government. Improving urban governance will depend not only on strengthening municipal management and developing alternative service delivery mechanisms, but also on developing more effective inter-governmental relations between municipal, regional, and national governments.

Conclusions

This review of the changes in patterns of urban governance in Latin America shows that changes in governance as a whole have begun to shift toward local governance. With the recent advent of the democratization, the widespread efforts of many national governments to `modernize' their public sectors has included the decentralization of many functions and responsibilities to the municipal level. While these shifts augur well for the future, the rapid pace of urbanization during the last two decades coupled with the continuing unmet demands for basic services in many of Latin America's cities will place an immediate strain on the `democratic governance' of the urban centres. The pressure to meet the demands of low-income urban residents is increasing and it is not clear that civil society will continue to be patient for much longer. A recent example of the increasingly organized and active role played by organizations in civil society is provided by the case of Guadalajara, Mexico, in response to the tragic gas pipeline explosion in 1992. Protests against various levels of government illustrate a new form of politics, which

> rely upon an ethic or moral economy that claims a legitimate right to customary arrangements evolved with urbanization such as renters' rights to continued occupancy, rights of the poor to urban services as part of a just social wage rather than a contingent political bargain, and increasingly a set of internationally defined human rights to health, safety, freedom from oppression and, at bottom, dignity. That is not to say that these rights have been won, nor that civil society has supplanted other interest-group bases of organization. It does mean that the terrain of political conflict in the third world city is shifting-and never so markedly as in the last decade of neo-liberal economic reform and its associated political reform. Patron-client models that worked in an economically expanding and often authoritarian third world from the 1950s to the 1980s are collapsing. The *damnificados* of Guadalajara and their confederates in other cities have given us a glimpse of what is coming. [49]

As this example shows, the patterns of urban governance which are emerging will put even more stress on local governments that are currently ill-equipped to deal with existing, let alone new concerns. The challenge for many local governments in Latin America will be to negotiate and enter into more fruitful partnerships with civil society to resolve their pressing problems.

5.3 Changes in Urban Governance in Africa

Introduction

By the 1990s, as African cities continued to grow at a pace that considerably exceeded the average for most other parts of the world, two central challenges were posed. The first was the challenge of more effectively managing urban services, so that (a) a minimum of efficiency could be assured for the continued functioning of the urban economy; and (b) the increasing numbers of urban poor would have access to clean water, health centres, education, public transport and other elements of public infrastructure. The second challenge, which in many ways subsumed the first, was to develop governance systems which provided access to local decisions by important groups in the community, while at the same time maintaining an institutional framework that was both legitimate in national terms, and more appropriate to the nature of modern urban life. This section will focus on the question of governance structures, although the technical functions of actually managing African cities can never be far from view.

There are important differences in the form of decentralization between francophone and anglophone countries which partially relate to their different colonial legacies. One of the most important components of local governance in Africa has been the colonial legacy of institutional structure. Britain and France, as the major colonial powers on the continent from the late nineteenth century to the 1960s, provided the basic framework for two, largely parallel approaches to local government. These two approaches overlapped to some degree by the 1990s, but their essential elements could still be distinguished. The pattern most common in Francophone countries can be called the communal structure, while the pattern in Anglophone countries may be called the representative council structure. The differences between the two are largely explained by history and the accretion of many decades of legal and administrative precedent.

Decentralization in Francophone countries

Most of the Francophone countries in Africa (with the major exception of Zaire, Rwanda and

Burundi, which were Belgian colonies) are former French colonies. Since the early part of the twentieth century, urban government has been structured according to the French law dating back to 1884, which provides for communes with mayors, municipal councils, and specific revenue and expenditure powers and procedures. The level of responsibility over finances and local decisions typically depends on the size and wealth of a `commune', although the local authority has generally been considered to be an organizational modality internal to the unitary state. By the end of the colonial period in the late 1950s, the evolution of municipal institutions was such that the municipal councils (the administrative organs of the communes) in the larger cities had become responsible for a relatively important range of local services, and were presided over by elected mayors. For example, Abidjan, the capital of Côte d'Ivoire, was declared a `full exercise commune' (the highest legal category) in 1955, electing a full council by universal suffrage in 1956. Prefects were appointed for another six major communes, replacing elected mayors. While a relatively wide range of functions were discharged by the communes and the larger `City of Abidjan' (consisting of the central area of Abidjan and some adjoining communes), decisions on their implementation were taken by central government officials. This structure remained in place until 1980.[50] There was a somewhat similar situation in Dakar, the capital of Senegal, with much deeper historical roots. Dakar was then the largest French-speaking city in West Africa. From 1887, when Dakar (which had earlier been designated, along with three other towns, as a `full exercise commune' under French law) was given French-style institutions. The city had an elected council, an elected mayor, and considerable influence over finance, services, and the hiring of personnel. By the early 1980s, however, the administration of the commune of Dakar was `exclusively carried out by centrally appointed officials, which has led, as a consequence, to the setting aside of any direct participation by elected elements'.[51]

By the 1980s, the balance between central and local government began to change. Not only was there more attention placed on the development of metropolitan government structures, but a more democratic and decentralized framework began to take shape. By the end of the decade, several countries (such as Senegal, Côte d'Ivoire and Benin) were organizing regular, even multi-party elections both at the local and national level, and a number of other countries were clearly moving towards multi-party democracy. Thus, Senegal, which began multi-party elections in the late 1970s, established in 1983 the Urban Community of Dakar, which created a working arrangement to incorporate the three newly-created communes of Dakar, Pikine and Rufisque-Bargny. While the individual communes were governed by municipal councils selected both by selection (as representing interest groups) and open elections, their mayors were selected by secret ballot of their council.

By the 1980s, the balance between central and local government began to change in Francophone Africa. Not only was there more attention placed on the development of metropolitan government structures, but a more democratic and decentralized framework began to take shape. By the end of the decade, many countries (such as Senegal, Côte d'Ivoire and Benin) were organizing regular, even multi-party elections both at the local and national level, and a number of other countries were clearly moving towards multi-party democracy. Thus, Senegal, which began multi-party elections in the late 1970s, established in 1983 the Urban Community of Dakar, which created a working arrangement to incorporate the three newly-created communes of Dakar, Pikine and Rufisque-Bargny. While the individual communes were governed by municipal councils selected both by selection (as representing interest groups) and open elections, their mayors were selected by secret ballot of their council. The mayor of the CUD (Dakar Urban Community) was likewise elected by secret ballot of the delegates of the communes to the ten-person governing body of the CUD. From 1983 until the present, the Mayor of the CUD has been the same individual, a high-profile politician with previous central government ministerial experience. As a leading member of an opposition party, representing the indigenous Lébou community, and having been able to assemble around him an impressive group of dedicated young technocrats, the mayor of Dakar has become:

> one of the main players in the politics of national integration [whose role] ... explains the tightening of central control over the implementation of the mayor's functions as well as the fragility of his status as a representative of the local community. This situation is facilitated by the lack of interest and/or confidence which the people express for these local institutions. In spite of a particularly dense and heavy set of laws and regulations, which allow the state to harass those communes which the opposition might control, it is significant that opposition leaders pay little attention to this question in their confrontations with the state. The political culture of the opposition, made up of different segments of the urban petty bourgeoisie, is dominated by an attitude of parliamentarism, and not by a preoccupation with the destruction of local structures of domination. Nevertheless, the nomination to the commune of Dakar of leading political personalities who maintain close links with the national political and administrative leadership, shows that the commune can have a important political role within the state. [52]

Aside from the political dynamics within which it operates, the CUD is also important because of its important functions. These include construction and maintenance of roads within its jurisdiction, cleaning and sweeping of streets, removal and destruction of household wastes, management of the municipal hospital, management of municipal abattoirs, management of both Christian and Muslim cemeteries, and a number of other functions which include the overall direction of technical services at the local level.

Of all the decentralization exercises to have been initiated in Francophone Africa, the most thoroughgoing, and by many measures, effective has been that of the Côte d'Ivoire. The initiative began in late December 1977, when a law was passed in the National Assembly confirming the establishment of the two existing `full exercise' communes (Abidjan and Bouaké). A series of laws defined the powers and institutions of the new communes, elaborating a specific regime under which they would be controlled by the central government. Ten communes were created within the former single commune of Abidjan, presided over by the City of Abidjan, whose structure and powers were specified. The Mayor of the City of Abidjan was to be elected from among their number by the elected mayors of the ten component communes of the greater Abidjan area. Finally, in 1985, ninety-eight new communes were added to the list of local authorities, for a total of 13 5, plus the City of Abidjan. According to most observers, the decentralization exercise in Côte d'Ivoire has on balance been a positive experience. On the one hand, more explicit transfers of powers need to be effected between the central and local authorities, and more resources need to be given to the communes in the form of personnel and taxation powers for them to manage their own affairs. But on the other hand, the role of the communes `in people's daily lives' is becoming increasingly evident. Functions such as maintaining the civil registry, public security, building and maintaining schools, maintaining urban roads, building and maintaining markets, removing household waste, and regulating abattoirs and public water taps are all within their jurisdiction. In addition, their elected mayors have often become very proactive, using, `as best they can, their networks of personal friends and supporters, as well as the bureaucracy and the party in power to mobilize support. They also attempt to obtain additional resources for their new responsibilities from foreign embassies and international NGOs'. Partly as a result, '[t]oday, at the local level, the people speak first to the commune, thus pushing aside the role of the central administration to the non-communalized [i.e. rural] parts of the country'.[53]

Decentralization in Anglophone countries

In English-speaking African countries, the centralist legacy of the colonial period was more ambiguous. Historically, the United Kingdom has placed more emphasis than has France on democratically elected local councils for the administration and finance of a very wide range of local services. Towards the end of the colonial period, there was a strong thrust to introduce an `efficient and democratic system of local government' all over English-speaking Africa. By the 1960s, local councils proved unable to cope with burgeoning demands for improved education, health, and other local services. These shortcomings were particularly acute in the large, rapidly growing cities. And their inability to raise financing, in conjunction with central government restrictions on transfers, meant that their performance fell far short of their responsibilities. Partly as a result of both political and financial factors, in most English-speaking countries the political autonomy and fiscal resource base of municipal governments was progressively restricted during the 1960s and 1970s. Important exceptions were Nigeria, where for complex political reasons, military governments were favourable to local governments; and Zimbabwe which (after independence in 1980) opted to support local government as a major element in its development strategy.

A number of significant decentralization schemes were introduced during the 1970s, beginning with the exercise undertaken by President Nyerere in Tanzania in 1972, followed by the Nigerian initiative begun by the military regime in 1975 and continued through the return to civilian rule in 1979, and finalized by the sweeping introduction in Sudan of regional governments in both the south (in 1972), and in the north (in 1980).[54] The Tanzanian initiative, as many commentators observed, was little more than the deconcentration of central government functionaries to the regional and district level, where democratically elected local councils were abolished, to be replaced by committees dominated by officials. As for the Sudanese initiative, there was little commitment from central officials to work at the regional level, and ultimately conflicts between the North and the South prevented a decentralized system from functioning. The Nigerian reforms resulted in the 1976 Local Government Act, which established a uniform pattern of local government in the whole of the country. Elections followed for local councillors at the end of 1976, and by the end of the military regime, there were some 299 local governments established all over Nigeria. What distinguished this reform was `the formal

and unequivocal recognition of local government as constituting a distinct level of government with defined boundaries, clearly stated functions and provisions for ensuring adequate human and financial resources'.[55] The Revenue Allocation Act of 1981 guaranteed that established local governments were to receive 10 per cent of the funds which the states received from the federal government, even though this requirement was honoured more in the breach than the observance. Nigerian local government has gone through many difficulties since the 1970s, but the reforms themselves are generally considered positive, `even though the gains have been complicated by other factors'.[56]

If the decentralization reforms of the 1970s were initiated by highly centralized governments, with little involvement of local communities and other groups in civil society, the reforms of the 1980s and 1990s have involved more give and take between government and other forces in the wider society. That this relationship has involved a struggle is evident in the case of Nairobi, the capital of Kenya.[57] With a population of 1,346,000 in 1989, Nairobi is by far the largest, and most economically important centre in the country. Since the 1920s the city was governed by an elected municipal council and mayor. In March, 1983, the Minister for Local Government called a press conference to announce that the central government had suspended all meetings of the Nairobi City Council, and that it further had decided `to exclude indefinitely with immediate effect the mayor, the deputy mayor and all councillors from council premises'. Several weeks later, citing `gross mismanagement of council funds and poor services to the residents', the minister placed Nairobi's approximately 17,000 municipal employees and all buildings and services under the direct control of a commission, which he himself appointed. Although the original intention of the commission had been to `clean up' the council and re-establish elected local government, the central government passed various motions through the National Assembly extending the life of the commission until both national and local elections were held in December 1992. There was little evidence that the Commission was any more effective in managing the city's services than was the City Council before it. By 1991 a lengthy article in *The Weekly Reviewer* (not considered a 'sensationalist' publication) entitled 'Filthy, Ailing City in the Sun' concluded:

> Since central government took over the running of the city through appointed officials in *1983,* services in Nairobi have grown unspeakably bad, with desperate changes from one administration to the next only making the situation worse. The inevitable conclusion is that the underlying problems of the city have never ever been tackled, while a bloated and insensitive bureaucracy with around *19,000* employees consuming more than KShs. 70 million a month in wages [about *$2.9* million] sits comfortably in place. Drastic action is clearly required before the corruption, incompetence and irresponsibility that have slowly eaten up City Hall lead to the final disintegration of the city.[58]

Kenya's first multiparty elections, held in December 1992, ushered in a new chapter in the turbulent history of Nairobi-and of urban local governance in Kenya. One of the major new parties specifically called in its election manifesto for the granting of increased autonomy to local government. As has always been the case in Kenya, local and national elections were held at the same time. But whereas the governing party, KANU, had always captured both levels of seats in the urban wards and constituencies in the past, in this election the opposition parties won most of the parliamentary seats in the major urban areas, and took control of twenty-three of the twenty-six municipal councils, including Nairobi. The new mayor of Nairobi (elected by the sitting councillors) was himself not a member of the governing party of the country. Political differences between the central government and the newly elected municipal councils soon came to the surface, with the Minister of Local Government issuing a series of directives that curtailed the powers of the mayors. For the government, these councils were a political force to be reckoned with; but for the emerging middle class, the councils were a vehicle by which to achieve. a greater measure of local autonomy.

Conclusions

By the 1990s, issues of urban governance in Africa were being seriously considered in the development agenda, both by many national governments, but increasingly by the multilateral and bilateral assistance agencies that supported development projects across the continent. Three major factors were at play in this process. In the first place, as African governments were obliged to accept structural adjustment 'packages' involving cuts in the public service and more limited regulatory powers for the central government, local services could only be assured through some kind of coalition between local communities and their local governments. The logic of decentralization was reinforced by the argument that the most likely source of future funding for infrastructure and services would have to come from local, rather than national government. A second factor was undoubtedly the great interest of the donors-particularly the French government, USAID, and the World Bank-in decentralization as a strategy of development. These agencies came to a new awareness

of the economic importance of urban development, just as the problems of governing African cities demonstrated that the institutional aspects of development were the most recondite. Finally, a slow process of democratization and the emergence of self-conscious groups in civil society could also be discerned. The most spectacular example of this trend was South Africa, which gained a democratic government in 1994 following a major struggle in which `civic' organizations in the black urban townships played a major role. But elsewhere in Africa, as the formerly 'statist' and highly centralized governments grew weaker under the twin assaults of globalization and structural adjustment, local communities and interest groups in the cities began to assert themselves both in the democratic election process, and in the day to day management of their communities.

TABLE 5.2 The importance of local finance

Country	Year	Expenditure Ratio	Revenue Ratio	Local Autonomy Ratio	Local Control Ratio
Korea, Republic of	1987	33	31	99	33
Zimbabwe	1986	22	17	58	12
Algeria*	1986	14	16	101	14
Bangladesh	1987	12	8	39	5
South Africa*	1988	10	10	79	8
Chile	1988	8	6	61	5
Brazil*	1989	7	1	33	2
Thailand	1990	7	4	75	5
Philippines	1988	6	7	119	6
Morocco	1987	6	8	108	6
Paraguay	1989	4	3	88	4
Kenya	1989	4	7	134	4
Pakistan*	1987	4	6	100	4
Costa Rica	1988	3	3	123	3
Ghana	1988	2	2	71	1
Cote d'Ivoire	1985	2	2	115	2
Countries in'the South'		9	9	88	7
Poland	1988	27	23	78	21
Czechoslovakia	1990	26	19	61	16
Hungary	1990	19	11	53	10
Romania	1989	9	8	103	9
Transition Countries		20	15	74	14
Denmark	1988	45	31	58	26
Finland	1989	41	29	63	26
Sweden	1989	37	30	78	29
Norway	1990	31	21	59	18
U.K.	1989	26	16	55	14
Ireland	1989	23	10	33	8
Netherlands	1990	23	5	16	4
Iceland	1986	23	26	99	23
Switzerland*	1984	22	22	87	19
USA*	1989	21	16	65	14
France	1988	18	12	63	11
Germany*	1988	17	14	73	12
Austria*	1990	16	17	89	14
Canada*	1989	16	11	53	8
Luxembourg	1988	15	7	42	6
Spain*	1988	13	10	62	8
Belgium	1987	12	6	41	5
Australia*	1990	5	5	83	4
Western Europe, North America, Australia		22	16	62	14

Notes: *In addition, there is another significant level of subnational government.

The figures shown for countries in the South, transition countries, and Western Europe, North America and Australia are unweighted averages.

Expenditure ratio is local government expenditure as percentage of total government expenditure.
Revenue ratio is local government revenue as percentage of total government revenue.
Autonomy ratio is local government revenue as percentage of local government expenditure.
Control ratio is local government revenue as percentage of total government expenditure.

Source: Bird, Richard M., Financing Local Services: Patterns, Problems and Possibilities, Background Paper for the Global Report, 1995.

5.4 Financing Local Services within Countries[59]

Introduction: The importance of local government finance

Three basic financial problems face local governments around the world, but especially in the South and among transitional countries:

- Local governments do not have enough money to carry out the functions assigned to them.
- Some local governments have a lot more money than others.
- Matters are getting worse rather than better because local revenues are not adequately responsive to changing needs.

Local government finance is important for several reasons. First, in countries as diverse as the Republic of Korea and Denmark, local governments already mobilize significant resources; in both these countries, in the late 1980s, local government revenue represented 31 percent of total government revenue (see Table 5.2). Locally generated resources may also be becoming more important; in many more countries, both North and South, hard-pressed national governments are increasingly shifting functions to local governments in the expectation that additional local resources can be mobilized to pay for them. Local expenditures and local revenues are thus likely to constitute an increasingly important component of total public sector activity.

A second reason why local government finance is particularly important is that, regardless of how large local governments may be, in most countries they have an important role in the provision and utilization of local public infrastructure and public services. These include both those that are essential to good quality housing and living conditions and those that contribute much to economic development. How local services are financed may have significant implications for national development patterns as well as for the political accountability and administrative efficiency of local government institutions themselves. However, as Table 5.2 shows, many local services, in many countries, are still financed to a considerable extent by transfers from central (or state) governments. Others are provided directly by central or regional agencies or by various

groupings of local governments. Still others are provided by a wide variety of non-governmental organizations at the community level or by private firms; Box 5.2 shows the diverse range of government, mixed private-public and private institutions that may provide local services. The optimal role and structure of local government finance for any country depends in part upon the actual and potential role of different actors or institutions in providing local public services.

Patterns of local government finance

The structure of local government finance in any country is invariably unique, reflecting the complex of historical and political factors that define governmental institutions in that country. Many countries have more than one level of local government, and a few countries, especially some of the larger ones, also have an important intermediate (state or regional) level of government that has a larger role in public finance than the municipal and local level (see Box 5.3). Although the focus of this section is on local government, meaningful comparisons of purely `local' governments across countries are difficult because of the different governmental structures in different countries, the different functions and finances of various jurisdictional levels, and the deficiencies of available data. The term `subnational' will be used to refer to all levels of government below the national or central level, while the term `local' excludes the intermediate or regional governments, particularly those in federal states.

Despite this diversity, among certain broad patterns that recur in many countries, three are particularly important. The first is that local governments almost invariably have inadequate `own resources' to finance the expenditure functions with which they are charged; thus, they are dependent upon transfers from higher levels of government. This is sometimes called the problem of `vertical imbalance'. The second is that not all local governments are equal. In even the smallest and most homogeneous countries, there are big cities and small cities, heavily urbanized municipalities and rural municipalities, rich areas and poor ones. The resulting unevenness in access to local public resources gives rise to what is known as `horizontal imbalance'. The third is that few countries permit local governments to levy taxes that are both economically sensible and capable of yielding enough in revenue to meet expanding local needs.

The data needed to establish the importance of local finance within total public finance is surprisingly hard to find-and this perhaps accounts for the fact that different studies give rather different answers. In one study covering twenty-one countries in the South, local governments accounted for between 6 and 50 per cent of total government spending, with a median share of 2 3 per cent.[61] In eight transitional countries, the share of subnational governments similarly ranged from 11 to 53 per cent of total expenditure with an unweighted average share of 26 per cent.[62] In ten OECD countries, local expenditure ranged from 12 to 45 per cent of total expenditure, with an average share of 21 per cent.[63] Table 5.2 shows that the average share of local government expenditure (the expenditure ratio) is 22 per cent for a broader sample of eighteen wealthy countries, and 20 per cent for a smaller sample of four transitional countries. On the other hand, the average share for the sixteen countries from

BOX 5.2

Alternative Ways to Provide Local Public Services

Public Sector Provision:

1. **Central Government:**
   - (a) Department
   - (b) Decentralized Agency
   - (c) Enterprise
2. **Regional Government:**
   - (a) Department
   - (b) Decentralized Agency
   - (c) Enterprise
3. **Local Government:**
   - (a) Department
   - (b) Decentralized Agency
   - (c) Enterprise
4. **Central-Regional Arrangement**
5. **Central-Local Arrangement**
6. **Central-Regional-Local Arrangement**
7. **Regional-Local Arrangement**
8. **Association of Local Governments**
9. **Special-Purpose Local Authority:**
   - (a) Encompassing more than one local government
   - (b) Coterminous with a local government
   - (c) Covering less area than a local government

Mixed Public-Private Provision

10. **BOT or BOO (Build-Operate-Transfer or Build-Own-Operate) Arrangements**
11. **Other forms of public-private 'partnerships'**
12. **Development charges, exactions, and similar schemes**

Private Provision

13. **Compulsory provision by developers**
14. **Compulsory provision by individuals:**
    - (a) Vouchers
    - (b) Self-financed
15. **Voluntary provision:**
    - (a) Formal Arrangements
    - (b) Informal Arrangements
16. **Provision by Non-governmental Organizations (churches, enterprises)**

Even this extensive list is less than complete. Many of the arrangements listed have a number of possible variants, and of course there are various possible combinations of all these organizational structures. Moreover, different structure$ might apply for e.g. policy-making, regulation, financing, production (delivery of services) and so on.

BOX 5.3

The special case of federalism

Many countries have not one but two (or more) subnational levels of government. Sometimes the intermediate (state or provincial) level has a more important role in public finance than the municipal or local level, as in the case of Canada's provincial governments; sometimes it is less important, as with Colombia's departmental governments. Countries in which the intermediate level of government is more important are often countries that are at least nominally 'federal', such as Canada, Germany, India, Papua New Guinea, and Nigeria. In such countries, most transfers from the central government go at least in the first instance to the states, and the states often have a tutelary or supervisory role with respect to the municipalities. The latter feature means that the degree of autonomy of local governments-which may themselves have two or three tiers-may vary significantly from state to state in such countries.

As wide a range of institutional structures and relations is found within federal as within unitary countries. Indeed, the difference between a 'tight' federation such as Malaysia or Germany and most unitary countries is probably less than that between such federations and 'looser' federations such as India and Canada, in which state governments have more power to act independently with respect to expenditure and taxing patterns. The constitutional label matters less than the reality of how the intergovernmental relations that constitute the essence of the public sector in all countries work out in practice. If, as is usually the case, especially in the South, the central government basically confines the range of action of subnational governments to a very limited domain, those governments may for most purposes be considered to be more agents of the central government-or, in some federal countries, of state governments-than independent actors. On the other hand, where there are real geographic or ethnic differences within a country, a certain degree of local 'autonomy' often emerges in practice even if the constitutional structure is formally unitary. In particular, in most countries central governments must work with the local governments they have, in the sense that even if the central government is ultimately responsible for the size, structure, and functioning of local governments, these characteristics can ordinarily be altered only in an incremental fashion. Since the essence of the federal finance problem is how to adjust intergovernmental fiscal transfers to achieve tolerable results in the face of what is generally a clearly nonoptimal assignment of functions and finances, the intergovernmental problem in every country is in this sense 'federal'to some extent. It is only in the few 'true' federations that such a constraint is long-term in nature, however. In other countries, a closer approach to an efficient public sector may in principle be attained over time by judicious and feasible restructuring of the functions and finances assigned to each level of government. For simplicity, the case of federal states in which the intermediate level of government has a special degree of policy autonomy is not discussed further here.[60]

Africa, Asia and Latin America included in this Table is only 9 per cent, although it is much higher in a few countries (notably Republic of Korea and Zimbabwe).

In many more countries local governments are important for the wide variety of important services they deliver. For example, local public utilities are responsible for such essential services as water supply, sewerage, electric power, public transit, and sometimes also for telecommunications.[64] Local governments (and related agencies) also provide local streets and a variety of related services including refuse removal and disposal, street lighting, and street cleaning. In addition, local governments in most countries are responsible for providing police and fire protection, and in some countries they also have an important role in providing such social services as primary education, health care, and social assistance. In the transition countries, local governments are also largely responsible for housing and heating. Other local activities found in different countries include the provision of markets and slaughter houses, tourist services, and sports and cultural facilities, including parks.

In most countries in Africa, Asia and Latin America, the absolute level of resources available to local governments is seldom adequate to provide even the most minimal level of many of the services with which they are charged. In 1991, for example, local governments in the United States spent, on average, over $US2,000 per capita (see Table 5.3), and state and local governments combined spent about $3,000.[65] In contrast, in the early 1980s, although some Korean cities spent as much as $US200 per capita, other cities such as Dhaka in Bangladesh spent less than $US2 per capita.[66] A very similar picture is shown for the countries contained in Table 5.3. If anything, this estimate seems on the low side for such low-income countries as Malawi and Paraguay. What is also notable in Table 5.3 is the very low level of local capital expenditures per person for local governments in most countries.

Another source of information about the resources available to local governments comes from the Housing Indicators Programme. Figure

TABLE 5.3 Local government finance, selected countries and years (US$ per capita)

Country	Year	Population (millions)	GDP, 1991 ($US per cap)	Local Government Expenditures ($US per capita)	Local Capital Expenditures ($US per capita)
Brazil	1991	153.3	2,940	153	36
Chile	1988	12.8	2,160	47	13
Colombia	1986	29.2	1,260	14	3
Iran	1989	54.2	2,170	7	2
Israel	1990	4.7	11,950	78	16
Kenya	1990	24.9	340	5	1
Malawi	1984	6.8	230	3	1
Paraguay	1989	4.2	1,270	4	2
South Africa	1990*	35.3	2,560	120	38
Thailand	1992*	57.8	1,570	24	11
Zimbabwe	1986	8.4	650	64	8
U.S.A.	1991	252.7	22,240	2054	255

Notes: *Preliminary.

Sources: GDP per capita from World Bank, World Development Report 1993, 238-9; Oxford University Press, Oxford and New York, 1993. Other data from country tables in International Monetary Fund, Government Finance Statistics Yearbook 1993. Washington DC, 1993-population and exchange rate for year indicated from summary table, and local government data from Table L.

5.1 maps the expenditure per person by government agencies on water supply, sanitation, garbage collection and other forms of infrastructure and services for the cities for which there was data against the per capita income of the country. While in general, infrastructure expenditures per person in the cities are higher, the larger the per capita income of the country, the range of per capita expenditures for cities in countries with comparable levels of per capita income is very considerable. This can be seen in Figure 5.1 in the different levels of infrastructure expenditure in Caracas, Athens and Seoul, although each was the national capital and largest city in nations with comparable levels of per capita income in 1991. Major differences are also noticeable between the capitals of the more prosperous European countries.[67]

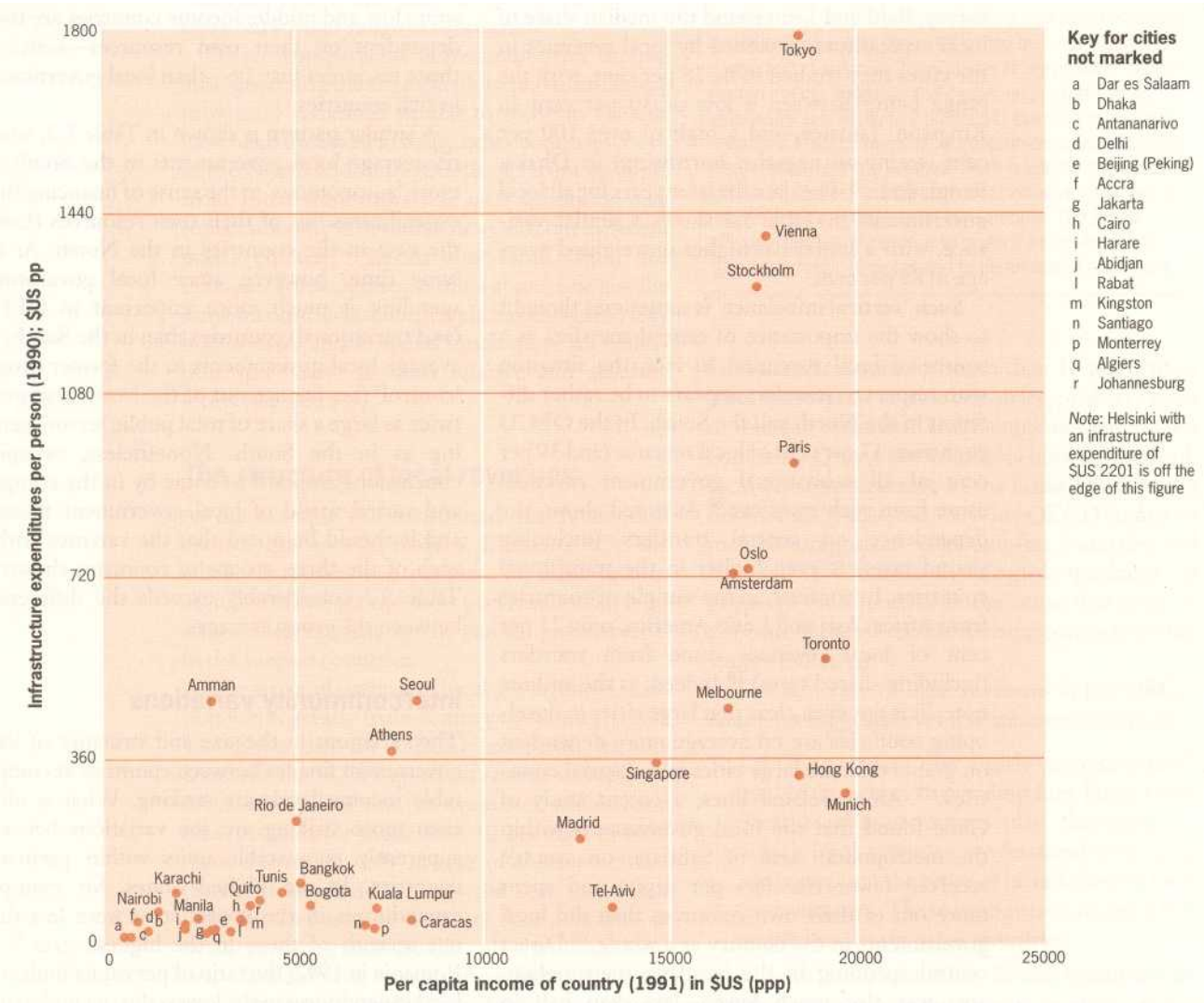
Inadequate 'own-source' revenues

However much local governments spend in different countries, the revenues under their direct control are invariably less. In the United States, for example, only 65 per cent of local expenditure was financed out of local revenue in 1989 (see Table 5.2). The comparable unweighted average figure for eighteen countries in West Europe, North America and Australia was 62 per cent, but the range was between a low of 16 per cent in the Netherlands and a high of 87 per cent in Switzerland.

In seven transitional countries, if shared taxes are counted as local revenues, the average (for subnational governments) was 63 per cent, ranging between a low of 15 per cent in the Czech Republic and a high of 95 per cent in Russia.[68] If shared taxes are instead considered to constitute revenues of the central government (see Box 5.4), the average increases to 74 per cent for the four transitional countries included in Table 5.2.

The variation found within countries in the South is similar. A study of eighteen such countries found that own-source revenue provided as little as 30 per cent of total local revenue in some countries but over 90 per cent in others.[73] A similar pattern is shown for the sixteen countries in Table 5.2. In some instances, local revenues even exceed local expenditures, while in others local

FIGURE 5.1 Infrastructure expenditure per person (1990) (selected cities)



BOX 5.4
Local income taxes

Strictly speaking, a 'local' tax might be defined as one that is (1) assessed by local governments, (2) at rates determined by local governments, (3) collected by local governments, and (4) with its proceeds accruing to local governments. In many countries, few taxes have all these characteristics.

In Hungary, for example, part of the income tax accrues to local governments, but the rates of the tax are set by the central government, which also assesses and collects the tax.[69] The result is the same as if the central government simply allocated a grant to local governments in proportion to the amount of national income tax collected locally. In contrast, in Canada, where the central government similarly assesses and collects the income tax, the provinces can set different rates and therefore affect through their own actions the amount of revenue accruing to them. (On the other hand, Canadian local governments cannot levy income taxes of any description.) Unlike the Hungarian case, the Canadian provincial income tax is usually considered to be a provincial 'own-source' revenue. Somewhat similar systems exist in the five Nordic countries (Denmark, Finland, Iceland, Norway, and Sweden), where local governments can set their own tax rates on the same tax base as the national income tax and where the local taxes are collected by the national government and remitted to the taxing local authorities. Other Northern countries with significant subnational-state or local or both-income taxes of various sorts include Belgium, France, Japan, Germany, and Switzerland[70] (see Table 5.4). Although local income taxes have occasionally been levied in a few African cities,[71] they are not common in Africa, Asia or Latin America. In contrast, in many transitional economies, subnational governments have been assigned significant shares of income tax revenues. In Russia, for example, they receive all of personal income tax revenues, in Bulgaria, 50 per cent, in Poland, 30 per cent, and in Hungary (as noted above), 25 per cent.[72] Since in none of these countries, however, do local governments have any freedom in establishing the tax rate, the resulting distribution of revenues seems better considered as a combination of a national tax and a related intergovernmental fiscal transfer based on locally-collected national tax revenues rather than as a really 'local' source of revenue. If local governments are not politically responsible for the revenues they receive, it seems to stretch reality unduly to consider such revenues as local taxes. The principal reason local governments have seldom been given access to income taxes in the North is because of the reliance of central governments on this source of revenue. In the South, of course, even central governments have trouble collecting much from the income tax and tend to rely more heavily on taxes such as the value-added tax which are inherently less suitable for local government use.

revenues are inadequate to finance even the current spending of local governments. In their survey, Bahl and Linn found the median share of local expenditures financed by local revenues in the cities they studied to be 78 per cent, with the range being between a low of 30 per cent in Kingston, Jamaica, and a high of over 100 per cent (owing to negative borrowing) in Dhaka, Bangladesh.[74] The data for later years for all local governments in Table 5.2 shows a similar variance, with a somewhat higher unweighted average of 88 per cent.

Such `vertical imbalance' is sometimes thought to show the importance of central transfers as a source of local revenues. In fact, the situation with respect to transfers appears to be rather different in the North and the South. In the OECD countries, 37 per cent of local revenue (and 39 per cent of all subnational government revenue) came from such transfers.[75] As noted above, the dependence on central transfers (including shared taxes) is even higher in the transitional countries. In contrast, in the sample of countries from Africa, Asia and Latin America, only 22 per cent of local revenues came from transfers (including shared taxes).[76] Indeed, as the authors note, `it is not even clear that large cities in developing countries are on average more dependent on grants than are large cities in industrial countries.'[77] Along related lines, a recent study of Chile found that the local governments within the metropolitan area of Santiago on average received fewer transfers per capita and spent more out of their own resources than did local governments in the country as a whole.[78] Direct central spending in the Santiago metropolitan area was also much lower-less than half in per capita terms-than the national average. In appears that some local governments in at least some low and middle income countries are more dependent on their own resources-scarce as those resources may be-than local governments in rich countries.

A similar pattern is shown in Table 5.2, where on average local governments in the South are more `autonomous' in the sense of financing their expenditures out of their own resources than is the case in the countries in the North. At the same time, however, since local government spending is much more important in OECD (and transitional) countries than in the South, on average local governments in the former groups 'control' (i.e. finance out of their own resources) twice as large a share of total public sector spending as in the South. Nonetheless, sweeping conclusions are hard to come by in the complex and varied world of local government finance, and it should be noted that the variance within each of the three groups of countries shown in Table 5.2 considerably exceeds the differences between the group averages.

Intercommunity variations

The variations in the size and structure of local government finance between countries at comparable income levels are striking. What is often even more striking are the variations between apparently comparable units within particular countries. In the United States, for example, expenditures in the lowest state were less than one-seventh of those in the highest state.[79] In Romania in 1992, the ratio of per capita budgeted local expenditures in the lowest district (judet) was

a quarter that in the highest.80 In Chile, in 1990, the ratio of per capita municipal revenues in the lowest 'zone' was 44 per cent of that in the highest[81] while in Indonesia in 1990/1, it was only 7 per cent.[82] In the case of Chile, the variations within the metropolitan area were equally marked, with the city of Santiago receiving less than six per cent of its revenues from Chile's local 'equalization' fund (designed to even out the resources available to local governments to some extent), and other municipalities receiving 60 per cent. Similar variations are likely to exist in other countries.

A striking feature in almost every country is the difference between big cities and other local governments. In Colombia in the late 1970s, for example, per capita tax revenues were ten times higher in the capital, Bogotá; than in the many small rural municipalities.[83] In Canada in the same period, the ratio of per capita local revenues among provinces was almost the same, with the more urbanized areas having ten times the 'own-source' per capita revenues of the more rural areas.[84] Such variation reflects two different factors in most countries: big cities are richer, and their governments tend to carry out a wider range of functions.

Direct comparisons across countries among local governments are difficult to make, but inter-provincial variations similar to those in Canada have been observed in many other countries; both in the North and in the South. A recent example from India shows this but such variations may reflect not only differences in wealth but different policy choices.[85] Kerala and Tamil Nadu, for example, are two states in India at more or less the same income levels; but Kerala has chosen to levy higher taxes and to spend much more on education and health in both relative and absolute terms (see Box 5.5).

BOX 5.5
Local choices make a difference

Even when the incentives facing local government are perverse, a number of examples around the world show that local policies can make a real difference. A recent comparison of the provision of education in China and India, for example, found China far ahead in most respects. But one state in India, Kerala, with universal literacy among adolescent males and females and near-universal literacy among the adult population came out better than any province in China. In the words of the study: 'This remarkable achievement reflects more than a hundred years of creative interaction between state commitment to, and public demand for, the widespread provision of public education.'[86] Another study of state finance and poverty alleviation in India similarly found that Kerala was much more successful in this field than either its income level or its state revenues would suggest.[87] Similar 'anomalies' exist in many countries. In Brazil, for example, a few cities are well run and efficiently provided with services; others, superficially similar in character and resources, are poorly run and equipped. In Colombia, some departments (regional governments) provide superior health services than others with similar resources. Almost everywhere, some local governments in at least some areas do much better than others. The reason may be because of historical circumstance: for one reason or another they started to do something well some time ago, and they continue to do so. Or it may be because of a caring and charismatic local leader or some other chance circumstance. Whatever the cause, such experiences emphasize two important points: (1) even in the perverse situations in which many local governments are placed by inappropriate central policies, there is usually some scope for local initiative; and (2) such local initiative can make a real difference in the lives of local people. The aim of effective decentralization is to make it easier for such 'good examples' to occur and to be emulated elsewhere.

The structure of local revenues

As the example just mentioned illustrates, local choices can and do make a difference. On the whole, however, the patterns of local finance sketched above for the most part result from conscious choices made by the central governments in the various countries.

The size and pattern of local government taxation varies greatly from country to country; Table 5.4 shows this for OECD countries. Income taxes are the most important source of local tax revenue in all of the ten countries where local taxes account for more than 10 per cent of total taxes. However, only in one of these countries (Sweden) are income taxes the sole important local tax. In contrast, there are four countries in which property taxes are the only significant local tax. Consumption taxes (often local 'business' taxes of various sorts rather than conventional sales taxes) account for more than 10 per cent of local tax revenue in nine countries, property taxes in thirteen countries, and income taxes in fifteen countries. Only a few countries have a 'balanced' local revenue structure in the sense of not being dominated by just one tax. Nine OECD countries may be categorized as income-tax countries and five (all predominantly English-speaking) as property-tax countries in the sense that over 75 per cent of their local tax revenue comes from the source indicated.

The structure of local revenues in the OECD countries suggests several tentative conclusions:

1. OECD countries may clearly exercise considerable discretion in deciding how large a role their local governments play, the extent to which local activities are financed from local revenues, and the types of taxes levied by local governments. There is no reason to think this is any less true in other countries.
2. Countries influenced by British traditions are those that rely most heavily on taxes on real

TABLE 5.4 The pattern of local taxation in the OECD, 1988

Country	Local taxes		As %age of local taxes		
	As % of total taxes	As % of local revenues	Income	Sales	Property
Australia	3.3	43.2*	0.0	0.0	99.6
Austria	10.8	52.7*	50.6	33.2	9.2
Belgium	5.0	37.4*	76.8	0.0	0.0
Canada	9.1	39.1	0.0	0.3	84.5
Denmark	30.0	49.6	92.1	0.1	7.8
Finland	25.6	45.0*	99.1	0.0	0.9
France	8.9	44.3	14.7	4.9	34.2
Germany	8.7	36.7	81.9	0.3	17.1
Greece	9.9	n.a.	0.0	33.2	0.0
Ireland	2.2	6.2*	0.0	0.0	100.0
Italy	1.8	3.6	41.7	22.3	0.0
Japan	25.9	n.a.	61.0	11.5	22.4
Luxembourg	11.9	55.4*	80.5	15.1	3.7
Netherlands	2.2	5.9	0.0	1.3	73.5
New Zealand	5.5	n.a.	0.0	1.4	92.4
Norway	20.9	n.a.	88.9	0.0	7.6
Portugal	5.4	n.a.	43.6	29.4	23.7
Spain	11.3	57.3*	31.7	29.6	27.1
Sweden	27.6	61.1 *	99.6	0.4	0.0
Switzerland	15.8	n.a.	86.3	0.4	13.3
Turkey	10.1	n.a.	41.0	37.4	3.4
United Kingdom	10.5	32.6*	0.0	0.0	100.0
United States	12.2	40.0*	6.0	15.3	74.2

Notes: Percentage shares of Local Taxes will not add to 100% owing to other taxes. *1987 data.

Source: Calculated from OECD Revenue Statistics for *OECD* Countries, 1965-89, Organization for Economic Cooperation and Development, Paris, 1990.

property and least heavily on income taxes. This `British' influence is also clear in countries formerly colonized by Britain in areas such as the Caribbean and Africa.[88]

3. Since no country seems able to raise much more than 10 per cent of total taxes from property taxes, local tax revenues are likely to exceed this proportion only when local governments have access to either sales or income taxes. As Table 5.4 suggests, property-tax countries tend to have either less important local governments (Ireland, Australia) or local governments that are more dependent on intergovernmental transfers (Canada, US, UK). In these five countries, local taxes on average constituted only 32 per cent of local revenues (including grants), compared to an average of 48 per cent for the six income-tax countries for which this information is available (see Table 5.4).
4. Although user charges have been becoming more important in some countries in recent years-for example, in Canada they accounted for 12 per cent of local revenue in 1990 compared to only 7 per cent in 1975[89]-in no country, North or South do they come close to dominating local finance. Nor, as a rule, are the charges imposed those that economic theory[90] would suggest. The potential for user charges as a means of financing local government remains more potential than reality.

Although the data are even less tractable for Africa, Asia and Latin America, similar variations are apparent within this heterogeneous group of countries. Although a large variety of local taxes are levied in different countries, the property tax is both the most common and often the most important source of local revenue. The median share of property-tax revenues in local tax revenues in the thirty-seven cities in twenty-one countries covered in the Bahl and Linn study was 42 per cent, with a marked decline in this share being apparent over the 15 years or so covered in this study.[91]

The only other major source of `own' revenue in a number of countries is some form of business tax such as the *octroi* (tax on goods entering cities) in India and Pakistan and the industry and commerce tax or *patente* in a number of countries of Latin America and Africa. Such taxes have been much more successful than property taxes in providing revenues that expand with economic activity and expenditure needs. Unfortunately, most local business taxes are both economically distorting and to some extent conducive to political irresponsibility, owing to the ease with which they lend themselves to `exporting' part of the tax burden to non-residents.[92]

Apart from taxes, which accounted for about half of local revenues, the only other significant source of local financing in most countries in Africa, Asia and Latin America are user charges levied by 'self-financing' public utilities, again with wide variations from country to country, depending upon the extent to which such utilities are under the control of local governments and upon the pricing policies that are adopted. In a few countries such as Colombia and the Republic of Korea-as also in some countries in the North such as the United States-significant use is also made of 'benefit-related' charges in financing urban infrastructure, as discussed later.

Trends and patterns in local government own revenues are important. As Bahl and Linn conclude with respect to their sample of cities in the South:

> it would appear that changes in locally raised resources determine the ability of an urban government to expand its services. Where locally raised revenues fare badly, urban government expenditure suffers; where they do well, urban expenditure thrives.[93]

The generally low `control' ratios for Southern countries shown in Table 5.2 suggest that, viewed from this perspective, local government expenditure is probably `thriving' in very few countries.

If a central government wishes local governments to play an active and expanding role in the provision of public services, it must both provide them access to an adequate revenue source (such as the income tax or, less desirably owing to the possibility of tax export, some form of local sales

or business tax) and permit and encourage them (e.g. through the design of intergovernmental fiscal transfers, as discussed below) to make efficient use of the resources thus provided. Essentially for this reason, some transitional countries that have devolved significant expenditure responsibilities to local governments have been urged to give more power to local governments to levy supplementary local surcharges on the national income tax (see Box 5.4). Taxes on real property, although a useful and appropriate source of local revenues, are unlikely to be able to provide sufficient revenue in the near future in such countries. Even countries that have devoted considerable effort and attention to improving property tax valuation and collections, such as Colombia[94] have seldom managed to do more than to maintain the relative importance of this tax (see Box 5.6).

The role of the central government

One reason for concern about the possible effects of decentralizing public sector activities is the poor quality of local government administration in many countries. To a considerable extent each country gets the local government that those in power want. Local government officials, like central government officials, respond to the incentives with which they are faced. If those incentives discourage initiative and reward inefficiency and even corruption, then it is not surprising to find corrupt and inefficient local governments. The answer to this problem is obviously to alter the incentive structure to make it possible and attractive for honest, well-trained people to make a career in local government. Similarly, one answer to local governments that make `wrong' decisions is to provide an incentive structure that leads them, in their own interests, to make the `right' decisions, that is, decisions that are both economically efficient and politically acceptable.

It is, as always, easier to state such propositions in general than it is to demonstrate concretely how they may be implemented in particular circumstances. None the less, as a recent World Bank study notes, the institutional settings within which many local governments in Africa, Asia and Latin America must work may be categorized into three groups: (1) the over-controlled local public sector, (2) the under-controlled local public sector, and (3) the perversely regulated local public sector.[99] The first of these categories is perhaps the most commonly observed: central governments control all the details of local government-who they hire, what salaries they pay, even where the buses run . . . -and leave no freedom of action for local initiative. In such countries, local citizens tend to look to the national government to fix potholes on their street-and they are generally right to do so.

While less common, the opposite ill of 'under-control' is beginning to emerge in a number of countries as a result of inappropriate decentralization strategies. For example, a number of transitional countries in eastern and central Europe have given their local governments access to a substantial share of centrally raised revenues as well as responsibility for important public service

BOX 5.6

Local property taxes

Property tax is the most widespread form of local taxation. Unfortunately, experience suggests that such taxes are not easy to administer, particularly in countries where inflation is endemic (e.g. Brazil), and that they are never politically popular owing to their visibility and to certain inherent administrative difficulties. Even in the most sophisticated countries, local property taxes can seldom yield enough to finance local services. As noted elsewhere, no country in the North which depends significantly upon property taxes for local fiscal resources has a local government sector that accounts for more than 10 per cent of total public spending.[95] Similarly, property taxes seldom account for more than 20 per cent of local current revenues-or less than 1 per cent of total public spending-in countries in the South. Moreover, despite substantial efforts in some countries and considerable foreign assistance, these figures have not changed.[96] The property tax, it appears, may be a useful, even a necessary, source of local revenue, but it is most unlikely to provide sufficient resources to finance a significant expansion of local public services in any country. Indeed, countries have often been hard-pressed even to maintain the present low relative importance of property tax revenues in the face of varying price levels and political difficulties. A recent study concludes that a number of conditions must be satisfied for local property taxes to play a more important role in financing local activities.[97] The political costs of reliance on the property tax are so high that no government with access to 'cheaper' sources of finance will willingly do so. Intergovernmental transfers which can be spent as local governments wish, like access to taxes on business which can largely be exported, must therefore be curtailed not simply to make property taxes more attractive but, more importantly, to confront local decision-makers with the true economic (and political) costs of their decisions. Even if this essential structural pre-condition is met, a number of other policy reforms are needed to turn the property tax into a responsive instrument of local fiscal policy. First, and importantly, local governments must be allowed to set their own tax rates; very few central governments give their local governments freedom in this respect. Secondly, the tax base must be maintained adequately; in countries with high inflation, some form of index adjustment is advisable. In other countries, the assessing agency must be provided direct financial incentives to keep the tax base up to date. Finally, a series of procedural reforms is often needed to improve collection efficiency, valuation accuracy, and the coverage of the potential tax base.[98] None of these steps is easy, either politically or, in some instances, in terms of available technical resources. None the less, countries that want to have local governments that are both responsive and responsible must follow this difficult path; there are no short cuts to successful local property taxation.

functions. In most cases, these countries have not yet established an adequate institutional structure to ensure that the central funds are being properly spent in, say, maintaining minimum standards of service in education or health.[100]

Finally, whether over- or under-controlled, local governments in all too many countries receive perverse signals from national governments in a number of ways. In some countries, for example, the amount of national funding received depends upon the size of the local budget deficit-a rather perverse way of encouraging over-spending and poor budget management. In others, national funding is available for infrastructure investment at no cost but there are no funds for operation and maintenance. It pays localities to let existing facilities deteriorate (since they would have to pay maintenance out of their own funds) in order to strengthen the apparent need for new facilities (which the central government will pay for).

The lack of an appropriate central government structure to monitor and support local governments is a common problem in transitional economies and in the South. Among the tasks for which central governments should in principle be responsible is that of monitoring and assessing the finances of subnational governments, both in total and individually. Central authorities need to have a much better understanding of both the existing situation of their local governments and of the likely effects of any proposed changes in local finance than is usually the case.

Financing infrastructure

Local governments, particularly in the larger urban areas of the South in principle have a critical role in providing the basic infrastructure without which modern economic life would not be possible. But how can this infrastructure he financed? The meagre tax resources available to most local governments, especially in the South make it difficult for them to finance costly projects from their own current revenues, so three other approaches to infrastructure finance are often considered. The first possibility is to borrow the money. A second possibility is for users, actual or prospective, to finance the infrastructure. And a third is for the investment to be financed by the central government, with the local government being responsible only for financing the recurrent costs of operation. Each of these approaches has its own difficulties.

When the benefits from infrastructure projects are enjoyed over a period of time, in some instances it may be both fair and efficient to finance such projects in part or whole by borrowing. In any case, borrowing may often be the only practical way to finance large capital projects without large and undesirable fluctuations in local tax rates from year to year.

In most countries, however, local government access to capital markets is limited in practice both because capital markets themselves are poorly developed and because central governments are seldom keen to allow any but very restricted access by local governments. When local borrowing is permitted, it generally requires central approval and is heavily restricted (see Box 5.7). In many cases, local capital finance through borrowing takes place mainly from government-sponsored and financed agencies such as municipal development funds. Unfortunately, the record of such agencies in most countries is poor, with many loans not being repaid and local governments having few incentives to repay.[101]

BOX 5.7

Restrictions on local borrowing

Local government access to capital markets is often restricted. Since central governments generally implicitly guarantee local debt at least to some extent, they understandably wish to restrict and control local governments' access to the treasury and to obviate the possibility of local bankruptcy and hence demands on central funds. In Canada, for example, local government borrowing is severely restricted in a number of ways: the amount of debt, the type of debt instrument, the length of term, the rate of interest, and the use of debt funds, are all, as a rule, strictly controlled. Some provinces require provincial government approval before debt is issued; others require the specific approval of local electors. Sometimes the restrictions are different for different categories of municipalities or for short-term as opposed to long-term debt. But in no case are local governments allowed to borrow as they wish. [102] **In Colombia, it was estimated a few years ago that a local government wishing to borrow required the approval of over 100 officials, and that it took, on average, at least a year to achieve the needed approvals.**[103] **In Hungary, on the other hand, local governments have, by law, unlimited borrowing authority, subject only to the approval of the local assembly: some analysts have expressed concern about the possibility of inexperienced local authorities getting into difficulty by injudicious borrowing and have urged that controls should be instituted to ensure that local access to capital markets does not cause unwanted difficulties.** [104]

Some transitional countries in Eastern and Central Europe appear to have given their newly created local governments virtually unlimited authority to borrow from commercial banks or other sources. Unrestrained local access to credit in a situation in which financial markets are not well-regulated and local governments are desperate to expand local economic activity may result in disaster. A better alternative, despite the problems mentioned in the preceding paragraph, might be to develop more appropriate modalities for local government capital financing and bor-

rowing, in the first instance through centrally-controlled sources. Such borrowing, however, should be on close to commercial terms: operating redistributive policy through loan finance is even less appropriate than through matching grants (see below).

An attractive and feasible way to finance local infrastructure in some instances may be through some variant of benefit taxation. In Latin America, for example, street improvements, water supply, and other local public services have been financed by a system of taxation known as `valorization,' in which the cost of the public works is allocated to affected properties in proportion to the benefits estimated to be conferred by the work in question. Such systems have had varying success in different circumstances.

Studies in Colombia, where valorization has been most used, suggest that critical to its success are careful planning and execution of projects, participation of beneficiaries in both planning and managing projects, an effective collection system, and, in many instances, significant initial financing of the valorization fund from general government revenues (so that works can be begun in a timely fashion, without requiring prospective beneficiaries to put up all the funds in advance). Somewhat similar lessons have emerged from experience with an alternative approach called 'land readjustment' in Korea, in which large land parcels are consolidated and developed by the local government and then part of the property is returned to the original owners in proportion to their ownership, while the balance is sold by the government at market prices in order to recoup development costs. Again, careful planning and fairly sophisticated management are required for success.[105]

These experiences demonstrate that local governments can in some circumstances develop urban infrastructure, in effect by playing the role of a developer. Recently, another way in which beneficiaries may finance local infrastructure has been developed extensively in North America through the use of so-called'exactions', 'lot levies', 'development charges', and similar systems, under which governments impose levies on would-be property developers in proportion to the estimated costs the development will impose on the urban infrastructure.[106] For example, if new residences are to be erected, and the average cost of adding them to the urban water and sewerage system is $100, the development charge-to be paid up front before the project is authorized-would be $100 (or possibly some discounted equivalent). While such schemes are far from perfect, they have been increasingly used in some countries by financially pressed urban governments to accommodate population expansion without deteriorating service levels, though not always successfully (see Box 5.8).

BOX 5.8
Public-private infrastructure finance

Some countries have turned in recent years to 'mixed' public-private financing of urban infrastructure such as roads and transit systems. Such schemes have potential and deserve careful consideration where they seem appropriate. However, care must be taken to ensure that certain conditions are satisfied if such 'mixed' financing is to produce beneficial results. As in the case of Colombia's valorization or Korea's land adjustment schemes, for example, mixed financing is most likely to prove successful when projects are carefully designed and implemented, and when the responsible public agencies are technically and financially able to meet their responsibilities. Weak governments cannot rely on private agents to overcome their weaknesses and expect to make the best possible bargains for the public they represent. In particular, governments must be careful that they do not end up assuming the'downside' risk of projects, while allowing their private partners to reap any'upside' gains. Similarly, care must be exerted to ensure that what occurs is not simply the replacement of public sector borrowing by (often more expensive) private sector borrowing, as some have said has occurred in Canada's 'development charge' financing of projects. [107] Both the economic and the budgetary gains of such arrangements may leave much to be desired. Even sophisticated local governments in wealthy countries have arguably made major errors along these lines in recent years. Inevitably, weaker local governments in countries in the South seem even more prone to such mistakes. As in other spheres, 'privatizing' the design, construction, and operation of urban infrastructure may have many merits: but it is neither a panacea, nor is it free.

Of course, all formal systems of 'user-pay' infrastructure development can operate successfully only in the formal sector. To the extent that housing and urban development takes place primarily outside this sector-for instance in illegal subdivisions or squatter settlements-less formal systems must be used if there is to be any beneficiary-related finance. Chapters 9 and 10 include several examples of less formal systems of infrastructure and service provision that have been successful within illegal or informal settlements, including those that are independent of external agencies and those that have been done in partnership with governments and international agencies.

Earmarking

A pervasive feature of local government finance in the South is the prevalence of earmarking. In Gujarat state in India, for example, a portion of the state entertainment tax is earmarked for urban local governments, and some of this portion is in turn earmarked for investment in capital projects that are co-financed by the municipalities.[108] In many Latin American countries, the earmarking of substantial parts of

intergovernmental transfers to localities to local infrastructure investment has characterized much of the recent decentralization: this feature is found in Argentina (for housing) and in Brazil, Colombia, Chile, Ecuador, Guatemala, and Venezuela.[109] Although earmarking is seldom fully effective-there is usually some substitution of transfers for own-source revenues-the result of this practice may be to expand capital spending to some extent, while exacerbating the already difficult problem of funding operating and maintenance expenditures. Presumably motivated by the desire to prevent local governments from `wasting' transfers on expanding local payrolls, such earmarking may have the paradoxical effect of exacerbating local fiscal problems.

In general, the earmarking that marks local finances in many countries has little to recommend it. It distorts local preferences, exacerbates perverse incentives already found in the local finance system, and sometimes (as in the Gujarat case) connects revenue sources with expenditures in totally illogical ways. Such earmarking has often deservedly received criticism. Yet there is also `good' earmarking. When there is a strong benefit link between the payment of an earmarked tax (or fee) and the use of the tax to finance additional expenditures, not only is the source of financing eminently sensible in equity and political terms, but it may also serve the important efficiency purpose of signalling local preferences.[110]

Well-designed earmarked benefit taxes are, in effect, surrogate prices. Like prices, when set appropriately such taxes may provide useful guidance both to the more efficient utilization of existing infrastructure and to better investment decisions. In the conditions of many countries in Africa, Asia and Latin America, to establish such prices may seem a counsel of perfection. None the less, the interdependence of pricing and investment decisions, and the potentially important role of earmarking in linking revenues and expenditures, means that this practice deserves careful consideration when it comes to financing local infrastructure.

The recurrent cost problem

Most countries in the South are clearly short of capital. Even when capital projects get built, they are often inadequately maintained. In many countries, local governments, even when (as is usually the case) they have not been involved in the selection or execution of projects, are assumed to be willing and able to look after the subsequent costs required to keep the infrastructure operating and in good condition. This assumption is often mistaken: not only may local governments lack the financial resources or technical capacity to undertake this task, but the incentives facing them seldom encourage them to do so. These incentives are often perverse in the sense that the less a local government does to maintain its infrastructure the more likely it is to be rescued from above.

Funding recurrent costs through user charges are often criticized for their distributional effects, but these have little validity when the underfinancing of recurrent costs means that any redistributive objective sought through the free or subsidized supply of services cannot be achieved.[111] On the other hand, it is not particularly difficult to design pricing schemes that incorporate some relief for low-income users but are none the less economically efficient.[112] As Davey argues:

> Services, such as water supply and sewerage, are improved for all if charges fully cover both operating and capital costs.... If water supply costs are not fully recovered, for example, low-income groups end up with a few hours of treated water a day, or none at all. If fares remain static (unchanged in Cairo for thirty years, for example), buses simply break down. The public does not really gain from subsidy, least of all the poor.[113]

Infrastructure finance is a serious problem when the resources available for local capital expenditure are as scarce as in many countries in the South (see Table 5.3 and Figure 5.1). Nevertheless, there are usually possibilities for improvement. In some instances, borrowing may offer one means of capital finance; in others, users can be called upon to pay a substantial fraction of the cost of infrastructure, either up front (as in Colombia's valorization system) or after the fact (through appropriately earmarked user charges). Chapter 8 documents how in many cities, the lower income groups who used water vendors were paying many times the price per litre of wealthier groups receiving piped supplies. There is no reason in principle why more cannot be done to harness this potential to provide (usually cheaper and often safer) public water.[114]

The special case of transitional economies

These and other problems of local government finance are now arising in many of the transitional countries of eastern and central Europe, although of course the circumstances of these countries are very different from those of, say, sub-Saharan Africa or India. Decentralization in the transitional countries represents both a reaction from below to the previously tight political control from the centre and an attempt from above to further the privatization of the economy and to relieve the strained fiscal situation of the central government. Although there are many variations in this process from country to country,

some important common elements arise from the similar institutional starting point in all countries[115] and the common transitional problems most of them are facing.[116]

Under the previous socialist regime the fiscal system was essentially unitary. Local governments were little more than administrative units or `departments' of the centre, with no independent fiscal or legislative responsibility. Policy-making was controlled and centralized, and local governments had virtually no independent tax or expenditure powers-part of a larger picture in which the budget itself was seen only as the means to implement the Plan.[117] Now, virtually every transitional country is to varying degrees decentralizing, deconcentrating, and delegating functions and responsibilities.

In most transitional countries, autonomy and control over (often poorly-defined) `local matters' is increasingly being devolved to local governments (see Table 5.5). The general intent is to free local governments from central control and to let local democracy flourish. It is not clear that the local fiscal systems being established will achieve this goal-at least not without compromising the attainment of such broader reforms in the transitional economies as price-liberalization and privatization.

The traditional analysis of intergovernmental finance examines the fiscal functions of local and central governments in terms of their respective roles and responsibilities for stabilization, income distribution, expenditure provision, the appropriate assignment of tax functions, and the design of a transfer system that provides appropriate incentives. The `benefit model' of service provision described in Box 5.9 suggests that local governments-whose role in this analysis is essentially that of service provider-should be financed to the extent possible by charging for the services they provide, with local taxes making up the remaining gap, supplemented as appropriate by transfers and, perhaps, some limited borrowing.[118]

This perspective is also important in the transitional economies. The obvious need for flexibility in today's rapidly changing environment has led many central governments to attempt to preserve some degrees of freedom by continuing with the `negotiated' tax sharing systems of the past under which local governments received a variable share of central revenues as determined virtually unilaterally by the central government.[120] Such an approach seems unlikely to be acceptable for long in countries in which demands for `fair' treatment and equalization are strong, and local governments are seeking greater autonomy (see below). New intergovernmental fiscal arrangements are therefore under discussion in virtually every transitional country of Europe and similar concerns are likely to surface in other countries (e.g. Vietnam) that had adopted similar `planning' structures.

Discussion of this issue is rendered more difficult in transitional economies by several key features of local government roles, responsibilities and economic functions. First, the important roles of local government as producer and as owner, as well as the complicated and critical relationships between enterprises and local government in most transitional economies, must be taken into account. Local governments have a major role as potential impediments to, or supporters of, privatization. Moreover, the asset stock conferred on them in the decentralization process represents a potential source of revenue (or, in some instances, loss). The interaction of local government finance and privatization thus merits careful attention in the transitional economies.

Second, the traditional approach ignores the shrinking role of government in general as shown in Table 5.5. Under the former system, government, both local and central, had a major production role. It was also the major investor in the economy, and the expenditure side of the budget was full of expenditures-not only subsidies, but direct investment, inventory finance and wages-which in a more market-oriented economy are not the responsibility of government. In all the transitional countries government revenue is declining more rapidly than governments are able to divest themselves of these expenditure responsibilities, thus contributing to stabilization problems. One response in countries such as Russia has been to try to shift the deficit downwards by making local governments responsible for more expenditures, while simultaneously reducing central transfers to the subnational sector. This approach seems unlikely to be sustainable for very long.

A third important factor is related to the present role of local governments with respect

TABLE 5.5 Transitional economies: the changing size of local government

Country	Total Exp. as % of GDP	Sub-national Exp. as % of GDP	Sub-national Exp. as % of Total Exp.	Total Exp. as % of GDP	Sub-national Exp. as % of GDP	Sub-national Exp. as % of Total Exp.
		Pre-1989			Post-1989	
Hungary	62.7	14.3	25.4	57.4	10.4	18.2
Poland	49.7	14.7	35.3	40.1	4.00	11.0
Romania	45.1	3.6	11.4	24.6	6.07	10.8
Bulgaria	55.2	N.A.	N.A.	43.0	25.0	23.0
CSFR	58.4	20.5	34.5	60.1	20.2	34.3
Russia	51.0	20.7	16.0	41.0	17.0	43.0

Sources and Notes: Bird, Richard M. and Christine Wallich, 'Fiscal Decentralization and Intergovernmental Relations in Transition Economies', Working Paper No. WPS 1122, World Bank, Washington, DC, 1993. The figures in this Table-other than for Russia-do not show the degree of real decentralization very clearly, partly because the government sector as a whole is shrinking rapidly and partly because, although local governments may have been large under the old system, they had no real freedom of action; they were more like departments of the central government than local governments.

BOX 5.9

Two models of local government finance

Two models of local government finance may be found in the literature. The first views local government, like any other government, primarily in an'ability-to-pay' framework. The second, in contrast, views local governments, unlike general national governments, primarily as agencies providing identifiable services to identifiable local residents and thus applies what is called a 'benefit' framework of analysis. The 'benefit' model of local finance fits best into economic analysis. In this framework, local governments are essentially viewed as firms that provide services, for the last (marginal) units of which recipients are willing to pay a price or charge that is just equal to the benefit they receive. This approach to local finance is logically appealing (at least to economists), equitable in the sense that no one pays less (or more) than he or she would be willing to pay in a free market, and economically efficient. There are, however, two problems with the benefit model. First, it is difficult to implement appropriate pricing policy for local public services; and second, it is not politically appealing. The first of these problems may be dealt with to some extent by structuring local government finances along the following lines: [119] (1) Price appropriately those services that flow to identifiable individuals; (2) Where such pricing is not possible, link local expenditures and revenues through such devices as earmarking and matching service benefit areas and the spatial dimension of the financing sources; (3) Ensure that taxes financing local services are raised primarily from local residents; and (4) Design intergovernmental transfers to ensure that, at the margin, the costs and benefits of local fiscal decisions are borne locally, while taking adequately into account such interjurisdictional spillovers as are deemed relevant. Imposing a 'hard budget constraint' on local decision-makers in this way will never be politically popular, either with local decision-makers or, in most instances, with their constituents. In contrast, the political attractiveness in many countries of the ability model is undeniable, although it is often as nebulous how 'ability' is to be assessed in this framework as to how 'benefit' can be measured in the benefit framework. In countries in the South, where most tax bases are occupied by the central government, what an ability approach to local government usually means is that central transfers (or the analytical equivalent of a national tax 'shared' according to some formula) end up financing most local services. There is no assurance, of course, that the local recipients of central largesse are necessarily less 'able' to pay for what they get than those whose incomes are reduced as a result of the central taxes. If local governments themselves attempt to implement differentiated 'ability' taxes, their tax bases are likely to leave for more congenial climes, with the result that the package of local services provided may be lower than it would be if the benefit approach were followed. In particular, richer local governments are likely to attract tax base from poorer ones, thus accentuating disparities. Overall, pursuing active distributional policies through local finances seems unlikely to be a very sensible strategy.

to the so-called `social safety net' that varies from country to country. Problems are likely to arise in the future because of the combined effect of weakening central government capacity to maintain social protection and a growing need for such assistance as a result of economic restructuring. Even if the need for the bottom (local) layer of the social safety net increases, it is unlikely that local governments, even if they may sometimes be the appropriate executing agencies, should or can be responsible for financing such assistance. At present, for example, state enterprises provide a wide range of social sector outlays: with privatization, many of these outlays will have to be taken over by local governments. Since the revenue sources assigned to local governments in most countries seem unlikely to be adequate to finance even 'ordinary' local activities, one result of thus shifting responsibility for distributional expenditures downward may be, paradoxically, an increased demand for intergovernmental transfers.

Current solutions

Central governments in most transitional countries appear to view fiscal decentralization as an opportunity to reduce central expenditures in two ways: by spinning off expenditure responsibilities to the subnational level and by reducing fiscal transfers-purportedly to make local governments more 'independent,' but with the welcome side effect of reducing central outlays. In particular, some countries are transferring increasing responsibility for social expenditures and the social safety net to local government.

The most dramatic example is that of Russia, where the central government transferred social expenditures equivalent to some 6 per cent of GDP (1992) to the subnational level, with the objective of 'pushing the deficit down',[121] Since Russia is a federal country, in the first instance the shift has been to the regional (oblast) level. Many oblasts seem, in turn, to have passed the pressure on to the local (rayon) level of government. The hope seems to have been that lower-level governments would perform the politically painful cutting required. More recently, responsibility for key national, interjurisdictional investments (e.g. in transport) has also been transferred to the subnational sector. In contrast, in Albania, although responsibility for social assistance has similarly been pushed 'downstairs,' the central government has retained primary responsibility for financing such assistance.

Fiscal difficulties at the national level have led some countries to reduce intergovernmental transfers. The principle of 'budgetary independence' has been interpreted to mean that subnational governments should be financially self-sufficient, which in turn implies that direct transfers should be reduced and even eliminated. However, in most of the transition economies, central transfers to local government sector remain very large (see Table 5.6), reflecting the rudimentary tax bases that have been made available to local governments as a result of the centre's reluctance to give local governments access to any major tax base.

TABLE 5.6 Transitional economies: structure of subnational government finance (recent year)

	Hungary	Poland	Romania	Czech R.	Slovak R.	Bulgaria	Russia
Own Resources	18%	50%	25%	9%	71%	4.4%	–
Shared Tax	13%	25%	0%	6%	4.7%	49.4%	95%
Total Local	31%	75%	25%	15%	76%	53.8%	95%
Transfers from Central Government	68.5%[1]	25%	75%	85%	24%	46.2%	5%

Source: Bird, Richard M. and Christine Wallich,'Fiscal Decentralization and Intergovernmental Relations in Transition Economies', Working Paper No. WPS1122, World Bank, Washington DC, 1993.

[1] 51.4% as grants and 17.1% as Social Security Funds transfers.

BOX 5.10

The need for larger local governments

In many countries, the average size of local governments is small. In six transitional economies in eastern Europe, for example, the average population of the newly created local governments is less than 10,000. [122] In Hungary, three-quarters of the new local governments have less than 2,000 inhabitants. Similar situations exist in many countries in Africa, Asia and Latin America. Many of these local governments are too small to provide efficiently all the public services demanded from them. Some countries in the North have developed 'two-tiered' local government structures in response to this problem. In Finland, for instance, where the average population of local governments is little more than 10,000, the 460 local governments (communes) are organized on a voluntary basis to provide particular services. There are 100 such federations in the health care field, for example.[123] Similar special purpose municipal federations exist in other Nordic countries to provide such services as health care and certain types of education. Other services are provided by so-called 'secondary communes', or counties, which are responsible for certain services provided to an area encompassing a number of communes. Still other services are provided by regional agencies of the central government such as highway construction and maintenance and, in some' cases, the collection of local taxes. Canada too has developed a number of variant forms of 'two-tiered' local government. [124] In the province of Ontario, for example, regional governments are responsible for some social and health services, water supply, sewage treatment, and refuse disposal, while local governments are responsible for refuse collection, fire protection, parks, and recreation. Some functions, such as water distribution, police, and roads, are jointly controlled. Primary and secondary education is provided by special-purpose school districts.

The amount and distribution of intergovernmental transfers in most countries continues to be determined annually on a discretionary basis in accordance with central fiscal exigencies. Such budgetary flexibility is clearly desirable from the central government's short-rum view. None the less, it is a mistake to view intergovernmental transfers as an easily compressible portion of the national budget. Many of the services provided by subnational governments, particularly in view of the 'pass-down' phenomenon already discussed, constitute essential expenditures for political stability or for future economic development. The many small local governments that have been created in response to political pressures in most countries cannot finance the provision of these services at an adequate level out of their own resources (see Box 5.10).

In the current macro-economic environment, an underfunded local government sector seems all too likely to result in a situation in which the only way local governments can cope with budgetary pressure is by using economically undesirable sources of revenue such as profits derived from the exploitation of income-earning assets transferred to them and from direct public ownership of local businesses. At the same time, local governments' open-ended expenditure responsibility for social assistance in some countries may result in emergency recurrence to the central government for additional funds, or simply the unsustainable accrual of arrears through short-term borrowing, as has happened in Russia. One way or another, intergovernmental transfers seem likely to be an important component of the central budget for years to come in most transitional countries.

The level, design and effects of intergovernmental fiscal transfers obviously constitute key elements in the emerging intergovernmental and local finance systems of the transitional economies[125]-as they do in other countries. Critical decisions must be made in regard to the overall size of such transfers (the 'distributable pool') and to the distribution formulas to be employed. These must take into account both the severe fiscal pressures on the central government and the vital tasks to be performed by the local governments in the emerging new structure of the public sector (see Box 5.11).

As in many countries in the South, local governments in the transitional economies need substantial help and guidance in developing adequate local revenue systems. In most such countries, for example, the principal local tax is some form of property tax.[130] In some instances (e.g. Romania), however, national governments have greatly limited the revenue potential of this tax both by granting exemptions to newly privatized land, housing, and enterprises and by fixing a uniform national tax rate. In other instances (e.g. Hungary) local governments are supposed to receive some share of certain national taxes, often on a derivation basis (e.g. origin, or residence).[131] Such provisions often raise both technical and allocative problems, in addition to biasing national tax policy decisions in unfavourable ways. [132] Even when a local property tax is feasible

BOX 5.11

Redesigning government transfers

Three aspects of intergovernmental fiscal transfers need further attention in most countries: the size of the 'distributable pool,' the basis for distributing transfers, and conditionality. Some countries (e.g. Morocco) set aside a fraction of a particular central tax as the amount to be distributed to local governments but this can introduce an undesirable bias into national tax policy. Finance ministries will be reluctant to raise taxes for the benefit of other governments. A better solution is, as in Colombia, to establish a certain percentage of all central revenues as the 'pool' to be distributed to local governments. This approach both provides more certainty to local governments than a purely discretionary system and permits the central government to retain budgetary flexibility. Another approach would be to have a 'horizontal equalization' transfer, as in Germany and Denmark, under which, in effect, rich local governments directly transfer resources to poor localities without directly affecting central revenues. Chile appears to be the only country in the South to have such a system.[126] A good transfer system should distribute funds on the basis of a formula. Discretionary or negotiated transfers, such as are still common in many countries in East and Central Europe and the South are clearly undesirable. The essential ingredients of most formulas for general transfer programs (as opposed to'matching grants' which are specifically intended to finance narrowly-defined projects and activities) are needs, capacity, and effort. Needs may be adequately proxied in many cases by some combination of population and the type or category of municipality.[127] Effort may be adequately taken into account by a proper specification of capacity.[128] The key ingredient is some measure of the 'capacity' of local governments to raise resources, given the revenue authority at their disposal. Once the total amount to be distributed has been decided, and the basic distribution formula determined, the remaining question is whether the transfer should be made conditional on the provision of certain services at specified levels. As a general rule, in the circumstances of most countries in Africa, Asia and Latin America, in which the 'benefit' model of local governments (see Box 5.9) seems applicable, such conditionality seems desirable,[129] though matters may be different for regional governments in some federal states (see Box 5.3).

and adequate in principle, realistically it will take some years before such a tax can be expected to produce sufficient revenues to meet perceived local needs, if it ever can (see Box 5.6).

Many local expenditures cannot be postponed until the revenue side is improved. Even if local expenditures are rationally assigned, and designed, the paucity of locally-controlled tax resources in most transitional countries, when combined with the universal reluctance of politicians to tax constituents too directly and openly, makes it almost inevitable that hard-pressed local governments will turn to other avenues for revenue. They will demand increased transfers, they will try to borrow, and they will try to exploit to the full the new assets they have acquired as part of the decentralization-privatization process. Each of these paths carries with it dangers for the transition process as a whole.

While many of the problems and critical areas in the transitional economies are similar to those in the South generally, a broader framework than usual is thus needed to analyse fiscal decentralization and local and intergovernmental fiscal issues in the transitional economies. This framework must incorporate such elements as the likelihood of continuing structural changes in the economy and continuing political shifts, the need to undertake intergovernmental reforms while coping simultaneously with stabilization pressures and the increased importance of the social safety net, the likelihood of continued (local) public ownership on a significant scale, the financial implications of such ownership and its possible conflicts with the overall privatization objective, and continued vestiges of price and wage controls and other rigidities. Each country is different, and each will need close examination to determine the precise structure of the relevant incentives, constraints, and opportunities in order to design as `hard' a budget constraint as may prove acceptable.

Notes and References

1. Sections 5.1-5.3 are a slightly shortened and amended version of a background paper prepared for the Global Report entitled *The Governance of Human Settlements* by Richard Stren and Christie Gombay, Centre for Urban and Community Studies, University of Toronto.
2. World Bank, *Sub-Saharan Africa: From Crisis to Sustainable Growth,* The World Bank, Washington DC, 1989, 5.
3. Wunsch, James and Dele Olowu, 'The failure of the centralized African state' in James Wunsch and Dele Olowu (editors), *The Failure of the Centralized State; Institutions and Self-Governance in Africa,* Westview, Boulder, 1990, 4-5.
4. Prud'homme, Remy, 'Main Issues in Decentralization', in World Bank, *Strengthening Local Governments in Sub-Saharan Africa; Proceedings of Two Worksbops,* EDI Policy Seminar Report, no. 21, The World Bank, Washington DC, 1988, 71.
5. Dillinger, William, *Decentralization and its Implications for Urban Service Delivery,* Urban Management Programme Discussion Paper No. 16, The World Bank, Washington DC, 1993, 8.
6. See Smith, B. C., *Decentralization; The Territorial Dimension of the State,* George Allen and Unwin, London, 1985, esp. ch. 1.
7. The best discussion of this typology is to be found in Shabbir Cheema and Dennis Rondinelli (eds.), *Decentralization and Development; Policy Implementation in Developing Countries,* Sage, Beverly Hills, 1983.
8. See, for example, Prud'homme 1988, op. *cit.*
9. Huntington, Samuel *P, The Third Wave; Democratization in the Late Twentieth Century,* University of Oklahoma Press, Norman, Oklahoma, 1991, 7.

10. Huntington *1991, op. cit. 113.*
11. Huntington *1991, op. cit. 26.* Only states with a population of over 1 million were included in this calculation.
12. These estimates, and definitions of the categories, can be found in the newsletter *Africa Demos,* issued by the Carter Center of Emory University, Atlanta, Georgia. The *1991* estimates are taken from vol. 1, no. *4* (May *1991);* and the *1994* estimates are taken from vol. *3,* no. *3* (Sept. *1994).* The key definitions are those of a democratic and an authoritarian political system. Thus, a democratic system is `a system enjoying wide competition between organized groups, numerous opportunities for popular participation in government, and elections that are regularly and fairly conducted. Constitutional guarantees of civil liberties and human rights are effectively enforced.' An authoritarian system is `a system with highly restricted opportunities for political mobilization. Power is exercised by a leader or small group who are not formally accountable to an electorate. There are no effective constitutional limits to the exercise of political power'.
13. Examples of these are given in Chapters *9, 10* and 11.
14. See Peattie, Lisa, `Participation: a case study of how invaders organize, negotiate and interact with government in Lima, Peru', *Environment and Urbanization, vol. 2,* no. 1, April *1990, 19-30* for one detailed description of this. Also Cuenya, Beatriz, Diego Armus, Maria Di Loreto and Susana Penalva, `Land invasions and grassroots organization: the Quilmes settlement in Greater Buenos Aires, Argentina', *Environment and Urbanization, vol. 2,* no. 1, April *1990, 61-73.*
15. *Ibid.*
16. Hardoy, Jorge E. and David Satterthwaite, *Squatter Citizen: Life in the Urban Third World,* Earthscan Publications, London, *1989.*
17. Hirschman, Albert O., *Getting Ahead Collectively: Grassroots Experiences in Latin America,* Pergamon Press, New York, *1984, 100.*
18. Valladares, Licia, and Magda Prates Coelho, `Urban Research in Brazil and Venezuela: Towards an Agenda for the *1990s',* in Richard Stren (ed.), *Urban Research in the Developing World; Volume 3: Latin America,* Centre for Urban and Community Studies, Toronto, *1995,* ch. *3,36.*
19. Rodriguez, Alfredo, Vicente Espinoza and Hilda Herzer, `Argentina, Bolivia, Chile, Ecuador, Peru, Uruguay: Urban Research in the *1990s-A* Framework for an Analysis' in Richard Stren (ed.), *Urban Research in the Developing World; Volume 3: Latin America,* Centre for Urban and Community Studies, Toronto, *1995,* ch. *5, 11.*
20. Inglehart, Ronald, *Culture Shift in Advanced Industrial Society,* Princeton University Press, Princeton, *1990, 137-9.*
21. *Ibid. 267.*
22. Hays, Samuel, *Beauty, Health and Permanence: Environmental Politics in the United States 1955-1985,* Cambridge University Press, Cambridge, *1987, 22.*
23. On the Canadian pattern, see Doug Macdonald, *The Politics of Pollution,* McClelland and Stewart, Toronto, *1991, 90-1.* Kirkpatrick Sale sums up the American pattern of support. `Generally the strength [of the environmental movement] came from the more urbanized and often more liberal sections of the country-chiefly the conurbations known as Bos-Wash, Chi-Cin, Pitt-Phil, Sea-Port, and San-San, the last in California-and petered out in the Heartland and Plains, dwindling even more in such areas dependent on petrochemicals and extraction as the Rockies and the Gulf. Generally the shock troops as well as the directors and the staffs were younger, richer, and better educated than the American average, leading to criticism that it was an "elitist" movement concerned only with the luxuries of a good life for those who already had a good living. And generally both the organizations and their supporters were predominantly white, with little impact in black or brown populations where ecological matters at this point seemed trivial compared with economic ones and the connections between the two rarely made' (Kirkpatrick Sale, *The Green Revolution: The American Environmental Movement 1962-1992,* Hill and Wang, New York, *1993,44-5*).
24. Macdonald *1991, op. cit. 98-9.*
25. Government of Canada, *Canada's Green Plan for a Healthy Environment,* Minister of Supply and Services, Ottawa, *1990, 135.*
26. Sale *1993, op.cit. 44.*
27. *Ibid. 80.*
28. *Ibid. 79.*
29. Herzer, Hilda, and Pedro Pirez, `Municipal government and popular participation in Latin America', *Environment and Urbanization, vol. 3,* no. l, April *1991, 79-95.*
30. Campbell, Tim with G. Petersen and J. Brakarz, *Decentralization to Local Government in LAC. National Strategies and Local Response in Planning,* Spending and Management, Latin American and the Caribbean Technical Department, The World Bank, Washington DC, *1991.*
31. Rodriguez, Alfredo, and Lucy Winchester, `The City: Governance and Urban Poverty in Six Countries in Latin America', Unpublished paper, SUR, Santiago, *1994.*
32. De Mello, Diogo Lordello, `Brazil', in Samuel Humes *IV, Local Governance and National Power. A Worldwide Comparison of Tradition and Change in Local Government,* Harvester, London, *1991, 155.*
33. *Ibid. 162.*
34. *Ibid. 167.*
35. Assies, Villem, `Urban Social Movements in Brazil. A Debate and Its Dynamics', *Latin American Perspectives,* Issue *81, vol. 21,* no. *2,* Spring *1994, 93.*
36. Carrion, Diego, `The role and functions of municipal government in Ecuador', in *The Role and Functions ofMunicipal Government in Selected Countries,* Centre for Urban and Community Studies and Federation of Canadian Municipalities, Toronto, *1995, 116.*
37. Carr, Michelle, `A Case Study of Quito, Ecuador', in *Metropolitan Planning and Management in the Developing World. Abidjan and Quito,* UNCHS, Nairobi, *1992, 94.*
38. Carrion *1995, op. cit. 119.*
39. Rodriguez and Winchester *1994, op. cit.*
40. Rosenfeld, Alex, `The role and functions of municipal government in Chile', in *The Role and Functions of Municipal Government in Selected Countries,* Centre for Urban and Community Studies and Federation of Canadian Municipalities, Toronto, *1995, 89.*
41. Rosenfeld *1995, op. cit. 95.*
42. For these cases, see Nikki Craske, `Women's Political Participation in Colonias Populates in Guadalajara, Mexico'; and Leda M. Vieira Machado, "`We learned to think politically": The influence of the Catholic Church and the feminist movement on the emergence of the health movement of the Jardim Nordeste area in Sao Paulo, Brazil', in Radcliffe and Westwood *1993, op. cit.;* and Veronica Schild, `Recasting "Popular" Movements: gender and political learning in neighborhood organizations in Chile' *Latin American Perspectives,* Issue *81,* Volume *21,* no. *2, 1994.* In her conclusion, Schild makes a point common to many studies of women in local social movements: `Inequalities based on gendered class relations (and limiting subjectivities) have traditionally rendered citizenship marginal for most poor and working-class women. However, during the period of enforced public silence [i.e. during the authoritarian period] many of these women found new resources with which to question limiting subjectivities, while some also engaged in crafting new political subjectivities. Thus women's neighborhood organizations have been important sites of struggles in which women have begun to acquire their own voices as part of the creation of new political identities. These new voices will no doubt help to make the so-called reconstitution of civil society currently taking place in Chile more a redefinition than a restitution' (p. *75).*
43. World Bank, *Urban Policy and Economic Development. An Agenda for the 1990s,* The World Bank, Washington, *1991.*
44. Gilbert, Alan, and Peter Ward, *Housing, the State and the Poor. Policy and Practice in Three Latin American Cities,* Cambridge University Press, Cambridge, *1985,175.*
45. Saravia, Joaquin C. and Godofredo

Sandoval Z. *Jach'a Uru: ¿La Esperanza de un Pueblo? Carlos Palenque, RTP y Los Sectores Populares Urbanos en La Paz,* CEP and ILDIS, La Paz, 1991.

46. Pflucker, Piedad Pareja and Aldo Gatti Murriel, *Elecciones Municipales en las Provincias de Lima y el Callao,* Fundacion Friedrich Ebert, Lima, 1993.
47. For instance, the recently elected mayor of Bogota.
48. Guerrero V, Rodrigo, `Innovative programs for the urban poor in Cali, Colombia', in Bonnie Bradford and Margaret A. Gwynne (eds.), *Down to Earth: Community Perspectives on Health, Development and the Environment,* Kumarian Press, West Hartford, 1995, 17-22.
49. Shefner, Jon, and John Wilton, 'The *damnificados* of Guadalajara: The politics of domination and social movement protest', *International Journal of Urban and Regional Research, vol.* 17, no. 4, December 1993, 62 1.
50. Attahi, Koffi, `Planning and management in large cities: a case study of Abidjan, Côte d'Ivoire', in UNCHS (Habitat), *Metropolitan Planning and Management in the Developing World: Abidjan and Quito,* UNCHS, Nairobi, 1992,31-82.
51. Lapeyre, Charles, `La ville de Dakar: commune et region', in Centre d'études et de recherches en administration local, *L'Administration des grandes villes dans le monde, PUF,* Paris, 1986, 339.
52. Diop, Momar Coumba and Mamadou Diouf, Touvoir central et pouvoir local. La crise de l'institution municipale au Senegal', in Sylvy Jaglin and Alain Dubresson (eds.), *Pouvoirs et cités d Afrique noire; Décentralisations en questions,* Karthala, Paris, 1993, 114-15 [Author's translation].
53. Attahi, Koffi, `The Functions and Powers of Municipal Government in Côte d'Ivoire', in Centre for Urban and Community Studies, *The Role and Functions of Municipal Government in Selected Countries,* University of Toronto for Federation of Canadian Municipalities, Toronto, 1995, 72.
54. Kasfir, Nelson, `Designs and dilemmas: an overview', in Philip Mawhood (ed.), *Local Government in the Third World. The Experience of Tropical Africa,* John Wiley and Sons, Chichester, 1983, 25-47.
55. Adamolekun, Lapido, `The idea of local government as a third level of government', in L. Adamolekun and L. Rowland (eds.), *The New Local Government System in Nigeria; Problems and Prospects for Implementation,* Heinemann, Ibadan, 1979, 39.
56. Olowu, Dele, `Centralization, self-governance, and development in Nigeria', in Wunsch and Olowu (eds.) 1990, op. *cit.*
57. The following section on Nairobi is based on a longer account in Richard Stren, Mohamed Halfani and Joyce Malombe, `Coping with Urbanization and Urban Policy' in Joel Barkan (ed.), *Beyond Socialism and Capitalism in Kenya and Tanzania,* Lynne Rienner, Boulder, 1994, 175-200.
58. *The Weekly Review* (Nairobi) 12 July 1991, 18.
59. Section 5.4 is a shortened version of a background paper written by Richard M. Bird.
60. See Bird, Richard M., *Federal Finance in Comparative Perspective,* Canadian Tax Foundation, Toronto, 1986 for further discussion.
61. Surveyed by Bahl, Roy W. and Johannes Linn, *Urban Public Finance in Developing Countries,* Oxford University Press, New York, 1992, 14-15.
62. Bird, Richard M. and Christine Wallich, `Fiscal Decentralization and Intergovernmental Relations in Transition Economies,' Working Paper no. WPS 1122, World Bank, Washington, DC, 1993, 22.
63. Developed countries surveyed in OECD, Fiscal Affairs Secretariat, `The Role of Intermediate and Local Levels of Government: The Experience of Selected OECD Countries,' Background Document for Seminar on Fiscal Federalism in Economies in Transition, Paris, 1991.
64. The extent to which such activities are reflected in the data included in Table 5.2 varies from country to country. The full range of local government activities has been thoroughly analyzed in few countries outside the industrial world, and even when such data have been gathered in special studies, they have not been kept up to date.
65. Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism,* Washington DC, vol. 2, 1992, 58.
66. Bahl, Roy W and Johannes Linn, *Urban Public Finance in Developing Countries,* Oxford University Press, New York, 1992, 14-15.
67. World Bank/UNCHS, *The Housing Indicators Program Volume III; Preliminary Findings,* a Joint Programme of the United Nations Centre for Human Settlements (Habitat) and the World Bank, Washington DC, April 1993.
68. Bird and Wallich 1993, *op. cit.*
69. Bird, Richard M. and Christine Wallich, `Financing Local Government in Hungary,' Working Paper no. WPS 869, World Bank, Washington, DC, 1992.
70. See Bird, Richard M. and Enid Slack, `Financing local governments in OECD countries: the role of local taxes and user charges', in Owens, Jeffrey and Giorgio Panella (eds.), *Local Government: An International Perspective,* North-Holland, Amsterdam, 1991.
71. Bahl and Linn 1992, *op. cit.* 36-7.
72. Bird and Wallich, 1993, *op. cit.* 44.
73. World Bank, *World Development Report* 1988, Oxford University Press, 1988.
74. Bahl and Linn 1992, *op. cit.*
75. OECD 1991, op. *cit.* 66.
76. Covered by Bahl and Linn 1992, op. *cit.* 34-5.
77. Bahl and Linn 1992, op. *cit.,* 40
78. World Bank, *Chile: Subnational Government Finance,* Washington DC, 1993, 57.
79. This variation partly reflects differences in the roles of state and local governments in different US states. Even if state and local expenditures are combined, however, the variation is still from 68 to 291 per cent of the national average. (See Advisory Commission on Intergovernmental Relations 1992, op. *cit. vol.* 2, 224-5 and 220-1.)
80. Bird, Richard M. and Heng-fu Zou, `Financing Local Government in Romania', Draft; World Bank, Washington DC, 1992
81. World Bank, *Chile: Subnational Government Finance,* Washington DC, 1993.
82. World Bank, `Indonesia: Fiscal Decentralization: Towards a New Partnership for Progress', Report no. 12407-IND, Oct. 1993.
83. Bird, Richard M., *Intergovernmental Fiscal Relations in Colombia,* Harvard Law School International Tax Program, Cambridge, Mass, 1984, 267.
84. Kitchen, Harry M., *Local Government Finance in Canada,* Canadian Tax Foundation, Toronto, 1984, 175.
85. Rao, M. Govinda and A. Das-Gupta, `Intergovernmental Transfers as an Instrument to Alleviate Poverty', Economic Development Institute, World Bank, 1993.
86. Dreze, Jean and Mrinalini Saran, `Primary Education and Economic Development in China and India: Overview and Two Case Studies', no. 47, Development Economics Research Programme, London School of Economics, Sept. 1993, 73.
87. Rao and Das-Gupta 1993, *op. cit.*
88. Keith, Simon H., *Property Tax in Anglophone Africa: A Practical Manual,* World Bank Technical Paper no. 209, Washington DC, 1993.
89. Kitchen, Harry, *Efficient Delivery of Local Government Services,* Discussion Paper 93-15, School of Policy Studies, Queen's University, Kingston, 1993, 30.
90. See for instance Bird, Richard M., *Charging for Public Services: A New Look at an Old Idea,* Canadian Tax Foundation, Toronto, 1976.
91. Bahl and Linn 1992, op. *cit.*
92. As Thirsk notes with respect to Canada, the same argument may be made with respect to that portion of the property tax-frequently half or more of the total-that applies to nonresidential property; see Thirsk, Wayne R., `Political Sensitivity versus Economic Sensibility: A Tale of Two Property Taxes', in W. R. Thirsk and J. Whalley (eds.), *Tax Policy Options in the* 1980s, Canadian Tax Foundation, Toronto, 1982.

93. Bahl and Linn 1992, op. *cit.* 43.
94. World Bank, *Colombia: Decentralizing Revenues and the Provision of Services-a Review of Recent Erperience,* Report no. 7870-CO, Oct. 1989.
95. Bird and Slack 1991, op. *cit.*
96. Dillinger, William, *Urban Property Tax Reform,* World Bank, Washington DC, 1991.
97. Dillinger, 1991, op. *cit.*
98. Kelly, Roy, `Implementing property tax reform in transitional countries: the experience of Albania and Poland', *Environment and Planning C. Government and Policy, vol.* 12, 1994.
99. World Bank, *`Indonesia: Fiscal Decentralization: Towards a New Partnership for Progress,* Report no. 12407-IND, Oct. 1993.
100. Bird and Wallich 1993, op. *cit.*
101. Davey, Kenneth J. , `Municipal Development Funds and Intermediaries', Working Paper no. 32, World Bank, Washington DC, 1990.
102. Bird, Richard M. and Enid Slack, *Urban Public Finance in Canada,* 2nd edn., John Wiley, Toronto, 1993.
103. Bird, Richard M., *Intergovernmental Fiscal Relations in Developing Countries,* World Bank Staff Working Paper no. 304, Oct. 1978.
104. Bird and Wallich 1992, op. cit.
105. World Bank 1988, op. *cit.*
106. Bird and Slack 1993, op. *cit.*
107. Slack, Enid and Richard M. Bird, `Financing urban growth through development charges', *Canadian Tax Journal,* 39: 1288-304, 1991.
108. Rao, M. Govinda, `State Government Transfers to Urban Local Bodies', National Institute of Public Finance and Policy, New Delhi, 1991.
109. Campbell, Peterson and Brakarz 1991, *op. cit.*
110. Thirsk, Wayne R. and Richard M. Bird, `Earmarked Taxes in Ontario: Solution or Problem?', in Allan Maslove (ed.), *Taxing and Spending. Issues of Process,* University of Toronto Press, Toronto, 1994,129-84.
111. Bird, Richard M. and Barbara Miller, `Taxes, Prices and the Poor', in Richard M. Bird and Susan Horton (eds.), *Government Policy and the Poor in Developing Countries,* University of Toronto Press, Toronto, 1989.
112. Lee, Terence and Andre Jouravlev, 'Self-financing Water Supply and Sanitation Services', *Cepal Review,* no. 48, Dec. 1992.
113. Davey, Kenneth J., *Elements of Urban Management,* World Bank, Washington DC, 1993, 22.
114. See Cairncross, Sandy, `Water supply and the urban poor', in Jorge E. Hardoy, Sandy Cairncross and David Satterthwaite (eds.), *The Poor Die Young: Housing and Health in Third World Cities,* Earthscan Publications, London, 1990, 109-26.
115. Kornai, Janos, *The Socialist System,* Princeton University Press, Princeton NJ, 1992.
116. Tanzi, Vito (ed.), *Fiscal Policies in Economies in Transition,* International Monetary Fund, Washington DC, 1992 and Tanzi, Vito (ed.), *Transition to Market: Studies in Fiscal Reform,* International Monetary Fund, Washington DC, 1993.
117. Kornai, 1992, op. *cit.*
118. Bird, Richard M., `Threading the Fiscal labyrinth: some issues in fiscal decentralization', *National Tax Journal vol.* 46, 1993, 207-27.
119. Bird 1993, op. *cit.*
120. Bahl, Roy and Sally Wallace, `Revenue Sharing in Russia', *Environment and Planning C: Government and Policy, vol.* 12, 1994.
121. Wallich, Christine, *Fiscal Decentralization: Intergovernmental Relations in Russia,* World Bank, Washington DC, 1992.
122. Bird and Wallich 1993, op. *cit.*
123. Soderstrom, Lars, `Fiscal Federalism: The Nordic Countries' Style', in Remy Prud'homme (ed.), *Public Finance with Several Levels of Government,* Koenigsteing: Foundation Journal Public Finance, The Hague, 1991.
124. Bird and Slack, 1993, op. *cit.*
125. Bird and Wallich, 1992, op. *cit.*
126. World Bank, *World Development Report* 1993, Oxford University Press, 1993.
127. See, for example, Bird, Richard M., *Intergovernmental Fiscal Relations in Colombia,* Harvard Law School International Tax Program, Cambridge, Mass., 1984.
128. See Bird, Richard M. and Enid Slack, `Redesigning intergovernmental transfers: A Colombian example,' *Environment and Planning C. Government and* Policy, vol. 1, 1983, 461-73.
129. Bird 1993, op. *cit.*
130. Kelly, Roy, `Implementing Property Tax Reform in Transitional Countries: The Experience of Albania and Poland', *Environment and Planning C. Government and Policy, vol.* 12, 1994.
131. Bird and Wallich, 1992, op. *cit.*
132. Bahl and Wallace 1994, op. *cit.*