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INDIA'S URBAN CHALLENGE

Trends and Implications

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INTRODUCTION AND EXECUTIVE SUMMARY

1.1 INTRODUCTION

Over the past few years, the Government of India (GOI) has become increasingly concerned about the challenges implied by rapid urban growth. This concern is shared by the United States Agency for International Development (AID). Its Mission in India and its Regional Housing and Urban Development Office (RHUDO) for Asia are presently considering how they might best assist the GOI in addressing the problems and opportunities that are implied. As a first step, a report was prepared which reviewed the current context, describing the extent of urbanization, the nature of present urban problems, and the policy and institutional environment (Lee, 1988). The next step was the preparation of this report, which examines emerging urban trends and the implications of those trends for national development and then assesses new themes emerging from recent GOI urban and housing policy reviews. These reports together will be used as the basis for further AID strategic planning. This report is organized into major Sections as follows:

- After reviewing the nation's overall economic and demographic prospects, *Section 2* assesses the determinants and likely magnitudes of India's urbanization through 2010 and considers likely variations by region and city-size.
- The next three sections examine the implications of these trends for key policy concerns. *Section 3* considers their implications for urban economic development and income growth. *Section 4* looks at implications for urban physical development (land, infrastructure and housing). *Section 5* examines possible impacts on the financial system and institutional capacity.

- *Section 6* then assesses promising directions for government policy to more effectively address the challenge of urbanization.

The following paragraphs summarize the main findings and conclusions of this phase of the analysis.

1.2 URBAN PROSPECTS

India's urban population growth has accelerated since 1971 but remains spatially balanced.

- In 1988, about 210 million people (26% of India's total population) lived in urban areas. The 1971-81 urban growth rate was 3.9% per year compared to 3.3% over 1961-71.
- India has a balanced urban spatial pattern (reasonable numbers of cities of all sizes in all regions) and the spatial trend is toward more even spread:
 - Lowest current urban growth rates in the presently most urbanized states--fastest urbanization rates in the states now least urbanized.
 - Largest cities (over 3 million in 1971) grew slowest (3.0% annually), middle sized cities (1 to 3 million) grew fastest (4.6% annually).

Rapid urban growth will be inevitably associated with economic progress in India, but cities will grow rapidly even if economic performance is weak.

- Even with optimistic assumptions about rural development, agriculture will not be able to absorb a large portion of the burgeoning labor force.
- Satisfactory economic growth in India will therefore require further structural change--a larger percentage of activity in sectors that can yield higher incomes per worker (eg, manufacturing, services).
- Given the nature of their operations, most of the activities in these sectors will have to locate in urban areas to succeed. This implies rapid growth of urban jobs and population.
- If economic performance is sluggish, however, constraints on income earning opportunities in rural areas will force substantial migration to the cities anyway.
- These conclusions are supported by the fact that urbanization is now accelerating in a variety of economic conditions. For example:
 - In Punjab, with increasing agricultural productivity but without much exogenous industry,
 - in Karnataka, with healthy industrial expansion but stagnant agriculture,
 - in Bihar, with poor performance in both agriculture and industry.

Evaluation of alternative forecasts suggest that *India's urban population will more than double between now and 2010.*

- Depending on economic conditions, India's urban population is likely to range between 435 million and 485 million in 2010. A total of 460 million (41% of the nation's total 2010 population) would appear to be a reasonable estimate for planning purposes.
- This implies that about 70% of India's total 1981-2010 population growth will occur in urban areas (compared with 30% over 1951-81). Urban areas will have to accommodate about 10.4 million new inhabitants per year over 1981-2010, compared with about half that amount over the 1970s.
- Cities will dominate national economic growth over this period. It is likely that urban areas will be producing the majority of GDP by the late 1990s.

1.3 CONSTRAINTS AND IMPLICATIONS OF URBAN GROWTH

Urban economic development and job generation.

- Under any reasonable urban growth forecast there will be an enormous need for new higher productivity employment opportunities in urban areas. If these jobs are not created in sufficient quantity and resident incomes remain low, it will be extremely difficult to develop a decent urban physical environment.
- Onerous regulations now constrain productivity increases in the private sector. That sector's informal and formal components are highly interactive in India. Policies that tend to segregate them are likely to be detrimental since economic development will occur most rapidly when informal enterprises have the incentives to expand and accelerate job creation.
- Constraints in the process of land development and the lack of infrastructure and services (see discussion below) increase costs for new businesses thereby seriously reducing competitiveness and retarding economic growth.
- The compatibility of urban and rural economic development has not been sufficiently recognized. Substantial growth of domestic urban demand for agricultural products can be the major stimulus for rural development. The lack of sufficient investment in market town facilities to support the transfer/storage/processing/marketing of agricultural products can significantly retard rural development.
- Roughly 50 million urban residents now live below the poverty line (about one quarter of the total). The percent of urban population has been declining in recent years but with further urban growth the absolute number might well increase, particularly if economic growth is sluggish.

Urban land development

- Growth estimates imply that at least 1,000-1,300 square kilometers of land should be developed for urban use each year through 2010--roughly from two to three times the rate of actual development during the 1970s.
- Badly designed regulations (eg, the Urban Land Ceiling Act), the lack of adequate land records, and cumbersome processing for land registration and transfer all now seriously constrain the supply of legal, serviced land in

- relation to demand, particularly in the largest cities.
- Rigid site planning standards raise costs of land development to unrealistic levels in relation to incomes.
- Land provision by government has been small in quantity and heavily subsidized.
- All of this results in inflation in urban land prices.
- If these constraints are alleviated, land supply should respond to demand at reasonably affordable prices even under the acceleration of urban growth that is anticipated. If they are not, accelerated growth could lead to further price increases and congestion. The poor would be hardest hit by these changes, facing declines in their already meager space standards.

Urban housing

- The production of from 2.5 million to 3.0 million housing units per year will probably be needed over 1981-2010.
- Unrealistically high building standards, rent control, and factors noted above that raise land costs have constrained the market such that formal sector private production of legal and affordable housing satisfies only a small fraction of the total need, essentially serving only the middle- and upper-income groups. But, the housing market remains tightly constrained for the middle income groups as well as for the poor.
- Public sector housing production has been sizeable compared to that in many countries, but it has emphasized high cost construction of finished housing without adequate cost recovery. Per unit subsidies have been extremely high and programs have been fraught with management problems. These factors have severely constrained output in relation to needs.
- In this environment, lower income groups (the informal sector) have been energetic and creative in providing basic shelter for themselves in unauthorized, unplanned, and unserviced settlements. But quality is extremely low and normal incentives to incremental quality improvements are inhibited. The costs are much higher than would be required in efficiently planned authorized development.
- The nation's housing finance system is also constrained (although steps toward liberalization are underway).
- Given present constraints, it seems clear that formal public and private sector housing production will not be able to grow in proportion to the expected growth in the number of urban households. The percentage of the population in unauthorized settlements would probably increase substantially and, considering the pressures, average environmental quality would significantly decline.

Urban infrastructure

- Government agencies have been unable to provide sufficient infrastructure to keep up with the need (water, sanitation, power, transportation).
- Over one quarter of the urban population does not have access to piped water supply of any kind, three quarters do not have access to water-borne

- sanitation, and one third have no access to electricity.
- Infrastructure that is produced by government is heavily subsidized and the subsidies are not well targeted. Cost recovery rates are insufficient and systems are inefficient.
- Government infrastructure costs more than it should because of unrealistically high standards and insufficient reliance on low cost technologies.
- Public infrastructure production is not keeping up with urban growth at present and, without basic reforms, it is likely to fall farther behind in the face of accelerating urban growth. This would imply excess costs inhibiting healthy economic growth and job generation as well as important reductions in the quality of the urban living environment.

Urban management and finance

- While they are the key to providing adequate urban services, India's local governments have actually been weakened over the past two decades due to the usurpation of some local powers by states and special agencies, the lack of adequate incentives to recruit and retain qualified staff, inadequate training, and ineffective management practices. Local governments fell far short of being able to keep up with the service needs implied by annual urban growth increments over 1970s and, clearly, they are not prepared to handle the expected doubling of those increments over the subsequent three decades.
- It has been estimated that local government revenues were at best half of what they should have been in the early 1980s to provide adequate services. It appears likely that the gap has been increasing since then and the planned abolition of the octroi (a heavily utilized tax on the movement of goods) will expand it further. A few cities have attempted reforms to improve the yield of two of the most promising sources--the property taxes and user charges--but movement in these directions is not strong or widespread enough as yet to make a significant difference.
- Legal constraints and the lack of adequate apex institutions prevent municipalities from obtaining sufficient loan financing for capital improvements.
- Experience in other countries suggests that these problems should be correctable even given the resource limitations implied by the level of India's economic development. A doubling of municipal revenues as a fraction of GDP would not be unreasonable. Systems technologies which can greatly improve the efficiency of urban management are not yet being applied. Efforts to establish an appropriate institutional network to mobilize funds for lending to municipalities have not yet been made. If these steps are taken, decent basic urban service provision should be feasible under either optimistic or comparatively pessimistic economic growth scenarios.

In summary, two markedly different urban futures are possible for India over the next two decades.

- More than doubling the urban population without removing constraints implies the massive expansion of illegal and largely unserved residential settlements as well as economic retardation.
- Alternatively if current constraints are removed and sensible cost recovery systems are implemented, resources should be sufficient to achieve decent urban physical development--development which would itself further economic growth.

1.4 NEW THEMES FOR URBAN POLICY

Major 1988 Government of India (GOI) policy reviews (National Housing Policy, National Commission on Urbanization) offer promising approaches to addressing the urban challenge.

- They call for major reform of the existing system to eliminate constraints (not just more money for the urban sector under the old system).
- They recognize a leading role for the people (households, informal sector, cooperatives, NGOs, small and large firms) in housing and urban economic development. They propose that government should become more the enabler and facilitator rather than the provider in these areas and strengthen its own capacity to deliver land and infrastructure which the people cannot provide so efficiently for themselves.
- They implicitly recognize two overriding priorities to address urban problems. (If these priorities are not addressed, there is no possibility of effective urbanization given resource limitations).
 - Policy/regulatory reform.
 - Efficient resource management and institutional development.
- These ideas are not yet fully accepted but they are gaining momentum. They form a sound basis for dialogues with the GOI about future AID assistance programs in the urban sector.

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PROSPECTS FOR URBANIZATION

An initial purpose of this study is to assess the potential magnitude of India's future urban growth. Precise estimates of urbanization over the next 20 years are neither possible nor needed. But some sense of the order of magnitude is required to serve as a basis for making judgements about policy. This section begins by reviewing forecasts of India's total population growth rate--one of the factors influencing the rate of urban growth. However, more emphasis is given to examining conditions and trends in the economy since international research has shown that economic factors are the primary determinants of urbanization. The section then offers a range of urban growth estimates based on both demographic and economic factors, and assesses trends in the pattern of urbanization by state and by city size.

2.1 ECONOMIC AND DEMOGRAPHIC CONTEXT

Population Growth

In our view, the most reasonable forecast of India's future population growth is that by the Expert Committee on Urbanization and Migration (Registrar General, 1987). Under this forecast, the nation's total population will grow from 685 million in 1981 to 1.12 billion in 2010 (see Table 2.1). Probably the best known alternative forecast is that by the United Nations (1986) which estimates a total of 1.08 billion in 2010. That forecast, however, predicts further declines in the birth rate that are likely to be difficult to achieve. Younger high-fertility female cohorts will continue to grow faster than the population for some time. Despite rising contraceptive use, the birth rate appears to have stopped falling and with the spread of medical and public health services, the death rate is likely to continue its decline.

Table 2.1
Population Age Structure to 2010

Item	1961	1971	1981	1990	2000	2010
Population (million)	439	548	685	820	970	1115
Age Cohorts (percent share)						
0-14 years	41.0	42.0	39.6	35.6	31.1	26.9
15-59 years	53.3	52.0	53.9	57.9	61.2	64.3
60+ years	5.6	6.0	6.5	6.5	7.7	8.8
Age-Dependency Ratio*	87.5	92.3	85.4	72.7	63.5	55.5

Source: Adapted from Registrar General (1987).

* The age-dependency ratio is the sum of the population under age 15 and over age 60 divided by the population aged 15-59 and expressed as a percentage.

The changing age structure in accord with this forecast is also shown in Table 2.1. These figures underline two issues, both of which are even more pronounced in urban areas. First, the 15-59 age cohort--the main constituent of the labor force--makes up a rising proportion of the population. The labor force grew at about the same rate as population during 1961-81. However, due to past and future improvements in infant and child survival, the labor force is now growing much faster than population. During 1981-2010, the number of potential workers will double, growing almost 40% faster than the population as a whole. This rate of growth will be even faster if the female participation rate in the workforce picks up. In urban areas, the number of potential workers will double even more quickly, surpassing 205 million by 2000. Second, the decline in the age-dependency ratio implies an easing of pressure on the ability of the economy to finance social services used heavily by younger and older persons, such as schools and health facilities--providing the larger workforce is able to be utilized in a productive manner. The age-dependency ratio in urban areas has historically been about 10 percentage points lower than that of the entire population; this situation will continue through 2000. Thus, providing adequate productive employment is a major challenge facing the Indian economy as a whole--and especially the urban economy--given the historically slow rate of job creation (see Employment below).

Economic Growth

The Indian economy since independence has been marked by steady economic growth; in the period 1951-80, gross domestic product (GDP) growth averaged 3.6% annually. However, this level of growth has lagged behind those normally associated with advanced developing countries, particularly those of East Asia. (In 1965-80, twelve other

East Asian countries averaged 6.3% annual GDP growth.) More recently, the level of growth has shifted upward, with average annual growth of GDP in 1981-87 reaching 4.8% (still short of the 5.0% growth envisaged by the Seventh Plan).

The increase in the rate of growth is mainly a reflection of the transformation of the structure of the economy, with increasing secondary and tertiary activities reducing the former dominance of the primary sector (see Table 2.2). During the thirty years since 1951, the primary sector grew at an average annual rate of 2.3%. This was outpaced by both the secondary and tertiary sectors, which recorded average annual growth rates of 5.0% and 4.8%, respectively, in the same period. More recently, this transformation has been occurring even more rapidly as the growth differential between the sector widened. In 1981-87, the primary sector grew at an average rate of only 1.7% while industry grew at 6.2% and services 7.8% annually. These increases were led by rapid growth in manufacturing, finance, and transport, (see Table 2.3). Public administration also grew faster than the economy, fueled by rising defence outlays.

In general terms, this improvement in economic performance can be traced to the combined effects of a high level of investment and saving, improvements in efficiency and capacity utilization, and some easing of the economic regulatory framework. Gross domestic investment has averaged 24.4% of GDP in 1981-87, continuing a trend of rising

Table 2.2
Structure of GDP - 1951-1987
(percent)

Sector	1951	1961	1971	1981	1987 ^e
Agriculture	57.0	52.5	45.7	39.7	32.0
Mining & Resources	2.6	2.7	2.8	2.5	2.6
Manufacturing	10.0	12.3	14.2	15.3	16.5
Utilities	0.3	0.5	1.1	1.5	1.9
Construction	4.2	4.5	5.3	4.6	4.1
Transport & Communications	3.6	4.3	5.1	6.7	7.9
Commerce	8.3	9.5	11.0	11.9	12.6
Finance	5.2	5.1	5.8	6.3	7.3
Public Administration	2.7	3.0	4.5	7.0	10.7
Other Services	6.1	5.7	4.6	4.3	4.5
TOTAL	100.0	100.0	100.0	100.0	100.0
GDP (1971 Rs billion)	175.5	255.4	367.3	512.6	679.1

Source: Center for Monitoring Indian Economy (1988), World Bank (1988c).
^e World Bank estimate.

Table 2.3
Average Annual Growth of GDP - 1951-1987
 (percent)

Sector	1951-61	1961-71	1971-81	1981-87
Agriculture	3.0	2.3	2.0	1.1
Mining & Resources	4.2	4.1	2.2	5.4
Manufacturing	6.0	5.2	4.2	6.1
Utilities	10.8	11.6	6.5	8.5
Construction	4.4	5.5	2.0	2.8
Transport & Communications	5.6	5.4	6.3	7.6
Commerce	5.3	5.3	4.2	5.7
Finance	3.4	5.1	4.3	7.5
Public Administration	4.8	7.8	8.2	12.4
Other Services	3.2	1.4	2.8	5.6
GDP	3.8	3.7	3.4	4.8

Source: Center for Monitoring Indian Economy (1988), World Bank (1988c).

investment from an average of 11.0% of GDP in the 1950s to 20.1% in the 1970s.

National savings have typically financed over 90% of investment, with the large majority of these funds coming from the private sector; 88% of national saving in 1987. This strong savings performance has been encouraged by adequate incentives--inflation kept under control and mainly positive real interest rates on savings (though real rates for short-term and small savers tend to be negative more often)--and the growth of financial system. However, low levels of public saving in recent years and India's limited use of foreign borrowing have served to limit private investment below desired levels. With private saving already performing well, meeting the investment needs of the private sector will require either increased government saving or greater dependence on foreign capital. The efficiency of that investment has also improved; a falling marginal capital-output ratio in the 1980s is indicative of improvements in productivity and capacity utilization.

External Balance

External trade remains a small part of India's economy, averaging 12.0% of GNP during 1951-87, with a trade deficit averaging 2.1% of GNP. In dollar terms, exports have grown at an average rate of 6.5% annually during 1951-80. However, in this same period, India's share of world exports has fallen from 1.9% to 0.4%. Despite this relatively poor showing by the export sector, tight control of imports and promotion of self-reliance in the production of many commodities have kept the trade deficit to a

manageable level.

However, India will still need to finance increasing levels of imports in order to meet its demand for technology and production goods which it cannot produce domestically. With concessional finance representing a smaller share of medium- and long-term external capital flows to the country (down from 90% of capital inflows in 1977 to 41% in 1987) and remittances from abroad stabilized at about US\$2.0 billion annually, increased export earnings will be required in the future to pay both for imports and rising foreign debt service. Recent trade policies--a flexible exchange rate and various incentive programs for exports--reflect a growing awareness of the need to make Indian exporters more competitive and to increase foreign exchange inflows through trade. Export growth has risen from an average of 2.2% annually (in dollar terms) in 1981-85 to 8.8% per year since 1985. However, India will need further diversification of both export production and markets to maintain growth. Currently, many exports have high import content (jewelry), face rising domestic demand (petroleum), or soon may come up against market quotas (garments and textiles).

Outlook for Key Sectors

The main forces behind the slow rate of economic growth in India have been the very slow growth in average product per worker in agriculture and the slow (relative to other East Asian countries) and capital-intensive growth of the industrial sector. The constraints which have kept these key sectors and the rest of the economy from growing at its full potential affect the rate and pattern of urbanization found in the country. (We describe the linkages between the key sectors and urbanization in Section 2.2.)

Though its share of GDP has declined (down from 57% in 1951 to 32% in 1987), *agriculture* remains a key sector in the economy, employing more than two thirds of the labor force. *Agriculture's* output has grown steadily at an average rate of 2.3% in 1951-1987 (slightly ahead of population growth), mainly through extensive public investment in the use of high yielding varieties, fertilizer, and irrigation. By 2010, to maintain the current degree of food self-sufficiency and fulfill the food needs of a much larger urban population, India will be required to increase agricultural output by more than a third over present levels.

Meeting this growth target is not a simple matter. Production is still dependent on the monsoon, even more so with the spread of HYVs to non-irrigated areas. The World Bank (1988) estimates about half of past production growth has been due to irrigation; with rising costs and tighter government investment budgets, the extension of irrigation systems will slow. Subsidies and price policies have led to inefficient use of irrigation water and fertilizer and switches to cereals and water-intensive crops.

The combined effect of these factors is two-fold. First, the trend in factor productivity has been downward (see Table 2.4). The use of inputs has climbed faster than output, so rises in production are becoming increasingly costly in terms of land and water resources and government subsidies for fertilizer. Second, inefficient modes of production threaten the resources base through waterlogging, depletion, and salinization of the soil--effectively "decapitalizing" the agricultural sector. Raising the productivity of agriculture and protecting the natural resources of the sector (ie, agriculture's capital base)

Table 2.4
Agricultural Productivity - 1971-1986

Item	1971	1981	1986	Average Growth (percent)	
				1971-81	1981-86
Output (1981 Rs billion)	351.7	424.6	494.5	1.9	3.1
Land (million ha)	165.8	173.1	180.5	0.4	0.8
Inputs (1981 Rs billion)	76.6	116.8	146.1	4.3	4.6
Labor (million employed)	125.8	205.6	245.4 ^e	5.0	3.6
Productivity (1971=100)					
Land	100.0	115.6	129.2	1.5	2.2
Inputs	100.0	79.2	73.7	-2.3	-1.4
Labor	100.0	73.9	72.1	-3.0	-0.5

Source: Center for Monitoring Indian Economy (1988).
e estimate

will be critical not only to meeting future food needs of growing urban areas, but also to economic growth and poverty reduction. Indeed, there appears to be scope for improving the efficiency of its agricultural production--the Center for Monitoring Indian Economy (1988) reports yields of HYVs in India typically reach only a third of the highest yields recorded in other countries.

Manufacturing has been accorded the role of the sector leading the transformation to a modern economy and the elimination of mass poverty. However, manufacturing has failed to generate the growth, employment, and foreign exchange which was envisaged. In 1951-80, the annual average increase in output was 5.2%--the average annual increase in manufacturing production for nine East Asian countries during 1965-80 was 9.0%. Productivity rose sluggishly and India's share of LDC manufactured exports fell substantially from its former leading position. There are three major structural constraints which inhibit more rapid industrial growth: (1) the regulatory framework serves to reduce competition within the sector; (2) a bias towards capital-intensive modes of production; and (3) continuing deficits in the supply of land, urban services and infrastructure, and power.

The poor record of the industrial sector is rooted in the competition-reducing aspects of the regulatory system. The licensing system and other controls reduced internal competition and high levels of protection on imports practically eliminated external competition. The sector became characterized by high-cost plants, intensive in capital and power, producing goods which did not meet international standards; exports remained

unattractive while the regulated domestic market offered high profitability. A by-product of the regulatory framework was the diversion of entrepreneurial talent from productive activities (cost-cutting, innovation, quality improvements) to the capture of economic rents by obtaining licenses and permits.

High capital intensity in industry can be traced to a number of factors. First, in the industrial labor market, producers are reluctant to increase the number of their employees. Job security legislation and the increasing expense of retaining existing workers at wages far in excess of the cost of hiring new workers--backed by the threat of industrial action--makes restructuring the workforce in the face of changing market conditions or new production processes extremely difficult.

Second, the Indian model of development through import substitution led to an emphasis on capital-intensive industries (petroleum products, chemicals, steel) to the detriment of labor-intensive export industries (garments, processed agricultural goods, electronics). Capital to finance this fixed investment has been relatively inexpensive and repayment terms quite flexible, such as deferred payments during periods of low profits. The combination of a rigid workforce, a flexible repayment regime for cheap capital, plus a sheltered domestic market already saturated with labor intensive firms unable to compete internationally led producers to shift to commodities requiring more capital. As a result, manufacturing output per worker has risen from Rs 1,580 in 1961 to Rs 2,180 per worker in 1986 (in constant 1971 prices), while the productivity of capital (as measured by the sector's incremental capital-output ratio (ICOR)) has improved less than half as fast. However, this trend shows signs of reversal in the 1980s (see Table 2.5).

Table 2.5
Manufacturing Productivity - 1971-1986

Item	1971	1981	1986	Average Growth (percent)	
				1971-81	1981-86
Output (1971 Rs billion)	52.2	77.1	102.8	4.0	5.9
Labor (million employed)	33.3	35.3	44.6 ^e	0.6	4.8
Increase (1971 Rs billion)	2.3	4.2	6.6	n/a	n/a
Investment (1971 Rs billion)	19.8	31.0	36.6	4.6	3.4
Productivity (1971=100)					
Capital (ICOR ⁻¹)	100.0	117.6	155.4	1.6	5.7
Labor	100.0	139.3	146.9	3.4	1.1

Source: World Bank (1988c).
e estimate

Finally, industry still faces shortfalls in the supply of infrastructure and land. Investment demands for infrastructure have not been matched by adequate public saving. Installed infrastructure often operates at only 55% to 75% of its capacity and is both overmanned and heavily capitalized.¹ Anecdotal evidence suggests industries face serious land constraints for expansion and new development in fast growing areas. (These issues are examined in more detail in Section 4.) The trend toward production with heavy use of capital has produced growth in power consumption which outstrips economic growth. Despite recent large investment in and high capacity utilization of thermal power plants, the power sector still has a capacity deficit of 10% and remains characterized by power rationing and poor quality control over voltage and frequency. This deficient power situation has dramatic effects on industry, which consumes one third of the energy produced for commercial purposes. USAID (1988b) estimates that current power shortages reduce potential GDP by 1%-3%.

In the 1980s, the picture for manufacturing has improved. Recent policy changes have reduced the scope of controls in many industries (although countervailing changes in other areas have reduced their impact somewhat) and attempted to reduce disincentives to efficiency. The result has been higher productivity from capital and private gross capital formation growing at an average annual rate of 14%. Output from the sector is growing faster than the economy and exports have risen by 28% since 1981.

The data on the contribution of *services* to the economy is less well developed than for the primary and secondary sectors, but some broad trends can be discerned. The sector has consistently grown faster than the economy, its share of GDP increasing from 26% in 1951 to 43% in 1987. Its rate of growth accelerated slowly, moving from an annual average of 4.4% in the 1950s to 5.1% in the 1970s. Since 1981, the sector's pace of expansion has picked up, growing 7.8% per year. This development parallels the pattern exhibited in manufacturing.

India's case appears to be unlike many other developing countries, where rapid service sector growth has been spurred primarily by insufficient employment opportunities in other sectors. Without unemployment benefits, the poor turn to marginal, petty services to earn enough to survive. Far from being a marginal sector, the service sector in India (as measured by national accounts) is characterized by high levels of output per worker. In 1986, production per person employed in the sector was more than twice as high as in manufacturing and more than five times higher than in agriculture.

Employment

As shown by the census data in Table 2.6, employment patterns have changed very slowly in India.² The primary sector still continues to employ the largest portion of the workforce, despite its large decline in the share of GDP. This slow shift reflects both weak push and pull effects as employment in both rural and urban areas have matched the

¹ See Ahluwalia and Mehta in Lucas and Papanek (1988).

² Census data defines employment as participation in any type of economic activity. These figures thus capture both "formal" and "informal" sector workers.

Table 2.6
Employment - 1961-1981
(percent)

Sector	1961		1981		Annual Growth	
	Rural	Urban	Rural	Urban	Rural	Urban
Agriculture	79.2	10.0	81.9	11.9	1.2	3.8
Cultivator	(60.3)	(6.6)	(50.8)	(5.4)	(0.1)	(1.9)
Laborer	(18.9)	(3.5)	(31.1)	(6.5)	(3.5)	(6.2)
Mining & Resources	2.8	2.5	2.7	2.9	0.9	3.6
Manufacturing	7.6	28.9	6.4	29.6	0.1	3.1
Household	(6.1)	(7.9)	(3.1)	(5.2)	(-2.4)	(0.8)
Factory	(1.5)	(21.0)	(3.3)	(24.4)	(5.0)	(3.7)
Construction	0.7	3.6	1.0	4.1	2.8	3.6
Transport & Comms	2.1	16.3	2.6	19.7	2.2	3.9
Commerce	0.6	8.0	1.0	8.9	4.1	3.5
Services	7.1	30.6	4.4	23.0	-1.4	1.5
TOTAL	100.0	100.0	100.0	100.0		
Employment (million)	162.2	26.4	197.3	47.3	1.0	3.0
Share (percent)	86.0	14.0	80.7	19.3		

Source: Registrar General (1964, 1984).

growth of their respective populations. In both rural and urban areas, the pool of potential workers has been rising faster than employment. However, significant rises in unemployment have not been observed. Census figures indicate the participation rate of potential workers has fallen between 1981 and 1961; from 86% to 74% in rural areas and from 60% to 52% in urban areas. Of course, the stability of the unemployment situation might also be explained by an increase in types of marginal, non-wage employment not captured by the broad census definition. Agricultural production has increased sufficiently to continue to absorb most of the growing rural labor force, but without gains in output per worker; there is limited push of labor off the land. In the secondary and tertiary sectors, employment growth has only just provided enough jobs for the growing urban population, limiting the pull on agricultural labor. The strongest growth has been in factory employment, with the majority of the increase coming from the "unorganized", non-household manufacturing.³

³ The "unorganized" sector in India is defined as firms with less than 10 employees.

However, manufacturing employment grew slowly overall since much of the factory employment has been due to the substitution to factory from household production in rural areas, the capital-intense nature of manufacturing, and institutional difficulties of the labor market. The growth of the unorganized sector is often a reflection of the asymmetries in institutional costs faced by large, regulated firms and small, unregulated firms rather than differences in technology or efficiency. Thus, the attempted stimulation of the small sector through reservation of activities, exemption from regulations, or incentives such as tax breaks or cheap credit runs the danger of encouraging inefficient small producers with limited potential (or even disincentives) for growing in size and increasing employment.

Perhaps most surprisingly, the tertiary sector has also not emerged as a high employment growth sector. Even in urban areas, the expansion of commercial and service employment has only just kept ahead of urban population growth. Growth in rural areas has been somewhat better, as commercialization of agriculture has spread the demand for tertiary activities. Thus, there appears to be potential for increasing contributions by commerce and services to future employment creation.

Conclusions

How do these trends and constraints interact? In the agricultural sector, the stagnation of incomes limits demand from rural areas for urban products. The development of the industrial sector proceeds, through the planning process and directed investment, in an autonomous fashion unlinked to the agricultural sector or international markets and is limited in its ability to absorb labor. The bias towards capital-intensive modes of manufacturing generates fewer--though probably more highly paid--jobs than would emerge under a more labor-intensive development path. This limits both the growth of the wage bill in non-agricultural activities and the demand for food and other agricultural products. It also reduces the economy's ability to generate foreign exchange.

In the past, India has been able to rely on the large size of its internal market to provide sufficient demand to fuel economic growth under its path of planned development. However, present trends indicate three potential problems: (1) future growth of an economically active population which outstrips historical rates of job creation; (2) sluggish demand and productivity growth with concomitant slow growth of per capita income; and (3) an emerging foreign exchange constraint. To meet these challenges and generate rising per capita income levels, the economic development needs to focus on increasing employment generation and raising incomes (in both rural and urban sectors). In the following section, we attempt to show that urbanization plays a key role in such a process.

2.2 URBAN GROWTH PROSPECTS

Recent Trends in Urbanization

The pace of India's urbanization has been relatively slow compared to other LDCs. In the pre-independence portion of the 20th century, the proportion of the total population living in urban areas changed very slowly, moving from 10.8% in 1901 to 13.9% in 1941.

Table 2.7
Migration - 1961-1981
(million)

Item	1951-61	1961-71	1971-81
Urban Population (end period)	78.9	109.1	159.7
Increase in Urban Population	17.0	30.2	50.6
Rural-Urban Migrants	11.6	13.5	16.0
Share of All Migrants (percent)	17.6	17.5	19.7
Urban Growth Shares (percent)			
Migration	68.3	44.5	31.6
Natural Increase and Redistricting*	31.7	55.5	68.4

Source: Registrar General (1964, 1974, 1984).

* Calculated as a residual from migration data.

Since independence, the rate of urbanization has accelerated steadily. The urban population in the mid-1980s accounts for almost twice as large a share of total population as in 1941. Following a large jump in the urban population in the 1940s (due mainly to population movements resulting from the partition of India and Pakistan), the population residing in urban areas increased from 18.7% of the total in 1951 to 23.7% percent of the total in 1981. In absolute terms, the urban population increased by 94 million persons, from 65 million in 1951 to 160 million in 1981.

When trying to disentangle where urban growth comes from, it is often accepted as the conventional wisdom that most of accelerating urban growth is driven by rural-urban migration. By implication, it is then suggested that controls on migration might slow down the growth of urban areas, particularly very large cities. Census data on migration indicates this caricature is no longer accurate in India (see Table 2.7). The majority of migration in India takes place within the rural sector and inside the migrant's home state (partly explained by linguistic and other ethnic factors). It is true that the proportion rural migrants choosing to head to urban areas has increased modestly since the 1950s. However, its share of the increase in urban population has been shrinking in that period (although the number of migrants is rising slowly in absolute terms). Almost 70% of urban growth in the 1950s and almost half of urban growth in the 1960s was due to the transfer of population from rural to urban areas. However, in 1971-81, only 32% of total urban population growth could be accounted for directly by migrants from rural areas. Thus, while it may have been true in the past, rural urban-migration is no longer the main impetus for urban growth.

Of the rest of the increase in the urban population in 1971-81, 41% can be explained by the rate of natural increase of urban areas (which is slightly higher than the rate in rural areas). The remaining 27% of urban growth comes about through the territorial expansion of existing urban centers and the reclassification of existing villages and small settlements into new towns.

Determinants of Urbanization⁴

The link between levels of economic development and urbanization has been well established. International data supports a model whereby rising incomes are accompanied by urbanization proceeding slowly in initial stages, accelerating when countries reach the middle income stage (currently when GDP per capita exceeds US\$500), and then slowing at high levels of income. Yet this relationship is only an observed statistical regularity. How can this pattern be explained?

If we consider a simple economy with agriculture (predominantly rural) and industry and services (mainly urban), a development path can be identified which accounts for the pattern of urbanization noted above. At initial low income levels, most of the labor force is engaged in subsistence agriculture. Trade between rural and urban areas is small as only small amounts of income are available for non-food expenditures. With rising incomes--because of technical advancement in agriculture, for example--proportionally less is spent on food (Engel's Law) and a greater fraction of income is free to be spent on other goods.⁵ This demand for other goods stimulates demand for labor in urban areas and the rate of urbanization increases. At high income levels, the rate of urbanization slows down because there is some irreducible minimum labor force required to meet the urban demand for food. Thus, in this model of the macroeconomy, increasing labor productivity in agriculture is the driving force behind urbanization.

At the microeconomic level, manufacturing and services tend to locate in urban areas because they are characterized by scale and agglomeration economies. Scale economies imply large, concentrated production facilities. Agglomeration economies come about through the close proximity of support activities such as finance and marketing and the reduction of transport costs. These factors combine to make it advantageous for non-agricultural activities to be concentrated spatially; population also becomes concentrated. Agriculture, conversely, does not gain from spatial concentration because there is limited potential for substituting other inputs for land.

These explanations also imply a range of different types of urban centers related to their function. At one extreme, some urbanization results directly from agricultural activities; small market centers for distribution of agricultural inputs and produce. At the other end of the range, some activities unrelated to agriculture (exports, basic industries, government) and characterized by scale economies will concentrate in large centers at key transport nodes, sources of raw materials, and near political centers. Mid-level or regional

⁴ This section is adapted from Mohan (1984).

⁵ Engel's Law states that after nutritional requirements are met, only small increments in food expenditure take place with rising incomes.

centers act to link these two kinds of urban settlements.

Mills and Becker (1986) carried out regression analyses using various functional forms and data from over 100 countries which reflect changing economic conditions (mainly agricultural employment and per capita income). Their analysis supports the model outlined above. They found the degree of urbanization varied positively with the level of per capita national income and negatively with the proportion of the labor force engaged in agriculture. It was also found that neither high population densities nor the simple increase of population over time offered any significant explanation for urban population shares. For 1980, their various regression formulations estimated levels of urbanization for India of between 21% and 25%; the 1981 Indian Census reported a level of urbanization of approximately 23%.

Projections of Urbanization

Although we have described urbanization mainly as an economic phenomenon, most projections of urban growth are based on demographic models. Demographic forecasts have been quite successful in projecting rates of urbanization based on these spatial trends. The method utilized by most demographers is based on the urban-rural growth differential (URGD). These differentials are calculated from past census results and extrapolated into the future, the future estimates made consistent with projections of total population increase and a logistic urbanization function. Demographic projections by the UN (1986) and the Expert Committee on Migration and Urbanization (see Registrar General (1987)) broadly concur that India's urban population in 2010 will be 2.7-2.8 times its urban population in 1981 (see Table 2.8). In 1961-71, urban areas accounted for 29% of total population growth. During the 1980s, this share is projected to increase to 47% and surpass 80% by 2000-10.

While the past record of demographic projections of urbanization is good, we are concerned primarily with the economic factors which drive urbanization. The URGD method does not explicitly capture the key economic effects which drive urbanization. Thus, simple extrapolations of past population trends yield mechanical results which do not explicitly take account of changes in the structure and performance of the economy. While it is possible to proxy economic changes by varying the URGD to reflect the future path of the economy, this is not based on any systematic relationships.

Using the Mills and Becker model noted above, the future urban population of India can be estimated under specific assumptions about the growth of population and the overall performance of the economy.⁶ As a series of illustrative cases, we carried out three projections. All projections assume a total population of 1.11 billion in 2010 and the continuation of the historical growth rate of agricultural employment (1.2% annually). Annual GDP growth is varied at three levels: (1) 5.0%, the future trend of growth forecast by the World Bank and the Planning Commission; (2) 3.5%, the average growth rate for the past three decades; and (3) 2.0%, the rate which yields approximately stagnant per capita income. The results of these projections are shown in Table 2.8. In absolute

⁶ We use the second-order specification of the Mills and Becker model; see Mills and Becker (1986), Chapter 2.

**Table 2.8
Urbanization Forecasts - 2010**

Projection	2010 Urban Population (million)	<u>1</u> Rate (percent/year)	<u>1-2010 Growth</u> Increase (million/year)
Demographic			
United Nations	454	3.66	10.1
Expert Committee	435	3.51	9.5
Economic			
High (5.0% GDP Growth)	483	3.88	11.1
Medium (3.5% GDP Growth)	467	3.76	10.6
Low (2.0% GDP Growth)	453	3.65	10.1

Source: Demographic forecasts from Registrar General (1987) and United Nations (1986). Economic forecasts by The Urban Institute, adapted from Mills and Becker (1986).

terms, the urban population is projected to total between 435 and 483 million persons. This is between two-and-one-half and three times the 1981 urban population, an increment of between 275 and 323 million persons in urban areas. In relative terms, urban areas will account for between 39% and 43% of the total population.

The projections examined above are illustrative only; we cannot know for certain what future economic conditions will be. However, Table 2.8 does undoubtedly show that India's urban population will increased substantially and that future urban development can no longer be held as insignificant in comparison to the sheer size of the rural population. For the balance of the report, rather than using a specific forecast as our base case, we will assume average annual growth of 3.71% for the period 1981-2010, yielding an urban population of 460 million in 2010 (the approximate average of the projections) out of a total population of 1.11 billion.

2.3 THE SPATIAL PATTERN OF URBANIZATION

In Section 2.2 we found that the extent of urbanization in India has been predominantly determined by the nature and extent of the nation's economic development. In this section we review variations in urbanization within the country (by state and city size) and reach similar conclusions. There are straightforward economic explanations for the spatial pattern of urban growth that has emerged in India--explanations that offer good indications as to the nature of the pattern that can be anticipated in the future.

Table 2.9
Indicators of Development - 1981

State	Total Population (million)	Percent Urban	Per Capita SDP (1971 Rs)	Factory Value Added Per Capita (1981 Rs)	Agricultural Productivity*
Maharashtra	42.8	35.0	1,008	324	117
Tamil Nadu	48.4	33.0	582	166	107
Gujarat	34.1	31.1	884	245	85
Karnataka	37.1	28.9	723	107	113
Punjab	16.8	27.7	1,308	136	436
West Bengal	54.6	26.5	465	173	104
Andhra Pradesh	53.6	23.3	678	29	106
Haryana	12.9	21.9	1,029	169	291
Rajasthan	34.3	20.9	591	56	105
Madhya Pradesh	52.2	20.3	489	68	98
Kerala	25.5	18.8	n/a	n/a	n/a
Uttar Pradesh	110.9	18.0	493	47	99
Bihar	69.9	12.5	438	57	69
Orissa	26.4	11.8	514	62	98
Assam	19.9	10.3	n/a	n/a	n/a
INDIA	685.2	23.3	727	127	135

Source: Registrar General (1984), Mohan (1984).

* Tons of foodgrain produced per agricultural worker.

The Pattern of Economic Development

Table 2.9 contains basic population data and several indicators of development for India's major states. (In all state-wise tables in this report, states are listed in order by the urban percentage of their populations in 1981). The variations in these indicators and their relationships to urbanization were analyzed by Mohan (in 1984). He points out that development disparities among states in India are not as great as they are in many countries. For example, the coefficient of variation (CV) of India's distribution of per capita state domestic product (SDP) in 1979 was 0.33 compared to 0.59 for Argentina, 0.75 for the Philippines and 0.50 for Thailand (late 1960s data).

Nonetheless, the disparities that remain are far from insignificant. The highest per capita SDP (Punjab) is three times that of the lowest (Bihar). In the least industrialized state (Andhra Pradesh) factory value added per capita is only 9% of the level of the

industrial leader (Maharashtra).

Mohan also notes that income disparities between states have been increasing, particularly over the 1970s (India's CV for per capita SDP had been 0.23 in 1961 and 0.26 in 1971 but reached 0.33 in 1981). This is predominantly due to increasing disparities in agriculture--extraordinary growth in the northwestern wheat producing states and stagnation elsewhere (the CV for agricultural productivity shot up from 0.30 in 1961 to 0.73 in 1981). In contrast to past concentrations, manufacturing growth is actually being spread more evenly--the CV for per capita factory value added dropped from 0.92 in 1961 to 0.62 in 1981.

Clearly, the relationships shown on the table are not uniform for all variables. Some of the higher SDP states are specialized in agriculture (Punjab, Haryana) while others owe their position mostly to industry (Maharashtra, Gujarat, West Bengal). Some of the most backward rank among the lowest in both sectors (Bihar, Uttar Pradesh). Whatever the reason for their income positions, a cursory review of the table does suggest that those positions are at least roughly related to levels of urbanization (urban percent of total population).

Variations in Levels of Urbanization

The Mohan study examined these relationships statistically. Three findings were most important:

1. Applying equations similar to those used by Mills and Becker in international analysis (as discussed in Section 2.2) to data for India's states, yielded much the same results. Urbanization levels are strongly associated with state scores for per capita SDP and indices of agricultural and manufacturing activity (these measures together explained about 75% of the variance in urban percentages). As with countries in the international analysis, urbanization among India's states tends to rise fairly regularly as income rises, more slowly at the lowest income levels and the highest and more rapidly in between.

2. The magnitudes of state populations in large cities (100,000 or more) was most strongly influenced by indices of non-household manufacturing activity (tests explained 90% of the variance). Levels of agricultural activity had very little influence.

3. In similar tests to account for differences in state populations in small cities (less than 100,000 inhabitants) the reverse was true (with 65% of the variance explained). Small city urban population growth is most strongly related to levels of agricultural activity and is not much influenced by non-household manufacturing.

These results indicate that the economies of large cities and those of their own rural hinterlands have not been tightly linked--improving prosperity in one has not much influenced prosperity in the other. In contrast, the growth of smaller cities is strongly linked to agricultural advancement. Mohan suggests, "The great policy relevance of these findings is that the growth of small and medium sized towns is likely to be brought about by agricultural growth in the backward regions rather than by industrial dispersal."

Variations in State Urban Growth Trends

Urban growth rates by state since 1961 are shown in Table 2.10. A first observation is that, as was true for India as a whole, most states experienced more rapid urban growth in the 1970s than they had in the 1960s. Second, variations between the states in the pace of urbanization seem to be narrowing with urbanization accelerating most rapidly in the least urbanized states and less so in the most urbanized. (The CV for percent urban in fact declined from 0.50 in 1971 to 0.34 in 1981.)

Different groups of states have had quite different experiences but, in all, urban trends seem to be a natural outgrowth of economic circumstances, in particular: (1) the level of manufacturing activity, which has risen rapidly in most states (as noted earlier, manufacturing growth is now being spread much more even across states than it had been in the past); and (2) agricultural activity which has grown phenomenally in the wheat producing states (Punjab, Haryana) but has been stagnant in most others. No doubt changing conditions in trade, services, and governmental activity also influence urbanization rates but these influences are not well documented and thus cannot be amplified in this discussion. Even without them, however, the following groupings seem to explain recent urban trends in the major states.

A. States with Higher Current Urbanization Levels

Low/Stable Urban Growth Rates (Maharashtra, Gujarat, Tamil Nadu, West Bengal). These four states have traditionally been the most industrialized and urbanized, but they had the lowest 1971-81 urban growth rates (all below 3.7% per annum). All had stagnant agricultural productivity and decelerating rates of rural population growth. Urban growth was slower presumably because of comparatively low strength of both "pull" factors (growth of high-paying urban jobs pulling migration to the cities) and "push" factors (deterioration of agricultural labor absorption forcing urban migration).

High/Accelerating Urban Growth Rates (Karnataka). Karnataka is the only state in India to register a notable increase in factory jobs as a percent of total employment over the 1970s (from 2.8% to 3.6%). Here pull factors would seem to be the dominant explanation for rapid urbanization.

B. States with Lower Current Urbanization Levels and High/Accelerating Urban Growth Rates

Accelerating Agricultural Productivity (Punjab, Haryana). In both of these states rural population growth rates have sharply decelerated. Higher technical inputs in rural production have decreased labor requirements per unit of output. Increasing commercialization of agriculture appears to have expanded the demand for urban services linked to agriculture thus creating more jobs in the towns. Both push and pull factors seem to be at work.

Agricultural Stagnation, Lowest Current Urbanization Levels (Bihar, Orissa, Uttar Pradesh). Mohan suggests that push factors are the major force explaining urbanization here: "...the absorptive power of agriculture has probably been stretched to its limit in the sense that minimum per capita subsistence levels may have been reached . . .

Table 2.10
Urban Population by State - 1961-1981

State	Urban Population (million)			Average Growth (percent)	
	1961	1971	1981	1961-71	1971-81
Maharashtra	11.16	15.71	21.99	3.48	3.42
Tamil Nadu	8.99	12.47	15.93	3.32	2.50
Gujarat	5.32	7.50	10.60	3.50	3.53
Karnataka	5.27	7.12	10.73	3.07	4.18
Punjab	2.57	3.22	4.65	2.28	3.75
West Bengal	8.54	10.97	14.45	2.53	2.79
Andhra Pradesh	6.28	8.40	12.49	2.96	4.04
Haryana	1.31	1.77	2.83	3.09	4.78
Rajasthan	3.28	4.54	7.21	3.31	4.73
Madhya Pradesh	4.63	6.79	10.59	3.90	4.55
Kerala	2.55	3.47	4.77	3.10	3.25
Uttar Pradesh	9.48	12.39	19.90	2.71	4.85
Bihar	3.91	5.63	8.72	3.71	4.46
Orissa	1.11	1.85	3.11	5.21	5.36
Assam	0.78	1.29	2.05	5.14	4.75
Rest of India	3.76	6.10	9.70	4.79	4.90
INDIA	78.94	109.11	159.73	3.29	3.88

Source: Registrar General (1964, 1974, 1984).

In earlier periods there was considerable scope to increase the area under cultivation . . . These possibilities have now been exhausted... Increases in agricultural production can now take place only by productivity changes". Urban manufacturing growth in these states is remains small by national standards but represents a substantial increase to the small existing base. While the number of new urban job opportunities may not be sufficient, migration to the cities may represent the only hope for many.

Agricultural Stagnation, Other States (Andhra Pradesh, Madhya Pradesh, Rajasthan). Here the basic forces noted for the group above are also at work but the circumstances in the countryside may not be as severe so the push factors are not as strong. The existing level of urbanization is higher offering a somewhat broader range of potential opportunities for urban income generation.

All of this further supports the conclusions drawn in Section 2.2. The one constant

in a wide variety of economic circumstances in India is rapid urbanization (even the states with comparatively low urban growth rates over the 1970s still had sizeable absolute increases in urban population). Healthy joint expansion of agriculture and industry would probably promote the highest rate of urban growth over the long term (with the pull factors dominating) but failure in both sectors would probably yield a rate not too far behind (explained mostly by the push factors). While the urban population numbers might be nearly the same, the effects on the quality of life under each scenario would differ dramatically.

Urban Growth by City Size

The distribution of India's urban population by city size is shown on Table 2.11. In 1981, 20% lived in "metropolitan" centers (1 million residents or more), another 41%

Table 2.11
Urban Population by City Size - 1961-81
(excludes Assam for all years)

City Class	Urban Population (million)			Average Growth (percent)	
	1961	1971	1981	1961-71	1971-81
1 million or more	17.85	27.32	42.12	4.3	4.4
100,000-1 million	17.17	29.57	53.00	5.6	6.0
50,000-100,000	9.40	12.98	18.19	3.3	3.4
20,000-50,000	15.40	18.54	22.56	1.9	2.0
Less than 20,000	18.14	19.12	21.57	0.5	1.2
TOTAL URBAN	77.96	107.53	157.44	3.3	3.9

City Class	Share of Urban Population (percent)			Share of Growth (percent)	
	1961	1971	1981	1961-71	1971-81
1 million or more	22.9	25.4	26.8	32.0	29.7
100,000-1 million	22.0	27.5	33.7	41.9	46.9
50,000-100,000	12.1	12.1	11.6	12.1	10.4
20,000-50,000	19.7	17.2	14.3	10.6	8.1
Less than 20,000	23.3	17.8	13.7	3.3	4.9
TOTAL URBAN	100.0	100.0	100.0	100.0	100.0

Source: Registrar General (1964, 1974, 1984).

Table 2.12
Urban Population by City Size (1971 Cities Only) - 1971-1981
 (1971 size class held constant)

1971 Size Class	Number of Cities 1971	Urban Population (million)		Annual Growth (percent)
		1971	1981	
3 million or more	4	20.3	27.3	3.0
1 million-3 million	5	7.3	11.5	4.6
100,000-1 million	136	32.8	47.0	3.7
50,000-100,000	178	12.0	16.9	3.5
20,000-50,000	560	17.2	23.7	3.3
Less than 20,000	1,414	16.0	22.4	3.4
TOTAL URBAN	2,293	105.6	148.8	3.5

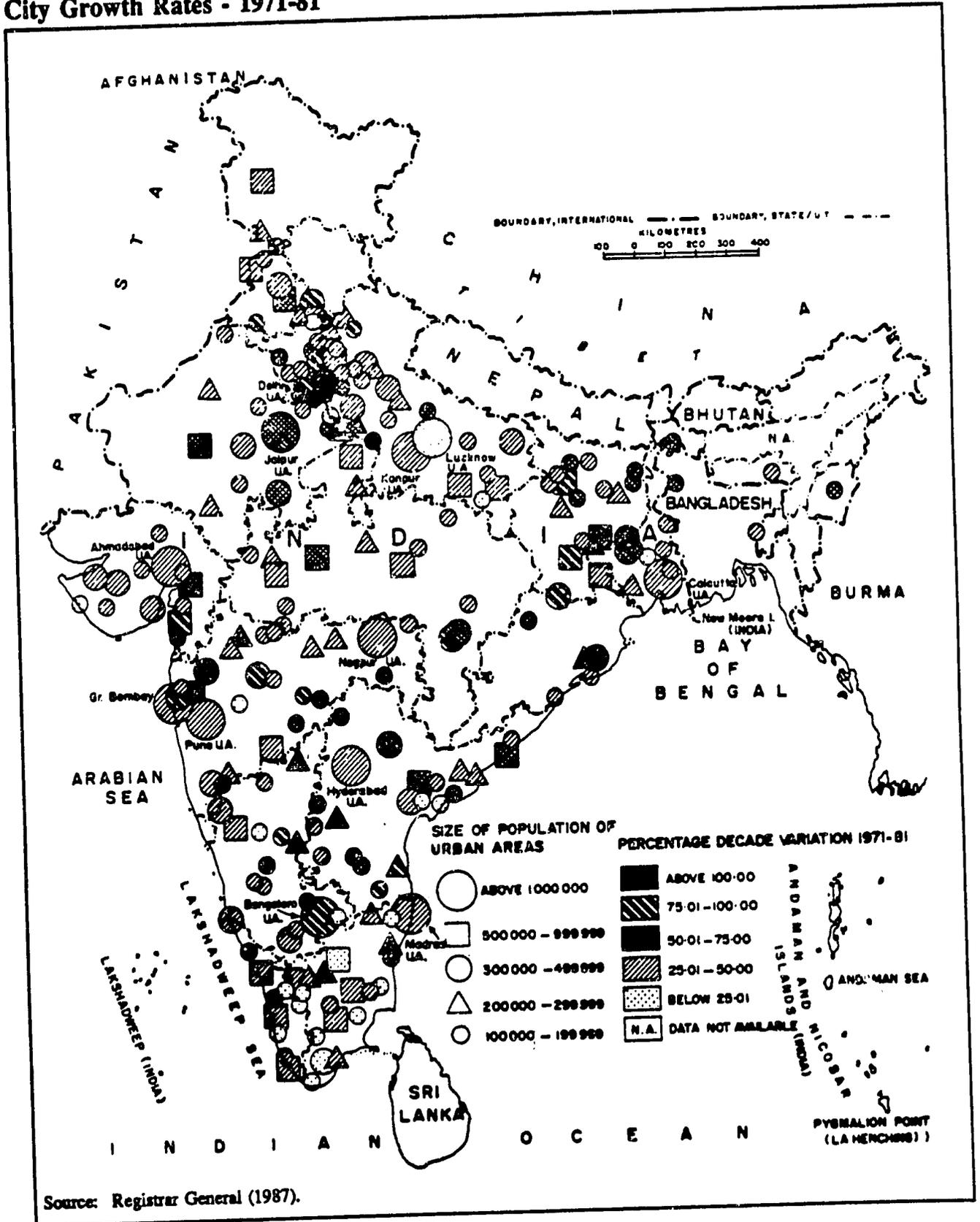
Source: Adapted from Mohan (1984)

in cities in the range of 100,000 to 1 million, and the remaining 39% in smaller cities and towns. It is often noted that India has a very well "balanced" distribution of urban areas, both by region and size—a substantial number of cities in each size class and a reasonable distribution of all sizes in most regions (see, for example, India's National Commission on Urbanization (1987)). In many other countries, urbanization is much more concentrated: the largest city in the country accounts for only 6% of India's urban population but for 28% in Mexico, 40% in Kenya, 46% in Argentina, 65% in Thailand, and 77% in the Congo (according to World Bank (1988)).

Some concern has been voiced of late, however, about the more rapid growth rates of large cities as indicated on the table. The share in cities of 100,000 or more grew from 45% in 1961 to 54% in 1971 to 60% in 1981. Mohan (1984) has explained why this concern is misplaced. Given substantial increases in the total urban population in any country, this effect would occur even if the size distribution remained fixed; ie, if all cities retained the same proportional size relationships to each other. With all cities getting larger, more of them would pass over the 100,000 threshold and the share above that level would grow continuously.

A more realistic way to examine this issue is to compare growth rates for fixed groups of cities. Table 2.12, shows the 1971-81 growth of cities, holding their 1971 size class constant (thus eliminating the effect of cities moving up to the next larger class). Whereas the annual growth rates on Table 2.12 varied widely (from 1.2% to 6.0%) the rates shown here are quite similar (ranging only from 3.0% to 4.6%). Therefore, in reality, city size had comparatively little influence on urban growth rates over the 1970s.

Figure 1.1
City Growth Rates - 1971-81



Source: Registrar General (1987).

Table 2.13
Growth Increment by City Size - 1971-1981
 (1971 size class held constant)

1971 Size Class	Number of Cities 1971	Urban Growth 1971-81 (million)		
		Total	Per Year	% Share
3 million or more	4	7.0	0.7	13.8
1 million-3 million	5	4.2	0.4	8.3
100,000-1 million	136	14.2	1.4	8.3
Less than 100,000	2,152	17.8	1.8	35.2
Not urbanized in 1971	1,008	7.4	0.7	14.6
TOTAL URBAN	3,301	50.6	5.1	100.0

Source: Tables 2.11 and 2.12.

Still it should be noted that cities in the 100,000 to 3 million categories did grow faster than the average, and three of India's four largest metropolises (Calcutta, Bombay, and Madras) grew considerably more slowly than the average. A continuation of these trends does imply some deconcentration. However, it should be kept in mind that even though their growth rates are now smaller on average, the absolute growth of the largest metropolitan cities is still immense. The top four (those noted above plus New Delhi) still had to absorb 700,000 people per year during the 1970s (see Table 2.13 and Figure 2.1).

Future Prospects

Urban growth has been slowing down in the most urbanized states and speeding up in the least urbanized. We see nothing on the economic horizon as yet that would notably alter that trend. If it continues, the levels of urbanization across the states will tend to converge. The estimates from Section 2.2 suggest that as much as 41% of India's population will be urban in 2010. Most state urbanization levels will be closer to the mean than they are today.

Similarly, there appears no force at work to notably change proportional relationships in the city size hierarchy. Some individual cities will vary from the norm but overall relationships should not change markedly. Unless something new occurs, we would simply expect it all to get bigger. Section 2.2 estimated a 3.7% annual growth rate in the total urban population through 2010. Based on 1970s experience, we might expect the typical small city to grow at about that rate until it reached about 100,000 persons, then accelerate, and finally slow down again after passing the 3 million mark. For

example, at a 3.7% annual growth rate, a city of 100,000 in 1981 would reach 290,000 by 2010. At a 3.0% rate, a city of 3 million in 1981 would reach 7.1 million in 2010.

This suggests that a policy to substantially alter the spatial pattern of urban growth *per se* is not needed--indeed such a policy would probably be counterproductive. There may well be reasons to support urbanization in some cities more than others, but this should be done to achieve objectives related to investment efficiency and the quality of life within cities rather than simply to regularize spatial relationships.

Role of the Megacities

Even though India's larger cities are growing at a slower rate than its middle-size urban areas, it is worth pointing out that the large cities will present special management problems over the next two decades. In 1981, India had 7 cities with 2 million people or more. The Registrar General estimates that there will be 14 cities of that size by the year 2001 (see Table 2.14). The 3 largest will have over 12 million or more.

Table 2.14
Cities With Populations of 2 Million or More in 2001
(millions)

City	2001		
	1981	Registrar General	United Nations
Greater Bombay	8.24	13.95	16.00
Calcutta	9.19	12.93	16.53
Delhi	5.73	12.90	13.24
Bangalore	2.92	7.63	7.96
Madras	4.29	7.37	8.15
Hyderabad	2.09	4.62	5.13
Ahmedabad	2.55	4.55	5.28
Pune	1.69	3.31	3.69
Bhopal	0.67	3.07	1.54
Surat	0.91	2.59	1.93
Kanpur	1.64	2.57	3.17
Patna	0.92	2.50	1.38
Jaipur	1.02	2.38	2.21
Nagpur	1.30	2.27	2.56

Source: National Commission on Urbanization (1988); estimates by Registrar General of India and UNCHS (1987).

Today, the world has few cities this large and there is not a great deal of experience with the problems they are likely generate in the context of a developing country.

3

IMPLICATIONS FOR URBAN ECONOMIC DEVELOPMENT

Looking at the future relation of urbanization and economic development requires an understanding of the forces which drive urban growth. In Section 2.2 we outlined a general economic model of urbanization which conforms with international data and sketched out illustrative scenarios of urban growth. Section 2.3 reviewed the regional pattern of urbanization in India and offered some explanations for these local variations. In this chapter we describe the major economic development issues which affect urban centers and assess how they would be affected under different patterns of economic growth.

3.2 URBAN ECONOMIC GROWTH AND JOB GENERATION

Untangling the contribution of urban areas to economic growth is not an easy task; production data is not reported on rural-urban lines. However, we can make some estimates about the order of magnitude of output from urban areas. In the simplest case, it can be assumed that all secondary and tertiary activities are based in urban areas--a heroic assumption which obviously overstates the role of the urban sector. On this basis, in 1987, 65% of all production came from urban areas. By 2010 (assuming output rises 2% annually in the primary sector and 5% annually in other sectors), 78% of all output will come from urban areas. Alternatively, we can adjust the spatial distribution of output for the distribution of employment. Using the production growth figures above and assuming a continuation of the growth rates for 1961-81, then urban areas account for 40% of GDP in 1987 and 56% of total output in 2010; the urban share of non-primary activities rises in this period from 60% to 71%.

These figures broadly concur with results of studies carried out in other countries which found that urban areas produce disproportionately more per inhabitant than rural areas (see Kahnert (1987)). Given a higher level of productivity in urban areas, we can conclude that by 2010 urban areas, with 41% of the total population, will be producing in excess of 60% of total output.

Urban job generation in India has historically been driven by manufacturing. However, relative to other East Asian countries, this rate has been low. Are there other sources of urban employment which could contribute to faster economic growth in urban areas? In other countries, the formal service sector and the so-called "informal" sector (mainly small-scale secondary and tertiary activities), while playing important roles as job sources, have played important roles as generators of employment--though often with relatively low incomes. These sectors have a difficult time playing leading roles in the urban economy and stimulating economic growth and rising incomes without the concurrent growth of the industrial sector (both formal and informal), which is the strongest generator of incomes in the economy.

It is true that the Indian service sector has generally grown faster than the economy as a whole. However, this growth has not been autonomous; the development of the service sector in India can be explained mainly in terms of increased demand by other sectors in the economy. As agriculture has become commercialized and manufacturing increased its share of total output, supporting services have developed to meet the need for financing, distribution, and marketing of production. Indeed, the performance of the service sector--particularly commerce and finance--has matched that of the manufacturing sector in a statistically significant manner. As with manufacturing, the service sector appears not to have followed as labor-intensive a path as it could have: capital productivity improved only slowly during the 1970s. (Labor productivity growth in services--which has difficult measurement problems given the large share of labor costs in service output--has remained broadly constant since 1971.)

The notion of the informal sector is not easily applied to India and it is not clear that the standard contrasts between "informal" and "formal" producers are fully appropriate. The key stylized facts which usually are used to describe "typical" informal enterprises are: (1) small size; (2) labor-intense production process; (3) reliance on indigenous materials; (4) ease of entry into competitive markets; and (5) non-participation in the full legal and regulatory framework. (Of course, "typical" formal sector firms are described by the contraries of these traits.) These characteristics are said to enable informal sector firms to maintain lower cost structures than formal sector firms, despite some major handicaps, such as lack of access to formal sources of lending or foreign exchange. This description of the informal sector suggests that the informal sector is an economic structure separate from the formal sector. It also implies the policies for promotion of informal enterprises and boosting their output and employment are somehow different from those applicable to formal sector firms.

However, such a rigidly dual description is unlikely to capture the true relations of the two sectors within the economy--many firms are likely to exhibit characteristics from both sectors. Describing an enterprise, worker, or production relations as "formal" or "informal" is a question of degree. There are several situations where this difficulty can be seen: a person holding a formal sector job during the day and operating a small

business in his off-hours; households having members employed in both sectors; an informal enterprise selling its products to formal sector firms and *vice versa*; or a formal sector firm ending its legal existence but remaining in operation in the informal sector to survive changing market and regulatory conditions. The policy implication of this "continuum" view is that, rather than separate policies for the formal and informal sector, the policy environment ought to create conditions which minimize the disadvantages of the informal sector relative to the formal sector and encourage informal enterprises to "move up" to the formal sector as they grow.

The imprecise nature of the distinctions between informal and formal sectors is readily apparent in the Indian context. It is simple to divide Indian producers on a size basis between large and small. However, the informal-formal dichotomy starts to break down almost immediately. Research has found that the size of firms in India has little relationship with their capital intensity; capital intensity is more closely related to the industry type.¹ Similarly, in India the small producer often gains from participating in certain aspects of the regulatory framework. Small enterprises are actively promoted by government policies: certain activities are reserved for small industries; some subsidized credit is available; small establishments are exempt from certain regulations (both *de facto* and *de jure*). Thus, the small firm is neither shut out of formal capital markets or denied access to regulated imports (though their access may be more limited than that of larger firms). Indeed, the benefits of being classed as a small establishment provide a significant incentive to producers to retain this classification rather than growing and facing an increasing regulatory burden. Thus, rather than relying on the textbook definition of the informal sector, we will focus on the growth constraints facing small firms--many, though not all, of which exhibit characteristics associated with the informal sector.

Under these conditions, small/informal sector enterprises² face two contradictory influences. Through their natural evolution, small firms, if successful, will grow. However, the current regulatory environment imposes two kinds of impediments to this growth: (1) the greater restrictions which apply to formal sector firms; and (2) the loss of advantages which the government uses to encourage small enterprises. While public interest concerns may provide a sound rationale for both of these sorts of regulations, evidence suggests the present regulatory burden constrains large firms and discourages informal sector enterprises from "graduating" to the formal sector. In the cement industry--predominantly large, formal-sector firms--production doubled between 1981 and 1986 following partial decontrol of prices. Many small enterprises in "reserved" industries enjoy such benefits that they do not wish to expand because of the potential loss of benefits. Meanwhile, large-scale producers (who would be lower cost producers in a free market) cannot compete and vacate the entire industry.³ Despite these hindrances to expansion, employment in the non-agricultural unorganized sector--accounting for 68% of

¹ Little (1987).

² Due to data constraints, we use information about the "unorganized" sector (enterprises with less than 10 workers) to proxy the informal sector.

³ See Desai in Lucas and Papanek (1988).

all non-agricultural employment in 1981 according to the Indian census--increased more than twice as fast as employment in its organized counterpart; ie, 7.9% annually compared to 3.1% annually, respectively. Also, in 1981, the organized sector held 73% of all manufacturing jobs--the small/informal sector hold significant potential for growth of employment. Encouraging the growth of both formal and informal sources of manufacturing employment is a key factor in promoting increasing urban incomes and job generation.

Achieving dynamic economic development will thus be dependent on improving the regulatory environment--by reducing incentives for high capital intensity and relaxing production restrictions--so that formal sector businesses are able to grow and expand employment more freely. Such changes, through the linkages between formal and informal sectors, will spur growth in the informal sector. It is important that this growth be channelled in such a way that firms are not penalized for growing into the formal sector. If these economic obstacles are overcome, then the physical constraints which block economic growth--lack of land, urban services, power and communications--remain to be tackled. (These issues are investigated in the following chapters.)

3.2 RURAL-URBAN LINKAGES

Previous sections have noted the interdependence of rural and agricultural development with urbanization. In particular, rural-urban linkages can be classed into three categories: (1) supply of inputs to rural production (backward linkages); (2) demand for rural production--food--by urban dwellers (forward linkages); and (3) demand by rural producers with disposable cash income for non-food goods and services (consumption linkages). In this section, we focus on two important components of the connection between the rural and urban sectors: agricultural incomes and market towns.

In many developing countries, growth of per capita food consumption outpaces the growth of agricultural production; these forward linkages are the predominant force spurring increased agricultural output. The sector responds through technological change which will reduce production costs and expand output. Such change can be induced in two fashions: lower prices for food through competition with imports or by greater effective demand brought about by rapidly increasing demand for labor and a larger and broader wage bill). Unlike most other LDCs, India's food consumption per capita has remained relatively static. The effective demand to induce the initial technological advance (the use of high yielding varieties (HYVs)) was a result of the drive for self-sufficiency and reduced food exports, not rapidly rising non-agricultural employment. Having reached nominal self-sufficiency in food, agricultural growth has stalled. With non-agricultural employment increasing only moderately, there is little effective demand to induce further cost reduction. Rather, producers push up production through more intensive (and expensive) application of existing technology, eroding the productivity gains of the initial switch to HYVs. This declining productivity translates into reduced income growth.

The success of market towns as centers of economic activity is closely related to the path of effective demand and agricultural incomes. The initial impetus for the development of these towns is the need to supply urban demand for food. Regional urban

centers are the location of the first steps in the collection and preparation of agricultural commodities. Storage, bulk breaking, and preliminary processing activities take place in these small cities and towns; this is certainly the pattern in Punjab, Haryana, and other areas where agricultural production has become commercialized. Cour (1987) shows that, in Africa, over half of the activities in secondary cities are related to agricultural production; we have no reason to believe a similar situation does not exist in India. As urban incomes rise, demand develops for a wider range of food products, increasing the scope for processing prepared and packaged foods.

Market towns also serve as connection points for backward and consumption linkages. Inputs such as seed, fertilizer, and credit are distributed through these towns. Agricultural producers with disposable cash income demand consumer goods and services and durables, many of which may be produced locally. Of course, such demand also attracts large-scale suppliers of cheap goods with whom traditional local suppliers cannot compete. This (and the government's industrial dispersal policy) help explain why household manufacturing employment has fallen in rural areas at the expense of factory employment.

For market towns to act efficiently in their role connecting urban and rural sectors, they must be able to meet the needs of both sectors. It is often the case that agricultural growth is constrained because potential market towns are unable to provide the full range of services required. In the Indian context, the World Bank (1988c) and USAID (1988b) both note increasing provision of services to agricultural producers through market towns. Large investments have been made by the public sector to develop a wide-ranging distribution system for seeds, fertilizer, and other material inputs (though deficiencies in the coverage of these systems in central India and rain-fed areas remain). The number of branch banks is also growing, increasing access to financial services. Beyond these activities, market towns must also be integrated into the transportation network and have reliable power supply and communications. It is in the provision of these types of "economic infrastructure" that secondary cities are most often deficient. Yet it is precisely this kind of support which facilitates the forward linkages between urban and rural areas and generates the largest income flows.

The GOI is currently considering a plan to make investments in key regional towns and cities to promote regional development. Though criteria for choosing these investment sites have not been fully specified, the chances of success of the program will be enhanced if demand for infrastructure is somehow incorporated into the selection procedure. Peterson *et al* (1988) note that past experience with similar programs in other countries has been dismal where a "supply" approach to infrastructure has been taken. It is important to note that the demand for supporting services is a result of the economic activity generated by increasing effective demand for food and rising agricultural incomes, not the reverse. Simply providing infrastructure where there is no underlying economic dynamism is not likely to stimulate any significant activity. The list of empty industrial parks in "backward" areas which were targeted for economic development is testimony to the failure of such a supply-side approach. The returns to investment will be greater where economic activity and growth is running ahead of infrastructure provision and economic potential is clearly demonstrated than in newly created centers or where growth is sluggish.

Table 3.1
Urban Poverty - 1972-1985
(percent of population below poverty line)

Year	Rural	Urban	Total
1972-73	54.1	41.2	51.5
1977-78	51.2	38.2	48.3
1979-80	50.7	40.3	48.4
1984-85	39.9	27.7	36.9

Source: National Institute of Urban Affairs (1988a).

3.3 URBAN POVERTY

Poverty in India is measured in government statistics against a poverty line defined in terms of the expenditure required to obtain the minimum caloric intake necessary for subsistence, set at 2,100 calories per person per day in urban areas. In 1985 prices, meeting the poverty line required Rs 122 per capita per month in urban areas. The poverty line (in rupee terms) for urban areas is about 15% higher than that in rural areas, presumably owing to price differences in the cost of food and the lack of resources of urban dwellers for producing their own food. There are many criticisms of this approach, which does not explicitly account for other aspects of personal welfare and quality of life (ie, health, diet, clothing, and shelter). Unfortunately, little data exists upon which to base other estimates and those estimates which have been made vary widely and lack comparability. For our purposes, we shall use official estimates based on consumer expenditure surveys taken during various rounds of the national sample survey.

The proportion of the population which was classified as being under the poverty line is given in Table 3.1. The incidence of urban poverty fell during the 1960s, leveled out until 1980, and has continued to fall since then. In comparison, rural poverty has been steadily moving downward. Because of the narrowness of the measure of poverty used, there is good reason to believe these poverty levels are understated. Using more detailed information from the 1972-73 consumer expenditure survey, NIUA (1988a) argues that at expenditure levels below the poverty line, about one fifth of total expenditure must be reserved for non-food requirements--much higher than the non-food allowance given under the official poverty line. Adjusting the required outlay needed to meet both the minimum caloric requirement and these essential non-food expenditures resulted in the proportion of those living in urban poverty to increase from 38% to 58%. Thus, while official estimates of poverty are likely to be somewhat optimistic, both NIUA (1988a) and Mohan and Thottan (1988) agree there has been an improving trend.

Table 3.2
Urban Poverty by State - 1972-84
 (percent of population below poverty line)

State	Rural		Urban		Total	
	1972-73	1983-84	1972-73	1983-84	1972-73	1983-84
Maharashtra	53.9	41.5	34.3	23.3	47.7	34.9
Tamil Nadu	63.0	44.1	52.2	30.9	59.7	39.6
Gujarat	43.9	27.6	34.0	17.3	41.1	24.3
Karnataka	52.3	37.5	45.8	29.2	50.5	35.0
Punjab	21.5	10.9	21.8	21.0	21.5	13.8
West Bengal	64.0	43.8	35.9	26.5	56.8	39.2
Andhra Pradesh	57.7	38.7	43.8	29.5	54.9	36.4
Haryana	21.5	15.2	29.9	16.9	23.1	15.6
Rajasthan	47.5	36.6	39.3	26.1	46.0	34.3
Madhya Pradesh	61.4	50.3	44.8	31.1	58.6	46.2
Kerala	57.8	26.1	52.7	30.1	56.9	26.8
Uttar Pradesh	53.0	46.5	51.6	40.3	52.8	45.3
Bihar	55.8	51.4	43.4	37.0	54.5	49.5
Orissa	71.0	44.8	43.3	29.3	68.6	42.8
Assam	48.2	23.8	33.8	21.6	47.0	23.5
INDIA	54.1	40.4	41.2	28.1	51.5	37.4

Source: Mohan and Thottan (1988).

Regionally, urban poverty quite closely matches the national norm in most states with a few exceptions (see Table 3.2). There is a weak negative relation between the incidence of urban poverty and the degree of urbanization in a state. More specifically, states which have dynamic agricultural sectors (Punjab, Haryana) or low levels of urban growth (Gujarat, Maharashtra) have a smaller proportion of urban poor, while states with stagnant agricultural growth and little urban economic development (Bihar, Uttar Pradesh) report higher levels of urban poverty. Mohan and Thottan (1988) find that urban poverty is highly correlated with rural poverty; urban poverty is also negatively correlated with the presence of manufacturing, but only weakly. This underlines the importance of the interrelationship between rural and urban sectors in terms of economic development and poverty alleviation.

Approximately 90% of urban migrants (male main workers) from rural areas choose to move for employment reasons. However, there is no evidence that these migrants, while likely to have been among the poor in rural areas, are more likely than urban dwellers to remain among the poor in urban centers. Indeed, studies carried out in

other countries suggest that migrants have more entrepreneurial talent and ambition than poor urban natives and that the incidence of urban poverty might even be less than among long-term urban residents.

Within cities, the urban poor are more concentrated in slum areas than in other areas of cities; within slum areas, the more recent settlements have a higher proportion of persons below the poverty line than those in older slum communities. However, Lee (1988) observes two surprising facts: (1) 1981 census data and 1983 poverty data imply that slightly less than half the urban poor reside outside of slums; and (2) despite the concentration of slums in the larger metropolitan cities, these cities do not contain a disproportionate number of the urban poor relative to the cities' total population.

3.4 PROSPECTS FOR URBAN ECONOMIC DEVELOPMENT

Given the relationships outlined in Section 2.2, we can examine the effects on the urban economy of different scenarios for the future development of the economy as a whole. With healthy expansion of manufacturing (and concomitant demand-induced expansion in agriculture), both urban and rural incomes would rise and the rate of urbanization would increase. In the converse case, with poor performance in both manufacturing and agriculture, a high rate of urbanization would also likely develop, but mainly through low incomes in rural areas forcing migration to the cities. With urban incomes also depressed, the quality of life in urban areas under a higher rate of urbanization would fall substantially. In the third case, we examine a continuation of past long-term trends, with positive but relatively slow growth in agriculture and manufacturing.⁴

Under the first scenario, manufacturing growth continues on the trend which has developed over the past few years. Of course, continued high levels of growth in manufacturing are reliant on a continuance of the current pace of regulatory loosening. Moreover, if growth in the sector is to translate into increased rates of job creation, conditions which favor capital-intensive production will also have to be eased. Mohan (1984) estimates that each job created in manufacturing creates between 3 and 4 other urban jobs (mainly in the tertiary sector). On this basis, urban manufacturing employment would have to increase at a rate of about 4.5% annually through 2010 to generate enough jobs for the urban population of 460 million assumed under our base case. Such a high rate of job creation (in historical context) would imply an expanding wage bill for the industrial sector and rising average urban incomes; labor demand in manufacturing increases and the proportion urban workers employed in marginal activities falls. Concomitant increases in demand result for the service sector. The incidence of urban poverty would continue its downward trend.

For agricultural incomes and market town development, buoyant growth of urban employment and a larger and broader wage bill stimulates effective demand for food. If

⁴ Note that these scenarios (which deal with relationships between sectors) differ from the economic forecasts discussed in Section 2.2 (which looked at aggregate levels of growth in the economy).

the agriculture sector responds with enhanced productivity and higher output, a higher rate of urbanization will result. More active market towns will certainly create a strong pull effect. Enhanced productivity could translate either as increased labor absorption in agriculture (which would dampen income gains) or in reduced labor demand (and accelerate income gains) and a strong push effect.

In the second case, manufacturing was assumed to perform poorly, with employment growth falling to 1.5%, half its historical average. (In fact, this is about the rate of employment growth recorded in 1961-71.) In this situation, enough urban jobs would be created to support only one fifth of the projected increase in the urban population. Without industrial jobs (and assuming reduced absorptive capacity in rural areas--see Section 2.3), the nature of the tertiary sector in India would be fundamentally changed. Its expansion would no longer be driven by demand from industry but by labor supply pressures. Severe competition and underemployment in the sector (acting as employer of last resort) would drive down average urban incomes, implying substantial degradation in urban living conditions and a large increase in the proportion of the urban poor.

With stagnant growth in manufacturing, effective demand for agricultural commodities would also stagnate. With no incentive to boost productivity and little growth in job opportunities through the development of market towns, the agricultural sector faces the prospect of having to absorb large increases in the rural labor force. In many regions the sector is either saturated or near saturation in terms of absorbing any further increase in labor without driving per capita incomes below the subsistence level (see Section 2.3). In the face of such dismal prospects, migration to urban areas represents the only viable alternative. However, as noted above, the concurrent low growth of manufacturing employment implies job prospects in urban areas will be poor also. Thus, as with the first scenario but for radically different reasons, this case also implies a high rate of urbanization.

In the third scenario, the growth of manufacturing output and employment follow their historical trends, with the number of jobs increasing 3% annually. The job creation picture is somewhat better here, with three fifths of the required jobs generated directly and indirectly through the industrial sector. Non-industrial activities are forced to absorb some 55 million excess workers, with consequent negative pressures on average incomes. Thus, this outcome offers little scope for improved living standards amongst the urban population and makes it unlikely the rate of urban poverty would show much improvement.

In this case, the ability of the agricultural sector to increase output without technological change runs into land constraints and higher costs associated with more intensive input use. This implies some increase in the push effect out of the rural sector as well as continued stagnation in rural incomes. Market town development will proceed but is unlikely to generate enough jobs to fully absorb the excess labor from agriculture. Migration to urban areas will increase, though the job creation rate in cities and towns will be insufficient to even meet the job creation needs of the existing urban population. There is not likely to be much improvement in incomes in either urban or rural areas.

With public resources already stretched thin and subject to many competing claims, there is little scope for redistribution in favor of urban areas. Future improvement of the

quality of life in urban areas will be dependent on some combination of increased efficiency in the operation of cities and continuation of the higher rates of growth experienced so far in the 1980s. While more efficient delivery of land and urban services will contribute to a better quality of life in urban areas, without strong economic growth, cities will be unable to provide adequate employment and incomes for their growing populations--widespread unemployment and underemployment and poverty in urban areas will be the result.

4

IMPLICATIONS FOR URBAN PHYSICAL DEVELOPMENT

Provision of an adequate supply of shelter is dependent upon the availability of sufficient land to build on. This in turn must be serviced by basic infrastructure, and all of these components must be available in the right sequence and at an affordable cost. Since these three aspects of physical development--land, shelter and infrastructure--are interdependent and inseparable, we will treat them together. In this section we first briefly review the adequacy of the current urban physical environment and assess the requirements to overcome present deficits and provide for future growth (consistent with our estimates from Section 2.2). We next identify major constraints that seem to be preventing adequate urban physical development at present and examine the mechanisms by which development now takes place within these constraints. Finally, we consider the implications of future growth under these mechanisms and review some options for change.

4.1 EXISTING SITUATION

Land Use

A study completed by the Town and Country Planning Organization (TCPO) in 1983 assembled and analyzed detailed land use data for 407 cities and towns as of 1971 (approximately). Table 4.1 shows that India's urban areas are substantially "overbounded". That is, their official boundaries contain large "undeveloped" areas including land used for agriculture as well as vacant parcels and areas taken up by rivers and other bodies of water. In fact, the undeveloped category accounts for 68% of the total bounded area on average.

Table 4.1
Total and Developed Land - 1971
 (407 Indian cities)

Size Class	Number of Sample Cities	Hectares per 1,000 Persons			Percent Developed
		Total Municipal	Undeveloped	Total Developed	
1 million or more	3	13.4	7.1	6.3	53
500,000-1 million	6	13.5	7.3	6.2	54
100,000-500,000	86	18.8	10.1	8.7	54
50,000-100,000	72	26.9	13.7	13.2	51
20,000-50,000	125	46.5	32.5	14.0	70
Less than 20,000	115	95.6	79.0	16.6	83
TOTAL/WT AVG					
20,000 or more	292	22.6	13.3	9.3	59
All urban areas	407	32.5	22.2	10.3	68

Source: Adapted from Town and Country Planning Organization (1983).

Land developed for urban use averaged 10.3 hectares per 1,000 population. This would imply that India had a total of about 11,200 square kilometers of land in developed urban use in 1971--only 0.3% of the nation's total land area. As would be expected, developed land availability is much tighter in the larger cities (only 6.3 hectares per 1,000 in cities of 1 million or more), and regularly becomes more ample as city size decreases, reaching a high of 16.6 hectares per 1,000 in towns below 20,000.

Developed Urban Land
 (hectares per 1,000 population)

New York City	9.3
Los Angeles	32.9
Average, 48 US Cities	19.3
Buenos Aires	6.7
Rio de Janeiro	7.2
Bangkok	14.3
Kinshasa	15.4
Average, Developing Regions	8.3

An average of 10.3 hectares per 1,000 inhabitants is considerably below the levels typical in developed countries but somewhat above the average for developing regions as shown in the above comparisons. (US data are from Niedercorn and Hearle (1963), the average for developing regions is from UNCHS (1987), and the data for other countries are from Kitay (1985)).

Table 4.2 shows how the developed land is distributed among various urban uses. In the average case, residential areas account for 39%, commercial and industrial activities for 11%, streets and roads for another 13%, and other uses for the remaining 37% (other uses include among other, military cantonments, public building areas, schools and hospitals and parks). As was true for total developed land, the number of hectares per

Table 4.2
Land Use - 1971 & 1991
(407 Indian cities, hectares per 1,000 persons)

Size Class	Total Developed	Residential	Commercial/ Industrial	Streets Roads	Public/ Other
1971 EXISTING					
1 million or more	6.3	2.4	0.6	0.6	2.7
500,000-1 million	6.2	2.3	1.2	0.7	2.0
100,000-500,000	8.7	4.0	0.7	1.1	2.9
50,000-100,000	13.2	5.8	1.4	1.5	4.5
20,000-50,000	14.0	5.3	2.1	2.1	4.5
Less than 20,000	16.6	4.8	1.6	2.4	7.8
WEIGHTED AVG					
20,000 or more	9.3	3.9	1.1	1.2	3.2
All urban areas	10.3	4.0	1.1	1.3	3.81
1991 MASTER PLAN					
million or more	11.8	4.1	1.5	1.2	5.0
500,000-1 million	11.8	4.7	1.6	1.2	4.3
100,000-500,000	15.6	6.3	1.7	1.8	5.8
50,000-100,000	22.5	7.5	2.4	1.8	10.8
20,000-50,000	30.1	5.9	2.0	2.0	20.2
Less than 20,000	37.2	7.0	2.0	2.4	25.8
WEIGHTED AVG					
20,000 or more	17.6	5.7	1.8	1.6	8.5
All urban areas	20.3	5.9	1.8	1.7	10.8

Source: Adapted from Town and Country Planning Organization (1983).

1,000 inhabitants in each of these uses is typically much lower in the largest cities and considerably larger in the smaller cities.

Unfortunately, a similar study for 1981 has not been undertaken, but considering the severe constraints that have existed in India's urban land markets over the past two decades (to be discussed later in this section) it seems likely that the amount of developed urban land per capita has decreased since 1971. There is no single ideal standard for urban land use and, based on our review of international data, we conclude that the *amount* of land developed for urban use in 1971 did not represent a serious deficit. However, it is probable that land availability has since become a more serious problem.

Shelter

With respect to housing, it is clearer that a serious deficit exists (both in terms of quantity and quality). The NCU (1988) estimates the 1981 urban housing stock at 28 million units, only 64% of which was of *pucca* quality (ie, built of permanent materials). The National Building Organization puts the 1981 deficit in the number of urban housing units at approximately 5.9 million units, which includes the needs of the absolute homeless (750,000 persons) overcrowded households, and needs for the replacement of substandard units. It is estimated that there are between 32 million and 40 million slum dwellers in India's cities (comprising 20% to 26% of the total 1983 population), of which 40% are to be found in the twelve metropolitan cities. There is a close relationship between size of slum population and the total population of the city: in general, large cities show a higher percentage of slum population, as do industrially developed cities (Gupta (1985)).

Lee (1988) states that there was an improvement in the quality of shelter between 1961-81, as reflected by the use of better building materials. Nonetheless, lack of effective maintenance is leading to obsolescence in a large proportion of the existing stock. Overcrowding is a serious problem, with 5.6 persons per household in an average 2 room dwelling in 1971. However, the proportion of households in one-room houses has declined slightly over the last decade.

India's Seventh (current) Five Year Plan estimates that Rs 338 billion is needed to ameliorate the existing housing situation. However, government resources have not been allocated in a commensurate proportion. Public investment in housing formed only 1.6 % of the Sixth Plan, and shelter in general made up only 7% of the overall investment in the economy in this period. As a proportion of the GDP housing investment has declined from 5% in the 1960s to a current share of around 3%.

Housing is mainly built and financed by the private sector. Conventional public sector financing contributes to less than 20% of total urban housing supply, while cooperatives, state housing finance institutions, and employers furnish a similar amount. Of the remaining 60% of urban dwellings financed by household savings and the informal sector, only a small proportion is built by the formal sector as legal units.

Infrastructure

The supply and maintenance of urban infrastructure is grossly deficient, particularly

for water supply, sanitation and solid waste management. One quarter of the urban population has no tapped water supply of any kind, three quarters have no (waterborne) sanitation facilities, and one third has no electricity. Furthermore, 40% of the urban water supply is polluted.

The GOI had estimated that by the end of the Sixth Plan, 81% of the urban population would have some sort of protected water supply. However, government investment has been inadequate to meet the target, with a 20% shortfall of expenditure in what was proposed. Access to piped water supply varies considerably from state to state. Lee (1988) quotes that in Ahmedabad, 33.1% of all homes are without piped water of any sort including communal standpipes, while in Madras this figure rises to 68.6%.

The present rate of per capita daily piped water supply is officially 125 liters in the larger cities, but less elsewhere, as compared with the WHO minimum consumption rate of 70 liters. The standard set by the government is 200 liters (Lee (1988)). However, an estimated 30% of the piped water supply is lost through leakages.

Power supply is also inadequate, with up to 37% of households unserved by electricity, and substantial illegal tapping of existing power lines. Solid waste collection is far from satisfactory, and some urban neighborhoods resort to community-arranged clean-ups. Some smaller cities have no sewerage systems at all, or only very rudimentary ones.

4.2 FUTURE REQUIREMENTS

Land

The TCPO study cited earlier also tabulated Master Plan proposals for the sample cities as of 1991. Table 4.2 shows that under these plans, average land availability would be 20.3 hectares per 1,000 inhabitants, almost twice the actual 1971 provision. This level is quite high by international standards (it even exceeds the US average) and given development constraints that exist, it seems impossible that it could be made available by 1991. To achieve this standard even by 2010 under our urban growth forecasts would seem unlikely given resources levels in the economy.

If we assume that the 1971 average (10.3 hectares per 1,000 persons) did not decline over the ensuing decade that would imply that national urban land totalled about 16,500 square kilometers in 1981, and that an average of only 530 square kilometers was developed for urban use annually over the decade. Using the estimates of urban population growth from Section 2.2, the 20.3 hectares per 1,000 persons standard require developing an average of 2,650 square kilometers for urban uses per year over the 1981-2010 period (five times as much as the 1971-81 figure above), providing a total of 93,400 square kilometers for India's urban population of 460 million. Standards in the range of 10-12 hectares per 1,000 would seem more reasonable. They would imply total urban land needs of from 46,000 to 55,000 square kilometers in 2010 and development of 1,020-1,320 square kilometers per year on average over the 1981-2010 period--only a bit over twice the optimistic view of provision during the 1970s.

Shelter

In order to house the urban population increase predicted between 1981-2010, 63 million more units will be needed, based on a household density of 5.0 persons (somewhat below the present 5.5 average). An additional 5.9 million units would be required to erase the 1981 deficit (as estimated by the NBO), and roughly another 3.0 million units would be required to provide for an adequate vacancy rate. A total requirement of 69 million new units over 1981-2010 means that an average of 2.5 million units would have to be produced each year over the period. If we assume (as some do) that the NBO deficit estimate is low, the annual requirement might grow to as much as 3.0 million units.

Data on existing housing conditions are weak so too much faith should not be put in any such estimates. Nonetheless, they are sufficient to show that real needs for decent housing are far above current production levels. Assembling information from several sources, Lee (1988) estimates the total output of formally financed housing in the mid-1980s only at about 310,000 units per year (this includes the total output financed by the Housing and Urban Development Corporation (HUDCO), registered cooperatives, private and public employers, the Life Insurance Corporation, the Housing Development Finance Corporation (HDFC), and other housing finance corporations).

Infrastructure

A Planning Commission Task Force (1983a) estimated per capita urban growth requirements for urban infrastructure and service elements as shown below. The range refers to the highest and lowest cost technologies available.

Incremental Per Capita Infrastructure Costs (rupees, 1980 prices)

	<i>Low</i>	<i>High</i>
Water supply	200	350
Sanitation	120	500
Solid waste disposal	25	40
Storm water drainage	75	100
Roads	200	300
Street lighting	60	60
Land preparation	60	100
TOTAL	740	1,450

It would not be technically possible to build all infrastructure at the low end of this range. Actual development would have to employ a mix of these alternatives and options that lie in between. The Task Force estimated that the achievable minimum was probably around Rs 1,100 per capita. For the 1981-86 period, they assumed an urban population growing by 6.8 million persons annually, implying an annual investment requirement of Rs 7.5 billion. Their studies indicated that an additional Rs 3.9 billion per year should be

invested over that period to take into account depreciation and make some progress toward infrastructure provision for those not served in 1981. This brings the total annual requirement to Rs 11.4 billion, yet they estimated that actual annual investment over the period was likely be about Rs 7.0 billion. Our estimates from Section 2, indicate an urban population growth increment of about 10.4 million persons over 1981-2010. Assuming the Task Force's per capita growth cost and holding constant their allocation for depreciation and backlog depletion, would imply an annual investment requirement averaging Rs 15.3 billion--more than twice the actual investment estimated for 1981-86.

4.3 MAJOR CONSTRAINTS - THE REGULATORY ENVIRONMENT

The Urban Land Ceiling Act

The World Bank (1986) states "...a more efficient [land] strategy would strive to improve the functioning of land markets to facilitate a much greater supply of developed land by both the private and public sectors and, at the same time, assure that this is done equitably and with the interests of less privileged groups protected. Such a strategy would include measures to make land more available for both public and private sector development...."

One of the most important factors inhibiting the land markets over the last decade--a time of rapid urban growth--has been the Urban Land (Ceiling and Regulation) Act of 1976 (ULCRA). Although the act has a few tightly specified exemptions, it effectively prohibits transactions in land holdings above specified sizes which vary with the population size of the city. Landowners are required to register their holdings and give over the "excess" to the state government at compensation fixed at 8.3 times the actual income gained from the land over the preceding five years. In fact, government has taken physical possession of only about 2% of the estimated amount of excess land.

The act was intended to reduce the concentration of holdings by the rich, reduce speculation, and generally bring about a more equitable distribution of land ownership. Instead, its main result has been to freeze the urban land market which has in turn led to inflation in land prices.

Soaring land prices have made private land development unaffordable in the centers of the large cities. As a result, private development has been forced out to the fringes of the large cities, beyond the boundaries of the ULCRA. This creates enormous extra costs in transportation, and infrastructure, leap-frogging over tracts of vacant land frozen under the Act, and artificially extending the size of the urbanized area.

Recognition of the deleterious outcomes of the ULCRA has been growing. While most critics apparently believe that repeal of the act would not be politically feasible at this time, modifications have been called for in the short term. One avenue would be to expand the exemption of land used for low or moderate income housing construction. Clearly a large addition to the serviced land on the market is needed and would have the effect of easing the pressure on all income groups, and hence mitigating the present distortions in some degree.

Rent Control Laws

Rental housing accounts for a little under one half of urban accommodations. Rent control laws, governing both rents and occupancy rights, apply to much of the older stock of housing mainly occupied by low-income groups. Because rents are frozen at low levels, structures have been quasi-abandoned in terms of maintenance, and new little rental housing is built because it is viewed as a less profitable investment than purchase housing, given the current regulations.

Furthermore, property assessments for tax purposes are based on controlled rental values, which are maintained far below real market values. This is one of several factors holding back potential municipal revenue generation through the property tax (see further discussion of this point in Section 5).

Serious modifications to rent control legislation have recently been enacted in Delhi: rents may be revised every three years, to assure a sufficient return to the owner and encourage adequate property maintenance; all rental units priced above Rs 3,500 per month are free from control; a grace period for newly-constructed units will be extended from the current five years to ten. However, critics argue that these reforms do not go far enough to restore the incentives needed for substantial continued investment in rental housing.

Land Titling and Transfer

Not only are land records inadequate but the procedures relating to sale and registration of property are cumbersome and the various taxes are so onerous that the inherent temptation is to evade payment and avoid registration of conveyance deed altogether. Various proposals are under consideration to rationalize the levies as an inducement to register property legally. It is estimated that about 70%-75% of the cost of land transactions is not recovered (World Bank (1986)). More and more transactions go unrecorded, partly for these reasons, and also to avoid the restrictions on resale of government-provided housing. (To by-pass the titling charges and capital gains taxes of 65%, sellers give power of attorney to buyers.)

Registration and titling constraints have also inhibited the operation of the mortgage market. Many mortgage lenders have required that prospective borrowers have legal evidence of clear title to their land. A large number of urban households do not have such evidence for the land they occupy even though there is little risk that others would contest their occupancy rights. The Housing Development Finance Corporation (HDFC) has adopted a flexible policy in this regard: it will loan funds for housing if the borrower can arrange for outside guarantors of the mortgage as protection even if clear title is not available.

Standards

Land use, housing and infrastructure standards are set at unrealistically high levels making urban development costly for both the public sector and the individual.

In section 4.2 above we noted that the Master Plans for 1991 propose urban land

allocation of 20.3 hectares per 1,000 inhabitants, twice the current figure. It seems reasonable to question whether land provision at this level would be desirable even if it were feasible. Low densities imply longer commutation, more expensive service networks and a host of other costs. They also imply accelerated encroachment of urbanization into the prime agricultural land that surrounds many Indian cities. While metropolitan cities like Calcutta and Bombay are extraordinarily congested, few would argue that is true of Indian cities in the 50,000-500,000 range, yet they had developed land ranging from 8.7 to 13.2 hectares per 1,000 in 1971. Indeed, some Indian planners have proposed more compact and efficient land standards for Indian cities. For example, one central government proposal for industrial townships recommended total developed land in the range of 7.4 to 9.0 hectares per 1,000 (Vedagiri (1963)).

However, official planning regulations require residential plot sizes far larger than much of the urban population can afford. A World Bank (1986) Urban Land Management study analyzed the impact on cost of a 1982 change in plot regulations in Uttar Pradesh, whereby two sets of regulations were established, one for private sector development and the other applicable only to public sector agencies for low income housing (minimum plot size, frontage, street and footpath widths, block lengths, open space ratios and community facilities requirements). Whereas the officially proposed 167 square meter plots could be afforded only by the top 5% of the income distribution, the World Bank analysis showed that 100 square meter plots would be affordable to 13% and 25 square meter plots to 78% of the population.

The National Commission on Urbanization (NCU-1988) has recognized these problems and proposes that "low-rise-high-density" development should be promoted as the predominant built-form for residential areas in urban India since only that emphasis will be affordable. Their studies show that building costs for high-rise construction are much above those for low-rise structures.

Cost of Construction Alternatives (rupees per square meter)

<i>Kutcha Construction</i>	
- Scrap material	100
- Mud and bamboo	200
- Sunbaked brick, tile roof	400
 <i>Pucca Construction</i>	
- Ground floor plus one storey	1,000
- 4-storeyed walk-ups	1,500
- 7-storeyed apartments	2,000
- Over 10 storey high-rise	3,000

Based on further studies of these costs in relation to site planning options, their analysis indicated that only 25 square meter plots are likely to be affordable for the lowest 70% of all urban households.

Standards requiring large allocations of land for public facilities such as schools, open space, parks, and public buildings also prove to be costly additions to urban development. The fact that government property is not taxable reduces the incentive for a more realistic appraisal of true future land needs, and removes unnecessary quantities of urban land from the municipal tax roles. The NCU (1988) recommends an average of only 30 square meters per household for circulation, parks, and public facilities in residential neighborhoods.

Cost savings could also be generated in the system by more extensive use of lower infrastructure standards and technologies. Design standards for conventional infrastructure should be revised to make specifications more realistic in terms of budget constraints. Excessively high standards are often the result of the professional bias of engineers, whose fascination with modernity and technology prevents them from considering lower and cheaper ways of attaining their goals. The problem is institutional, not technological;

While development regulations should ensure at least a minimal provision of services, and a protection of the environment, it is often the case that they are working against their original intention by making legal development and infrastructure too expensive, so that it must perforce take place outside the scope of regulations, lacking even the most minimal services. Sites and Services programs have amply demonstrated that lower design standards can lead to substantial cost savings.

The cost of shelter is also affected by high standards which effectively exclude much of the urban population from access to a "legal" dwelling. According to the NCU, fewer than 40% of urban households can afford all the components of a minimum standard conventional dwelling; ie, minimum plot, minimum *pucca* construction, and basic services.

Managerial and Financial Constraints

Inefficiencies in government program management and the lack of sufficient municipal revenue generation are also major constraints preventing the provision of adequate infrastructure and public services. These topics are dealt with in detail in Section 5.

4.4 LAND AND SHELTER DELIVERY SYSTEMS

The above review of the policy and regulatory framework for urban development, provides the base for an analysis of the functioning of land and shelter delivery systems. This section will examine the system's ability to meet expected shelter needs in the present environment given the aforementioned constraints.

Land development and shelter delivery systems can be divided into three main categories: (1) public sector (including sites and service schemes, cooperative housing, lower and middle income group (LIG and MIG) construction, and slum resettlement schemes); (2) private sector legal housing development; and (3) informal sector housing, (which includes quasi-legal subdivisions, unauthorized colonies, and squatter settlements).

Public Sector

Public sector urban housing construction amounted to 150,000 units provided by HUDCO-affiliated institutions for the year 1986-87. Clearly, when measured against our projection of needs, the public sector is a small provider. It is estimated that it has contributed only 4% of the total supply of urban housing in the period 1961-85 (Lee (1988)). Housing and sites and services schemes fall under the responsibility of state governments and are generally carried out by State Housing Boards, or Development Authorities.

The major criticisms of these organizations' operations focus on:

- delays in land acquisition, land servicing, and plot sales;
- inadequate cost recovery, implying that the states must make up the deficit and consequently subsidize projects which are meant to be self-financing;
- high design and construction standards leading to housing costs far above what is generally affordable by the target population.

The pricing of public sector housing often does not relate to the real price of land, land development charges and (in the case of finished housing) construction cost, but to the ceiling set by HUDCO for each particular target group. Loans to participants are also based on terms fixed by the apex financing agency, but cost recovery from the allottees is often unsatisfactory, leaving the agencies to divert funds from other sources towards repayment.

The combination of an emphasis on *pucca* construction and inadequate cost recovery implies extremely high per-unit subsidies. Given limited aggregate subsidy funds, this approach implies high benefits for a very small number of families while most households in need receive no assistance. World Bank and NIUA studies have both shown that it is possible to design minimum standard sites and services projects which would be affordable to a very large proportion of the urban population. Under this approach, limited subsidy funds could be spread much more equitably among the most needy.

The public sector has implemented some sites and services projects (self-help housing) but many developed to date have not been well-regarded because they were badly planned and too costly for the low-income target groups. A recent NIUA comparison of two sites and services projects demonstrated that if location (near place of work), type of plot options, and availability and cost of infrastructure do not correspond to the real needs of the target group, the project will fail--allocattees will default on payments, or will sell off their plots to higher income groups.

While the total public sector production is impressive by international standards, its impact on India's total housing stock has been small. Even when acting as a land development agency (as in the case of land transfers to cooperative societies) rather than as a housing builder, management problems, inadequate project costing, poor cost recovery, insistence on unaffordable standards have marred the efforts of the public sector in shelter provision.

Private Sector: Legal

Private legal housing development has been seriously hampered by the Urban Land Ceiling Act which has largely frozen the supply of vacant land within the larger cities. As a result, in cities where there is an effective demand for private housing, developers have been pushed out to peripheral areas beyond the boundaries of the Act. Prices vary widely depending on land costs from place to place but Wadhwa (1986) reports the cost of a middle-income privately built dwelling unit in Ahmedabad to be Rs 30,000-40,000, while a cooperative unit would cost Rs 25,000 or less.

Private developers play only a minimal role in the smaller cities and towns, where public sector and cooperative housing provides cheaper alternatives for the middle class. In larger cities, the price of freehold land precludes private sector development in the city for all but the upper income groups (freehold land prices were estimated recently in South Delhi at Rs 14,000 per square yard by *The Times of India*). However, private apartment and villa development at high prices is taking place on parcels which were excluded from the ULCRA. There has been considerable land development on a large scale at more affordable prices beyond the 5 kilometer radius from the municipal limits (the boundary of the ULCRA) where access to housing closer in was not available.

Private legal housing may be financed through formal borrowing or through informal sources. At the present time, a mere 20% of the total investment in new housing is financed by formal borrowing, and a large proportion of the balance comes from household and family savings.

Market rate financing has expanded significantly in recent years, however. The rapid growth of the HDFC (with loans doubling between 1984 and 1987) demonstrated the huge unmet demand for credit. By 1991, HDFC expects to disburse about Rs 4.0 billion, financing 77,000 units in that year. The Life Insurance Corporation has also increased its retail lending to individuals, and relaxation of procedures and requirements allowed it to increase the number of individual loans by 20% between 1987 and 1988 (Mehta (1988)).

However, these institutions cater mainly to the middle and upper-income segments of the population. It is currently the lower income groups who cannot qualify because of inherent problems in the system. Housing credit is still viewed as a high risk, so that large down payments are required (30% in the case of HDFC, and 40%-45% for cooperatives according to Lall (1984) and Gupta (1988)), formal titling may be a prerequisite, guarantors can be demanded, and lack of a steady source of income disqualifies many applicants.

Informal Sector

Because of the inability of the public or private (legal) sector to supply enough land and shelter, by far the largest proportion of new housing construction takes place within the informal sector, without official authorization, sometimes on private land in conformity with Town Planning regulations but more often in informal settlements, on government-owned property.

A. *Squatter Settlements*

For the poorest urban dwellers, squatter settlements on vacant urban land form the cheapest solution to their shelter needs. Wadhwa (1988) maintains that often the poorest income groups can afford to spend only 5%-10% of household income for shelter, as contrasted with a hypothetical 25% expenditure calculated for many public sector projects. Clearly there is a substantial population who either cannot, or who do not want to, allocate more of their meager incomes to shelter, which is not seen as a high priority item.

In the past, the authorities relocated slum and squatter settlements to newly created areas, but recent practice is to provide basic services within the existing settlements. More and more squatter settlements are being "regularized", in recognition that however makeshift and inadequate a solution this may be, it fills the gap left by the inability of the public sector to provide an alternative. However, this is a highly politicized issue, and squatter groups use political pressure to not only get their land claims regularized, but to get full tenure to the land (and basic infrastructure provision) without payment. However, the only way that the municipality can recoup the cost of infrastructure is through land charges. In addition user service charges are difficult to collect, leading to very low levels of maintenance.

B. *Unauthorized Colonies¹*

Because of the inability of public agencies to make sufficient urban land available for development, innumerable unauthorized colonies have been privately constructed on land which is either bought or leased. This may be land which has been notified for acquisition under the ULCRA (and intended for housing), or land in outlying areas zoned for agriculture, which the landowner, or a middleman, subdivides and either rents or sells for individual construction. It is left to each individual to provide basic water and sanitation. Trunk infrastructure, including electricity, is installed only after years of political pressure to regularize the colony.

Theoretically, regularization may occur only when certain town planning standards--concerning open space, access roads, and school sites--have been met, but agreement between the colony inhabitants and the planning authorities over plot modifications entails endless battles, and in many cases the public authorities give in under pressure and permit regularization of tenure, as a way of solving a problem which the authorities cannot solve themselves.

Water, sewer and electricity charges amount to about Rs 200 per square meter of land, or Rs 10,000 for an average plot of 50 square meters. It is not surprising that residents try to avoid paying these charges. Unfortunately, in some cities precedents have been established that give hopes that trunk services will be provided free of charge through political pressure. While a case can be made that some squatters do prefer to allocate their resources on other priorities, residents of unauthorized colonies are able to

¹ Much of the information on unauthorized colonies comes from conversations with Ms. Banashree Mitra, Human Settlements Management Institute, New Delhi.

pay for the necessary services, but often do not.

C. Quasi-Legal Subdivisions

There are some privately developed unauthorized colonies which were initially built to Town Planning standards, but for which the developers did not bother to go through the extensive and time-consuming red tape for planning approval. These colonies were subsequently regularized by the authorities. While this type of colonization has taken place in Delhi, it may not have occurred in other cities.

Financing of informal sector shelter depends out of necessity on the resources of the owners, for both tenure rights and title are incomplete at the time of land purchase and house construction. This means that the informal credit market (with interest rates of 15%-36%) and liquidation of personal assets are the only recourse for housing finance. Lall (1984) found that the impact of informal housing finance was greatest at the highest and lowest income levels, ranging from 85%-92% of finance for housing. And within the sources of informal housing finance, self-generated resources (i.e., cash and other savings) is the most important. This finding corroborates Mehta's contention that it is mainly the middle class who have access to formal finance. As population growth will lead to a greater expansion of housing production, there needs to be a corresponding expansion of market-rate private housing finance which can serve the needs of a far larger and poorer segment of the population as well.

USAID's support for HDFC's lending to below-median income borrowers has proved an excellent way to broaden the housing finance system, and at the same time to support a changing policy framework at the national level. Assistance to the National Housing Bank is the next logical step, providing as it does, support for the growth and development of local-level loan institutions to on-lend to this group.

Nonetheless, several major reforms must still be implemented to make housing finance available to a wider range of households. The key issues include:

- clarification of documentation requirements related to land ownership as a basis for financing;
- titling procedures and costs;
- mortgage insurance;
- eligibility requirements and collateral;
- foreclosure procedures.

4.5 THE IMPLICATIONS OF GROWTH UNDER CURRENT DELIVERY SYSTEMS

Section 2 showed that India's urban population will more than double between now and 2010 reaching about 460 million. Evaluation of economic forces indicates that rapid urban growth is likely even if economic performance is weak. Satisfactory growth will lead to a growth in activities locating in urban areas, yielding higher incomes per worker: sluggish growth will still imply urban migration but with constraints on income generation.

Given the inevitability of urban growth, we must ask whether the present institutions are equipped to address the challenge. In the preceding sections we have reviewed major forces influencing urban physical development generally, and the operation of the land and shelter market in particular. Our conclusion is that a series of interlocking constraints have prevented delivery systems from adequately dealing with the existing rates of population growth, for the following reasons:

Urban Land

- Unrealistic standards which raise the cost of development in relation to incomes and resources.
- Lack of adequate registration, titling and transfer mechanisms which add an additional constraint to the system.
- Government land provision in quantities too small to meet the demand, and heavily subsidized.
- Inflation of land prices.

Urban Infrastructure

- Inability of municipal agencies to provide sufficient infrastructure to meet expanding needs.
- Lack of coordination between agencies charged with capital improvements, and local bodies responsible for maintenance.
- Pricing policies which do not reflect real costs, coupled with inadequate collection procedures, planning and management so that government must subsidize basic urban infrastructure.
- Linkage of water and sewer rates to property tax assessments which are kept low because of Rent Control Act.

Urban Housing

- Unrealistic building standards.
- Lack of housing finance for a large proportion of urban residents.
- Controls on rental housing market which inhibit expansion of the supply and which have led to serious deterioration of existing property.
- Design of low income shelter programs which do not correspond to priorities of the target group and which perforce are coopted by higher income groups.

The implication of a continuation of these constraints is clear: a serious deterioration in living conditions under the strains of rapid growth. If the urban population doubles without their removal we can expect incredible squalor as congested and unserved squatter settlements proliferate and face unreasonable barriers to self-improvement. However, if the major policy constraints are removed and more logical pricing, cost recovery, and freeing up of private markets are permitted, then the existing resources and institutions should be able to provide for a decent level of urban physical development.

5

IMPLICATIONS FOR URBAN MANAGEMENT AND FINANCE

This section examines trends in the operations of India's governmental institutions responsible for urban development and its system for financing urban development, and assesses how well they are likely to be prepared to handle the accelerated growth that has been estimated.

5.1 URBAN MANAGEMENT

In urban management, we are concerned with trends in four areas: (1) the allocation of responsibilities for urban functions among different types of agencies and the adequacy of coordination between those agencies; (2) the level of manpower available; (3) the internal efficiency of the agencies involved; and (4) potentially expanding roles for non-governmental organizations.

Organization and Allocation of Responsibilities

In recent years there has been a growing consensus among management specialists that the primary public sector responsibility for urban development should be borne by local governments. Since they are closer to the people, they should be able to respond to real needs more sensitively and be better able to motivate support for the revenues required to address those needs. This consensus has been bolstered by considerable evidence of the inability of centralized national government bureaucracies to address urban needs effectively, particularly in large countries (for example, see Rondinelli *et al* (1984)).

From this perspective, India is fortunate in that its urban functions have

traditionally been much more decentralized than is the case in most developing countries. India's states are explicitly responsible for these functions under the national constitution, but they have traditionally delegated most of them to localities. Most important here are: (1) municipal corporations (typically established for cities above 300,000 population); and municipal councils (established with somewhat less autonomy for other cities above 20,000). India had 1,774 local governments in these two categories in 1986. A common allocation of official responsibilities has been as follows (Lee (1988)):

Local Government

- water supply, sanitation, public health;
- roads and street lighting, city transport;
- community facilities (eg, dispensaries, maternity homes, primary and pre-primary schools);
- public safety;
- regulation and control of development, other regulatory functions;
- public housing development.

State Government

- electric power.

National Government

- telephones and telecommunications;
- railways and ports.

It is widely agreed that, since the 1960s when India's urban growth began to accelerate noticeably, local governments have generally been unable to meet their responsibilities under this scheme (see discussion of infrastructure deficits in Section 4). The Seventh Five Year Plan (GOI (1985)) for example, states, "Many of the municipal bodies are moribund or have been superseded and are being administered badly". It has been argued that the lack of a strong executive has been a major contributor to the problem (municipalities are governed by elected legislatures and the Mayor has little more than a ceremonial function; see Lee (1988)).

There have been two responses which have altered the traditional allocation defined above: (1) state governments have sometimes stepped in to provide services directly; and, more frequently, (2) special agencies, established under state auspices, have taken over various functions from the municipalities. The most important examples of the latter are the Development Authorities that now operate in almost all large cities. A large part of the justification for the Development Authorities was that they could provide a coordinated approach to infrastructure development in large metropolitan areas composed of a number of independent municipalities.

The new special agencies, however, have been sharply criticized of late in that: (1) their existence has further diminished the motivation of the municipalities while they have not performed that much more efficiently themselves; (2) they have no popular representation and have not been responsive to local needs and conditions; (3) they have not involved the municipalities in capital programming so that problems arise when the municipalities have to assume responsibility for ongoing systems maintenance (often, in

fact, the maintenance responsibility is not assumed by anyone); and (4) they have generally made the allocation of functional responsibilities less clear (see Planning Commission (1983b) and National Commission on Urbanization (1988)).

The NCU (1988) has made a series of recommendations to straighten out these structural problems. In line with the principles stated at the opening of this section they would restore popularly elected local governments as the primary urban service providers. Most important: (1) for cities and towns of less than 500,000 there would simply be one local government responsible for all the local functions noted earlier, uniting the responsibility for capital provision and maintenance (the independent special agencies of today would be presumably phased out or folded into this structure); (2) for cities above 500,000 there would be a two tiered structure--one overall city government to handle major systems and assure coordination and a number of internal local councils to be directly responsive to the local service needs of sub-areas within the metropolis; and (3) steps would be taken to strengthen, clarify, and give more autonomy to the executive branch in all local governments.

Steps like these to address organizational problems will undoubtedly be necessary, but they are not likely to be sufficient to the building of adequate public sector capacity. The quality and quantity of personnel and the efficiency with which they approach their work, discussed below, may be even more important barriers to overcome.

The Quantity and Quality of Government Personnel

Characteristics of urban areas (particularly high density) imply that they require substantially more infrastructure and services than rural areas. They also require more government personnel per capita to build and operate those systems. This view is supported by the data shown below. India has far fewer government employees per 1,000 population than more urbanized/developed nations and even many developing countries. However, given its tradition of government decentralization, an unusually large share of those employees work at the state and local levels (India ratios calculated from data in Center for Monitoring the Indian Economy (1987); other data for the late 1970s and early 1980s from Kingsley (1987)).

	Government Employees (per 1,000 population)	
	<i>Total</i>	<i>Percent Share State & Local</i>
India, 1982	16	70
Sample, 31 developing countries	29	14
16 OECD countries	77	57
United States	75	83

Information on the following table supports a theme discussed above. Even though

Indian government administration is more decentralized than is the case in many nations, state cadres have increased somewhat at the expense of local over the past two decades. Overall the total for both categories per 1,000 population has changed very little over this period.

Government Employees (per 1,000 population)		
	<i>1969</i>	<i>1982</i>
Indian State Governments	7.4	8.4
Indian Local Governments	3.5	2.9
Total State and Local	10.9	11.3

Table 5.1 shows that there are considerable differences between the states in the extent of government employment and its distribution between the state and local levels. Again in this table, states are listed in order by their 1981 level of urbanization. As we would expect, the more urbanized states generally have more government employment in total per 1,000 population. In some states, (eg, Maharashtra, Gujarat, Andhra Pradesh) the amount of local government employment is close to, or exceeds that, at the state level. In most, however, local government staff represents a much smaller fraction. Some states experienced notable increases in the number of state employees per 1,000 population between 1969 and 1982 (eg, Haryana, Punjab), but the ratios for local government declined somewhat almost everywhere.

We have no hard data on the quality of government employment serving urban areas, but the view is widespread that skill levels are very low in relation to needs. Two reasons stand out. First, there are few incentives to attract and retain qualified professionals in municipal service, mostly because pay scales are low, seniority rather than merit dominates paths to advancement, and local government employment is not regarded as prestigious (Planning Commission Task Force (1983)). Second, very little training is provided to upgrade the skills of those already employed. For example, a survey of 446 implementing agencies in the human settlements field indicated that less than one percent of all professional staff received training in 1986 (Center for Development and Environmental Planning (1988)).

While these deficiencies have been more widely recognized over the past few years, the interviews and materials examined during this mission do not suggest that any serious trends toward change are as yet underway.

Management Efficiency

Similarly, there is evidence that severe problems exist and that they are being recognized more clearly, but as yet no strong trends toward reform have emerged. The problems here include: highly centralized procedures and the lack of delegation of

Table 5.1

Government Employees - 1969-82
(employees per 1,000 population)

State	Total		State		Local	
	1969	1982	1969	1982	1969	1982
Maharashtra	15.4	14.4	7.5	6.5	7.9	7.9
Tamil Nadu	12.7	12.0	8.1	10.0	4.6	2.0
Gujarat	11.9	12.0	5.1	5.4	6.8	6.7
Karnataka	10.6	10.4	8.6	9.3	2.0	1.1
Punjab	14.9	16.7	13.4	15.1	1.5	1.7
West Bengal	8.6	7.5	6.1	5.5	2.5	2.0
Andhra Pradesh	10.0	10.0	5.4	5.9	4.6	4.2
Haryana	11.4	16.8	10.3	15.6	1.2	1.1
Rajasthan	11.4	12.2	8.8	10.0	2.6	2.2
Madhya Pradesh	11.2	11.8	10.1	10.9	1.1	0.9
Kerala	8.9	10.3	8.2	9.4	0.7	0.9
Uttar Pradesh	9.6	9.1	5.9	6.3	3.7	2.8
Bihar	7.4	7.0	4.7	5.0	2.7	2.0
Orissa	9.9	11.9	9.5	11.3	0.4	0.6
Assam	8.9	10.7	8.2	10.1	0.7	0.6
Rest of India	18.1	25.7	12.7	20.7	5.4	5.0
INDIA	10.9	11.3	7.4	8.4	3.5	2.9

Source: Center for Monitoring Indian Economy (1988).

authority and responsibility within agencies; poor internal coordination; the lack of serious medium-term strategic planning; and the failure to make use of information systems and other management technologies (Planning Commission (1983a) and Lee (1988)).

Roles of Non-Governmental Organizations

In a number of countries, constraints on the capacity of local governments have led to expanding roles for non-governmental organizations (NGOs) and private firms in the provision of services and meeting other urban development needs. Sometimes this has entailed only a minor supplement to government activities (eg, involving a community group in a water system leak detection program) but in others it has involved contracting

out responsibility for a major function (eg, trash collection) to private firms (see Roth (1987)). Some of the more innovative approaches in this area are better described as public-private partnerships. For example, NGOs in a number of third world cities are playing a leading role in spearheading local economic development under plans closely coordinated with government (these include a Jamaican NGO whose Board is composed of leaders in the local business community and a local Chamber of Commerce in Bolivia --see Peterson *et al* (1988)).

There are many instances of this sort of initiative in India. For example: (1) because severe water shortages were frustrating business opportunities as well as domestic use, Bangalore's Chamber of Commerce supported a study of alternative methods of supplying water; (2) in Madras, private tankers are used to transport water from coastal areas supply bulk consumers (Lee (1988)). USAID (1988c) provides many other examples. This sort of initiative seems to be widespread in India, but not intensive. While it is clear that interest in and acceptability of this approach is growing, it is not clear that activity levels are increasing significantly as yet.

Urban Management Capacity: Conclusions and Implications

Evidence in Section 4 showed that India's public institutions have not been able to provide adequately for the urban growth that has occurred over the past two decades. This section has discussed the causes, showing that serious weaknesses exist in organizational arrangements, personnel, and managerial efficiency. It seems self evident that the system as it stands will not be able to accommodate the much greater urban growth burdens anticipated in the coming years and we have suggested that while current weaknesses are being discussed more openly, reform trends that would address them on a sufficient scale have not yet emerged.

Along with policy and regulatory reform, these problem should be regarded as the very highest priorities in confronting India's urban challenge. Unless municipal governments become much more effective, they will not be able to raise the revenue needed to support urban growth (see Section 5.2 below) and the funds that are at their disposal will not be used efficiently. The number of urban families without water, sanitation, and other basic services could rise dramatically.

The task of modifying the behavior of existing institutions is among the most difficult in the development process, but that does not mean it is intractable. Focusing on staff levels alone would be a dangerous course of action, however. Given the numbers involved, we judge it would be impossible to expand the local government workforce up to the ratios cited for developed countries over the next few decades. It will be essential instead to significantly enhance productive output per employee. Experience in other countries suggests that the most promising approaches give primary emphasis to applying new systems techniques to substantially improve management efficiency, and secondarily, to promoting more use of non-governmental organizations in partnership with the public sector. Clearly, there is significant scope for improvement in India along the lines described.

5.2 URBAN FINANCE

We have suggested that a combination of policy/regulatory reform, improvements in the efficiency of public management, and adoption of lower cost technologies in and of themselves could do much to improve the process of urban development in India. In light of the much larger urban populations to be accommodated in the future, however, financial resources will also have to be significantly expanded even under the most optimistic assumptions about efficiency improvements. In the paragraphs below, we review recent trends in urban finance in India and consider their implications.

Trends in Urban Finance

Data from a recent survey by the National Institute of Urban Affairs (NIUA (1987b)) are summarized on Tables 5.2 and 5.3. The most important finding from Table 5.2 is that per capita municipal expenditures have increased substantially of late, while per capita revenues have not. Smaller cities, which are more constrained in their taxing powers, have been hardest hit by this change. (It is not surprising that both revenue and expenditure levels are higher in the larger cities--throughout the world, larger cities typically cost more to operate but the consensus among economists is that the higher costs are usually more than offset by higher benefits to the economy).

In the aggregate, the sampled cities were still in a surplus position in 1983/84 but this in no way indicates that urban growth needs are being adequately funded. In most states, municipalities are statutorily barred from running deficits. Furthermore, municipalities generally do not provide for depreciation via sinking funds. Obsolete

Table 5.2

Per Capita Municipal Revenues and Expenditures - 1980-1984
(210 local bodies, Rs per person at constant prices)

Size Class	Revenues		Expenditures		1983-84 Surplus/ Deficit
	1979-80	1983-84	1979-80	1983-84	
1 million or more	166.5	162.8	107.0	156.6	6.2
100,000-1 million	83.0	83.2	66.9	82.8	0.4
50,000-100,000	65.2	64.4	51.3	66.6	-2.2
20,000-50,000	48.6	47.1	41.8	47.7	-0.6
Less than 20,000	46.0	44.6	42.0	46.4	-1.8
TOTAL	128.0	125.0	87.4	121.6	3.4

Source: National Institute of Urban Affairs (1987b).

Table 5.3

Municipal Revenues by Source - 1983-84
(210 local bodies, percent)

City Size	Total	Taxes	Non-Tax	Grants	Misc
1 million or more	100	75	11	13	1
100,000-1 million	100	70	7	19	3
50,000-100,000	100	53	8	26	13
20,000-50,000	100	50	13	31	7
Less than 20,000	100	49	13	30	9
TOTAL	100	72	10	15	2

Source: National Institute of Urban Affairs (1987b).

equipment is either not replaced or the replacement cost is charged to the capital account. Also, although some funds are available for such purposes from the Life and General Insurance Corporations, municipalities do not have direct access to capital markets to borrow for public works projects. States do have such access, but their use of it has been seriously limited by Reserve Bank guidelines, and at any rate, the devolution of State resources to local governments has been minimal in relation to local needs. These circumstances, coupled with the reticence of politicians in India to raise local taxes, help to explain our conclusion in Section 4 that much of the growing demand for urban services is simply not being met. (For more complete discussion of these issues, see Planning Commission (1983a), NIUA (1987b), and Lee (1988)).

The distribution of local revenues by source for 1983-84 is shown on Table 5.3.

Taxes accounted for by far the largest share (72%) of local revenue (up from 69% in 1979-80). They make up a much smaller share of the total in smaller cities (accounting for less than half of all revenue in cities under 50,000). The NIUA study found that 49% of the 1983-84 tax revenue came from *octroi* levies, 39% from property taxes, and the remaining 12% from a variety of other local taxes. The *octroi* (a tax on goods imported into a locality) is easy to administer since liability falls on a relatively small number of people and it has been growing as a percent of all revenues. This has occurred despite considerable opinion that it is a seriously faulted instrument and should be abolished. The Planning Commission (1983a) for example, notes that "it is collected at an inconvenient point; it cannot be easily enforced; it holds up traffic and leads to corruption; it falls on inputs and for this reason accentuates cascading besides acting as a barrier to trade". States are making partial compensatory payments to municipalities that

abolish the *octroi* but, thus far, movement toward abolition has not been substantial.

Property taxes have also been growing as a percentage of all tax revenues but this source remains seriously constrained in relation to its potential for several reasons: (1) property is undervalued on the tax rolls (values are based on annual rental amounts which are in turn constrained by rent control laws); (2) reassessments are conducted infrequently and are not always performed objectively; (3) local politicians have generally been unwilling to promote increases in tax rates; and (4) collection systems are inefficient (it is estimated that only 50% of the taxes due are actually collected--see Lee (1988)). Some promising efforts to improve the property tax are being made; for example, Delhi's program to increase rates and collections (which doubled revenue yields in its first year - see Datta (1987)) and the recent liberalization of its rent control laws. However, such efforts have not been widespread enough as yet to have a major impact overall.

Non-tax revenues include user charges (fees for services), incomes from municipal investments, and rents from public properties. They have increased from 7.2% of total revenue in 1979-80 to 10.2% in 1983-84. Despite this growth, a number of finance specialists point out that local governments are still tapping only a small fraction of the potential yield from this source (NIUA (1987b); Planning Commission (1983a)). Public services (such as water) are priced well below their costs. India's local governments have little experience with means of capturing a part of the "unearned increment" in increasing property values as land is brought into urban use.

Grants from higher level governments accounted for 15.3% of all local revenue in 1983-84 (down slightly from 16.1% in 1979-80). Reliance on grants varies significantly by city size. Grants make up only 13.3% of the revenues of cities over 1 million, but around 30% in cities under 50,000. Income from other *miscellaneous sources* declined over the period, dropping from 7.8% of total revenue in 1979-80 to 2.1% in 1983-84.

The Resource Gap. The data above indicate that there are tight constraints on local revenues and that those constraints prevent local governments from spending nearly enough to provide adequate services. How big is the resource gap? The Planning Commission Task Force (1983b) estimated that the provision of adequate basic services to urban areas would require the expenditure of about 8% of total public sector resources - approximately twice the percentage actually being spent at the beginning of this decade. Thus a doubling of local resources was required at that time. The Task Force states, "This is clearly not a difficult magnitude...since this would simply restore the share of municipal resources to around 8%...". Experience in other countries also suggests that the 8% figure would be reasonable.

Implications of Financial Constraints

The NIUA study showed that over the early 1980s, per capita local revenues remained fairly constant (actually declined slightly). It is likely, therefore, that the resource gap is expanding and the trends we have discussed suggest that it will grow dramatically unless bold steps are taken to markedly increase municipal revenues. The phasing out of the *octroi* is necessary but will much exacerbate the problem in the short term. Intergovernmental grants not only could not, but should not, make up the

difference. Thus there is a need for substantial increases in other sources of funds: principally the property tax and non-tax sources such as user charges. In addition, improvements would be much facilitated if municipalities could rely more on loan financing for capital improvements (this will require the establishment of new financial intermediaries at the state and/or central levels). The Planning Commission Task Force and the more recent NCU (1988) report have recognized these priorities and some promising steps have been taken in these directions in a few cities. Still, the circumstances we have cited call for much more forceful movement than the trend data indicate has occurred so far.

What are the implications if urban revenues are not increased in these ways? According to our estimates, India's urban areas will have to accommodate 10.4 million new inhabitants per year over the 1981-2010 period, about twice the level they had to accommodate during the 1970s. Clearly, if municipal revenues remain at about 4% of all public sector resources, enormous increases in urban infrastructure deficits are inevitable regardless of whatever progress is made in regulatory reform and improving the efficiency of municipal management.

6

THE NEW POLICY ENVIRONMENT

Evidence presented in Section 2 suggests that rapid growth of per capita income in India will require structural change--a much larger share of economic activity in sectors that can only operate efficiently in cities and towns. Thus healthy economic growth implies rapid urbanization. Yet we also saw that sluggish economic performance is also likely to imply massive urbanization as constraints on rural labor absorption leave no other alternative. While rural development remains critically important, what happens to India's GDP over the next two decades will be largely determined by what happens in the cities and towns.

Sections 3 through 5 have shown that the nation at present is ill prepared to address the challenges implied by urban growth. The retention of traditional policies would lead to a serious deterioration of urban living and working conditions even under a fairly optimistic economic scenario and those conditions would themselves retard the potential of the economy in important ways. Under a pessimistic scenario for the economy, such policies would lead to conditions almost unimaginably deplorable. Yet, we have also seen that there are alternatives--more realistic approaches that should promote much enhanced service levels and physical quality in the cities even with expected resource limitations.

There is national recognition of the need for change. Two important documents representing this recognition were put before Government in 1988: the Ministry of Urban Development's proposed new *National Housing Policy*, and the *Report of the National Commission on Urbanization* (NCU). These proposals remain consistent with the basic tenets of India's public philosophy but imply dramatic changes in ways of doing things within that framework, for the most part addressing the constraints we have identified in the preceding three sections. Clearly, these ideas do not yet represent official policy and

there is sure to be bureaucratic and political opposition from some quarters. Still, there are indications that they are gaining momentum. They were generally endorsed by the Conference of Housing Ministers of States and Union Territories (as reported in the national press, December 15, 1988). Evidence of the failures of present approaches is mounting and is regularly disseminated in the media. Due to that evidence, the new approaches are at least commanding attention at all levels of government and experience with similar approaches in other countries is producing more and more success stories to support the trend.

Since what AID might do to support more effective urbanization in India must relate to the emerging policy environment within the country, we begin this section by reviewing the major policy themes endorsed in these new proposals. We then consider implementation priorities consistent with these themes.

6.1 EMERGING POLICY THEMES

Both the National Housing Policy statement and the NCU report are substantial pieces of work (the latter, for example offers 78 major policy recommendations and a host of minor ones). However, to some extent reading between the lines, we believe the major thrusts of these two documents can be summarized under seven basic policy themes and two basic implementation priorities. The policy themes are as follows:

1. Government as Enabler/Facilitator. A recognition that runs through both documents is that many of the urban failures of the past have occurred when government has tried to assume too ambitious a role as the "provider" of urban development. The new proposals call for a shift recognizing a more dominant role in city building for the people themselves (acting as individuals and as a part of households, the "informal sector", cooperatives, small businesses and larger firms). Government would continue to be the major provider of things the people cannot so efficiently provide for themselves (such as infrastructure and, at least in the short term, land--although even in these areas more aggressive cost recovery is emphasized). However, government would give more emphasis to enabling and facilitating the positive activity of the people in urban development. The clearest statement of this theme appears in the National Housing Policy statement (para 13.1):

Housing Agencies and area development authorities in the public sector will, therefore, be reoriented to act more as promoters and facilitators of housing activity rather than as builders of housing units.

A similar recognition is implied by the NCU for urban economic development. "Enabling" entails the elimination of barriers including those created by inefficient government regulations. Whereas in the past "regulatory reform" has been thought of as something that helps "big business", there is increasing recognition that unreasonable regulations are among the most formidable barriers preventing the poor from moving up to higher income levels. "Facilitating" may entail a variety of activities, but it is sure to include technical and advisory services and training for appropriate groups.

2. *Priority for Urban Economic Development.* In the past, most "urban sector" programs have been primarily concerned with housing and the residential environment. The NCU proposals recognize that the residential environment can never be improved adequately unless more income is generated to pay for those improvements and other benefits of development. A number of surveys have shown that the poor themselves consistently identify better jobs as a much higher priority than better housing. Therefore, the generation of more higher-productivity employment opportunities should become the highest priority of urban policy, again with government focusing on its role as enabler and facilitator.

3. *Enhancing the Efficiency of Urban Physical Development and its Contribution to Urban Economic Development.* Housing and related infrastructure improvements have been traditionally seen as a part of government's "social program". The NCU report in particular considers that this orientation diminishes the potential contribution of urban physical development. Urban land and construction markets are now tightly and artificially constrained. If the constraints were removed, a substantial increase in the pace of urban physical development would occur, generating substantially more jobs and income. Low cost housing is particularly labor intensive and its expansion would generate new demand for building materials production and other economic activities. The creation of a healthy housing finance system can do much to promote household savings and contribute to the stability of national financial markets.

Land and construction market constraints also significantly inhibit business expansion. Inadequate land records, cumbersome administrative processing, and onerous regulations all slow down the process of developing shops and factories and substantially increase their costs. The inflated land and building prices caused by present market constraints also make an important difference in the costs of such development. Inadequate provision of infrastructure by the public sector means that a would be entrepreneur may have to provide alternative services himself at a much greater cost than would be required with effective public systems. Together these barriers may be enough to prevent, or at least lead to the postponement, of new investment. When new urban businesses are established, these added costs have to be passed on to the consumer, thereby diminishing the competitiveness of the firms and the economy as a whole.

4. *Realistic Standards and Self Financing Development.* Both of the new policy statements emphasize *affordability* in future urban development. They recognize that neither government nor private budgets can support development at the high standards now officially required. This means endorsement of more realistic standards and technologies to permit a range of site development options affordable to all but the lowest income groups without subsidy. It accepts the principle of "incremental quality improvement" (while lower income households may be able to afford only rudimentary shelter initially they are likely to substantially improve the quality of their housing over time, given the right incentives). This also means much more aggressive and efficient efforts to recover costs (through user charges and more effective tax systems). Urban development will have to be, and should be able to be, self financing.

5. *More Efficient Targeting of Support to the Poor.* The new proposals do not renounce the use of shelter subsidies but they do call for targeting such resources to the

poor more efficiently. The beneficiaries of past government housing programs have often been middle income groups. Government schemes have provided small plots and units intended for the poor in cities where market constraints prevent the provision of many larger plots or units for the middle class. With higher purchasing power, middle income households inevitably gain access to subsidized schemes in these circumstances. Further, generally subsidized infrastructure and urban service systems also benefit the middle and upper income groups at the expense of the poor. Even with appropriate cost recovery for services the alleviation of the market-wide development constraints noted above should allow the middle income groups to meet their own housing needs without subsidy. If their needs were met, that would remove the largest barrier now preventing the poor from obtaining the benefits intended for them. The process should also permit the generation of higher levels of funding for subsidies through cross-subsidy mechanisms.

6. *Linking Urban and Rural Development.* In the past, urban and rural development planners have been isolated from each other and often viewed as in conflict. Implicit in the NCU's emphasis on jobs and income is the recognition that urban and rural development efforts have to be synchronized to have maximum economic effect. For example, the lack of appropriate infrastructure and facilities in market towns can retard the process of moving effectively from subsistence to commercial agriculture. Plans for water resource or power development that consider urban needs separate from rural are unlikely to prove defensible politically.

7. *Demand Oriented Spatial Priorities.* Past Indian spatial policies have often given priority to "spatial equity"; eg, providing infrastructure and some industries to backward regions in the hopes of stimulating development. These "supply-oriented" strategies have seldom worked. New infrastructure alone, for example, is unlikely to be enough to stimulate economic change in locations that have not yet developed other conditions that give them potential for growth. There are too many examples of such infrastructure remaining unutilized (or at least underutilized).

The NCU report suggests a list of priority cities for further investment based on evidence of economic potential. Without necessarily endorsing that particular list or selection method, this more "demand-oriented" approach is likely to have a much higher payoff in terms of job and income generation and avoid the wastage of scarce capital resources in building capacity that long remains idle. There is mounting evidence that the best way to increase prosperity in backward regions is to improve agricultural output first, and only then to support facilities in towns as growing demand for them may justify (see Mohan (1984)).

6.2 IMPLEMENTATION PRIORITIES

In the past "government as provider" approach, the priorities were to secure budget allocations and develop projects. The Housing Policy and the NCU statement implicitly give higher priority to two other requirements: first, the reform of policies and regulations that now inhibit development initiatives by the people; and second, more efficient resource management and the building of institutional capacity.

Policy and Regulatory Reform. The NCU report calls for a number of reforms that affect urban physical development: for example, major changes to the Urban Land Ceiling and Regulation Act, rent control laws, unrealistically stringent zoning and building standards, and aspects of sick-industries laws that freeze valuable urban land in unproductive use. With respect to urban economic development, it calls for "... policies that induce a higher degree of labor participation in the formal sector and remove unwarranted restrictions on the growth of this sector" along with the removal of regulatory barriers to informal sector enterprise and shelter development. It recognizes that if these sorts of reforms are not implemented, there will be no way to secure productive urban development regardless of the effectiveness of government project activity.

Resource Management and Institutional Development. As discussed in Section 5, India's urban institutions do not have the capacity to provide adequate services at present, let alone address the requirements of accelerated urban growth in the future. Proposals relate to three types of institutions.

A. *Public Sector Management.* NCU proposals: emphasize local governments as the prime public sector actors in the urban development process; call for clearer allocations of responsibility and authority to them; and recognize the need for new organizational relationships between local governments and development authorities and State governments that would avoid overlaps and facilitate coordinated programming. Improved personnel incentives will be needed to permit the recruitment and retention of qualified staff as will skills training programs. Resource constraints, however, preclude simply expanding local government under current practices in proportion to urban growth. In many areas the very nature of the way work is conducted will have to be redesigned to permit much higher levels of productivity. The NCU recognizes reforms of internal management as vital. This is likely to entail implementing more systematic and efficient approaches in many areas: for example, budgeting and financial management; project management and control; billing and collections; infrastructure systems maintenance; and personnel management.

B. *Financial Systems.* Constraints on government budgets and the rigidities of the present system of intergovernmental transfers prevent an adequate response of traditional arrangements to the challenge of urbanization. A new and more decentralized system of public and private financial intermediaries will be required. The establishment of the NHB represents an important step: an apex institution that will stimulate the creation of a network of mortgage financing. The NCU also calls for the creation of Urban Infrastructure Development banks to permit local governments to borrow for infrastructure.

C. *Non-Governmental Organizations.* Given the size of the job and the difficulty governmental agencies have in dealing directly in some aspects of the development of urban areas (eg, stimulating informal sector enterprise and provision of shelter) there is a recognition of the need for new and expanded NGOs to assist in facilitating the urbanization process.

6.3 CONCLUSIONS

The themes and implementation priorities implied by the 1988 GOI policy reviews represent a bold change in the conventional wisdom about the most effective strategy for government in urban development. Given our analysis of the nature of present constraints in Sections 3 through 5, this new view seems both realistic and directed toward India's more urgent urban needs. With the publication of these reviews and the momentum that seems to be growing around them, we believe that the policy environment has changed quite dramatically. The debates are far from over, but it appears that those debates will occupy a much more central place than they have in the past and that there is a good chance the outcome will be movement in sensible directions. What has motivated this change? Many who have recently devoted some thought to the issue no doubt now share the view of the NCU: that urbanization represents a positive opportunity to further national development. Others may well have learned enough only to be fearful--understanding at last that nothing can really be done to stop massive urban growth and considering what it might imply for poverty and civil disruption if nothing is done to address it.

Whatever the reasons, we judge that this new environment makes this an opportune time for AID to develop a new strategy for its involvement in India's urban sector. The themes of the GOI 1988 policy reviews offer a sound substantive basis for designing this strategy.

Annex A

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