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Urban Development in India in the 21st Century:

Policies for Accelerating Urban Growth

by

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Urban Development in India in the Twenty First Century: Policies for Accelerating Urban Growth*

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I: INTRODUCTION

Widespread urbanization is a twentieth century phenomenon. Although cities such as Memphis, Babylon, Persepolis, Athens, Sparta, Thebes, Mohen-ja-daro, Anuradhapura and others did exist in antiquity, there is little evidence of widespread urbanization in the early years of civilization. Rome was probably the first settlement to reach one million people in 5 BC; only in 1800 did London become the second.

The total urban population of the world was not more than 250 million in 1900, less than 15 per cent of the total. The Indian urban population today is itself greater than this number. A hundred years later, in 2000, the world's urban population had increased to almost 2.9 billion, about 47 per cent of the total. The 21st century is therefore an urban century and this sets it apart from all the centuries that have gone before it. For the first time in human history, more people will live in cities than in the countryside.

Presently the highest rates of economic growth are being witnessed in Asia, especially in China and India, which today also have the largest rural populations, but are urbanizing. Even in other Asian countries a large number of cities are witnessing high rates of economic growth and the growth in their urban population is also going to be higher. Of the 10 most populous countries, 6 are in Asia (Table 1).

[Table 1 to come here]

* This is based on our presentation at the Fifth Annual Conference on Indian Economic Policy Reform at the Stanford Centre for International Development on June 4-5, 2004. We are grateful to A. Prasad and Partha Ray of the Reserve Bank of India for their assistance.

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II: URBANIZATION IN INDIA: PAST TRENDS AND PROSPECTS FOR THE FUTURE

Urbanization in India in the Second Half of the 20th Century

It is clear that in the last century, which saw rapid urbanization across the globe, India did not face an “urban explosion” as did many other regions of the world, especially in the Americas. India’s level of urbanization increased from 17.6 per cent in 1951 to only 23.7 per cent in 1981 and 27.8 per cent in 2001. Consistent with its low per capita income India ranks among the last thirty in the list of countries listed according to their urbanization levels.

Despite its low level of urbanization, in terms of magnitude, India’s urban population has grown to more than 285 million in 2001, close to 28 per cent of the total population of the country (Table 2). In the last decade the overall increase in population has been particularly large, about 70 million people. The increase itself is larger than the urban population of all countries except Brazil, China, Indonesia, Russia, and the United States. Therefore even though India’s level of urbanization continues to be low and its urban population growth rate is not among the fastest in the world, it is important to study the phenomenon of urbanization in India as its magnitude is so large in absolute numbers.

[Table 2 to come here]

Urbanization in India has been slow but steady. India has had a relatively slow but stable rate of growth in its urban population since 1921, during which the level of urbanization has increased slowly from 11.2 percent to about 27.8 percent in 2001 (Table 2). Although the total urban population increased more than 11 fold between 1901 and 2001, from about 26 million to 285 million, the number of settlements increased by just 140 percent to 4378 from 1830. The increase in the number of towns has also been steady across the decades (Table 3). Thus most of the growth has been due to the enlargement of existing towns at every level and not significantly due to the addition of new towns. The majority of settlements now classified as towns have exhibited urban characteristics for a long time. The spatial distribution and number of settlements therefore reflect a long and stable history. At the margin however there is considerable movement of settlements between urban and rural categories between censuses (Table 3).

This stable, rather static, situation has resulted in a stable city primacy hierarchy, but is also accompanied with vast areas of the country still continuing to be devoid of urban settlements of any size leading to extremely low levels of urbanization of 10-15 percent in these regions.

[Table 3 to come here]

Site Distribution of Urban Population

It is generally believed that: large cities have grown faster than and at the expense of small and medium towns; that this phenomenon is undesirable and measures should be taken to retard large city growth; and that this can be done by placing greater investments in small and medium towns. However, it is not true that large cities have grown faster, on average, than small and medium towns (Table 4a and 4b). Also the growth and distribution of small and medium towns is such that higher growth in small and medium towns is unlikely to affect the growth in larger cities. The growth of any city or town has very little to do with its own size and is mainly explained though its own economic characteristics and that of its surrounding region. Slow-growing towns have been found to be concentrated in particular regions of the country which has varied from decade to decade. (Mohan and Pant, 1982)

[Table 4a and 4b to come here]

The total urban population living in cities and towns in any particular class has increased consistently due to the stable and balanced pattern of urbanization throughout the last century. This balanced urban growth pattern has led to increasingly larger proportions of population living in Class I towns. Over two-thirds of the total urban population now lives in the 393 cities that have populations over 100,000 (Class I towns). This has also led to the need to re-categorize the Class I towns into a few other categories so that they can be better tracked in the future. But the continuing increase in the number of large cities, million-plus cities, half-million-plus cities, and 100,000-plus cities does have implications for strategies for city management. On the one hand, the management

of large cities does need higher skills than those required for the management of small towns, along with greater technical expertise and understanding of city growth. On the other hand, the emergence of large urban agglomeration can be expected to give rise to agglomeration economies that contribute to the attainment of higher economic efficiency levels and productivity growth. Furthermore, it is also more economical, per capita, to provide essential services to people in large urban agglomeration than in dispersed settlements.

If we look at the growth of the largest cities to track their growth rates and compare it with the urbanization rates for the country as a whole, it is interesting to find that they are not very different. The boundaries of large cities are characteristically extended as they grow. Often therefore the area for a particular census year is quite different from the next. This becomes more problematic as in the cases of surrounding areas to large cities when the boundaries are changed they often include a number of peri-urban towns thereby distorting the analysis of growth in population in that agglomeration. Earlier studies (Mohan and Pant, 1982) that have corrected for hinterland expansions leading to population growth have reaffirmed that the largest cities too have been growing at a pace not significantly different from the rates reflected in Class I cities as a whole. This reiterates the strong nature of balanced urbanization that has occurred across the country in the last decade, notwithstanding the various major policy direction upheavals of the post independence or that of the 1990's.

Past Projections of Urbanization Levels in comparison to actual increase

Various projections have been made on expected urbanization in the country (e.g., Planning Commission, 1983; Rakesh Mohan 1985; Census of India, 1989; Government of India, 1996, V.K. Tewari, 1997). Different projections have used a variety of methodologies, demographic, economic or a combination. "Judgmental techniques" have also been used. Nevertheless, they provide an excellent benchmark to analyze urbanization trends that have actually now been observed.

Total population projections made in 1983: According to the projections based on a studied estimate of the expected growth rates it was projected that total population of India would be in the range of 850 to 860 million in 1991 and 990 to 1020 million in 2001 (Table 5a).

[Table 5a to come here]

Urban and rural population projections made in 1983: The level of urbanization was projected to be between 27 and 28 per cent in 1991 and between 31 to 32 per cent in 2001 (Table 5b). This implied an absolute increase in urban population of about 70 million between 1981 and 1991 and a further 80 to 85 million increase to about 315 to 320 million by the year 2001. This projection also implied that the actual increase in population during the period 1991 to 2001 which was expected to be of comparable magnitudes in both urban and rural areas, but the results have been quite different.

[Table 5b to come here]

Actuals have differed from the 1981 projections. Actual total population as shown in Table 3 was 1027 million - very close to but slightly higher than most projections of around 1000 million to 1018 million. However the major difference was recorded in the variation in the projected urban population and the resultant percentage of total population (Table 6). The urban population recorded at 285 million was lower than all projections. In fact the level of urbanization at 27.8 percent recorded by the census in 2001 was closer to projections expected in 1991 than in 2001. Even till the middle of the 1990s most observers believed that urban population would be more than 30 percent of the total population at the turn of the century. The slow down is particularly surprising since the total population levels in both 1991 and 2001 are quite comparable to what had been expected. The deceleration of urban growth is apparent at all levels of the urban structure, and across almost all major states (Table 7) (also see Kundu, 2003 on this issue).

[Table 6 and 7 to come here]

On the other hand with regard to the actual number of million plus cities and their population percentage in overall urban population, the authors' earlier projections are very close to the mark with no significant deviation. There were 23 million plus cities as compared with projections showing 20 to 22 cities with a population of approximately 68 million (projected at between 65 to 70 million).

The deceleration in urban growth may be seen as a very welcome development by many. However, we view it as a rather disturbing signal suggesting that the urbanization process in India is, perhaps, handicapped by some inadequacy in economic policy. The economy seems to have generated too few jobs in the urban economy; and inadequate urban infrastructure investment could also have exacerbated the situation. The lack of jobs compounded by a perceived worsening quality of life may have discouraged would be rural migrants searching for better livelihood in urban areas (Table 8). The deceleration of urban growth could well result in greater rural immiserisation rather than greater rural prosperity.

[Table 8 to come here]

The growth of industry and services has been in the broad range of 6 to 8 per cent per annum over the last 20 years, in the 1980s and 1990s, while that of agriculture has been in the range of 2.5 to 3 per cent per year during the same period. Prima facie, unless there had been large scale penetration of rural areas by industry and service activities, it would seem that the benefits of higher industrial and overall economic growth have not been as widespread as they should have been, and are not being shared with would be urban immigrants. Yet, it is also true that, according to official estimates, the rural/urban per capita income ratio did not deteriorate in the 1980s (Table 9); the comparable ratio for 2001 is not yet available), Thus this surprising development of slowing urbanization needs much greater study and understating.

[Table 9 to come here]

Some Reasons Why the Urbanization Level Projections did not Materialize

The deceleration of urban growth at this stage of development in a growing economy is a cause for disquiet. Some of the crucial differences in the growth of urban populations could be due to the following:

Inadequate Increase in Rural Productivity: Deceleration in rural productivity growth could, ironically, contribute to slow urban growth. It is possible that slow growth in agricultural productivity, except in certain regions, is not releasing agricultural labor in rural areas. It is clear that public investment in agriculture has been falling as a proportion of GDP throughout the 1990s. Along with the plateauing of productivity growth in the main cereal products, there has also probably not been adequate diversification away from cereals to other higher productivity agricultural activities which would result in higher agricultural overall growth.

Inappropriate Technology Choice in Industry: Inappropriate technology choice or product composition in the country's industrialization could also lead to lower absorption of labor in urban areas. It is possible that this may have been caused by a faulty customs tariff structure providing greater protection to capital using industries (Kelkar and Kumar, 1990). The tariff reforms of the 1990s should, however, have largely corrected this bias. But other problems remain.

Labor Legislation and Small Industries Reservations: The growth in industrial employment has not been commensurate with the growth in industrial output and value added in the 1980s and 1990s in India. Possible reasons could be the tightening of labor legislation accompanied by expansion of small scale industry reservations in the late 1970s. As argued in Rakesh Mohan (2002) in a presentation in the 2000 Stanford Conference, these policy rigidities could have had a major role in the slow down of growth in manufacturing output as well as in employment. Other developing countries, particularly in Asia, have exhibited much higher industrial employment growth at similar stages of development.

Location Restrictions on Industries: There have been other policies also that have inhibited the location of industrial units, both large and small, in urban areas since the early 1970s. Industries were not permitted to locate within any urban area until the industrial policy reform of 1991, when this restriction was lifted except in million plus cities. The idea was to encourage dispersal of industrial activity. But in effect, industries were denied the economic benefits of urban agglomeration effects, and thus rendered more inefficient. It is also possible that industries became more capital intensive as a result, since skilled labor is generally more difficult to get outside existing urban areas. Industrial employment growth suffered overall, and in urban areas in particular.

Central cities have often been observed to be “incubators” for entrepreneurship. Firms typically minimize localization costs by locating nearer their suppliers and their markets. Locations within cities are also usually better served with essential infrastructure. As firms grow and their technology changes, requiring greater space, they move out to areas where more space is available. In India, however, the function of cities as entrepreneurial incubators has been inhibited by its perverse industrial location policies, thereby imposing additional costs on its emerging industrial firms and slowing down both industrialization and urbanization. The prejudice against industrial location in cities in India continues. For example, court judgments related to improvement of the urban environment have decreased the wholesale shifting of industries from some cities.

Urban Infrastructure Investment: Investment in urban infrastructure in areas such as water and sanitation facilities, affordable urban transport and urban land development has been much lower than needed (EGCIP, 1996). It is possible, therefore, the costs of locating in urban areas could be perceived to be high by prospective migrants, thereby slowing down urbanization.

Rigidities in Urban Land Policy: The promulgation of the Urban Land Ceiling Act in the mid 1970s introduced great rigidity in the urban land market. Change in land use became very difficult unless it was done by government agencies. Thus the supply of developed urban land got greatly reduced, leading to large increases in urban land values.

The result has been the proliferation of illegal or semi-legal habitations, increase in the cost of housing and hence the cost of urban life. The existence of rent control laws since the 1940s and 1950s had in any case, inhibited the supply of urban housing.

It is perhaps coincidental that a number of these policy distortions were introduced in mid to late 1970s, thereby slowing down the subsequent urbanization in the 1980s and 1990s. The net result is that employment growth has fallen in both urban and rural areas.

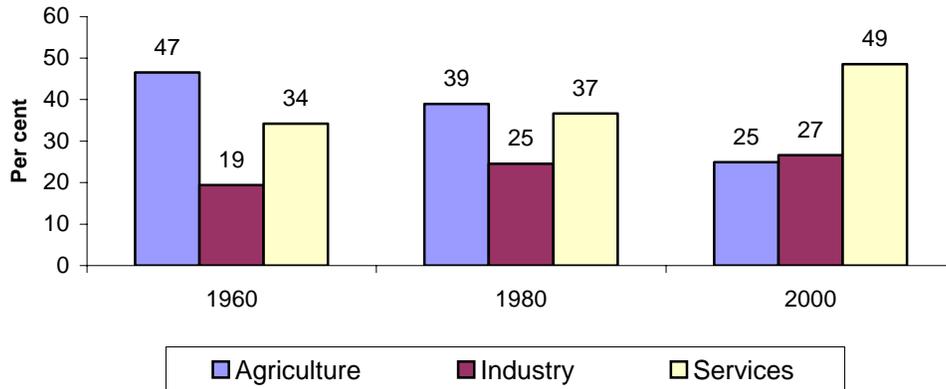
Future Projections of Urban Growth in India

India's Economic Growth in the 1990s has been led by Services Sector Growth

India's economic growth rates have not yet reached East Asian levels but the annual average growth rate of Gross Domestic Product (GDP) increased from the 3.5 per cent of the 1950s, 1960s and 1970s, to 5.6 per cent in the 1980s and 6.2 per cent in the 1990s. India's economic growth since the 1970s has been largely led by urban areas though not sufficiently so as documented in the earlier section. Steadily, India's urbanization is reflecting a structural shift in the economy but not as rapidly as might have been expected.

Correspondingly, while India's industrial and service sectors contributed to 45 per cent of the GDP in 1961, this grew to 70 per cent of GDP in 1981, and by 2001, these sectors accounted for almost 80 per cent of India's GDP (Figure 1). At the sub-national level, the more urbanized states such as Tamil Nadu, Maharashtra, Karnataka have recorded higher economic growth rates. Further, at the city level in India, larger cities in these faster growing states have grown rapidly - Chennai (services), Pune (industry and services), Ludhiana (industry) and Bangalore (industry and services).

Figure 1: Change in Contribution of GDP over the years



Source: National Accounts

Most of the reduction in income poverty has also been a result of the increase in average consumption driven by economic growth (Table 10). The states with the poorest initial conditions grew more slowly than the rest, resulting in some increase in inequality across regions. There has been a divergence in poverty reduction across Indian states. Over the past two decades, poorer, northern and eastern states (Bihar, Uttar Pradesh and Orissa) have lagged behind the other major states in lowering poverty incidence. As a result, poverty in India is now increasingly concentrated, and half of the country's poor live in four states: Uttar Pradesh, Bihar, Orissa and Madhya Pradesh.

[Table 10 to come here]

On the other hand household income in urban areas is also rising steadily and is considerably higher than that in rural areas. As an example, although average household income for India is about \$1550 per annum, in urban areas such as Chandigarh and Delhi, these amounts are \$3750 and \$3500 per annum respectively (NCAER, India Market Demographics Report, 2002).

Growth in India's services sector and emergence of IT driven cities. Services sectors dominate India's GDP share in the 1990s (Table 11). With the economic reforms of the 1990s, and the move towards a steadily liberalized and open economy, quick

developments in communication technologies have had to greater efficiency in the export of some services earlier thought to be non-tradable. This has started to make a significant contribution to the economic growth of the country. India has emerged as a leader among developing countries in providing cross-border IT services. Although the IT industry in India has more than three decades of history, its take-off into a major software business is a recent phenomenon. The IT industry has grown from US\$ 1 billion (or 0.3 per cent of GDP) in 1990/91, to US\$ 9.6 billion (or 2 per cent of GDP) in 2001. The industry is predicted to grow to \$87 billion by the year 2008 (Nasscom-McKinsey Study, 2001).

[Table 11 to come here]

Out of India's total exports, the share of IT products (mainly software) has increased from 1 per cent in the early 1990s, to 18 per cent in 2001. The recent encouragement of foreign direct investment in the sector has further spurred growth. The southern cities of Bangalore, Hyderabad, Chennai, Mumbai and Pune have emerged as competitive IT hubs. Key factors in this take-off have been the existence of a skilled, English speaking workforce, and the fact that the software industry was not part of the license raj regime.

This brief review of India's urbanization pattern and of economic growth over the past two decades gives somewhat surprising results. *On the one hand, these decades have been characterized by relatively rapid economic growth, much higher than previous decades; on the other hand, these very decades have exhibited a rather surprising slowdown in urban growth in terms of population.* In other countries, both historically and at present, urban growth typically accelerates at this stage of development. India is also atypical among developing countries.

The Indian urban problem is therefore somewhat different from that of other countries. National economic policy needs to *accelerate* urban employment growth in order to relieve the rural areas of excessive manpower: policies need to remove various rigidities that inhibit such growth. Thus India's urban problem is that urban growth has

probably been too slow in the past two decades, and now needs to be accelerated : in order to improve economic welfare in both urban and rural areas.

Projections of Urbanization in India

The various urban population growth projections suggest that, in terms of magnitude, the accretion to urban population in India over the next 30 years will be about equivalent to that experienced in the last 50 years, assuming that the slowdown observed does not continue in the coming decades (Table 12).

[Table 12 to come here]

Urbanization projections for India and other countries are made by the United Nations Department of Economic and Social Affairs; Population Division, which are updated regularly. Detailed projections for India have been made based on urbanization rates in the past (Table 13). It has been estimated that by 2030, 41.4 percent of India's population will be living in urban areas, which would mean an additional population of 300 million people will be added to India's cities and towns as in Table 14.

[Table 13 and 14 to come here]

Other than this it has been projected that by year 2030, there will be 70 cities with more than a million inhabitants, which will expectedly house close to half of the urban population then, from a number which stands at 35 today. Also it has been projected that the Mega cities of today will continue to grow and by 2015 the six cities presented in Table 14, will have a population of close to 84 million, with the largest cities of Mumbai and Delhi having more than 30 million residents each by 2030.

The projections help us to understand the daunting tasks ahead of urban policy makers and urban infrastructure service providers. Other than meeting the huge challenge that is emerging due to increase in services standards demanded by citizens, cities and

towns will also respond to the huge increase in numbers of people who will be added to urban areas in the coming decades. Even if the pace of urbanization does not accelerate significantly, the increase in population would be another 115 million by 2015 and more than 300 million by 2030 implying that more than the total population that perhaps ever lived in India's cities and towns over 2 or 3 millennia, since the birth of civilization will be added to towns and cities in the next 30 years. Therefore, we need a new way of thinking of managing urban development in the future.

The various urban population growth projections suggest that, in terms of magnitude, the accretion to urban population in India over the next 30 years will be about equivalent to that experienced in the last 50 years, assuming that the slowdown observed does not continue in the coming decades. With such urban population growth, policies related to urbanization, urban management, and national economic policies will need to be re-oriented. It is to these issues that we now turn.

III: DESPITE THE MANY CONSTRAINTS, INDIA HAS COPEd, BUT COULD HAVE DONE BETTER

In spite of various constraints, of low per-capita income, high levels of fiscal deficit and inadequate urban investments, it is surprising that India has still coped quite well with urban growth. Urban population has grown from 62 million to 285 million from 1951 to 2001. Four of the largest cities in the world and in history are now in India.

In India, urbanization is still viewed by many as a disease, and a trend that needs to be reversed. Urban areas instead of being seen as an opportunity are seen as entities that are a burden, unruly and chaotic. Most coverage in the press harps on highlighting the issues of environmental degradation, inequity, slums, unemployment, poverty and chaos. A closer look at urbanization and basic urban infrastructure provision in the Indian context however reveals a different picture. It is indeed a fact that the urban quality of life has improved for large sections of the population, in the last couple of decades as

presented below, but, perhaps, not enough. This improvement, when viewed against the fact that it has been achieved across a rapidly increasing population and under difficult fiscal conditions of the government, indeed needs to be acknowledged. This also suggests how much better the urban condition could have been with better policies and higher investment.

Most of the indicators of basic amenities show positive correlation with those of economic development across the states. The percentage of households with flush toilets, for example, exhibits a very strong relationship with per capita income. For other amenities, like drinking water, toilets and electricity, the correlation is positive but not always statistically significant. This implies that the economically developed states are doing fairly well in providing their people access to basic amenities. Furthermore, improvements in the availability of these amenities during the 1980s and early 1990s also tend to be somewhat higher in the relatively developed states as brought out in Kundu and others (1999).

Although some policy targets, set by the Government of India, are yet to be met, the percentage of households with a safe drinking water facility in urban areas increased from 75.1 to 81.4 during 1981-91, according to the Population Census. The corresponding figures for electricity are 62.5 and 75.8 while those for toilets are 58.2 and 63.9 respectively. This implies that safe drinking water has been provided to more than 57.3 million people during 1981-91 which was more than the population of the United Kingdom in 1991. Similarly electricity has been provided to an additional 65 million people in a decade while those with access to toilets in urban areas have been an additional 46.2 million people or more than 9 million households.

The National Sample Survey (NSS) reports an interesting pattern of improvement over time. The percentage of households without latrine declined significantly from 36.8 to 31.1 during the period from 1983 to 1988-89. This pattern is observed also for households with access to septic tanks (toilets). Furthermore, as opposed to an increase of 6.3 percentage points (Census) in the coverage of safe drinking water during 1981-91, the

NSS reports that the figure remained static at 88 per cent during the period from 1986-87 to 1993. These improvements in access to amenities in urban areas are indeed noteworthy, particularly in comparison to the availability of similar amenities in rural areas. However, if one looks at the higher quality of access in terms of availability of facilities in the home or as exclusive access, the level of satisfaction remains rather poor, pointing to the great distance that still needs to be traveled (Tables 15 and 16).

[Table 15 and 16 to come here]

The variation in levels of basic amenities across size class of urban centers shows much greater regularity and a distinct pattern. The percentage of households covered by each of the three amenities goes down systematically as we move from higher to lower size class of urban centers, except for the lowest class.

IV: THE TASK OF URBAN INFRASTRUCTURE DEVELOPMENT IS DAUNTING BUT THERE ARE SOLUTIONS

The task of improving urban services is constantly more challenging due to the large increases in population in numbers. This will put a strain on the present management and delivery systems and in many cases delivery mechanisms would need to be redesigned to meet this large demand. This fact accompanied with the demand for improvements in quality of service delivered, due to the emerging demands from the new growth sectors of the economy documented earlier would need a new way of thinking for managing the provision of urban infrastructure services. The challenges over the next few years would be immense especially if urban infrastructure has to support economic development and not emerge as the key bottleneck to India's economic ambitions for growth. If urban population growth is to be accelerated, it will need even greater acceleration in urban infrastructure investment.

A standard governmental response to rapid city growth is to prepare comprehensive metropolitan plans. Such plans attempt to shape the growth of a city for perhaps five to twenty years, as has been done in various cities in India through the development of “Master Plans”. These plans typically delineate land use in a detailed manner and attempt to freeze city structure for the planned period. It is also typical to do physical planning for all the anticipated infrastructure needs. Often, however, the costs of such infrastructure are not calculated realistically and when these costs turn out to be excessive, the plan becomes non-operational and implementation falls short of what was intended. This has typically been the case in Indian cities. Large portions of the growing cities have thus been deprived of essential needs.

With the rapid urbanization that is now expected in ensuing decades in India, it would be better to decentralize the instruments of infrastructure provision so that the agencies providing such infrastructure services are able to finance themselves and can respond flexibly to the changing demands of a growing city. The mechanism of self financing is important because it serves as a self correcting procedure whereby higher priority projects are implemented first and realistic planning becomes a necessity. Self financing by an agency does not necessarily imply commercial financing. It can include subventions from higher level governments, commercial loans, government loans, soft loans, and servicing of these loans through affordable user charges. It does, however, mean greater agency autonomy than in a system in which infrastructure programs are part of a central planning mechanism that is sought to be fully funded from above or done through some form of credit allocation. What is important is that such autonomous agencies in India, the various public utilities, develop the ability to respond to the emerging demands of the growing cities.

Given the limited financial and managerial capacity of such government managed utilities in India to deliver the anticipated needs of urban infrastructure in the coming years, it will be prudent to allow private initiatives to flourish whenever possible. This is not so much a matter of ideology as of necessity. Urban land development is a case in point. Urban development authorities, state housing boards, and urban local bodies have

typically had the monopoly for land assembly and development in Indian cities since the late 1960s and early 1970s. They have usually not had the financial, planning or managerial wherewithal to actually develop urban land as rapidly as it should have been, thus giving rise to unconscionable land price increases. It would be much better if private land developers are given much more opportunity to perform this function, albeit within prudent norms, and in a competitive framework. Provision of public transport is also woefully inadequate in most Indian cities, particularly at the second and third levels. Here also, it will be much better if private investment in public transport is allowed to flourish in such a way that high service levels are achieved at low economic and financial cost. This is indeed possible through extensive use of private initiatives within a public regulatory framework.

The availability of efficient public transport is essential, both for citizens' welfare and for city efficiency. The scarcity of public resources has typically inhibited the provision of such transport availability in India, and thus this constraint should be loosened through the use of private resources for investment and service delivery.

In the context of rapid urbanization it is difficult to prescribe exactly the kind of institutional arrangements that need to be made for urban service investment and delivery. What needs to be done is to induce a positive attitude towards urban development, investment in urban infrastructure and housing during this period of expected rapid urbanization. If such a positive attitude can be developed at policy making levels we can expect the emergence of institutions and policy responses that are appropriate for the issues that need to be addressed in the context of rapid urbanization.

Given the vast preponderance of rural population in India, it is not surprising that there has been little attention devoted to the problems of urban development at the highest levels of policy making. As the increase in urban population begins to match that in rural population in the coming years we can expect dramatic change in the attention given to the problems of cities.

As already discussed, a key problem will be to manage a fast expanding supply of developed urban land for housing and other purposes. Rapid in-migration makes the demand for housing grow much faster than normal population growth. Land development induces investment in infrastructure such as water supply, sewerage, roads and power supply. All this requires substantial front-end investment, which public authorities can ill afford. On the demand side, households face similar problems.

Another issue is that the poorest cannot even afford such incremental housing. The uncertainty in their income stream is such that they are not in the ownership housing market at all, however modest, and are essentially renters. Yet most government programs for housing the urban poor focus on ownership housing. What needs to be done is to enable, if not encourage rented of rooms to the poorest by the slightly better off: the poorest will then find housing and the stock of overall housing will expand.

There is a very rapid growth in demand both in terms of quality and in quantity, for urban infrastructure services that has taken place over the last decade. There is strong demand for (i) wider coverage of urban infrastructure services, which is a daunting task given the expected huge growth in numbers of urban residents, given the size of the already existing base population, and (ii) improvement in the quality of urban infrastructure services, especially in the large metro towns, making the demand for urban infrastructure more heterogeneous than what has been witnessed in the past.

What then are the constraints that inhibit the kind of approach and policy orientation outlined?

Key Financing Constraints

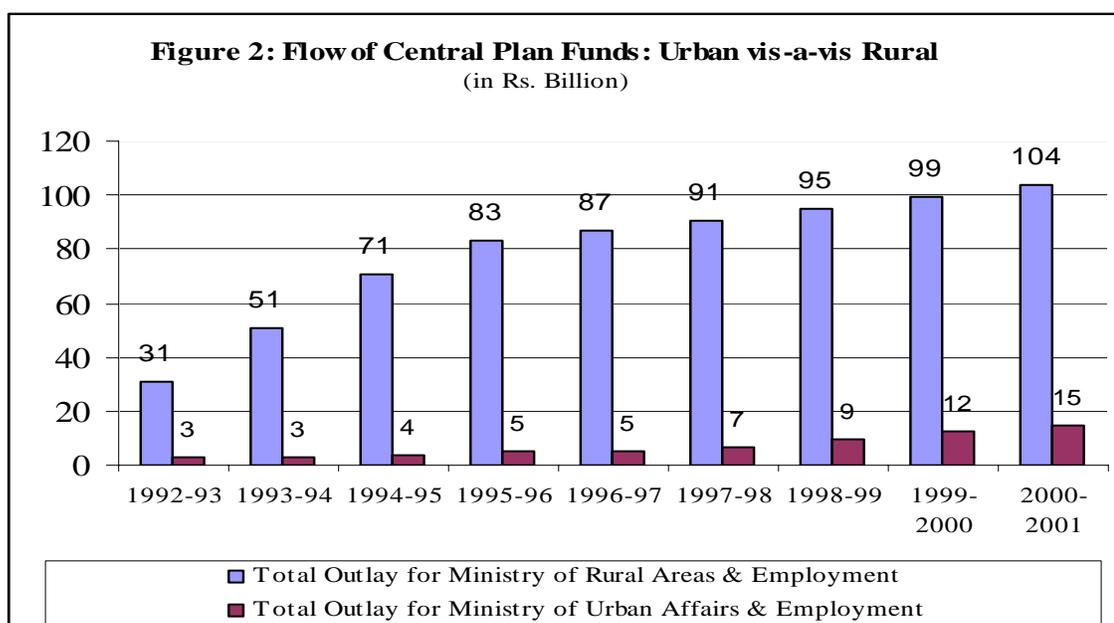
Estimating the investment requirements for urban infrastructure is mired in difficulty as it involves setting of standards, which inevitably becomes a judgmental exercise. Nonetheless it is essential to do so as to make estimates for planning purposes. Various estimates of fund requirements for addressing urban infrastructure needs have

been made in the past. However, at the present time the estimates made by the Expert Group on Commercialization of Infrastructure Projects (ECGIP, 1996) is the most recent, though already eight years old.

The India Infrastructure Report released in 1996, estimated the annual investment need for urban water supply, sanitation and roads at about Rs. 280 billion (US \$ 6.67 billion), in 1996 prices for the period 1995-2005. Another estimate made for the Ninth Five Year Plan had estimated the investment requirement for housing in urban areas at Rs. 526 billion (US\$ 12.5 billion). The Central Public Health Engineering (CPHEEO) has estimated the requirement of funds for 100 percent coverage of the urban population with safe water supply and sanitation services by the year 2021 at Rs.1729 billion (US\$ 38.40 billion). Estimates by Rail India Technical and Economic Services (RITES) indicate that the amount required for urban transport infrastructure investment in cities with population 100,000 or more during the next 20 years would be of the order of Rs. 2070 billion (US \$ 46.48 billion). All these estimates, whether realistic or otherwise, point out the urgent need to upscale investment into urban infrastructure to meet the large unmet needs of the sector.

Traditionally the provision of urban infrastructure has been seen as a primary role of the government. These basic services have been generally considered social goods to be provided by the Government at free or nominal cost to users. This has been due to the fact that urban infrastructure services have the characteristic of being natural monopolies and there has been a constant fear that private sector intervention could exploit this. Services such as roads, street lighting, water supply and sewerage are essential necessities for urban living but difficult to finance without an adequate cash flow of tax revenues or other charges, hence private sector investment in urban infrastructure is not easy. Also certain infrastructure services like water being a necessity have inelastic demand, thus private provision of such services could lead to exploitative pricing unless prices are regulated.

Although reliable financial statistics of municipal finances are difficult to obtain in a timely manner it has been estimated that total expenditure by municipal bodies of all kinds was in the region of 5 to 7 percent of the total government expenditure. Studies have shown that in the last decade although some larger cities have managed to improve their financial position, most small and medium towns are totally dependent on fiscal transfers to perform their obligatory duties. Other than this, the fiscal transfers from the Government of India and State Governments make up the bulk of the funds that reach urban areas for infrastructure investment. While the sharing formulae between the ULBs of a particular state for state government funds are worked out by the respective state finance commissions, the Central funds are released by the Planning Commission to the respective ministries for undertaking urban development projects/schemes. As evident from the Figure 2 below, urban funds have constantly been a fraction of the funds available for rural investments, showing the strong bias that exists against encouraging urbanization at the policy level.



Source: Ministry of Urban Affairs and Employment, now Ministry of Urban Development and Poverty Alleviation (1997 onwards are estimates)

Although there could clearly be some expenditure reductions, there is a limit to improving the state of finances through expenditure rationalization and compression.

Revenue enhancement, improved compliance and administration are critical for sustained improvement. Given the financial constraints facing most state governments in India today, current expenditures crowd out capital spending – leaving little money for productive activities required for development. Apart from improving the collection efficiency of non-tax revenues such as user charges for various public services/utilities, Indian states riding high on the IT and ITES boom have also been seeking GoI permission to tax and retain income from the services sector. Efforts are being made and will need to be strengthened further to expand the tax base of state and local governments.

The large deficits currently and the increasing inability of higher levels of government to continue supporting capital investments in urban infrastructure projects as brought out in the India Infrastructure Report 1996, establishes the urgent need to devise a new approach based on commercialization principles and capital market participation in delivering urban services.

Land Policy Constraints

As discussed before, urbanization is both a catalyst and a consequence of economic growth and development. Land availability, is a prerequisite for urbanization and sustained economic growth. In the urban environment competing uses vie for constraint land resources making it the most important input. Focusing on this aspect, a recent study (McKinsey Report 2001) identified urban real estate markets as perhaps the single most important constraint on India's ability to sustain the increase in growth experienced in the years since the country's liberalization program in the 1990s. Another study (Jeffrey Sachs and others, 2002) makes a similar point: the empirical evidence indicates that only those States that have substantially urbanized grow rapidly while the other States lag behind, often far behind. Moreover, if they do not have market friendly policies encouraging private investment in their cities, they do not catch up.

There has been a continuing concern over “unwarranted” and “unprecedented” increases in urban land values over each plan period. The control of urban land values has been regarded as a major objective of urban policy. Delhi is the best example of a policy of large scale acquisition of land. In this approach the idea was that all the land on the yet undeveloped periphery of the growing city is notified at an early stage and acquired by a public authority at the prevailing agricultural prices thereby removing any possible speculative land prices in peri-urban areas. The benefits of this method also include (i) any increase in land value would accrue to the public agency which would use it for public purposes (ii) the same public authority could better plan for the future growth of the city since it had control over the peripheral lands (iii) the public agency can also than plan for the poor.

The experience of public acquisition of land to say the least has been poor, as the public authorities are able to obtain the land at very low prices, leading to very wasteful, uneconomic and inefficient methods of utilization of the land.

The formulation of urban land policy needs to be informed by the knowledge of the dynamics of urban growth and recognition should be given to the limits of the efficacy of public policy. The basic problem of urban land policy is the supply of serviced land in adequate quantity, at the right locations, at the right time and at the right price. The four considerations are closely interlinked.

Building byelaws more directly controlled by the local bodies themselves in most occasions have a significant impact on the form of the city thereby having a comprehensive impact on its economy. The reform of Floor Area Ratio (FAR), a primary part of building regulation, should be part of a general reform of many urban policies. The benefit of FAR reform would occur only if the increase in FAR in Central Business Districts and other commercial areas results in a massive redevelopment of existing structures offering modern floor space equipped with a level of infrastructure and mechanical equipment compatible with a modern wired economy. For this to happen, an accompanying package of urban reforms should aim at:

1. Reducing real estate transactions costs,
2. Managing better public urban space such as streets and sidewalks,
3. Auditing institutional land holdings in urban areas, putting back on the market grossly underused land, and
4. Increasing the share of the fiscal revenue of cities directly linked to the prosperity of its real estate industry.

Judicial Activism: A New Actor in Urban Policy Making

Urban environmental policy and policy for infrastructure services have come into focus in a new light since some 10 years or so. Most of these are led by Public Interest Litigations (PIL) which have got the courts to pass judgments that have improved standards on environmental pollution and have forced governments to take up these issues more seriously and urgently. The case of public transport in both cities of Mumbai and Delhi is a case in point where all public transport vehicles have been transformed over a 2 year period, to run on a cleaner fuel called Compressed Natural Gas (CNG). Similar are the cases for Hospital and Municipal Waste Management in the country. Judicial criticism may be seen to have become a proxy for urban policy making.

As an example, the management of the municipal solid waste is an obligatory duty of the urban local bodies (ULBs) in India. This position has been further strengthened by the 74th amendment to the Indian Constitution, whereby a list of the functions of the local bodies has been appended in the form of the 12th Schedule, which includes solid waste management (See Box 1). Having been neglected for long, the mismanagement of the municipal solid waste on the part of ULBs was brought to the notice of the Supreme Court by public interest litigation in 1996. The Supreme Court set up a committee of experts to recommend improvements required in the city waste management systems. Based on the report of this expert committee, the Government of India notified the Municipal Solid Waste (Management & Handling) Rules 2000, (MSW Rules) under the Environmental Protection Act 1986. The MSW Rules have set the December 2003 deadline for all the municipalities for upgrading solid waste management

systems, the main compliance criterion being 100 per cent collection, transportation, scientific processing and disposal of city waste on a daily basis into the sanitary landfills. With this, the ULBs are hurrying to meet the stipulated deadline.

BOX 1

Essence of the 12th Schedule of the 74th Constitutional Amendment

As per the 12th Schedule of the 74th Constitutional Amendment Act of India, 18 new tasks have been defined as in the functional domain of the ULBs, the most important of which are:

1. Urban Planning including town planning
2. Regulation of land-use and construction of buildings
3. Planning for economic and social development
4. Roads and bridges
5. Water supply for domestic, industrial and commercial purposes
6. Public health, sanitation conservancy and solid waste management
7. Fire services
8. Urban forestry, protection of the environment and promotion of ecological Aspects
9. Safeguarding the interests of weaker sections of society, including the handicapped and mentally retarded
10. Slum improvement and upgrading
11. Urban poverty alleviation
12. Promotion of cultural, educational and aesthetic aspects

No city/town in the country has managed to meet the demands made in the MSW Rules 2000, as yet. However cities and towns across the country are seized with the problem of implementing SWM systems which meet these stringent implementation demands. A number of interesting and early examples of failed attempts and success in the varied components of the SWM system are beginning to emerge all across the country due to the large number of parallel efforts by each ULB to try and deal with the same

policy directive. Although the large number of parallel efforts have led to a plethora of options, most efforts lack integration among the different components of the system and do not do enough to create durable long term support mechanisms. Given the role of the local government as the provider of the service itself, very few ULBs, have been able to improve the standards as desired by the law and devise efficient system upgrading efforts (see Box 2). Recently, however, as in the case of the Municipal Corporation of Delhi efforts are being made to introduce private sector finance, design, operation and maintenance in this area through a concession which would develop a long term structure to meet the environmental up gradation requirements.

BOX 2

Municipal Waste Management upgrading

The notification of the Municipal Solid Wastes (Management and Handling) rules 2000, as part of the Environment Protection Act, 1986, has placed municipal authorities at the center of efforts to improve the environmental outcomes of waste management practices. Solid waste accounts for about 65-70% of the small and medium sized municipalities while this is much lower at about 15-20% for the larger municipalities. The new standards envisaged in the regulation would prima-facie imply large increases in the spending of municipal corporations. Although this may be true in small and medium towns, in the larger metro cities, there are opportunities to better utilize currently available funds by improvements in design and operations of current systems. Across the country many municipal agencies are currently experimenting with various models of private sector participation to both improve service delivery and address fiscal constraints. Some of these reform efforts are for e.g. (i) primary collection - the case of door to door collection in five wards of Trivandrum; (ii) collection and transportation contracts to the private sector in Chennai and Delhi; and (iii) waste treatment and disposal at Vijaywada, Hyderabad, Lucknow, Delhi and Bangalore.

Shifting of industries from city limits and restriction of certain activities in residential areas is another such legislative directive of the courts to improve the pollution conditions within the urban areas. The improvements in standards that are being framed by urban environmental infrastructure policies are challenging the traditional paradigm of city management. The new challenge is to achieve widespread improvements in service and environmental standards within the financial / managerial and technical capacity of local governments and many new experiments in this regard are emerging. The task that most city governments are managing is to address these policies while keeping the impact on the economy to the minimum to ensure the attractiveness of the city as a location for productive investment.

The consequences of such judicial activism have been mixed. On the one hand, some of these actions may have been instrumental in improving the urban environment. On the other hand, some others have probably curbed urban employment growth and hence urbanization itself.

V: RE-ALIGNING THE URBAN DEVELOPMENT FRAMEWORK TO ADDRESS INDIA'S ECONOMIC NEEDS

The Tenth Five Year Plan underscores a growing recognition of the need to (i) dismantle the extensive controls on urban real estate markets, many of which were established during the years 1975-77, at the national level, and which have deprived cities of the tools to effectively ensure an adequate market-driven supply response to growing urban demand for land and services; (ii) move towards basic cost recovery for managing urban infrastructure services, which have dried up investments into these sectors. As this reform proceeds, urban infrastructure services, land and housing markets would be able to rely more on prices to allocate resources, rather than bureaucratic mandates accompanied by excessive regulation.

India has set itself certain macro economic goals. Sustained economic growth at around eight percent, price stability and reduced fiscal deficits and larger investments in

infrastructure are the foremost among them. These goals are reflected in both the manifestos of the largest parties as they went into election. Urban reform is in the initial stages of a process that began in other major sectors over ten years ago, and that is now taking hold – more than a decade after the economic liberalization process began, but the level of sustained implementation of urban reform will determine whether India is able to achieve its economic ambitions of sustained levels of high economic growth.

The huge challenges that are emerging in Indian cities are expected to be at a magnitude higher than the problems that have been witnessed in urban development in the past both globally as well as in India as presented in the earlier sections of this paper. The following section goes on to articulate some elements of a new coordinated approach which would be essential to implement if India is to achieve its economic ambitions.

Macroeconomic Policies and their Impact on Urbanization

Macroeconomic policies and their correlation to urban demands is an aspect that is not well understood but will increasingly become important in the emerging scenario. Public policy choices make a huge difference to city dynamics. We have argued that various national economic policies are likely to have inhibited urban growth. This section addresses some primary national policies at the macro level that impact urbanization. The three broad areas that are being addressed because of their direct relevance to urban development are

- a. National Fiscal Policy relating to public investment, taxation and fiscal transfers;
- b. Consequences of globalization
- c. Industrial control and location policies and
- d. Social sector policy related to education and health.

National Fiscal Policy

Public investment in key infrastructure, an important ingredient of the macro policy framework of any country, has a direct relevance to urban infrastructure development. Public investment policy is a critical macro level issue that sets up the conditions for both public and private investment in infrastructure at both urban and regional levels. The

approach in India, as in most countries in the 20th century, was for the public sector to fund most of the infrastructure. However, fiscal constraints in India, along with other policy rigidities at the city level have resulted in sub-optimal levels of urban infrastructure investment over the last 20 to 30 years of urbanization in India. (EGCIP, 1996). Urban infrastructure, especially water supply and sanitation and solid waste management have thereby suffered. There had been **some** excessive optimism about the prospects of private participation in the mid 1990s. This has now been replaced by a more realistic understanding of the framework required for private sector infrastructure investment. It requires a more consistent effort by government to provide a more conducive infrastructure investment framework. The government is repositioning itself to catalyze greater investment in infrastructure in general. However urban infrastructure may not be a focus and needs to be brought to the fore.

The massive needs of urban infrastructure investment in India over the next 30 years therefore require new thinking regarding the appropriate mix of public and private funding that will have to be raised. Public investment will require public resources. Public resources for public investment will have to be raised through taxation or public borrowing. Different countries have different federal fiscal structures. In general, it would be appropriate to fund urban infrastructure investments from local resources, except where the project goes beyond local boundaries. The key point is that public investment has to be eventually funded through appropriate levels of taxation, federal, state or local, whereas other projects that are amenable to the levy of user charges can be funded from private sources of funding. In either case, capital costs have to be serviced. Public understanding has to be built up to appreciate that infrastructure, even if it is a public good, is not free and has to be paid for. If capital cannot be serviced by collection of user charges, it has to be done through taxation. Across India, average urban water charges amount to about Rs. 1.5 per kilo liter (US \$ 0.03), whereas the average cost is about Rs 15 per kilo (US \$ 0.33) leaving the typical Indian city poorly served in terms of water supply.

Also, the investment policy of a government to restrict or permit particular commercial activities impacts the extent of urbanization. In India, barring a handful of sectors, all manufacturing sectors have been opened up to private (domestic or foreign) investments. However, restrictive guidelines for *Foreign Direct Investment in real estate* have reflected on the supply of housing and urban infrastructure in many existing cities.

Taxation policy, which is a macro level issue, has a very strong impact on urban areas. Financing public investments in infrastructure will require a larger revenue base. It is not necessary that higher tax rates would be needed but definitely improved tax administration and better compliance will go a long way in increasing resources for investment in urban infrastructure. User charges in India account for very small proportions of total revenues. This needs to be enhanced considerably and taken directly into the political debate. In the future we would need to better popularize the concept of user charges which would not only bring in larger amounts of resources but would also bring in greater accountability between the user and the providers of the service.

Macro Policy of fiscal transfers and increasing decentralization of powers and finances have a definite long term impact on urbanization. Decentralization is the corner stone of urban development, allowing local levels of government to be active participants in their own growth. In the last few years many initiatives in Asia have led to cities being empowered to determine their own investments and control their finances. The model followed by China of increasing decentralization of administration on the coastal cities and their regions has gone a long way in increasing the investments into those areas. In India however efforts to decentralize to the local level, has yet to be implemented with conviction though the basic amendment to the constitution was made in 1994.

Consequences of Globalization

Openness in Trade policy leads to lower transaction costs, which, along with price equalization has an impact on investment into urban areas. The internationalization of production, finance, banking and services, coupled with cheap labor and advances in

telecommunications and information technology, has minimized the importance of boundaries in the decision to locate production plants. Sectors and activities which are less regulated by the State and operate on market principles prosper on achieving economies of scale leading to greater urbanization. In India the rapid expansion of the IT sector is testimony to this fact.

With the intensifying forces of globalization, healthy urbanization needs the consistent practice of open economy macro economic policies. We need to further develop a better understanding of cities and their economic functions in an international context. In the past, the economic function of cities was often linked with the immediate hinterland. Now, more often than not, metropolitan cities are more linked with other metropolitan cities abroad than their immediate hinterland. For example, London and New York act as financial centers for the world as a whole, and their economic linkages are more, perhaps, with Frankfurt, Singapore, Hong Kong and Tokyo than with their immediate hinterlands. The economic health of these cities is then heavily dependent on the quality of telecom, information technology, air transport and other connections with their correspondent foreign cities than with their immediate domestic hinterland. Port cities have always been linked with other port cities through trade, but also with their own hinterlands as conduits for the goods produced there. The new developments resulting from new technology is that inland cities such as Bangalore, Hyderabad, Gurgaon and Pune in India are more linked with the United States and Europe for their economic functions than their own surroundings.

In 1970, the quantum of exports from India (\$ 2 billion) and China (\$ 2.30 billion) were virtually identical; however, in 2003, India's exports were \$ 56 billion as compared with China's exports of \$ 438 billion. A very important factor in the success of China is the scale and magnitude of special economic zones. The five largest such zones in China—Shenzhen, Zhuhai, Santou, Ziamen and Hainan -- exported \$ 26 billion in 1994, almost 22 per cent of the total exports. Another major contributor to China's success is its investment in infrastructure. The Chinese government has spent \$ 3 billion in the infrastructure alone in Pudong and it is committed to spending \$744 billion in

infrastructure in 1995-2004. Compare this to a paltry few billions proposed to be spent on infrastructure in India. Probably, the most important factor is the single minded dedication of Chinese government in removing obstacles as and when they arose.

Economic policies relating to labor rigidities and small scale reservation that have already been cited have inhibited labor-using, export-oriented manufacturing growth in India, thus slowing down urbanization as documented. High value information technology type services have begun to flourish, but they do not use the abundant low skill labor in India.

A key issue to understand is that in an open economy, the prices of all tradables tend to get equalized: the competitiveness of a city, and hence the welfare of its citizens, is then crucially dependent on the efficiency of its infrastructure and human resources i.e. the prices of the non-tradable services that go into its goods or service exports. In an open economy therefore:

- The quality of infrastructure has to be at par with that in other countries and
- Similarly, greater attention has to be paid to the quality of labor through education and training and also appropriate technology development activities.

It is no coincidence that the new thriving cities of India are all centers of excellence in terms of education, particularly technical education, technical training colleges, research and development establishments, both public and private, and high tech industrial and service activities.

Industrial Control and location policies

Industrial Control and location policies contribute significantly to urbanization. As identified earlier the reservation of a large number of industries for small scale production has heart the growth of employment in urban areas and is seen as an important contributor to the low rates of urbanization witnessed in the 1990s. This reservation in an era when a number of the products from these industries are facing strong competition from imports could lead to the reduction of employment opportunities in urban areas.

Policies of industrial dispersal that have been consistently in vogue in India, coupled with the court directives to move industries away from cities for environmental pollution reasons also has a significant impact on urbanization. A recent study of regional economic growth found that urbanization in India had a strong positive relation with economic growth and identified the opportunities that each sector and location held for future growth (Table 17).

[Table 17 to come here]

Social Sector Policy

Social Sector Policy and investment into institutions of higher learning of each country also have a deep impact on the location of industries that add punch to the economic growth of these countries. Development of human capital, through institutions of higher learning and establishment of Research and Development (R&D) centers is key to ensuring the supply of able skilled workers, and for promotion of city competitiveness.

The Central government needs to be more aware of the linkages between macro policies and urban development as they have a direct linkage with economic growth. They need to take into consideration that in the present situation cities and city regions are sometimes more strongly related to markets and geographies in far away locations than to their immediate vicinity. As an example Bangalore's economy seems to be more strongly connected to the economy in the United States and other European countries than its immediate adjoining towns. The same could also be inferred for cities like Hyderabad, Pune and Gurgaon for IT and ITES and Tiruppur, Ludhiana etc for manufacturing.

It is therefore of foremost importance that the national macro policies allow for greater openness to capitalize on these opportunities and invest in supporting their development by carefully planning Social sector investments into training facilities, higher education facilities and research and development facilities and locate them strategically.

Focusing on Megacity Management and City-led Regional Planning

In order to effect the changes in urban development, there needs to be a review of the planning approaches that have been followed so far so that it can positively contribute to the national agenda. A reexamination of the objectives of the planning process needs to be crafted so that the exercises are more demand responsive, flexible, cognizant of the economic and financial necessities and provide opportunities for implementing global learning. This along with some institutional changes and skill enhancement at the central, state and local level are the need of the hour.

India has developed a well balanced urban morphology due to historic and economic reasons. This morphology has also remained quite stable in spite of some major policy shifts. Given this stable structure of urbanization, in the present policy of liberalization and openness, in an effort to realign urban policy framework to meet the huge economic challenges of the future, there is a very strong case to reverse the planning processes and push for a more city-centric bottom-up economic and spatial planning process which would automatically address local opportunities and potentials.

Mega city management is a new emerging area that needs consistent focus of policy makers. Cities are now large and more complex than they have ever been. They often have very large budgets and, depending on the context, these budgets are sometimes bigger than the budgets of many countries and many provincial or state governments. As an example, the New York city budget is larger than of many countries around the world and Greater Mumbai Municipal Corporation budget is larger than that of 9 state government budgets while Municipal Corporation of Delhi's is larger than 4 state government budgets in India. Other than this as discussed earlier the city services are presently delivered in a very fragmented way through a number of institutions. The amount of coordination that megacity managers do to provide "day to day" and "real-time" services is indeed Herculean and needs urgent streamlining through consolidated policy action.

The multiple roles of cities need to be recognized and planned for. The city land use plan, which is a unilaterally drawn up by a statutory directive is not the right methodology to address the changing contexts. The requirement is for dynamic short term aims, as part of a more consistent longer term strategic vision. Most city managers traditionally have very little knowledge about the economy of the city they administer. This impedes the city from reacting positively and proactively to address issues of restructuring to meet national or global competitive conditions

Cities should plan with the regional context in mind especially the nearby towns and rural areas that are dependent on it although some cities will be much more connected with their markets abroad. This would help develop a regional plan for urbanization and economic development which would then be integrated at the state level. A number of these regions are beginning to emerge but are restricted due to non-supportive policies and administrative constraints that need to be addressed, as an example the Mumbai Task force on Infrastructure identified the Mumbai, Pune and Nashik triangle to be its region, around Delhi the National Capital region cities including Meerut, Gaziabad, Gurgaon, Faridabad etc already are economically deeply entangled, other areas around Hyderabad and Vishakapatman and Chennai have also started emerging as a potentially cohesive region.

Revamping the state level machinery for urban development is even more crucial than at the central level. At present responsibilities of urban development are fragmented into different departments. Also the pattern of this fragmentation is different from state to state. The state level apparatus needs to be consolidated as elaborated for the central level below.

At the national level, the ministry of urban development needs to be strengthened and reoriented if it has to play an effective role in overseeing urban planning and development. Since most the work in urban development planning is envisaged at the state level, the role of the central ministry is mainly as a nodal organization for

coordinating action, providing technical advice and working out detailed urban investment implications. This technical support arm should be capable of leading urban policy making and would need to be at the cutting edge of urban research. The organization would need to develop systems for improving information on cities and monitoring of investment programs of these cities by standardization of data requirements, technologies of localizing data etc. This would go a long way in systematizing urban development processes and make it a readily available tool to enhance economic planning for the country.

Although institutions such as the National Institute of Urban Affairs, the Human Settlement Management Institute of Housing and Urban Development Corporation (HUDCO) and more recently, the Administrative Staff College of India (ASCI) have been doing some work in a similar direction, and the Technical Arm of the ministry the Town and Country Planning Organization (TCPO) has assisted state governments in creating land use master plans, these organizations have over the years withered and lost in prestige thereby not attracting the best professionals as it would need to do to effectively play its role.

New Generation of Urban Policy and Programs are Required

Although the need to realign urban policy and programs has been brought out in the past in both the Task Force Reports on Urban Development of the Planning Commission in 1983 and the voluminous reports of the National Commission of Urbanization in the late 1980s, it needs to be emphasized again that strengthened urban policy is critical to sustaining economic growth at the national level. Also a number of developments in other infrastructure sectors, notably telecom, national highways, ports suggests that the criticality of the urban development will be recognized and taken up more seriously now (see Box 3 on New Urban Reform Programs of the Government of India).

The key aim of policies and programs aimed at urban development should be to provide adequate infrastructural support for economic development in the country, state or sub-region, be it agriculture, extractive industries, manufacturing industries, or the tertiary sector. The adequate provision of service and infrastructure removes constraints on the growth of these sectors and in some cases promotes services. It is important to time investments into urban services and shelter to coincide with investments in agriculture, industry, mining and commerce. Therefore urban policies and programs should essentially focus on increasing investment in urban infrastructure services.

Many schemes started and modified over the years such as the mega cities scheme, the integrated development of small and medium towns, the low cost sanitation program etc, transfer grant funds directly to selected cities. These programs have had limited impact and suffer from not being able to trigger and leverage sustained change in the chosen cities but have in the past been responsible to increase dependence on these support grants. However, for the first time, the Government of India (GOI) budget not only recognized the need for reform of urban policy at the State level, but also provides resources to encourage reforms¹, particularly with respect to user charges for infrastructure, housing and land markets. The attempt in this program of tying Plan resources to urban policy reform represents a very significant step forward for national intervention in the urban policy sphere.

Land Policy reform has been on contemplated for a number of years but no government had shown the political will to implement the same. However some progress in this regard has been achieved with the National government at the centre recommending the removal of the Urban Land Ceiling Regulation Act and some states actually ratifying it at their level. Other Acts such as the Rent Control Act which is caught up in litigation have proved more difficult to address.

Other than this many cities have implemented property tax reform, and some are slowly gearing up to develop a systematic database on land transactions and property

¹ The Budget Speech (2002-2003) of the Union Finance Minister created an Urban Reform Initiative Fund (URIF), the release of which is to be conditioned upon action on urban policy reform in seven areas.

rights. There are many supporting actions that need to be taken to bring about smoother functioning of urban land markets including, removing governments monopoly on land acquisition, reducing transaction costs / stamp duties for registration etc.

Details of The New Urban Reform Programs of the Government of India²

In the 2002-03 budget speech, the Finance Minister announced the creation a number of mesureses to assist in urban reform. The following funds were proposed which are a significant shift from current national government practices.

1. State level Restructuring: The Urban Reform Initiative Fund (URIF). These funds will be available to State governments on a grant basis to incentivise them to take on the reform measures listed below. The first five of the urban reforms will address distortions in the operations of real estate markets; the last two reforms will address more general problems with the functioning of Urban Local Bodies (ULBs).

1. Repeal of the Urban Land Ceiling and Regulation Act at the State level by Resolution;
2. Rationalization of Stamp Duty in phases to bring it down to no more than 5 percent of the end of the Tenth Plan period;
3. Reform of Rent Control Laws to remove rent control so as to stimulate private investment in rental housing;
4. Introduction of computerized processes of registration;
5. Reform of Property Tax so that it may become a major source revenue of urban local bodies, and arrangements for its effective implementation so that collection efficiency reaches at least 85 percent by the end of 10th Plan period;
6. Levy of reasonable user charges by Urban Local Bodies, with the objective that full cost of O & M (Operation & Maintenance) is collected by end of the Tenth Plan period;
7. Introduction of double entry system of accounting in Urban Local Bodies (ULBs).

An Expert Committee has provided guidelines for the reform items. Certain modifications are under consideration. An additional list of reforms has been prepared, presumably to become conditions for further tranche releases.

2. City Restructuring: The City Challenge Fund (CCF).

Additional initiatives at the city level are being proposed through the City Challenge Fund. The Challenge Fund will be an incentive-based grant facility that will support cities by funding the transition costs of moving towards sustainable institutional systems of municipal delivery, in particular in the water and sanitation sector. This Fund will assist cities and towns with partial financing of the cost of developing a reform program and its implementation. The funds will be awarded on a competitive basis, demand-driven, and subject to strict eligibility and award criteria, detailed on-site assessment, disbursement conditions, and ongoing monitoring. A key objective of this program is to encourage the kind of reforms and restructuring that cities need to become creditworthy and thereby attract private finance for their investments. As cities become stronger financially, they should be able to prepare both long-term plans for infrastructure investments and to implement poverty alleviation programs.

Citywide reforms and restructuring will, however, result in significant transaction costs during the transition period. Leaving these costs to the cities is likely to delay these reforms and compromise their chances of success. To lessen this impediment to reform, the MoUD&PA is proposing to set up a performance based City Challenge Fund for catalyzing reform programs. The resources from the Fund would be given as grants but should be matched by equal allocations either from the cities themselves or from the respective State governments.

3. Helping Smaller Municipalities: Pooled Financing for Municipal Infrastructure (PFMI).

Traditionally, municipal corporations and urban local bodies have relied on subsidized funds for providing urban services, removing much of the incentive for adequate user charges and efficient operation and maintenance. In view of the huge resource gap and the inevitable rapid growth in smaller municipalities as India urbanizes, direct access to capital markets is now accepted as a necessary, although limited, means of channeling resources to local governments. Access to the capital market requires financial discipline to achieve enhanced credit ratings. It has been the experience that only bigger municipal corporations are in a position to take the advantage of the resources available in capital markets.

Medium and smaller municipalities have been unable to access capital markets due to, among other problems, their weak financial position and lack of capacity to prepare viable project proposals. A State-level pooled financing mechanism is being suggested for smaller and medium municipalities. The objective of a State-level pooled finance mechanism is to provide a cost effective and efficient approach for smaller and medium sized ULBs to access the domestic capital markets for urban infrastructure.

Financial Development for Supporting Urbanization Processes is critical to economic growth and poverty reduction. Cities need to revisit the various revenue sources available to them and review their performance in revenue collection itself with a view to identify how the tax base could be expanded and tax administration and collection efficiency improved.

Essentially the growth of urbanization witnessed in India over the last fifty years will be repeated in the next thirty years. India has large surpluses (reserves?) of financial resources both at the individual as well as governmental level, which are increasingly invested in countries like the United States, in spite of the fact that huge resource gaps exist in urban infrastructure in these countries. The basic problem of investments not flowing into the sector is the fact that local governments are not creditworthy and urban infrastructure projects are not commercially viable.

In the past, during the rapid urbanization phases of some European countries, North America, and Latin America, available domestic savings were inadequate to finance the massive urban investment needs that arose during those periods. Thus large cross border flows were necessary to bring to bear external savings for investment purposes in these countries and regions. At present the two largest Asian countries, China and India have effective savings surpluses that are currently being invested as foreign exchange reserves in developed country securities and banks. Yet huge resource gaps exist for investment in urban infrastructure since city governments are often not creditworthy, and urban infrastructure projects are not commercially viable. Thus, if these two generic problems are solved, the surpluses now being observed in these countries will probably disappear, and there will instead be a draft or external resources.

The strengthening of city management outlined earlier is therefore a must. As this strengthening takes place it will enable the organic connection of city governments with capital markets, both local and international. The key reform needed to make city governments creditworthy on a permanent basis is a revamp of the property tax systems that makes property taxes more buoyant. As cities of all sizes grow, and become more

dense, not only will the number of properties grow indefinitely in every city, but so should the average property value. Hence, a well administered property tax system should yield buoyant property tax revenues on a continuous basis. For the property tax to become more buoyant, urban property markets have to be liberalized: regulations such as rent control and the Indian urban land ceiling controls need to be scrapped or substantially modified, for the urban property market to flourish in a transparent manner. Second, subventions from higher levels of governments will have to continue, but these need to be made less discretionary and more predictable. Third, more and more services need to be decentralized to the private sector if possible, or to corporatized public service providers, or through public private partnerships. As these reforms take root, it would be possible for strengthened urban municipal administrations to become creditworthy and hence be enabled to raise resources for urban infrastructure investment and maintenance.

Urban infrastructure projects are typically messy, complex and difficult to implement. Thus project management skills in Asian cities need to be enhanced. For such projects to be seen as commercially viable there is a need to find all kinds of credit enhancement mechanisms that can then effectively connect lenders and investors with urban infrastructure entities. Since urban infrastructure projects often have positive externalities that, by definition, cannot be captured by the project entities, there is a good case for the government to engage in different kinds of credit enhancement. Some illustrations of possible measures are:

- **Availability of "Free" Equity for Project Agencies:** Depending on the level of positive externalities, a project agency that is not otherwise commercially viable can become viable if, in principle, the government provides some share of equity that is not to be compensated. The remaining equity can then receive appropriate market returns, as can the debt, while the project as a whole may have lower than market financial returns, through high economic rates of returns. A similar role could be played by the provision of "free" or subsidized debt.
- **Guarantee Mechanisms:** Different kinds of risks can be mitigated by different kinds of guarantee mechanisms. Such guarantee mechanisms can be commercially priced, or otherwise, depending on the source of the risk.

- **Appraisal Agencies:** The existence of information asymmetries give rise to the reluctance of investors and lenders to invest in urban projects. The government can help in funding professional institutions specialized in such appraisal techniques, which can then build professional credibility and provide project appraisals that are respected, and therefore address information asymmetries effectively.
- **Programs for staff professionalization:** National governments and international institutions can invest in directed programs to upgrade professional staff in local governments and project entities that can then lead to more efficient governments as well as project executors and maintenance agencies, thereby promoting creditworthiness.

Many such examples can be given for the credit enhancement of local governments and urban project entities. All such measures would help in linking both domestic and international capital markets to the financing requirements of cities.

The United States developed the market for municipal bonds for the financing of urban governments - both for general revenue financing as well as for specific projects. Germany developed "Pfandbriefs" that are issued by their mortgage banks to finance their lending for both housing and for municipal and state government lending. In both cases, market development needed different levels of government and regulatory intervention. Such markets will need to be created for the financing of cities in Asia, and we will need to continue the search for new institutions and mechanisms that are relevant for each country in Asia.

Perhaps the clearest evidence of the failure of urban institutions in India is the inability to mobilize resources to provide basic infrastructure facilities to an ever-increasing urban population. For instance, in the past decade, in spite of the highest economic growth rate ever, and a decline in the annual rate of growth of urban population (down from 3.1 percent in the 1980's to 2.7 percent in the 1990's) the share of slum dwellers in Indian cities across the country remained constant at 22 percent of the urban

population. The quality of basic urban amenities for the typical urbanite has not improved significantly. In sum, although the absolute value of central assistance to urban residents has increased, mechanisms of delivery of urban services needs a strong boost to ensure that they keep pace with the growth of the economy and do not contribute to the drag on the economy.

On the revenue side, some progress appears to have been made by ULBs on local taxes, for example, the property tax. Nevertheless, in many cities the collection and allocation of these taxes remain random and are not connected to local service demands or market value. On the other hand, in the last constitutional amendments to decentralize the highly centralized and regulated state only a beginning has been made, in devolution of functions and funds to the ULBs. “State governments continue to take decisions on such matters as rates of user charges, property tax, octroi, role of parastatals in water supply and sanitation services, etc., with little reference to the ULBs that are affected by these decisions” from the 10th Plan. As a result, few ULBs have the wherewithal to be demand-responsive. Fewer still are able to access India’s emerging financial system. It is, in a word, the exception rather than the rule for ULBs to be anything other than simply the administrative arms of State governments. The result has been that urban institutions are not yet integrated into the fabric of the broader deregulation and reforms of the Indian economy.

A New Generation of Institutions and Local Level Leadership has to Emerge

However recent changes have initiated a new look at these issues due to constraints and limitations in (i) public sector financial investments, (ii) many technological and organizational innovations at both the policy and the project levels. At the policy level an important opportunity to face the challenge of increasing urbanization is presented by the surge towards decentralization adopted by governments throughout the world. Of the 75 developing countries with population over 5 million, all but twelve have initiated some form of decentralization. At the same time, the role of the private sector in infrastructure provision has received a boost. This fluidity in intergovernmental

relations and the overall policy environment for local service delivery offer the chance to promote fundamental reforms that would not have been possible in the past. In the case of India the government has taken a very significant step in 1992, by passing the 73rd and 74th Constitutional Amendment Act thereby transferring many administrative and financial powers to Local Bodies. This makes Urban Local Bodies the most important institution in the provision of the urban services.

However, widespread urban infrastructure development still needs greater sub-national attention and increased city level capacity and skills. Urban infrastructure, though being in the domain of the ULB as per the 74th Constitutional Amendment, is strongly controlled by the State Governments. To align these mismatches for smoother functioning of urban development policy, a second generation of reforms targeting state and local body relations and resource sharing has to be undertaken. Given the balanced nature of the urbanization pattern in India, sub-regional city primacy is clearly recognizable. This aspect of urban morphology should be exploited to develop stronger bottom up development plans to meet the economic goals.

Fortunately the cities that have done well in the recent past like Bangalore and Hyderabad are those that have had a direct support of the chief minister or the highest functionary of the higher level of government.

Simultaneously a huge concerted effort is required to strengthen institutions at the local level. There is an urgent need to give statutory powers to local level institutions and address issues of disharmony, accountability and transparency due to multiplicity of institutions. A recent example of the Bangalore Agenda Task Force is a very interesting model which has had a great degree of success in the recent past on a number of fronts. (See Box 4)

Bangalore also houses many other innovative experiments in urban governance which are in the future going to become standard norms for urban government. The first of these are the monitoring of provision of urban services. A very user friendly report

card like system of monitoring service delivery has been developed by the Public Affairs Centre based in Bangalore. The other significant contribution of the BATF has been the creation of a double entry fund based accounting system for the corporation of Bangalore and recent measures to try and incorporate some elements of participatory budgeting for certain city wards.

As a final point on realignment of the urban development framework one has to point out that although change happens slowly in India, given the present long historic context of development of a state funded machinery for delivery of urban services if any reform effort has to be successful in addressing the huge vested interests that the sector would have built up many simultaneous openings through other legislative, regulative and capacity building and research instruments need to be taken up simultaneously to build a strong momentum for reform. Other than this active advocacy for both reducing windows by which ULBs and State governments could operate as “business as usual” and more data and documentation of successful cases of reform need to be documented to comprehensively “legitimize” urban reform initiative among the hundreds of ULBs in India.

BOX NUMBER 4

The Bangalore Agenda Task Force

The Bangalore Agenda Task Force (BATF) was constituted by the Government of Karnataka with several eminent professionals as members. It has created a successfully platform for all key civic organizations in the public domain to develop and integrate their short-term and long-term work plans for Bangalore. The BATF has actively encouraged civic-minded individuals and corporations to identify with the City’s aspirations in health, education and infrastructure activities.

Headed by Infosys CEO and MD Nandan Mohan Nilekani, BATF — not a government agency— was formed with the help of Karnataka Chief Minister. It has been working on urban development projects related to infrastructure, civic amenities, waste management, public toilets, traffic management and policing over the past four years.

The seven key stakeholders are:

- The Bangalore Mahanagara Palike

- The Bangalore Development Authority
- The Bangalore Water Supply and Sewerage Board
- The Bangalore Metropolitan Transport Corporation
- The Bangalore City Police
- Karnataka Power Transmission Corporation Limited
- Bangalore Telecom

The findings are courtesy a TN-SOFRES MODE poll conducted in February 2003 indicate In July 2000, 71% of those polled had stated there was improvement, in Feb 2001 the figure was 74% and in September 2001, it was 81% (as compared to the 94% in Feb 2003). Simultaneously, the percentage of respondents who felt that the city has "improved a lot" has also been increasing, from 6% in July 2000 to 28% in Feb 2003. About 96% of the respondents from the lower income groups (LIG) have reported improvement; the comparative figure for the upper and income group is 89%.

The Bangalore Agenda Task Force (BATF) is coming to help Delhi set up a similar model, although the Delhi government itself has achieved significant acclaim due to creating a participatory forum called Bhagadari.

VII: Conclusions

An understanding of city growth requires knowledge of the overall process of urbanization. The transition from a rural to urban economy is very rapid in historical terms for most economic systems. The trajectory for a country moving from a level of about 30 per cent urban to about 70 per cent urban is steep, and it has usually been traversed over a period of fifty to seventy years. During this period most cities in such as urbanizing economy grow at unprecedented rates. It is understandable if observers and administrators are driven to despair during this period of seemingly unending rapid change. The task of meeting all the demands for jobs, shelter, water, roads, transport and other urban infrastructure is daunting. India is about to enter this phase of urbanization so the task for policy makers is cut out. Unlike many other countries in this phase in the past, India already has a number of mega cities, and many million plus cities. Unlimited expansion of the largest of its cities may not be feasible. We can therefore expect the

emergence of other mega cities. Hence city management will have to be given special attention with the attendant human resource development.

At the city level it is important to both strengthen city management and to deregulate. With the magnitude of urbanization expected in India in the next 30 years, with or without acceleration of the process, city managements will have to manage and cope with large financial requirements for all kinds of investment for infrastructure service provision. Given the overall fiscal constraints at present, resources will have to be raised increasingly at the local level. Thus urban local governments have to be strengthened at all levels, and made creditworthy. This will need both national level and state level directed programs towards achieving this end. It will not happen automatically. The urban land and housing markets have been seriously distorted for over 30 to 40 years in India. Both are in great need for deregulation, particularly the repeal of the Urban Land Ceiling Act in the states where it still exists; and substantial amendments to rent control acts are surely needed to free the rented market. Furthermore, other rigidities in the land market, related to archaic building bye laws, taxing restrictions and the like also need to be addressed.

In such a phase of urban development it is all the more important to understand that rapid change during such a period is a norm of urban development, not an aberration. Once this is accepted, it follows that policies for urbanization and provision of urban infrastructure and employment must be positive, not negative. Urban growth must be accommodated and institutional mechanisms devised to cope with such growth. Most cities and countries are faced with acute fiscal pressure during such a period: India is no different. This in itself points to the need for fiscal conservatism in the provision of urban services, and for innovative financing mechanisms as indicated in this paper.

The surprise in India is that just when the urbanization process was expected to accelerate, it has slowed down in India. The 1980s and 1990s were characterized by accelerated economic growth in India, and marked a departure from not only the previous three decades in independent India but the many preceding independence. Non

agricultural growth surged ahead of agricultural growth, but urbanization did not. We have argued in this paper that this has probably been caused by both faulty national level economic policies that have discouraged urban employment growth, particularly industrial employment, but also local and state level policies that have introduced urban level and other rigidities that have inhibited urban infrastructure investment.

Urban policy formulation and implementation have never received the attention they deserve from the highest policy making levels in India. In attempting to trace the inter-related complexity of phenomena, policies, institutions and markets that have major impacts on the urbanization process we have argued for greater flexibility in national economic policy and decentralization of city management. Cities have to adapt to the changing contours of urbanization and they need to be enabled to respond adequately.

We have argued in this paper that national economic policies that inhibit labor using manufacturing and other activities need to be identified and corrected. The reservation policy for small scale industries has long outlined its usefulness. All it is doing now is inhibiting industrial growth in India of labor using industries, thereby of industrial employment, urban employment as a whole, and of the urbanization process as a whole. This effect is being exacerbated by the rigidities in labor legislations as well. What is needed is the formulation of a new urban and industrial policy that now actively encourages the location of labor using industries in urban areas. The average skill level of entrants to the labor force in India will remain low for some time: hence adequate employment opportunities for them have to be enabled. The high skill service sector employment opportunities that have caught popular imagination will not serve the purpose. A new look at rural sector policies and infrastructure provision is also needed to encourage the diversification of agricultural activities that bring the farm nearer to the market through the provision of active supply chain linkages. This will create both more non-farm rural jobs along with more urban jobs.

Healthy, inclusive economic growth needs faster urban growth to reduce the economic burden on rural areas. Thus much greater attention needs to be given to the impact of national level economic policies on urban growth, and policies adopted in favor

of accelerating urban growth. Correspondingly, as this is done, the capacity for city management has to be enhanced, and rigidities in local and state level legislatures eliminated. For adequate urban infrastructure investment to be made, public private partnerships will have to be encouraged, and financial arrangements developed that assist in the financing of urban development.

In conclusion we have an optimistic view of the prospects of managing city growth in India in the years to come. This is in marked contrast to much writing concerned with urbanization in developing countries. We do not believe that cities in general are growing too fast in India: if anything, their growth needs to be speeded up so that the burden on rural areas is mitigated. We do not believe that the expanding urban population in India is condemned to a shelterless existence: but policy initiatives are indeed needed to enable people to provide better shelter for themselves. We do not believe that it is impossible to provide a modicum of necessary urban services that are affordable and manageable: but the levy and collection of economic user charges is essential to enable the financing of such services. We do not believe that cities are being swamped by a flood of destitute migrants who have no productive employment prospects: but various economic policies do need to be altered to increase the pace of economic activity in Indian cities. Many solutions to problems engendered by city growth will be found by the urban constituents themselves. The job of the public authorities is to develop institutions and systems that are sensitive to the emerging needs and preferences of households and firms and are then capable of reacting accordingly.

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Table 1: Out of the 10 Most Populous Countries 6 are Asian

Country	1950		2000		2030	
	Per cent urban	Population (in millions)	Per cent urban	Population (in millions)	Per cent urban	Population (in millions)
1 China	12.5	555	35.8	1275	59.5	1485
2 India	17.3	357	29.0	1009	40.9	1409
3 USA	64.2	158	77.2	283	84.5	358
4 Brazil	36.5	54	81.2	170	90.5	226
5 Indonesia	12.4	79	41.0	212	63.7	283
6 Nigeria	10.1	30	44.1	114	63.6	220
7 Pakistan	17.5	40	33.1	141	48.9	273
8 Mexico	42.7	28	74.4	99	81.9	135
9 Japan	50.3	84	78.8	127	84.8	121
10 Bangladesh	4.3	42	25.0	137	44.3	223

Source: United Nations, 2002

Table 2 : Urban Population in India, 1901-2001

Census Year	Number of UAs/ Towns	Total Population (in millions)	Rural Population (in millions)	Urban Population (in millions)	Urban Population as percentage of total Population
1901	1,830	238	213	26	10.8
1911	1,815	252	226	26	10.3
1921	1,944	251	223	28	11.2
1931	2,066	279	246	34	12.0
1941	2,253	319	275	44	13.9
1951	2,822	361	299	62	17.3
1961	2,334	439	360	79	18.0
1971	2,567	548	439	109	19.9
1981	3,347	683	524	160	23.3
1991	3,769	846	629	218	25.7
2001	4,378	1,027	742	285	27.8

Note:

1. Urban Agglomerations, which constitute a number of towns and their outgrowths, have been treated as one unit.
2. The total population and urban population of India for the year 2001 includes estimated population of those areas of Gujarat and Himachal Pradesh where the census could not be conducted due to natural calamities.
3. The total population and urban population of India for the year 1991 includes interpolated population of Jammu & Kashmir where the census could not be conducted.
4. The total population and urban population of India for the year 1981 includes interpolated population of Assam where the census could not be conducted

Source: *Census of India, 2001*

Table 3: Number of Towns in Each Class Category : 1901 to 2001

Number of Towns in each Category in the last century							
Census Year	Class I	Class II	Class III	Class IV	Class V	Class VI	Total
1901	24	43	130	391	744	479	1811
1911	23	40	135	364	707	485	1754
1921	29	45	145	370	734	571	1894
1931	35	56	183	434	800	509	2017
1941	49	74	242	498	920	407	2190
1951	76	91	327	608	1124	569	2795
1961	102	129	437	719	711	172	2270
1971	148	173	558	827	623	147	2476
1981	218	270	743	1059	758	253	3301
1991	300	345	947	1167	740	197	3696
2001	393	401	1151	1344	888	191	4368

Source : Census of India 2001

Note :

Class I	100,000 and above
Class II	50,000 to 99,999
Class III	20,000 to 49,999
Class IV	10,000 to 19,999
Class V	5,000 to 9,999
Class VI	Less than 5,000

**Table 4a : Annual Growth Rate of Urban Population by
Size of Town¹, 1971-1981**

Size Class	No. of towns 1971	Total population 1971 (in thousands)	Total population 1981 (in thousands)	Growth rate	
				Per cent per year	Per cent over decade
Class I (100,000 +)	145	60,122	85,801	3.62	42.7
Class II (50,000 to 100,000)	178	12,030	16,874	3.44	40.3
Class III (20,000 to 50,000)	560	17,170	23,712	3.28	38.1
Class IV (10,000 to 20,000)	818	11,656	16,107	3.29	38.2
Class V (5000 to 10,000)	594	4,300	6,264	3.83	45.6
Total	2295	105,278	148,758	3.52	41.3

Notes :

1. Excluding Assam and Jammu & Kashmir
2. The growth rates are calculated by comparing the total population of towns in each size class according to their classification in the 1971 Census as compared with the total population in the 1981 Census, e.g., the growth rate of 3.62 per cent per year for class I towns in 1971 refers to the growth between 1971 and 1981 of the 145 towns classified as class I in 1971.

Source:

1. Government of India : *Census of India*, General Population Tables 1971 - Series I, Part II, New Delhi, 1975.
2. Government of India : *Census of India - Provisional Population Tables*, Paper 2 of 1981, New Delhi, 1981.

**Table 4b : Annual Growth Rate of Urban Population
by Size of Town, 1981-1991**

Size Class	No. of towns 1981	Total population 1981 (in thousands)	Total population 1991 (in thousands)	Growth rate	
				Per cent per year	Per cent over decade
Class I (100,000 +)	218	96,058	129,190	3.01	34.5
Class II (50,000 to 100,000)	269	18,103	23,825	2.78	31.6
Class III (20,000 to 50,000)	706	21,496	27,853	2.62	29.6
Class IV (10,000 to 20,000)	1007	14,303	18,367	2.53	28.4
Class V (5,000 to 10,000)	684	5,162	6,711	2.66	30.0
Total	2884	155,125	205,948	2.88	32.8

Notes : Excluding Assam and Jammu & Kashmir.

The methodology for calculation is the same as in Table 13a.

Source : *Census of India, 1991* - Provisional Population Tables, Series I, Paper 2 of 1991.

Table 5a : Projections of Total Population 1981-2001

	(Millions)				
	1981	1986	1991	1996	2001
Variant I	697	776	856	936	1016
Variant II	697	774	850	923	993
Variant III	697	776	856	937	1018
Actual			846		1027

Assumptions

Variant I = Total population growth rate declines linearly from 2.27 per cent in 1981-82 to 1.6 per cent in 2000-01

Variant II = Same as in Variant I except that terminal year growth rate is 1.4

Variant III = Rural population growth rate declines linearly from 1.76 per cent in 1981-82 to 1.0 per cent in 2000-01 with constant Urban Rural Growth Differential (URGD) of 2 percent.

Source : *Projections : Government of India, Planning of Urban Development, Task Force on Housing and Urban Development, Planning Commission, 1983; Actuals : Census of India, 1991 and 2001*

Table 5b : Projections of Urban and Rural Population 1981-2001

(Millions)										
Projections	1981		1986		1991		1996		2001	
	Urban	Rural								
Urban Variant I	164	533	198	578	236	620	275	661	315	701
Urban Variant II	164	533	197	579	234	622	275	661	320	696
Actual population	159	524	N.A.	N.A.	218	629	N.A.	N.A.	285	742

Notes: All calculations use population variant I

Urban variant I = URGD increases to 2.2 over the first five year period and declines gradually to 2.0 percent over 1986-91; 1.8 over 1991-96 and 1.6 over 1996-2001

Urban variant II = URGD remains constant at 2.0 over the entire period.

Source : Projections : Government of India, Planning Commission, Planning of Urban Development: Task Force on Housing and Urban Development, 1983; Actuals : Census of India, 1991 and 2001

Table 6: Projections of Level of Urbanization 1981-2001

Projections/Actual Level of Urbanization (per cent)					
Projections	1981	1986	1991	1996	2001
Urban Variant I	23.53	25.57	27.52	29.35	31.04
Urban Variant II	23.53	25.38	27.32	29.35	31.47
Actual level of urbanization	23.53	-	25.70	-	27.79

Source : Projections : Government of India, Planning Commission, Planning of Urban Development: Task Force on Housing and Urban Development, 1983; Actuals : Census of India, 1991 and 2001

Table 7 : Statewise Growth in Urban Population 1971 - 2001

Sl. No	State	Percentage urban population				Annual growth rate (per cent per year)		
		1971	1981	1991	2001	1971-81	1981-91	1991-01
1	Andhra Pradesh	19.31	23.25	26.84	27.08	3.94	3.55	1.37
2	Assam	8.82	9.88	11.09	12.72	3.29	3.29	3.09
3	Bihar	10.00	12.46	13.17	10.47	4.34	2.65	2.57
4	Gujarat	28.08	31.08	34.40	37.35	3.42	2.90	2.80
5	Haryana	17.66	21.96	24.79	29.00	4.65	3.58	4.11
6	Karnataka	24.31	28.91	30.91	33.98	4.08	2.55	2.53
7	Kerala	16.24	18.78	26.44	25.97	3.19	4.76	0.74
8	Madhya Pradesh	16.29	20.31	23.21	26.67	4.45	3.71	2.71
9	Maharashtra	31.17	35.03	38.73	42.40	3.35	3.27	2.95
10	Orissa	8.41	11.82	13.43	14.97	5.21	3.08	2.61
11	Punjab	23.73	27.72	29.72	33.95	3.62	2.55	3.19
12	Rajasthan	17.63	20.93	22.88	23.38	4.52	3.31	2.71
13	Tamil Nadu	30.26	32.98	34.20	43.86	2.45	1.76	3.56
14	Uttar Pradesh	14.02	18.01	19.89	20.78	4.78	3.27	2.84
15	West Bengal	24.75	26.49	27.39	28.03	2.75	2.54	1.84
ALL INDIA		20.22	23.73	25.72	27.78	3.79	3.09	2.73

Source : Census of India 2001

Table 8 : Estimates of Relative Share of Natural Increase, Net Migration and Reclassification in the Decadal Urban Growth : 1961-1991*

	1961-71	1971-81	1981-91
Urban Population Increase (million)	30.18	49.45	56.45
Estimated Share (million)			
Natural Increase	19.65	20.40	33.86
Net Migration	5.91	19.73	12.73
Reclassification	4.59	9.32	9.82
Percentage Share (Per cent)			
Natural Increase	65.21	41.75	59.98
Net Migration	19.58	39.40	22.62
Reclassification	15.21	18.85	17.40

* Excludes Assam and Jammu & Kashmir for the decades 1971-81 and 1981-91

Source : Census of India 1991: Emerging Trends of Urbanization in India - An Analysis of 1991 Census Results, 1993

Table 9: Net Domestic Product (NDP) and Population in Rural and Urban Areas

Year		Net domestic Product (Rs. Billion)	Population (million)	Per capita NDP (Rs.)
1970-71	Total	368	541	680
	Rural	229	434	529
	Urban	139	107	1294
	Urban as a ratio of Rural	0.60	0.25	2.45
1980-81	Total	1103	679	1625
	Rural	650	522	1245
	Urban	453	157	2888
	Urban as a percentage of Rural	0.70	0.30	2.32
1993-94	Total	7161	891	8037
	Rural	3849	655	5876
	Urban	3312	236	14035
	Urban as a percentage of Rural	0.86	0.36	2.39

Note: NDP and per capita NDP are at current prices.

Source: Central Statistical Organisation, National Accounts Statistics, Various Issues

**Table 10: Poverty has been Falling:
State-Specific Headcount Ratios (Per cent)**

(Per cent of Population in Poverty)

State	Urban population			Rural population			Total population		
	1987-88	1993-94	1999-00	1987-88	1993-94	1999-00	1987-88	1993-94	1999-00
Andhra Pradesh	23.4	17.8	10.8	35.0	29.2	26.2	32.5	26.2	21.7
Assam	13.6	13.0	11.8	36.1	35.4	35.5	34.3	33.1	33.1
Bihar	38.1	26.7	24.7	54.6	48.6	41.1	52.5	45.9	39.0
Gujarat	16.4	14.7	6.4	39.4	32.5	20.0	33.1	26.7	15.7
Haryana	11.8	10.5	4.6	13.6	17.0	5.7	13.2	15.3	5.4
Himachal Pradesh	1.7	3.6	1.2	13.3	17.1	9.8	12.5	16.0	9.1
Jammu & Kashmir	3.8	3.1	1.3	15.3	10.1	6.1	13.3	8.5	5.1
Karnataka	26.0	21.4	10.8	40.8	37.9	30.7	36.5	33.2	25.1
Kerala	21.0	13.9	9.6	23.8	19.5	10.0	23.3	18.1	9.9
Madhya Pradesh	20.7	18.5	13.9	43.7	36.6	31.3	39.3	32.4	27.5
Maharashtra	21.2	18.2	12.0	44.3	42.9	31.9	36.6	33.7	24.2
Orissa	20.8	15.2	15.6	50.4	43.5	43.0	46.9	39.9	38.5
Punjab	6.6	7.8	3.4	6.6	6.2	2.4	6.6	6.6	2.7
Rajasthan	19.8	18.3	10.8	35.3	23.0	17.3	32.1	21.9	15.9
Tamil Nadu	26.2	20.8	11.3	49.0	38.5	24.3	40.9	32.3	19.8
Uttar Pradesh	29.3	21.7	17.3	34.9	28.6	21.5	33.9	27.3	20.6
West Bengal	22.3	15.5	11.3	36.3	25.1	21.9	32.9	22.9	19.6
All-India	22.5	17.8	12.0	39.0	33.0	26.3	35.2	29.2	22.7

Source: Angus Deaton and Jean Dreze (2002), 'Poverty and Inequality in India: A Reexamination', EPW, September 2002.

Table 11: Change in Sectoral Share in GDP in the Last Decade

	(Per cent)		
	1990-91	1995-96	2000-01
1. Agriculture & allied Activities	32.2	28.0	23.8
2. Industry	21.7	23.0	22.0
Manufacturing	16.6	17.9	17.2
3. Services	46.1	49.0	54.1

Source: Central Statistical Organisation, National Accounts Statistics

Table 12 : Annual Growth in Employment and Population during the 1980s and 1990s.

	(Per cent per year)			
	Employment Growth	Population Growth	Employment Growth	Population Growth
	1983 to 1993/4	1981 to 1991	1993/4 to 1999 / 2000	1991 to 2001
Urban	2.9	3.1	2.4	2.7
Rural	1.8	1.8	1.3	1.7
Total	1.8	2.1	1.5	1.9

Source: Population : Census of India; Employment : National Sample Survey

Table 13: Projections of urbanization for the next 30 years

	2000	2005	2010	2015	2020	2025	2030
Total Population in thousands	1017	1097	1174	1246	1312	1369	1417
Urban Population in thousands	281	315	355	402	456	517	586
Per cent Urban	27.7	28.7	30.3	32.2	34.7	37.8	41.4

Source : World Urbanization Prospects : 2003 revision

Table 14: Projected Population of Mega Cities

	(millions)			
	2000	2005	2010	2015
Mumbai	16.1	18.3	20.5	22.6
Delhi	12.4	15.3	18.2	20.9
Kolkata	13.1	14.3	15.5	16.8
Chennai	6.4	6.9	7.5	8.1
Bangalore	5.6	6.5	7.5	8.5
Hyderabad	5.4	6.1	6.8	7.5

Source : U.N. World Urbanization Prospects : 2003 revision

Table 15 : Improvements in Availability of Urban Amenities

NSS Round	Survey Period	Per cent of Urban Households	
		with Sole Access to Drinking Water	Households with Sole Access to Latrine
28th	Oct 73 to June 74	23.2	24.1
38 th	Jan to Dec 83	-	26.8
44th	July 88 to June 89	34.8	36.7
49th	Jan to June 93	40.2	40.4
54th	Jan to June 98	41.3	46.1

Source : National Sample Survey (NSS) 54th round 1998.

Table 16: Improvements in Availability of Urban Sanitation

NSS Round	Survey Period	Urban		
		No Latrine Used	Service Latrine	Septic Tank
44th	July 88 to June 89	31.8	11.7	25.8
49th	Jan to June 93	30.6	7.4	29.6
54th	Jan to June 98	25.5	5.9	35.2

Source : National Sample Survey (NSS) 54th round 1998.

Table 17 : Locational factors in economic growth

	Key Determinants for future growth	Favored States	Time Period	Current contribution to growth
Agriculture	Climate, agricultural technologies	Punjab, Haryana	Green Revolution, 1970s-1980s	Low
Manufacturing	Urban, coastal, major port facilities, attracting foreign direct investment	Maharashtra, West Bengal, Tamil Nadu, Gujarat	1980s onward, with rising importance in the 1990s	High
Tourism	Historical, cultural, and natural attractions, proximity to major ports of entry such as Delhi and Mumbai	Rajasthan, Maharashtra	1980s onward	Moderate
High-tech Services (finance and ICT)	Urban, skilled labor force, universities	Maharashtra, Tamil Nadu, Karnataka, West Bengal	1990s	High

Source: Jeffrey Sachs and others (2002)

Annex Table A : Household with Access to Toilet Facility

States / Uts	1981			1991			1997
	Rural	Urban	Combined	Rural	Urban	Combined	Combined
1. Andhra Pradesh	—	44.07	—	6.62	54.60	18.40	35.06
2. Assam	—	—	—	30.53	86.06	37.43	6.44
3. Bihar	—	52.95	—	4.96	56.54	11.75	58.14
4. Gujarat	—	60.11	—	11.16	65.71	30.69	66.74
5. Haryana	—	58.09	—	6.53	64.25	22.45	60.00
6. Karnataka	—	53.28	—	6.85	62.52	24.13	90.14
7. Kerala	—	59.14	—	44.07	72.66	51.28	73.05
8. Madhya Pradesh	—	52.73	—	3.64	53.00	15.07	7.87
9. Maharashtra	—	59.37	—	6.64	64.45	29.56	64.13
10. Orissa	—	41.88	—	3.58	49.27	9.81	9.46
11. Punjab	—	64.75	—	15.79	73.23	33.18	66.68
12. Rajasthan	—	56.48	—	6.65	62.27	19.57	65.40
13. Tamil Nadu	—	51.27	—	7.17	57.47	23.13	37.13
14. Uttar Pradesh	—	62.06	—	6.44	66.54	18.02	33.15
15. West Bengal	—	77.74	—	12.31	78.75	31.51	50.19
16. All India	—	58.15	—	9.48	63.85	23.70	49.32

Source: *National Human Development Report, 2001*, Planning Commission, Government of India.

Annex Table B : Households with Safe Drinking Water

	1981			1991		
	Rural	Urban	Combined	Rural	Urban	Combined
1. Andhra Pradesh	15.12	63.27	25.89	48.98	73.82	55.08
2. Assam	—	—	—	43.28	64.07	45.86
3. Bihar	33.77	65.36	37.64	56.55	73.39	58.76
4. Gujarat	36.16	86.78	52.41	60.04	87.23	69.78
5. Haryana	42.94	90.72	55.11	67.14	93.18	74.32
6. Karnataka	17.63	74.40	33.87	67.31	81.38	71.68
7. Kerala	6.26	39.72	12.20	12.22	38.68	18.89
8. Madhya Pradesh	8.09	66.65	20.17	45.56	79.45	53.41
9. Maharashtra	18.34	85.56	42.29	54.02	90.50	68.49
10. Orissa	9.47	51.33	14.58	35.32	62.83	39.07
11. Punjab	81.80	91.13	84.56	92.09	94.24	92.74
12. Rajasthan	13.00	78.65	27.14	50.62	86.51	58.96
13. Tamil Nadu	30.97	69.44	43.07	64.28	74.17	67.42
14. Uttar Pradesh	25.31	73.23	33.77	56.62	85.78	62.24
15. West Bengal	65.78	79.78	69.65	80.26	86.23	81.98
16. All India	26.50	75.06	38.19	55.54	81.38	62.30

Source: *National Human Development Report, 2001*, Planning Commission, Government of India.