PAPER ON

URBANISATION

K. C. Sivaramakrishnan

and

B. N. Singh

C O N T E N T S

I. Urbanisation Trends

1.   Urbanisation in India is neither unique nor exclusive but is similar to a world-wide phenomenon. Indian urbanisation has proceeded as it has elsewhere in the world as a part and product of economic change. Occupational shift from agriculture to urban-based industry and services is one part of the change. At the same time, increased agricultural performance has also promoted urbanisation as noticed in several top rice and wheat producing districts in the country. To cite some examples, in the districts of Chengalpet, Krishna, Burdwan, Ludhiana or Kurukshetra, the percentage of urban population is seen to be higher than the state average. New industrial investments and expansion of the services industry in new location is also another factor. As for the magnitude, in 1901, only 25 million people constituting 10.84 per cent of population lived in urban areas in India. In the 100 years since then, the urban population has grown 12 times and it is now around 285 million people constituting 28 per cent of the total population. In the following 20 years (2001-21), the urban population will nearly double itself to reach about 550 million. According to the World Urbanisation Prospects (the 1996 Revision), the urban population in the year 2025 will rise to 42.5 per cent (566 million).

2.   These figures, however, do not portray a full picture. The state-wise variations are significant. The pace and spread of urbanisation are not uniform. Maharashtra with an urban population percentage of 42 per cent (41 million), Gujarat with 37 per cent (19 million) and Tamil Nadu with 44 per cent (27 million) and the least urbanised state, Assam with 13 per cent in 2001 indicate this inter-regional variation. In 2021, Maharashtra (50.45%), Gujarat (44.45%), Tamil Nadu (42.54%), Karnataka (41.12%) and Andhra Pradesh (39.13%) will be the most urbanised states in the country in that order. Maharashtra will be more than half urban while Gujarat and all the southern states will be more than 40 per cent urban. Among the northern states, Punjab, Haryana and Western Uttar Pradesh will have significant urbanisation levels. The

rate of urban increase will also vary. Between 2001 and 2016, in the country as a whole, urban population will increase by nearly 50 per cent compared to 17 per cent rural.

3.	During the past five decades, growth rates of urban population have been significant. It was 41.4% during 1941-51, in the decade 1961-71, 38.2%, and in the next decade 1971-81, 46.1%. A drop in the rate to 36.4% in the next decade (1981-91) prompted some observers to suggest that the urbanisation was slowing down. This appears to be due mainly because of a decline in rural - urban migration but the urban growth rate of 3.1% has been significantly higher than overall population growth rate of 2%. The urban growth rate during 1991-2001 is 31.39% which is lower than the 1981-91 urban growth rate.

4.	Contrary to popular perception, migration is not the principal or the dominant factor in urban growth. In the 1981-91 period, natural increase accounted for 60 per cent of urban growth, migration for 21.20 per cent and reclassification of new towns 18.80 per cent. The figures for the past 3 decades show that nearly 60 per cent of the total migratory movement has been from rural to rural. However in the case of some large cities for certain periods of time, migration has been a major factor. For instance, migration has increased between 1981 and 1991 in the case of Mumbai, Delhi and Hyderabad, but as a component of city's growth its share has declined.

Table 1: Migration Pattern in Major Metropolitan Cities　　　　　　　　　　　　　　*(Million)*

Cities	Mumbai		Calcutta		Delhi		Chennai		Bangalore		Hyderabad	
	1981	*1991*	*1981*	*1991*	*1981*	*1991*	*1981*	*1991*	*1981*	*1991*	*1981*	*1991*
Population	8.24	12.57	9.19	10.91	5.73	8.38	4.29	5.36	2.92	4.09	2.55	4.28
Population Increase	2.27	4.33	1.77	1.72	2.08	2.65	1.12	1.07	1.26	1.16	0.75	1.73
Of which Migration	1.55	1.81	0.69	0.61	1.16	1.36	0.68	0.57	0.50	0.51	0.25	0.55
In per cent	68.51	41.92	39.01	35.30	55.73	51.53	60.50	53.08	40.13	43.78	32.72	31.60

However, in the case of Bangalore, the proportion has increased slightly. It is therefore worthy of note that the common notion that migration largely fuels urban growth is only partially correct.

5.	The urbanisation trends in India are a direct reflection of the structural changes that are taking place in the economy. The combined contribution of industry and services to GDP is

significantly higher than that of agriculture. The urban areas are likely to play an increasingly important role with the continuing liberalisation of the economy. Much of the growth of the economy will come from economic activities that are likely to be concentrated in and around existing cities and towns, particularly large cities. Cities with transport and telecom linkages with global economy, are the preferred destinations for investments. However, there is inadequate recognition of the role that cities play in economic development. The cities need to be supported with improved planning and infrastructure to accommodate growth, better governance and management.

Spatial Manifestation of Urban Growth

6.   It is very important to understand the shape and physical patterns of urban growth. In 1991, there were 3768 UAs/towns. About one-third of the urban population in 1991 resided in 23 metropolitan cities; another one-third in the remaining 277 Class I cities and the rest in the 3468 UAs/towns. In 2001, there are 4368 UAs/towns. About 38% of the total urban population are residing in 35 metro cities, 30.6% in remaining 358 Class I cities and the rest in 3975 UAs/towns. According to a recent estimate, the number of metropolitan cities will be 51 by 2011 and 75 by 2021 AD. In addition, there would be 500 large cities (one lakh and above size) and 4430 medium and small towns (less than one lakh population size). The analysis of urbanisation pattern and projections for the next 20 years is indicative of the fact that bulk of the urban population will be living in metropolitan regions. This does not mean that the main cities within these regions will continue to grow at the same pace. In fact, in some cases, central city growth may decline but in the peripheries there will be new growth. Agglomerations covering several municipal jurisdictions will emerge as a distinct feature of India's urbanisation.

7.   These factors will also cause the existing urban agglomerations to become bigger. Agricultural *mandi* towns, new industrial centres and service activities located in the metropolitan regions will coalesce. Most of these agglomerations will grow along transport corridors, but the pattern of growth will not be continuous and will have some characteristics as follows:

- Much of the urban growth will be along essentially transport corridors, and unrestrained by municipal jurisdictions; the distinction between urban and rural will get blurred.
- The corridors will be multi-nodal but these nodes will not be as well connected functionally as needed. Within these corridors, metropolitan nodes will be further densified, e.g., Bangalore. In some cities, the peripheries may densify e.g., Calcutta.
- In some corridors, growth will be continuous but in many it will be discontinuous and sparse with creeping urban sprawl, wasting land and other resources in the process.
- The infrastructure and environmental implications will require careful management.
- The organisational framework required for governance will be very different than what we have at present, limited as it is within a city – municipality model.

II. Impact of Urbanisation

8.   The impact of all this growth on space, environment and quality of life will be, to say the least, tremendous. The provision of infrastructural facilities required to support such large concentration of population is lagging far behind the pace of urbanisation. As a consequence, the urban environment, particularly in large cities, is deteriorating very rapidly.   All cities have severe shortage of water supply, sewerage, developed land, housing, transportation and other facilities. The level, quality and distribution of services have been very poor. Several studies have indicated large segments of urban population do not have access to drinking water, sanitation, basic health services and education. These deficiencies have serious health impacts particularly affecting the urban poor. Deteriorating infrastructure, weak municipal institutions and poor delivery systems have constrained the urban economy and its ability to generate employment, incomes and services for the poor. The impact of urbanisation may be considered in the context of urban infrastructure services comprising water supply, sanitation and solid waste management, land and urban environment.

Water Supply

9.   According to the 1991 census, 81.4 per cent of urban household had access to safe drinking water but 40 million persons (18.6%) were reported to be without access to safe water supply. It is claimed that in metropolitan cities like Delhi, Calcutta, Mumbai and Hyderabad, the water supply is more than 200 lpcd. However this figure hides the very serious inequities in access, quality and quantity of water supply available to different parts of the city. In many cities, water availability ranges from 3-8 hours per day. India's three largest cities (Mumbai, Delhi and Chennai) are worst in terms of hours of availability of water per day varying between 4 to 5 hours. There are about 80 class I towns in Tamil Nadu, Andhra Pradesh, West Bengal, Rajasthan and Maharashtra which have got per capita supply of less than 75 lpcd. The daily per capita supply of water to Bangalore is about 75-80 litres and in Chennai it is about 70 litres. Delhi's per capita water supply of 200 lpcd does not mean much to about 30% of the city's population who have access to only 25 litres or less. We also have a problem of quantity. Drinking water may need only a small proportion of total water resources but even that is not available where needed. Then there are leakages (between 25-50 per cent) in water supply system thereby creating further shortages. Low water pressure and intermittent supplies allow back – syphonage and contamination. Since about 60 to 70 per cent of drinking water is drawn from surface streams, their pollution by discharge of domestic and industrial wastes is a direct threat to public health. Poor pricing policies fail to promote conservation of water. If these trends continue there is a real danger that more and more urban areas may run out of water.

Sanitation

10.   Nearly three-fourths of the population living in cities have no access to any human waste collection and disposal system. The sewerage system exist in 60 Class I cities out of 300 but where systems exist they cover the area only partially. Less than half of the total sewage is collected and only 30-40 per cent of which is treated properly. In the circumstances only 15 per cent of the urban population have access to private toilets. More than half of urban population particularly in small and medium towns resort to open defecation. Provision of sewerage system

continues to be expensive particularly in regard to collection and conveyance. A national programme of low cost sanitation aimed at elimination of manual scavenging has been taken up. This programme seeks to replace about 6 million dry latrines by sanitary latrines in 3600 towns. So far works have been taken up in 1155 towns and 6.95 lakh units have been completed by 1997. Low cost sanitation is not considered a total substitute. Due to inadequate sewerage and lack of water treatment facilities, pollutants enter ground water, rivers and other water sources causing water borne diseases.

Solid waste Management

11.   The volume of garbage in Indian cities is increasing. Indian cities and towns are estimated to generate about 80,000 metric tonnes of solid waste every day. Per capita solid waste generated is about 350-400 gms and in large cities it exceeds 500 gms. Only 60 per cent of this volume is collected, even less is transported and disposed off. Sanitary landfill or composting as methods of garbage disposal is limited to very few cities. Mumbai generates about 3200 tonnes of garbage of which about 97% is collected. In other cities, collection varies from about 90% in Delhi and Chennai, about 75% in Calcutta and Hyderabad, 68% in Bangalore and 70 % in Kanpur. The collection is around 50% in smaller towns. In industrial areas of many cities, the municipal solid waste is getting mixed up with hazardous waste creating a serious problem, while the accumulation of garbage has become a common site in most of the cities. Most solid wastes that are collected end up in open dumps, sanitary landfill or drainage system, threatening both surface water and ground water quality. Solid wastes create one of the most visible environmental problems in low-income areas. These problems are directly linked to inadequate planning, finances and management capacity at the local level.

Land

12.   Rapid urban growth has led to the problems of urban sprawl, ribbon development, unregulated development, high cost for urban infrastructure, pollution due to the inadequate disposal of urban and industrial waste. All such issues involve land. Land can be used in many

ways – agriculture, forestry, grazing, industrial and urban uses, utility corridors, roads, waste disposal and recreation. With the increase of urban population, more and more agricultural areas have been converted into urban use. For example, during 1981-91, the increase in population of Vishakapatnam was 75%, whereas the increase in spatial expansion was as high as 230% recording 3 times growth. Likewise, the increase of population and spatial expansion of Lucknow is 66% and 131% respectively. Large cities on the other hand do not have the land to spread out. For instance in Greater Bombay, spatial expansion was 34% compared to the increase in population of 77%. The optimum use of land requires that land resources be well inventorised, their spatial relations be delineated and their capacities for all likely uses be determined. Much of the legislation needed for land use planning already exists. The evidence suggests that many Master Plans have failed because they are over-ambitious, lacking financial resources and participation by the people. Traditional land use systems generally do not adequately control the quality, pace or distributional effects of land development. The record shows that public land development and regulatory agencies have not been able to accommodate the constantly changing needs of urban economies and populations in an orderly manner. People's participation in and commitment to land use planning and control need to be facilitated by local bodies and made more dynamic in response to changing needs.

Urban Environment

13.   In recent years, the urban environment has become a major subject of concern. The process of rapid urbanisation poses serious challenges to towns and cities, which are struggling to provide and maintain the already inadequate level of urban services. Among the major environmental problems faced by urban areas are air, water, and soil pollution and growing volume of wastes including hazardous waste. The metropolitan cities are experiencing critical environmental degradation and pushing to the limit their ability to sustain human life. Although the entire urban population is affected, the urban poor are the most vulnerable. It is poor performance of local governments in the delivery of basic urban services that lead to environmental degradation and lower quality of life in urban areas.

14.	The drinking water problem in Gujarat has accentuated over the past four decades. Conflicts over drinking water between the people and the industry, between the people and government, and between urban and rural areas have become frequent in Gujarat. Such conflicts are arising because of declining availability of water resources on one hand and rising demand of economic activities on the other.

15.	Cities are major polluters of environment. Managing the urban environment is a daunting problem. Currently, awareness of urban environmental problems continues to centre around air and water pollution. Industrial emissions are significant but vehicular pollution is the single most important source of air pollution. The bulk of transport vehicles are to be found in the metropolitan cities with 1.63 million vehicles in these cities. This has aggravated atmospheric pollution. Vehicles contribute about 80% of carbon monoxide pollution, 90% of oxides of nitrogen and 65% of hydrocarbons. These are no doubt critical but sustainability requires a wider understanding of the environmental issues. Government systems set up so far are limited to pollution control boards at the centre and the states, which largely bypass city governments.

16.	Urban environmental management would have to deal with the impact of various economic activities on the environment which as per the definition of the Environment (Protection) Act, 1986 includes the inter-relationship which exists among and between water, air, land and human beings, other species and property. There is a need for evolving a system of environmental monitoring through measurement of environmental quality levels ensuring measures for disaster prevention and in the unavoidable event of a natural disaster, having a disaster management strategy. The scale of devastation is directly related to poor governance structures and lack of preparedness which increase vulnerability of population and settlements.

17.	India's urbanisation will throw up formidable challenges like running out of land, running out of water and even running out of clean air to breath. An effective combination of regulatory

and pricing mechanism will be needed to preserve scarce water resources and prevent its contamination. A proper management of water resources would need to be drawn. Drastic measures will be needed to control demand and manage traffic within cities. Sanitation and waste disposal will require low cost technologies. The protection of environment and safeguarding of health through the integrated management of water resources, sanitation and solid waste would be the corner stone of the future strategy. Coping the urban environmental problems will require sharing of responsibilities and action taken by a host of actors – central, state and local governments, NGOs, communities and the private sector.

18.   Metropolitan cities are increasingly assuming the role of engines of economic growth. Their demands for natural and socio-economic resources, such as land, housing, water, energy and other required infrastructure are often stressing their environmental settings beyond sustainable development. A metropolitan city and its region cannot have infinite population carrying capacity. Carrying capacity concept provides the physical limits to economic development governing the maximum rate of resource consumption and waste discharges. Carrying capacity may be viewed as the ability to produce desired outputs from a limited resource base and achieve equitable quality of life levels while maintaining desired environmental quality levels in a large urban setting. The carrying capacity based approach to planning is thus both a concept and a tool for assessment of various supportive and assimilative capacities of urban environmental resources and of decision-making based on their carrying capacities. This will help to manage the process of development as a whole in such a manner as to achieve a balance between the three basic facets of development, viz., (a) economic viability in terms of efficiency of resources utilisation (b) equity among communities and (c) environmental appropriateness.

19.   The development of indicators to be used as tool to define the carrying capacity in respect of each of environmental resources comprise assessing waste assimilative capacity and socio-economic capacity of the urban region to support urban population. The NIUA study (1995)

for the National Capital Region (NCR) provides a useful example of what municipalities can do in preparing their own Local Agenda 21 by suggesting planning methods that may address issues concerning the environment in the context of available natural resources in the National Capital Region (NCR). There is a need to develop a long term strategy taking into account the limit of the available natural resources having due regard to the sectoral and environmental issues at the state and local levels with focus on delivery of basic urban services. Such management approaches and mechanisms may ensure the process of sustainable development.

III. Urban Housing

20.   The housing sector needs to be viewed within the perspective of the emerging macroeconomic policies. In the political rhetoric, housing is regarded as one of the basic needs. Despite this recognition, in terms of public policies and investments, housing has generally received a very low priority. The benefits of public housing programmes have accrued disproportionately to the better-off sections of society. Despite considerable investment and efforts over successive plan periods, the housing problem continues to be daunting. The housing crisis manifests itself in many ways: growth of slums and haphazard development, overcrowding and deficient services, increasing homelessness, speculation and profiteering in land and houses. Given the relentless growth of urban population and the difficult economic environment, the housing problem will further worsen unless concerted measures are taken to ameliorate the living conditions of vast majority of vulnerable sections of the society, both in rural and urban areas. The endeavour should be to accomplish the goal of *shelter for all*.

National Housing Policy

21.   In pursuance of the Global Shelter Strategy adopted by the United Nations, a draft National Housing Policy (NHP) was formulated by the government in 1988 and was tabled in Parliament. Subsequently a revised National Housing Policy was tabled in Parliament in 1992 and was adopted in August 1994. Subsequently a National Agenda declared *shelter for all* as a priority area and formulated a new National Housing and Habitat Policy in 1998, which was laid

before the parliament in July 1998. The policy thrust of National Housing Policy is in consonance with the macro-economic policy in advocating a supportive and facilitative role of government in housing. The envisaged roles of governments at various levels and other public agencies for implementation of this policy are to act as a facilitator, provider, catalyst, to reorient and promote the various housing activities. The policy, undoubtedly, envisages that the direct role of government in the construction of houses should be specifically reduced and focused on the poorer and other vulnerable sections of the society. The new National Housing and Habitat Policy, 1998 has clearly defined the roles of various stakeholders including the state and central governments. The need to protect the interests of women, particularly women headed households has been recognised.

Overview of Urban Housing

22.   In 1991, India had a total housing stock of 148 million dwelling units of which 39.3 million was in urban areas and 108.7 million in rural areas. Of the total urban housing stock, 76 per cent formed *pucca* houses, 16 per cent semi-*pucca,* and 8 per cent *kutcha* houses. The percentage of households living in single room accommodation in urban areas declined from 45.8 per cent in 1981 to 39.6 per cent in 1991. As regards tenurial status, 53.5 per cent lived in owned accommodation in 1981 and 63.1 per cent in 1991. Thus the proportion of those living in rented accommodation has come down from 46.5 per cent to 34.1 per cent during the last decade. The estimated shortage of housing in 1991 was of the order of 22.9 million units, comprising 8.23 million units in urban and 14.67 million in rural areas. The housing shortage in urban areas was primarily characterised by the need for greater upgradation, which formed 40 per cent of the total urban housing shortage. The shortage due to congestion, excess of households over houses and obsolescence formed 23.2 per cent, 17 per cent and 19.8 per cent, respectively.

Housing and Investment Requirement for the Ninth Plan

23.   The Working Group on Urban Housing for the Ninth Plan of the Ministry of Urban Affairs and Employment has extensively dealt with the issue of requirement of housing in urban areas. The requirements have been initially projected in terms of the backlog up to 1997. With the

nature of additionality in housing stock keeping in view of the trends from 1961-1991, an overall urban housing shortage of 7.57 million units has been estimated as of 1997 and 6.64 million units by 2001.

24. A significant feature of the housing requirement estimations by the Working Group is that of the total requirement of 16.76 million units to be built and upgraded during the 9th plan period, about 70 per cent of the units is required for the urban poor/weaker sections of the society while about 20 per cent is for low-income group, and 10 per cent for the middle and higher income group segments. This would mean that for urban housing alone, the total requirement of investment would be Rs.1,21,371 crore during the next five years to meet the requirement of housing shortage of 7.57 million units, upgradation of 0.32 million semi-pucca EWS units, and the additional construction of 8.87 million units. Against the above, the availability of funds in the Ninth Plan is estimated to be only 28 per cent of the total requirement from the formal sources. The Special Action Plan envisages construction of 20 lakh additional houses every year of which 7 lakh units are for urban areas. The investment requirement for construction of 7 lakh units is Rs. 4000 crores per annum or Rs. 16000 crores for 4 years during the Ninth Plan as the programme commenced from the second year of the Ninth Plan.

Constraints to the Development of Housing – Need for Facilitatory Mechanisms

Housing Affordability and Housing Finance

25. Housing affordability, viewed as a mismatch between household's ability/willingness to pay, is a major constraint for market based approach to housing. The government's role as facilitator includes ensuring that all segments are covered over time and those segments which are unlikely to be covered by non-governmental sector, have to be provided housing by the government in its role as a provider. This is already endorsed in National Housing Policy.

26. During the last about 30 years, a wide range of housing finance institutions have been established. Housing Development Finance Corporation (HDFC) established in 1978 took the lead in establishing a market-driven housing credit instrument and developed a viable home ownership market. HUDCO developed credit packages to reach out the poor and disadvantaged

group. HUDCO's assistance has already a significant social orientation as 55 per cent of its resources are allocated for EWS and LIG households. The cooperative sector played an important role and operated a cooperative housing finance mechanism. With the successful programmes of HDFC and HUDCO, many specialised housing finance institutions emerged with the viability of housing finance intermediation. The government of India established the National Housing Bank (NHB) in 1988 as a premier refinancing institution and also a regulatory body to promote and develop housing finance system in terms of providing individual house loans through housing finance institutions, commercial banks and cooperative banks. The NHB promoted the growth of specialised housing finance institutions which are presently around 300 in number. The NHB interventions in the development of specialised housing finance companies has led to housing credit portfolio of Rs. 22.8 billion.

27.   There is a need for bringing dynamism and enhancing the credit for housing to all the sections of the needy population specially the poor. The reach of the formal housing finance institutions is quite limited. Reforms are urgently required to make institutional housing finance accessible to the urban poor. This may be done through establishing linkage between the formal and informal sources of financing and through reforms in the development of secondary mortgage market, down marketing of housing finance by innovative financing mechanism involving NGOs and cooperative network. The NHP envisages a wide spread resource mobilisation to tap households' savings in the formal and informal sectors. The NHP also advocates for increasing proportion of resources of insurance sector to be channelled into housing.

Building Technology and Shelter Costs

28.   In view of 6.6 million houses per year to be built and upgraded to remove both rural and urban housing shortage during the next five years, will require key building materials and technologies like burnt clay bricks, cementitious binders, walling, flooring and roofing materials, wood substitutes etc. The dimension of the problem is colossal. In this context, the Building

Materials and Technology Promotion Council (BMTPC) has been established in 1990 to operationalise and develop an integrated system for technology transfer and delivery in the housing and building sector. The BMTPC facilitates to develop cost effective innovative building materials and construction technologies and promote decentralised production of building materials.

29.   The existing building regulations do not encourage use of low-cost building materials. They emphasise specifications rather than performance. The resulting dwellings with conventional materials as specified in the regulations are quite expensive. Although an amended National Building Code takes account of these problems, it is yet to be implemented at the local level. There is a need to adopt cost effective technologies by upgrading traditional technologies and local materials as well as using modern construction materials. Use of such building materials and technologies can enable substantial cost savings.

Availability of Developed Land

30.   Availability of land is the most critical input for housing. The shelter costs are most sensitive to land price as it can often account for over half the cost of shelter. It is thus a key parameter where policy reforms are necessary. Past efforts of the public agencies direct interventions in the land market through bulk acquisition of land, as in the case of Delhi, has been tried in many cities. The private sector was explicitly excluded from the entire process of land development and shelter constructions. The eventual result of such a programme has been, predictably, counter-productive. It is difficult for a public agency to develop land fast enough to keep pace with demand due to organisational and financial limitations. Land availability can be increased through innovative methods of land pooling and land readjustments etc. The efforts need to be supplemented with larger participation by the private sector. For instance in Haryana, private developers have been inducted into the formal system by a facilitative regulatory and support system by providing license for development of land. This has considerably helped in

developing large chunk of land in urban areas. A heavy vacant land tax can enable release of considerable land for housing.

Increased Involvement of NGO/CBO/Co-operative Efforts

31.   NGOs/CBOs have been engaged in organising the community particularly women and children, and enabling them to manage their own affairs, in forging partnerships, understanding of local issues, and equipping them eminently to reach target groups and communities in housing related decision making process. Co-operative movement in housing has demonstrated a great deal of effectiveness in meeting housing needs through jointly owned organisations. In the context of its increasing recognition and the need for increasing the flow of resources through public participation, there is a need for the state to play a role as a facilitator to help forge partnerships among NGOs, CBOs and the private sector.

IV. Likely Areas of Tension and Conflict

Economy

32.   Urbanisation signifies a structural change in the economy- a change in the occupational pattern from the primary sector to secondary and tertiary sectors. The forces causing such a change are in the nature of "pull" or "push" factors. The push factors have been more dominant due to structural changes in the rural economy such as increasing pressure on agricultural land and declining man-land ratio. We have both the phenomenon of poverty induced as well as agricultural prosperity- induced forces impacting on urban growth.

33.   The structural changes in the economy have accelerated the process of urbanisation. The contribution of secondary sector has risen from 22 % in 1965 to 29 % in 1989 while the services sector from 34% to 41%. The primary sectors contribution is declining. It was 45% in 1965, which came down to 30% in 1989. This decline in the contribution of primary sector is, however, not matched by a corresponding decline in the working force. The percentage of labour force has remained broadly constant due to natural increase in the labour force in rural areas, and there are serious limitations in the agricultural sector to absorb this increasing labour force. In the

economy as a whole, the economic shift from rural to urban sector has become an important and steadily growing phenomenon. The contribution of the urban sector to the Indian economy rose to 47% in 1980-81 as against 20% in 1950-51. By the end of 2001, it is expected to increase to 60%. This relation between urban areas and secondary and tertiary economic activities is contributing to the rapid increase in urbanisation in the country.

Income growth

34.   The growth of employment in urban areas has been higher than overall employment average in the country. Growth rate of employment during 1977-78 to 1987-88 averaged at about 4% per annum while the growth rate of employment in the rural areas was less than 1% per annum. The per capita increase in income in secondary and tertiary sectors employment was significantly higher than in primary sector. Disparities in per capita income between urban and rural areas have, therefore, increased. The declining share of agriculture in the economy and the growing contribution of non-agricultural activities have accentuated urban and rural disparities. Thus structural change has further widened disparities in per capita rural-urban income. This trend is likely to continue in future. The urban labour market is undergoing rapid changes as most of the opportunities are coming from the self-employed and informal sector.

Poverty

35.   There was a decline in urban poverty from 49.01% in 1973-74 to 32.36% in 1993-1994. During the same period rural poverty declined from 56.44% to 37.27%. While the available evidence points out an overall improvement in the income of the urban people, the incidence of poverty in urban areas has been quite a disturbing phenomenon. A little over 76 million persons or 32.36 per cent of the total urban population live under conditions of absolute poverty as they do not have necessary income to secure 2100 calories per day being the threshold limit between the poor and the non-poor. Evidence shows that other manifestation of poverty in terms of access to housing and basic services is equally serious. In 1991, nearly 18.6% of persons in urban areas were without access to safe water supply and 36.1% without any form of basic

sanitation. Housing deficit in urban areas is about 7.57 million units, and is particularly much more severe for economically weaker sections of population. The serious deprivation in the provision of basic services to large segments of urban population is today's ground reality. According to an estimate, as much as 30 per cent of the total urban population do not have access to basic urban services, such as water and sanitation, land, affordable shelter, security of tenure and transport. The majority of the poor largely get accommodated in slums and informal settlements. Attempts to ameliorate the living conditions by providing subsidies for access to urban infrastructure services have not been effective, as the non-poor have captured most of the benefits.

Economic disparities

36. While there has been an overall rise in income in the urban areas there is considerable disparity between the different groups. The income distribution is considerably skewed as in the case of large cities in the country. Projections indicate that the percentage of households below the poverty line in Mumbai Metropolitan Areas will fall from 25% in 1991 to nearly zero in Mumbai city, and less than 5% in the Mumbai Metropolitan Region by 2011. However, nearly half of city's households will still be living in slums. Delhi has the highest per capita income in the country and unemployment is low. However, the gross inequities in Delhi's service provision are far too many to enlist. Obviously these deficiencies affect the slum population more seriously. Delhi's inability to deal with slums is a continuing reminder of the problem. Nearly one-third of the population of Delhi resides in slum settlements. This vast population of Delhi lives in sub-human conditions, with very poor access to all basic services. They are paying a high price for services, often more than the non-poor households.

Pollution, Public interest and Employment

37. Managing the urban environment is emerging as an important issue and has become major subject of concern. Currently awareness of environmental urban problems continues to centre around air and water pollution. The process of rapid urbanisation poses serious challenge

to towns and cities, which are struggling to provide and maintain the already inadequate level of urban services. Besides air and water pollution, the cities are facing growing volume of wastes due to concentration of industries. Toxic and hazardous wastes are often discharged into the municipal drains or dumped in municipal garbage heaps. Most of the river stretches in the country passing through the cities where such factories are located are heavily polluted. Concentrations of industries have also caused land pollution where industrial wastes are dumped resulting in pollution of ground water. Past and current efforts towards the control of pollution have been mainly through the identification and shifting of non-conforming industries. The Delhi and Mumbai Master Plans specifically provide for such shifting and have allocated land where such non-conforming industries could shift. Public interest litigation has emerged in recent years in reinforcing this approach. The Bombay Environmental Group has been active in limiting industrial development in green belt and Navasheva port area. In the context of pollution in river Ganga, the case of Madhu Mehta vs. the Union of India is a leading public interest litigation. In series of hearings, the Supreme Court passed important orders to close down several tanneries in Kanpur. Voluntary organisations in Delhi and Chennai have been active in taking public authorities to court for violation of development plans and zoning regulations on the grounds of environmental damage.

38.   The issue of polluting industries in Delhi, their encroachment of residential land, brought the national capital to a crisis and crippling normal life for days together in November 2000. While the provocation was the order by Delhi government sealing-off all industrial units operating in residential and non-conforming areas, the genesis goes back to a petition filed way back in 1985 in Supreme Court (SC), seeking a direction to remove polluting industries operating in residential and non-conforming areas. The Master Plan for Delhi-62, the subsequent Master Plan and from time to time the Delhi government promised to provide alternative sites for relocating these industries. In November 1995, the court directed the Delhi government and the Municipal Corporation of Delhi not to renew licenses of non-conforming industries. The Delhi government's response was still inadequate. The impression was also gathering that with political pressures,

the Master Plan would be amended and relocation would not be insisted upon. In April 1996, the Supreme Court reiterated the order for the relocation of industries to suitable locations including NCR, or close down. Subsequently, in September 1999, the SC passed another order directing the Delhi government to relocate all the industries by December 1999 and appointed the Union Urban Affairs Ministry as the nodal agency for implementation of this directive. The Delhi government had no alternative this time except to comply. Despite the agitation by the factory owners and restive industrial workers, threatened with a loss of livelihood. The process of sealing or closing non conforming industries had to begin. It is still continuing, at the time of writing. There is growing acceptance that this process is inevitable. Much of the tension, conflict and losses to the economy could have been avoided if the development of alternative sites by the government and a participatory mechanism between the government, factory owners and NCR towns to facilitate a smooth relocation had been pursued. That they did not happen stands out as a patent failure of governance.

Urban Violence

39.   Urban India has seen during the recent decades a tremendous increase in crime and of incidents of communal conflicts. The increase in crime is attributed largely to two factors, i.e. loosing social control in the context of overall changing composition of the city's population, and the widening social gap between the rich and the poor. Both these factors are closely inter-related and it is often not possible to separate them. Urban India, particularly the large and metropolitan cities, is becoming more and more a melting pot for different strata of society. In some cases, there have been amalgamation and fusion. But in the majority of situations, separation of different groups and social strata is observed. Various explosions of unrest have, from time to time, surfaced and shaken up the public at large.

40.   Due to peculiar problems such as unchecked migration, illegal settlements, diverse socio-religio-cultural disparities, uneven income distribution etc., the metropolitan cities are facing increased criminal activities. It is seen that the incidence of total cognisable crimes in 1998

reported in Delhi was highest (59,011) followed by Mumbai (30,017) and Bangalore (29,265). Amongst other cities, Kanpur reported increase of 44.3 per cent over the figures of 1997, followed by Madurai (23.9%). Of the total murder cases reported, Delhi had the highest (523) sharing 18.1 per cent amongst all cities followed by Mumbai (365). Pune city recorded significant increase of 52.3 per cent murder cases over previous year. Again Delhi stands first in terms of reported robbery incidence of 728. The cities of Jaipur (1,561) and Pune (1,195) reported more riots cases than any other cities, and Ludhiana (2) and Madurai (12) remained relatively peaceful in as far as riots are concerned. Even in number of rape cases, Delhi reported the highest rape incidence (365).

41.   These criminal activities are juxtaposed with other issues of urban growth such as poor municipal governance, lack of services, and lack of common citizen's awareness and responsibility for the city. Security and violence have not been regarded as core issues of urban management, but urban managers cannot avoid dealing with these problems in the future. This adds to the unprecedented complications in the task of managing cities, citizen's life and well-being.

Gender Issues

42.   India's initiatives on women issues in initial Five-Year Plans were welfare oriented. However, in past two decades, there has been a shift towards women in development, recognising women as participants of development. During the Sixth Five-Year Plan, a separate department of Women's Welfare was set up. A number of housing projects with women as the beneficiaries group were started during the International Year for Shelter for the Homeless (1987). In 1990, the National Commission for Women Act was passed to safeguard the rights and interest of women. It reviews women-specific and women-related legislations and advises the government to bring amendments from time to time. The 73rd and 74th Amendments to the constitution were made in 1992, through which one-third of the total number of elected seats in Panchayats and Municipalities are reserved for women. In West Bengal, Kerala and Karnataka

the number of women elected to these bodies have exceeded the mandatory requirement of 1/3rd of total seats. Empowerment of women being one of the primary objectives of the Ninth Plan, efforts are being made to create an enabling environment where women can freely exercise their rights. A 'National Policy for Empowerment of Women' is on the anvil. Measures have been proposed to integrate the needs of women in housing and other development programmes to overcome socio-economic constraints.

43. Bringing women into full partnership in development can provide immense benefits to society. The role of women in development must be recognised and clear strategies evolved to effectively break down traditional barriers that prevent their full participation. The urban areas offer the opportunity for all people including women to respond to the effective demand for their labour and to achieve a higher level of personal well being. The cities provide opportunities for all women and men to earn a dignified and productive living and ensuring an adequate livelihood. Many NGOs/ CBOs initiatives focus on women's pivotal role to help provide finance for small business, housing and other activities among low income women. SEWA is one such NGO, well run with a high level of participation among its women members in decision – making with regard to small business development, marketing, health and nutrition. It has successfully lobbied in favour of women's interest in shelter, particularly security of tenure. Another example is SPARC which has helped women pavement dwellers in Mumbai to improve their own shelter conditions. Sulabh International consults women before providing latrines. MAHILA MILAN plays a supportive role with the alliance formed by the national entity of slum dwellers and the women street dwellers with the SPARC. This alliance provides the interface with formal development authorities at the grassroots level. Women must be involved as motivators, organisers and, managers of community development projects. But we require many more of these efforts and then scaling up to the city level if substantial impact is to be felt.

Urban Performance Affecting Social, Economic and Political Stability

Social

44.   The role of the cities in the modernisation of a society has been long recognised. Industrialisation and the growth of the tertiary sector has created a wide range of new occupations. Employment in these occupations has been by and large on the basis of education and other qualifications rather than religion or caste. In the Indian society affirmative action particularly in the period after independence, has introduced a significant element of caste in employment. But this is mainly in the sphere of government employment which mercifully is only a part of the job market in the country. The new and widening range of occupational patterns, rising incomes as well as the heterogeneity inherent in urban housing has diluted the rigours of the traditional barriers of caste and creed. Social mobility and acceptance have thus been a positive change in urban areas. Besides, cities have been usually regarded as centres of innovation, technology and higher education. This in turn further reinforces the potential for positive interaction in urban societies. Because of proximity, urban society also has the potential to organise itself and interact with the government and other public authorities for better services and better governance.

Economic

45.   However, these forces of positive modernisation through urbanisation also contain in themselves the potential for dissent. In the absence of equitable distribution, the rise in wealth and incomes can make the differences between people sharper. Whatever be the basis of definition, food intake, levels of consumption, access to physical and social facilities or environment, about one-third to one-half of the population in most Indian cities are now regarded as marginalised.   They need not necessarily be the urban poor; nor can their habitat be generalised as slums. But the differences between the so-called the `pucca' and `kutcha' city, the intended and unintended city, the serviced and the unserviced city appear to be growing. Many of the affected people regard this as deliberately discriminatory which can give rise to conflicts.

During 1950s and 60s, epidemics like cholera or jaundice affected many cities but by and large the people affected endured the hardships. But in recent years the position has changed. Crisis in public health are increasingly viewed with anger as failures on the part of public authorities.

Political

46.   The process of urban development involves a wide variety of interest groups in the public and private sectors. It touches many sensitive areas such as land, infrastructure, finance, economic linkages, community involvement and environment. These are highly political subjects. It has been seen that dealing with urban development issues in a technocratic manner and ignoring the political implications for government policy, interest groups, empowerment etc., often leads to a failure of well conceived programmes and projects. It is important, therefore, to obtain the maximum public and political endorsement of strategies, programmes and projects. In addition, there is a strong need for institutional coordination among the actors involved both horizontal - interagency and public-private; and vertical coordination: centre – state local levels, raising issues of governance. Decentralisation has enhanced the potential for meaningful participation and involvement of the civil society actors, for public-private partnerships, and for participatory management through pooling of resources, skills and knowledge. There is need for enabling local leadership exercising public authority and using public resources in a manner as to ensure transparent, accountable and effective governance of towns and cities.

Likely variation between different states; some better; some worse

47.   State planning has been viewed as largely a derivative exercise from national policies and prescriptions. Economic reforms and liberalisation measures, however, have brought about a major change in the situation. The unprecedented scale of global trade has also introduced competitiveness as an important dimension of national, state and city economies. The states will have to assess what the new challenges and opportunities mean for them and in what ways urban performance will promote or deter their economic performance. We are already witnessing the competition between states to attract new investment. But India is not alone in this race. All

countries seek foreign direct investment and each tries to play and win, not by exhortations, but by the quality of its human resources and services and the speed of its response. In this atmosphere of competitiveness, the role of the cities could be as important or even more than that of the State or the Nation.

48.   We are witnessing once again that large cities and their peripheries are able to corner much of the national and international capital. The major investment projects are going to metropolitan regions. For instance, the investments have favoured the developed national capital region around Delhi and the western and southern parts of the country with 13%, 42% and 45% of the investment projects respectively upto 1998 in these areas. Economic opportunities would thus get concentrated in these few "global cities". The rest of the country is likely to get very little of the public or private sector investment. This in turn would worsen the existing regional disparities, resulting in increased unemployment and poverty.

49.   As more and more countries embrace market economies, the difference in their fiscal and trade policies are becoming less and less. 'The competitiveness of cities' has become an even more critical issue than the 'competitiveness of nations.' Cities will survive and prosper, today and tomorrow, mainly on the basis of their economic relevance and strength. For expansion of industry and trade, or for new investment, choices are being and will be made between better performing and better-equipped major metropolitan cities in the country.

V. Structures of Governance

Municipal Urban Situation

50.   The Constitution Amendment Act (CAA) has brought in a third stratum in the system of governance by constitutionally recognising the municipalities as institution of self-government for urban governance. It has sought in principle functional and fiscal devolution to local governments. As a follow up to the mandatory provisions, municipalities have been constituted in the states and municipal elections have been held. The municipalities and municipal corporations

have now the right to exist. State Finance Commissions have been set up to examine the fiscal relationship between state and local governments with respect to local taxation powers and revenue sharing. The CAA visualises a larger role for the municipalities and such functions as urban planning, urban poverty alleviation, urban forestry, protection of environment and promotion of ecological aspects, and slum improvement and upgradation have been envisaged to be assigned to municipalities. The emphasis is on creating democratic and participatory structure at the local level, making the municipalities accountable to their electorate. The Amendment also aims to enhance people's participation through decentralised and consultative decision making, greater transparency, stronger finances and a more rigorous democratic process. The provision of Wards Committees is to ensure some proximity between the citizens and their elected representatives. The Committee is expected to serve as an effective forum for interaction with the ward councillor and rendering the process more accountable. The states must take steps to constitute these committees and define their functions. Adequate representations in the Wards Committees should be given to different sections of the population in the area including weaker sections, women, NGOs and voluntary agencies. The Amendment also provides for the constitution of District Planning Committees and Metropolitan Planning Committees, which will consolidate plans prepared by local governments in collaboration with elected representatives. Representation given to the various sections of the people including interest groups in the DPC/MPC will ensures that voices of the different sections are heard at the institutional level.   While some of the states have taken initiatives to strengthen and improve local government, in most other functional domain, financial autonomy, proximity between the people and the elected representatives, planning, financing and managing municipal affairs, by and large, remain unresolved issues in most of the states.

51.   While decentralisation confers the right to local self-government, good governance outlines its responsibilities. The primary issues facing urban governance revolve around the need for autonomy, accountability and transparency, planning and participatory and consultative governance. In all most all states, state-owned boards and authorities functions within city limits

but are divorced from local government. At the state, a comprehensive assessment is necessary to define the role of the city vis-à-vis the state and institutions playing a dominant role in urban affairs. Secondly, the state should promote greater autonomy and accountability to local bodies in municipal affairs. The amended Constitution seeks sharing of functional and financial domain and this process can only be influenced significantly through political process and public interest.

52.   Participation of the people in the planning and development activities at different levels is central to the Constitution Amendment Act. The CAA recognises that governance can no longer remain solely the prerogative of governments. Cities are already becoming ungovernable through traditional structures and mechanisms. Government needs to become a collaborative effort of the government and non-government sector, a fusion of public and private initiatives of citizens particularly in governance. As such, the creation of suitable structures and process is vital to the success of democratic decentralisation.

53.   There have been a number of voluntary initiatives in areas like garbage collection and shelter to the urban poor, but the efforts of these organisations have been limited and confined to certain areas. What is important is to build a partnership between NGOs and the civic agencies who are engaged in providing basic services. A forum needs to be created to coordinate the efforts of various agencies so that there is optimum utilisation of resources – financial and human. In Bangalore, a Citizens Participative Forum called 'SWABHIMANA' has been set up with a view to provide a platform for NGOs, Voluntary agencies and resident groups to interact with civic agencies.

Multi-municipal Urban Situations

54.   The Indian census places cities with a population of one million or more in a separate category. Many of these million plus cities are not single municipal entities. They are multi-municipal urban agglomerations, which also include various jurisdictions which are urban or urbanising, but not municipal. Large city growth and concentration of urban population in

agglomerations is a pronounced feature of India's urbanisation. Some of this growth is because of densification in existing cities but much of it will be the growth on the peripheries around existing cities. New industrial centers and service activities including market towns for agricultural products also contribute to this metropolitan pattern of growth.

55.   Multi-municipal urban agglomerations are complex and arrangements for their governance cannot be treated as an extension of the existing arrangements. They need special and innovative arrangements, which are intergovernmental, inter-organisational and participatory in nature. The arrangements need to reconcile the twin objectives of aggregation at the metropolitan level required for economy and efficiency and disaggregation necessary to sustain proximity to the people and sensitivity to local needs.

56.   The 74th Constitution Amendment stipulates that every metropolitan area comprising two are more municipalities and having a population of more than one million should have a Metropolitan Planning Committee (MPC). The preparation of development plan for the metropolitan area as a whole is the task of this Committee. For this purpose, it should consider matters of common interest between the municipalities and panchayats, coordinated spatial planning, sharing of water and other physical and natural resources, integrated development, environmental conservation, overall objectives and priorities of the Central and State governments, and extent and nature of investments likely to be made etc. Two-thirds of the members of the MPC are to be drawn from the elected members of the urban and rural local bodies within the area and the remaining one-third are to be nominees of the State government. The composition will thus lend political and representative legitimacy to the metropolitan area and also provide a platform for the different local bodies and agencies to come together. The constitutional provision is in the nature of a broad inter-governmental prescription.

Non-municipal Urban Situation

57.   Rural-urban migration in the past was largely directed to big cities, and, to a lesser extent, to a few New Towns where large scale industries developed. The current trend, however, is towards movement into the periphery of metropolitan and other large cities. In many cities, such new settlements have mushroomed and urban peripheral growth is taking place in an unplanned and uncontrolled manner. Local authorities are not capable of providing all the basic infrastructure facilities and other amenities. The core municipalities are not keen to include these areas in their fold. However, such urbanising fringes begin to burden the existing civic services and also health hazards, which new settlements create for their immediate neighbourhoods in the municipal areas. In this context, it is important to note that all that is urban is not municipal. In rapidly growing urban centres, most settlements are emerging spontaneously virtually untouched by formal governance.

Inter-governmental Issues

58.   The wide range and scale of economic activities and the vast array of services required to maintain the metropolis, inevitably results in multiple tasks, multiple organisations and multiple jurisdictions. The answer does not lie in artificially reducing their number. In essence a metropolitan area can rarely be unitary. It has to be inter-governmental. In increasingly urbanising states like Tamil Nadu, Andhra, Karnataka, Maharashtra and Gujarat the shape of urban growth will be multi municipal agglomerations but all that is urban which is comprised in these agglomerations will not be municipal either. There is a need to evolve appropriate municipal model, with a minimum framework of governance to serve the future multi-municipal pattern of urban growth. The problems of such multi-municipal agglomerations or metropolitan regions and devising organisational arrangement for their governance have been a formidable task. Fostering rural urban linkages within the growing metropolitan area is an additional problem and requires developing meaningful strategies. It is also necessary to ensure that the organisational arrangements do not increase the distance between the people and the government.

VI. Future Scenario

Urban Corridors

59.   Transport and urbanisation mutually reinforce each other. Transport corridors, providing linkages among important urban centres with increased flow of goods and passengers is well recognised. The phenomenon is not new but the spatial pattern emerging along such transport corridors needs careful attention. If the urbanising areas are not well defined `towns and cities' but are urbanised stretches along the corridors, in peripheries of large urban agglomerations, or in between such urbanisation will only be a shapeless mass and a creeping sprawl. In some cases, trading centres and agricultural mandi towns, new industrial and service centres, may be distinct and even spectacular but do not necessarily reflect any cogent pattern. In India's future urbanisation, irrespective of the definition of large cities – whether million plus, metropolitan agglomerations or mega cities – much of the growth will take place on the peripheries around these cities as well as densification of some existing cities. The government decision to establish a network called the Golden Quadrilateral linking Delhi, Mumbai, Chennai and Calcutta as well as north-south and east-west corridors, in addition to expressways in certain stretches, will reinforce this corridor type growth.

60.   Such growth should not come as a surprise. In 1988, the National Commission on Urbanisation had identified 329 urban centres all over the country as generators of economic momentum (GEMs) where development activities should converge. The Commission also identified 49 Spatial Priority Urban Regions (SPURs). A SPUR was not merely a confirmation of the observed trends of growth but was based on the Commission's assessment of growth potential and optimising investments and opportunities already in that particular region. A subsequent study titled "INDIA-URBAN CORRIDORS' based on 1991 Census by National Atlas and Thematic Mapping Organisation (NATMO) identified a set of 25 urban corridors at the country level. This was a diagnostic and descriptive delineation and was, therefore, different from the SPURs. The Centre for Policy Research (CPR) in a recent study looked at the evidence

available in respect of the states of Maharashtra, Gujarat, Tamil Nadu, Karnataka and Andhra Pradesh. The liberalisation of economic policies have tended to favour major cities and their peripheries as location for investment in manufacturing and infrastructure. The findings of the study of the above five states have reconfirmed the emergence of the earlier corridors with a few new corridors. The picture that emerges is clearly one of strong and in some cases spectacular growth along the corridors.

The Emerging Corridors

61.   The following corridors of growth stand out prominently in the 5 states (Maharashtra, Gujarat. Tamil Nadu, Karnataka and Andhra Pradesh) covered in the CPR study. The percentages of the state's urban population which are likely to be located in these corridors is also indicated.

Maharashtra

Mumbai-Thane (to Ahmedabad) (42% of state's urban population by 2021)

Mumbai-Pune (11% of state's urban population by 2021, excluding Mumbai)

Mumbai-Nasik-Dhule-Amravati-Nagpur (21% of state's urban population by 2021, excluding Mumbai)

Pune-Ahmadnagar-Aurangabad-Jalgaon (6% of state's urban population by 2021)

Gujarat

Mehsana-Gandhinagar-Ahmedabad-Vadodara-Bharuch-Surat-Valsad (72% of state's urban population by 2021)

Ahmedabad-Rajkot-Junagarh (9% of state's urban population by 2021, excluding Ahmedabad)

Coastal Corridors

-      Bhavnagar-Porbandar (6% of state's urban population by 2021)

-      Jamnagar-Morvi-Gandhidham-Bhuj (6% of state's urban population by 2021)

Tamil Nadu

Chennai-Krishnagiri-Hosur (43% of state's urban population by 2021)

Coimbatore-Erode-Salem-Krishnagiri (19% of state's urban population by 2021)

Coastal Corridors

- Chennai-Cuddalore-Tanjavur-Karaikudi (7% of state's urban population by 2021)

- Tuticorin-Nagarcoil (4% of state's urban population by 2021)

Karnataka

Bangalore-Belgaum (58% of state's urban population by 2021)

Mysore-Bangalore-Kolar (13% of state's urban population by 2021, excluding Bangalore)

Coastal Corridor: Mangalore-Udipi-Karwar (6% of state's urban population by 2021)

Andhra Pradesh

Hyderabad-Ananthpur-Hindupur (31% of state's urban population by 2021)

Hyderabad-Vijaywada (11% of state's urban population by 2021, excluding Hyderabad)

Hyderabad-Nizamabad-Adilabad (3% of state's urban population by 2021, excluding Hyderabad)

Coastal Andhra Pradesh: Srikakulum-Vishakhapatnam-Kakinada-Guntur-Nellore (27% of state's urban population by 2021)

62.   While the CPR study is limited to 5 states, similar corridors have also emerged in the North, East and North-East as follows:

The North

Urban corridors have already taken shape in the north such as Delhi-Chandigarh, Delhi-Jaipur, Udaipur-Kota, Delhi-Agra, Delhi-Dehradun, Delhi-Moradabad-Bareily, Amritsar-Jallandhar and Lucknow-Kanpur segments.

The East

In the east, the Chota Nagpur Crescent is a possible urban corridor stretching from Calcutta to Cuttack through Jamshedpur and Rourkela. The corridor continues to be sparse and discontinuous.

The North - East

In the north - east, individual towns like Tripura, Aizawal, Kohima and Shillong have witnessed high rates of growth. Guwahati-Jorhat is slowly emerging as an urban corridor. The recently

completed Yamuna bridge at Sirajganj in Bangladesh will be a major stimulus for regional linkages and economic growth in the region.

63.   The implications of the corridor development are many. The corridors will be multi-nodal but not well connected functionally. Such connectivity will require careful planning and policy choices on whether the corridors need to be continuous or discontinuous. The location of future economic activities, residential development, infrastructure together with integration of multi-nodal centres both spatially and functionally, would have to be planned and visualised. The issues of land, water and environment will pose formidable problems. Though urban areas use only a limited amount of land as a whole, but in specific areas, its use has been highly disproportionate to urban growth. This calls for co-ordinating land use allocations within long-term strategies. Running out of water has been a recurring phenomenon in cities. We have to identify water as a defining envelope and learn to live within that envelope. The air is getting polluted and water sources contaminated. There is a need for conserving scarce water resources and preventing its contamination. There is a need to take into account the wider issues of development - environmental interactions as well.

Future Governance Structure

64.   Another issue requiring consideration is the governance of multi-municipal pattern of urban growth along the corridors. The fact remains that within the existing design on organisational model of a municipality, the country has not been very successful in dealing with the issues of urban management. Besides, all that is urban or will become urban is not municipal. Organisational arrangements for their governance will have to be evolved in the context of this new pattern of growth. The 74 Constitutional Amendment suggests Metropolitan and District Planning Committees as possible arrangements. Some attempts are being made to improve the municipal model to serve local needs better. However, the future pattern of urban growth with multi-municipal entities will need a new arrangement for governance. Such arrangements should be flexible to cope with the emerging pattern and issues of urban management.

Urban Housing

65.   The projections of households and state of housing stock for the years 2010, 2020 and 2025 based on the Report of the Working Group on Urban Housing for the Ninth Plan using regression growth rates of pucca, semi-pucca and kutcha houses and the annual exponential growth rate of households are given in the following table. The congestion factor is estimated as 4.86% and obsolescence factor as 4.14% of the total housing stock. Based on these assumptions, the overall urban housing shortage will reduce to 1.66 million units by 2010 as against 8.23 million in 1991. The projections indicate substantial increase in pucca and semi-pucca units with marginal increase in kutcha houses. The group hopes that there will be no housing shortage from 2015 onwards.

Table 2: Projections for Housing Stock, Households and Housing Shortage (2001 – 2025)
(in million units)

Category	Trend Rate (%)	1991	2010	2020	2025*
Pucca	4.99	29.8	75.8570	123.4454	157.4760
Semi Pucca	1.16	6.2	7.7213	8.6652	9.1795
Kutcha	0.76	3.2	3.6933	3.9838	4.1375
Households	3.40	40.7	77.7148	108.5698	128.3252
Housing Shortage		8.23	1.6586	0	0

Source: Report of the Working Group on Urban Housing, Ninth Plan
     *Computed

66.   However, the figures of housing stock in terms of bricks and mortar or dwelling units as such are only a part of the story. The availability of basic urban services may well be persisting problems. Slum settlements need not necessarily mean jhuggis. In most cities, the prevailing scene is one of pucca housing in kutcha environment. The serious strain on the quantum and quality of urban services has been discussed already. Housing without services is a distortion as well as a drain on the economy.

Public Transport

67.   Rapid urban growth will put enormous demands on transport systems for moving large number of passengers and freight, making more trips in urban areas over longer distances. Most of the large cities are already facing serious problem of inadequate public transport. It is widely

known that rise in incomes will generate more travel trips. In the absence of public transport, the use of personal transport modes will grow rapidly, pre-empting the limited road space and adding to congestion and pollution. This is already confirmed by available data, as given in the table below. While Delhi presents the most severe problem, it is clear that public transport has become and will continue to be a casualty.

Table 3: Number of Vehicles and Share of Public Transport in Four Metropolitan Cities.

City	No. of Vehicles – 1998[1] (in lakh)	Share of Public Transport (%)	Share of Suburban Railway (%)
Mumbai	8.60	88.0	44.0
Calcutta	6.64	79.0	14.0
Chennai	9.75	67.0	16.0
Delhi	30.33	62.0	1.0

Source : [1] Motor Transport Statistics of India, 1997-98, Ministry of Surface Transport.
2. India's Urban Sector Profile, Research Study Series – 61, NIUA, 1998.

68.   Congestion is the most visible manifestation of the failures of urban transport. The vehicle population is reaching alarming proportions in relation to the road network in cities. The traffic creeps at less than 15 kms/hour in the National Capital - Delhi on account of unprecedented increase in the number of private vehicles. In next ten years, the vehicles will crawl at 5kms/hour. Congestion is also the result of inadequate road network. Expanding the network and improvements are beyond most of the city's financial resources. Motor vehicles produce more air pollution than industrial emissions. Chaotic urban traffic causes a large number of accidents. Inadequate provision for roads in cities, increasing number of vehicles with less efficient engines, lack of mass transport systems are all adding to the serious problems of congestion and pollution.

69.   In mega cities, the role of traditional modes of transport is substantially low and these cities have to depend upon public transport system. The role of public bus system is most significant in Delhi (61%) followed by Chennai (51%). Mumbai, Chennai and Kolkata are the only three mega cities where the Mass Rapid Transit System (MRTS) plays an important role. Delhi needed a MRTS since sixties when the same was envisaged in the Master Plan for Delhi 1962. Though late by almost four decades, work on the Delhi MRTS has started and is in full swing on the first phase development. The system is a combination of elevated, surface and underground

railway lines totalling 55 km. The system will have a capacity of 40,000 passengers per hour. Unfortunately, the system is unconnected to the National Capital Region's existing rail lines.

70.   Public transport continues to receive poor attention while distortions in taxation and use of road space clearly benefit private vehicles. Faced with rising transportation demand, urban areas require new approaches to address transportation problems. There are too few vehicles relatives to demand. There are many hard decisions to be made in developing efficient public transport in large cities. Cities need to re-examine urban transportation demand and devise new strategies, such as land use – transport planning, demand management, cleaner fuels and technologies, integration of traffic modes and traffic management. The objective should be to provide maximum access at a minimum cost. Other initiatives needed for controlling air pollution are use of unleaded fuel, phasing out old vehicles and priority for public transport.

Urban Poverty

71.   India will witness rapid urbanisation and the next two decades will be characterised by industrialisation and metropolitanisation. Most of the growth will take place through physical transformation of rural areas into urban areas on the periphery of urban agglomerations and urban corridors. This process will be stimulated by economic development. The next two decades will also witness urbanisation of poverty. The new migrants to urban areas taking up informal sector employment with low wages, occupying illegal settlements without basic services and security of tenure in its peripheries, with longer journeys to work will be the dominant feature of this process. This will lead to increasing overcrowding, worsening of access to shelter and environmental health problems, a visible manifestation of the process of future urbanisation. The income inequality will sharpen the distinction between and among different social groups, such as urban rich from the urban poor, and the urban poor from the rural poor. Inequalities will threaten further marginalisation of the poor. The improvements in the living conditions of urban poor with access to economic benefits cannot be ignored and allowed to persist without endangering the social fabric. Urban areas would have to plan strategically, operate effectively

and manage efficiently in order to provide sustainable livelihoods, safe and secure living environments for the urban poor.

Private Sector Participation

72.   Urban infrastructure services require huge investments, coupled with requirements for deferred maintenance of the urban services. Such heavy financing is beyond the means of urban local bodies. There is a need to turn to private sector or institutional financing. The India Infrastructure Report has identified the total requirement of urban infrastructure development including backlog in service provision and O & M for the next 10 years as Rs.2,50,000 crore or 25,000 crore per annum. Against this figure, Ninth Plan proposals identify 12,000 crore for urban development, water supply and sanitation. Such meagre funding will undoubtedly adversely affect the economic growth. The Maharashtra amended municipal legislation allows private participation in municipal services. The Gujarat and Madhya Pradesh governments have had similar initiatives. The process of private sector participation has already begun in urban infrastructure services, such as solid waste management in Mumbai, Surat and Panjim and water supply schemes in Chennai, Tiruppur and Bangalore. Other municipalities including Hyderabad, Rajkot, Surat, Nasik and Pune have contracted out the provision of services. The 74th Constitution Amendment enables local governments to assume greater role in planning, management and financing of urban infrastructure services. Municipalities and water boards are looking to the private sector in the development of urban services. Availability of capital, technical and management expertise characterise the private sector. The private sector has the potential of supplying vital skills and access to funds. The private sector may well emerge in the coming decades in India if the regulatory, legislative and tariff reforms are undertaken, removing several bottlenecks for private sector participation.

Conflicts

73.   Urbanisation contributes to economic development as much as it seems to constraint it. Urban areas have become symbols of many contrasts and conflicts. Our cities are a mixture of

splendour and squalor. They provide better employment opportunities, higher income levels, better education, health and social services. At the same time, they are also congested, chaotic and squalid.

74.   The rapid rate of urbanisation has produced radical changes in the basic pattern of living environment. The rapid urbanisation will exacerbate disruptions in the pattern of living of people migrating from rural areas in adopting urban pattern of living. This will be particularly conspicuous between the small group of rich and powerful and the overwhelming low-income households in large urban agglomerations. The dispersed pattern of cities will contribute to social inequities because of limited access to jobs by the urban poor, residing in the periphery of cities.

75.   Violence will increase in cities due to further densification of already congested cities, poverty and economic deprivation of the urban poor, impacting severely on women and the poor. The people in metropolitan cities will exhibit far more hostile and anti-social behaviour than their counterparts in small size cities. Crime rates would rise. The increase in crime rate may be attributable largely to overall changing composition of the city's population and widening social gap between the rich and the poor. The sharp contrast of poverty and wealth in the cities, which has begun to breed bitterness and frustrations among the poor, will accentuate. Globalisation will exacerbate inequalities, as the disparities will widen among the incomes of high and low wage workers. Income inequalities between and among the cities will widen.

76.   The metropolitan urban agglomerations and their peripheries in the emerging urban corridors will be the setting of many conflicts in the use of land such as between agricultural and urban uses through conversion of agricultural land and sharing of water resources for irrigation and drinking purposes.

77.   Added to this is the newly recognised and complex dimension of the urban environment. The problems are brought about by growth rather than stagnation. The Bhopal gas leakage

tragedy has been the largest environmental calamity in any urban area. It is now recognised that such incidents even though of much smaller dimensions have to be dealt with promptly and effectively failing which the urban society will be affected by panic and tension. Chronic problems like air and water pollution have also to be viewed in the same perspective. Employment, industrial development, economic growth, affordable and accessible transport, safe water, clean living environment and equity in paying for these services are all valid claims. But they need not all be congruous at the same point of time. On the contrary, they can often be in conflict. Defining public interest and upholding that with some consistency is not easy. Different sections of the society may themselves be taking varying positions. The growing conflict between livelihood and living environment has become a common problem to every city with industrial expansion. Delhi recently witnessed severe industrial and social turmoil when Delhi government ordered polluting industries located in non-conforming areas to shift or close down by a stipulated date, in compliance to a Supreme Court order. In a similar development, Kolkata High Court also ordered industries to either clean up or shut down such industries.

78.   Economic stagnation presents many problems but it persists over a period of time. It also brings about a low level equilibrium. That can of course be dismissed as the quietness of the graveyard. Growth on the other hand, particularly when it is sparred by market forces brings into conflict many interests. Umpiring become an urgent and continuing necessity. It is also a central concern in managing urban growth.

R E F E R E N C E S

1. Annapurna Shaw, *Emerging Patterns of Urban Growth in India*, Economic and Political Weekly, April 17-24, 1999.
2. Jorge Gavidia, 2000, *Disaster Management in an Urbanizing World*, UNCHS, Vol. 6 No.2, 2000.
3. Ministry of Surface Transport, 1997-98, Motor Transport Statistics of India.
4. Ministry of Urban Affairs and Employment, 1996, *Proceedings of National Housing Seminar*.
5. Ministry of Urban Affairs and Employment, Government of India, 1996, *India National Report: Second UN Conference on Human Settlements*, Istanbul.
6. Ministry of Urban Development, Government of India, 1992, *National Housing Policy*.
7. National Crime Records Bureau, 1999, *Crime In India 1998*, Ministry of Home Affairs New Delhi.
8. NIUA , 1998, India's Urban Sector Profile, Research Study Series – 61.
9. Planning Commission, Government of India, *Ninth Five Year Plan*, 1997-2002.
10. Sivaramakrishnan, K.C., 1993, *Managing Urban Environment in India: Towards an Agenda for Action*, The Times Research Foundation, Calcutta.
11. Sivaramakrishnan, K.C., 1998, *The Challenge of Urbanisation,* Fifty Years of Swaraj, Highlights and Shadows, Centre for Policy Research, New Delhi.
12. Sivaramakrishnan, K.C., 2000, *Urbanisation and problems of governance,* Problems of Governance in South Asia, Centre for Policy Research, New Delhi.
13. Sivaramakrishnan, K.C., 2001, *Democratic Decentralisation,* Political Reforms: Asserting Civic Sovereignty, Centre for Policy Research, New Delhi.
14. Sukumar Muralidharan, 2000, *Delhi's Dilemma*, Frontline, Dec 22, 2000.
15. Suresh V., 1998, *Resources for Housing*, SDR, Vol.5 No.2 March – April 1998.
16. The Times Research Foundation, 1996, *Role of State Housing Boards in India*.
17. Venkateshwarlu U, 1997, *India's Urban Vision 2021: Agenda for Shaping the Urban Future*.
18. Venkateshwarlu U, 1998, *Urbanisation in India: Problems and Prospects*, New Age International Publishers.
19. Vinish Kathuria, 2001, *Relocating Polluting Units*, Economic and Political Weekly, January 20, 2001.