Metropolitanization and Urban Problems in India

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I. Introduction

India's Mega-Cities are gigantic entities but they are still to qualify as the world cities. However, the criteria other than what Peter Taylor in his seminal paper on World Cities (Taylor, 2000) applied in terms of burgeoning problems of urban living then many of the million-plus cities of India may hit the skyline. Contemporary urban studies made by the social scientists, both Indian and foreign have almost reflected the critical urban existence of the urban dwellers in terms of amenities and life-supporting services and call for immediate remedial strategies to forestall total collapse of the metropolitan life. The mega-cities of India are on the explosion course and the urban planners at the cross-roads. The situation is alarming and it is going to be conflict ridden in the near future, when by the year 2015 A.D. or so India's Urban population goes beyond the massive figure of 410 million, out of which the mega-cities shall be accounting for the major share. The problem is further complicated as these metropolises are bound to create sharp regional imbalances and marked rural-urban as well as intra-urban living disparities.

Sayeed Shafi (1999), an eminent Indian urban planner, views that this 50 to 70 percent of decadal growth shall be creating huge urban management problems beyond any foreseeable limits. This urban primacy very eminently results in unsafe cities with homeless people, destitute children, environmental catastrophes, challenging the human

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kind's concept of health, happiness and welfare. They are going to be the cess-pools of squalor, rot, confusion, shameless urban mismanagement and possibly an anarchy of unprecedented magnitude and character. Yogendra Alagh, the former minister of science and technology, Government of India has recently voiced his concern on the appalling shortages of amenities like water that the Indian cities are going to be the arenas of the "Water-Riots" in the near future. The most hazardous shall be the mega-cities, where the unchecked huge numbers of migrants continue to pour in search of job, livelihood and safe living as compared to the country-side.

The urbanization as the process in India is very old and long, dating back to 2350 B. C. to 1750 B. C. of Harappan planned urbanism and continued till the 600 A. D. upto the fall of the Gupta period. With a brief dormant period, the urban development vigorously revived through the Turks and Sultanate period and this continued incessantly during the Great Moghul period of Medieval period of Indian history. Great many big and small metropolises existed as a symbolic expression of cultural excellence, economic prosperity and organised social fabric of the contemporary societies. Each feudal system very proudly established the capital cities with the fort and palace and surrounding massive city walls. The many of the cities of this period were great commercial centres connecting India with the Central and Western Asian regions. With the advent of the British and establishment of the British empire, the urban boom shot up with the establishment of satellite port cities and major surplus collection railway centres. The port cities of Calcutta, Bombay (Mumbai) and Madras (Chennai) grew and prospered as the parasitic urban nodes, draining out primary resources for building and maintaining the industrial establishments in Great Britain.

II. Dynamics of urban growth and metropolitan development

Accompanying Table 1 and the Figure 1 give basic idea about the urban population growth, which has been faster than the growth in the case of the total population of India.

The decade 1941-51 is significant, which led to very faster growth period till 1961-71, causing great concern. The number of towns from 1,827 in 1901 increased to 3,768 in 1991 with a total urban population of 217 million with very marked urban population

Table 1. Variation in number and population ('000) of urban agglomeration (UAs) and towns, since 1901

Census year	Number of UAs/Towns	Total population	Urban population	Urban population as percentage of total population (percent)	Decennial growth rate of urban population (percent)	Average annual growth rate (Urban) (percent)	Tempo of Urbanization ^{c)}
1901	1,827	238,396	25,852	10.84	_	_	-
1911	1,815	252,093	25,942	10.29	0.35	0.03	-0.60
1921	1,949	251,321	28,086	11.18	8.27	0.79	0.80
1931	2,072	278,977	33,456	11.99	19.12	1.76	0.80
1941	2,250	318,661	44,153	13.86	31.97	2.81	1.68
1951	2,843	361,008	62,444	17.29	41.42	3.52	2.65
1961	2,365	439,235	78,937	17.97	26.41	2.30	0.40
1971	2,590	548,160	109,114	19.91	38.23	3.28	1.28
1981 ^{a)}	3,378	683,329	159,462	23.34	46.14	3.68	1.83
1991 ^{b)}	3,768	844,324	217,178	25.72	36.19	3.16	1.37

Note: a) 1981 figures include interpolated figures for Assam.

Source: Census of India 1991 Jain, M. K. et al. (1993)

growth of 3.00 to 3.68 average annual growth rate. The rate of urban growth is very clearly depicted by the bar-graphs showing the rate of urbanisation. However, it is important to note that the percentage increase in the urban population growth during the last decade as compared to the preceding decade of 1971-81 was low, may be on account of the tendency of drift in population from capital cities to adjoining areas. This could be well understood by referring to the case of city like Delhi and other metropolitan centres (Figure 2, 3).

Another feature very explicit is that there is a marked concentration of urban population in big metropolitan cities, which is reflected nicely through the increasing number of million-plus cities in India. In 1901 there was only one million city, but by the year 1991 the number rose to 23, and as per estimates by the year 2015 A.D. the number will swell to 65 accounting for about 50 to 60 percent of total urban population of the country. This is due to the marked concentration of economic activities, attracting more people from the country-side as well as from smaller urban centres. This has resulted in the out-growth around the metropolises as well as development of

b) The 1991 Census has not been held in Jammu and Kashimir. As projected by the Standing Committee on Population Projections (October, 1989).

c) Tempo of urbanisation has been worked out by subtracting the average annual growth rate of rural population from that of the urban population.

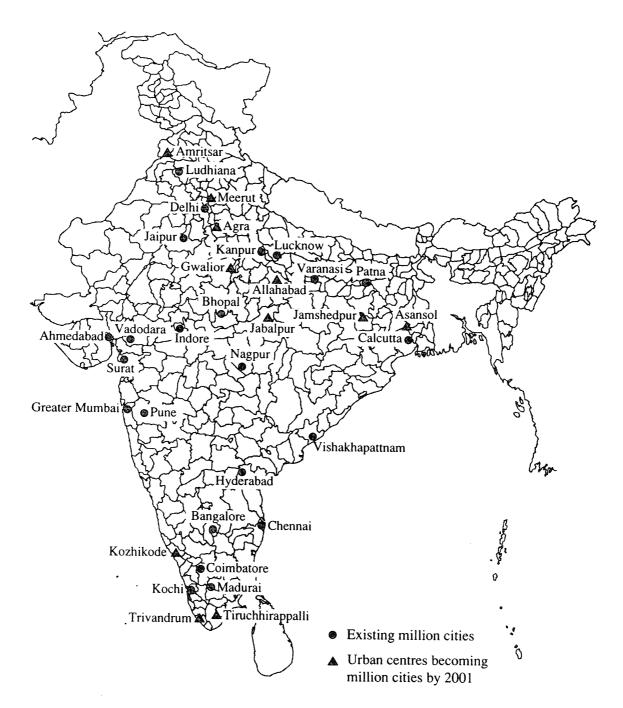


Figure 1. India's mega cities

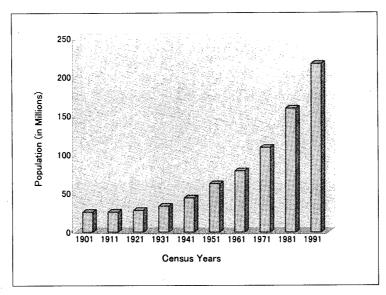


Figure 2. Urban population in India, 1901–1991 Source: Jain, et al. (1993)

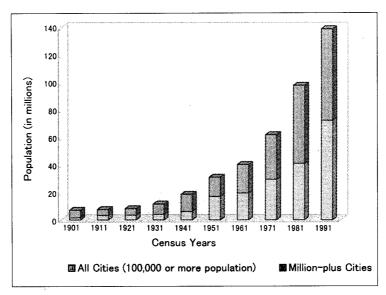


Figure 3. Population of all cities and million plus cities in India, 1901-1991

Source: Jain, et al. (1993)

new towns as the constituent of the rapidly growing metropolitan agglomerations. It has a shattering effects on the depletion of the rich country-side. However, it is important to note (Figure 4) that it is not the net-migration which tells upon the fast deteriorating living environment but the net natural increase for the last three decades; 1961-71 65.2 percent, 1971-81 42 percent, and 1981-91 60.0 percent accounting for the rapid metropolitan growth in India.

The metropolitan growth if seen spatially reveals interesting pattern: the spatial

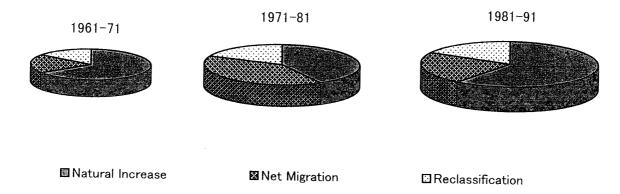


Figure 4. Estimated percentage share of natural increase, net migration and reclassification in the decadal urban growth

Source: Jain, et al. (1993)

pattern has two distinct trends that either they are coastal in their location or they follow the basic east to north-west great plains alignment; the central tracts barring the location of Nagpur, Hyderabad, and Bangalore do not attract the metropolitan development; and the north-east region of India abounds with small to medium size urban centres, perhaps barring the case of Guwahati - the gateway to the north-east.

One can make further possible conclusions that it is the investment pattern which has influenced the faster growth, resulting into lop-sided industrial and commercial development pattern thus creating urban islands, leaving vast rural areas of backwardness and finally resulting in widest rural-urban disparities and imbalances.

III. Realities and characteristics

This rapid metropolitan growth consequently has resulted in the rapid growth of slums and squatter settlements, that is, the uncontrolled marginal settlements in the form of the *bustees, jhompris, jhuggis* and *cheris* and, that too, they are increasing two to three times as far as the total metropolitan growth. These shanty town colonies have grown very fast resulting into haphazard peripheral physical growth. On an average these account for more than one-third of the mega-cities structural layout. An international group of experts visited the metropolis of Calcutta and observed that: "We have not seen human degradation on a comparable scale in other cities of the world".

In the case of Mumbai, 45 percent of population live in slums and about 77 percent of households in one room dwellings. Like Mumbai and Calcutta, the metropolitan scene in India is not much different. President of India, Mr. K. R. Narayanan, while speaking on the eve of inauguration of the South Asian Urban Experience conference in 1986–87 (when he was the member of the Planning Commission of India) very aptly observed that the one-third population of India is urban, and out of that one-third lives in big metropolitan cities and there one-third population lives in slums and thus focusing on the fast deteriorating urban quality of living.

The tabular statement about the basic characteristics of the metropolitan centres of India summarises the living environment of the mega-cities, thus putting several questions for serious consideration and prompt strategic planning (Figure 5, Table 2).

Salient Characteristics of India's metropolises

Calcutta: Colonial origin with elite past and egalitarian present; bursting population, decaying industries and out-worn port; massive sprawl of slums and squatters colonies; terrible shortage of amenities, chaotic living congestion, planned agonies and administrative neglect.

Mumbai: Colonial birth and a global city in making; financial, industrial and commercial centre and stronghold of private sector; excessive population concentration with no strict zoning; dominance of slums and squatters colonies; vacant land hijacked by self-help strategists, relocation active plans in New Bombay.

Delhi: National capital and a mix of modernity and medievalism, swarming migrants

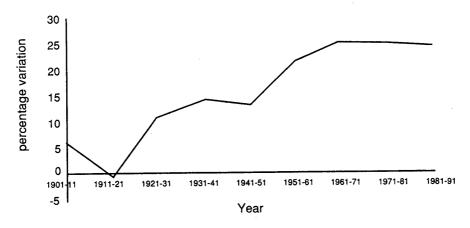


Figure 5. Decennial growth of population (by Census)

Table 2. India's mega-cities

Existing million cities							
City name	Population (in million)	City name	Population (in million)				
Bangalore	4.13	Bhopal	1.06				
Kochi	1.14	Indore	1.09				
Greater Mumbai	12.50	Pune	2.49				
Nagpur	1.66	Ludhiana	1.04				
Jaipur	1.50 Chennai		5.42				
Coimbatore	1.10	Madurai	1.08				
Kanpur	2.02	Lucknow	1.66				
Varanasi	1.03	Calcutta	11.02				
Delhi	8.40	Hyderabad	4.34				
Vishakhpattnam	1.06	Patna	1.09				
Ahmedabad	3.30	Surat	1.50				
Vadodara	1.12						

Metropolises on the threshold of becoming million cities by 2001						
City name	Population (in million)	City name	Population (in million)			
Trivandrum	0.83	Kozhikode	0.80			
Jabalpur	0.88	Gwalior	0.71			
Amritsar	0.71	Tiruchhirappall	0.71			
Agra	0.95	Meerut	0.85			
Allahabad	0.84	Asansol	0.76			
Vijayawada	0.85	Jamshedpur	0.83			

Source: 1991 Census

and over-spilling slums and illegal encroachment; engulfing pollution and crises of water and power; urban crimes and endangered security and compounding disparities.

Chennai: Coastal colonial origin, amenities inadequacies and compounding health hazards; economic revitalization needed; road-based zoning needed and cultural heritage need immediate preservation action-plans.

Bangalore: A garden city in distress, exceptional fast growth in numbers, investors paradise and cyber super capital; regional primate city and need of supporting ring towns; starved of power and water; revamp public institutions.

Hyderabad: A binuclear metropolis and conglomerate of several core areas with distinct religious and linguistic groups; polluting industries cyber city in making; shortage of amenities.

- Surat: The diamond city with over-crowded colonies; once highly polluted but now boast of orderly environment after The Plague in 1994; functional linkages with Mumbai and Ahmedabad.
- **Kanpur**: Industrial metropolis with decay and pollution; growth with out development; urban chaos and mismatch of physical structure, functional morphology and human decayed living environment; massive sprawling and severe shortages of amenities.
- Lucknow: City of medieval culture with vestiges of past standing everywhere practically under siege and perpetually tormented by excessive population, poverty and mismanagement and severe shortage of amenities.
- Varanasi: The great city of antiquity and continuity with a polluted crescent front of holy Ganges; large crowding, chronic unemployment and serious disparities.
- Jaipur: The world famous Pink city with a mix of medievalism and modernism; classic urban design and aesthetic sensibilities; flow and rhythm of colours and architectural excellence but increasing pollution and chaos within the walls.
- **Koch**i: The Queen of Arabian sea with glorious history; with strong public and private sectors; naval base, compounding problems and increased pollution.
- **Coimbatore**: Great textile centre with flourishing engineering units; peoples prosperity; core areas call for revival and rebuilding.

All these metropolises have examples in plenty of indiscriminate adding of extra built space to their dwellings in addition to illegal encroachments¹⁾. The land mafias are working to make these most unpleasant urban places to live in along with industrial and commercial establishments which primarily do not bother in defacing the living environment like in the city of Kanpur, Ludhiana, Visakhapatnam, etc.

The urban primacy in the case of state has become very strongly inscribed resulting into retarded growth of medium sized towns and thus compounding problems at the state capitals levels "resulting into unsafe city environment with crime, violence, delinquency, abduction, rowdism, extortion, drug, destitute child, and homeless people, peddling, alcoholism, prostitution, robbery, rapes and what not" (Vagale, 1999). Kochi, Patna, Bhopal, Lucknow, Bangalore, and Jaipur could be cited as the case of state urban primacy. Further, the acute problem lies in total inadequacy of public utilities, municipal services, community facilities especially potable water, sewerage, power,

solid wastes management, roads and rapid mass transport systems. The road accidents are becoming very high. The Delhi as the national capital perhaps stands very high in number of fatal road accidents. The metropolises are becoming symptomatic of "civic disorder which will deteriorate into possible violence". One may like to add that the larger the city, potentials for conflicts generation are more and such conflicts are mostly locational and vary over space and time.

IV. Crises and conflicts in metropolitan India

Indian mega-cities in spite of the large population numbers, concentrated economic activities and the cultural modernised ethos, do not come in the category of the world cities as classified by the schema adopted by Peter Taylor (1999) in his annual Political Geography lecture. He has classified them on the world-city-ness values from 1 to 12 and they are ① World Cities like London, Paris, New York, and Tokyo; ② World Cities like San Francisco, Sydney, Seoul; ③ World cities like Amsterdam, Boston, Osaka, Taipei, Istanbul, Kuala Lumpur; ④ Evidence of World City formation with relatively strong evidence like Athens, Ho Chi Ming City. This also includes Mumbai and Delhi but among others with minimal evidence, the case of Bangalore along with Bologna, Colombo, Tashkent, Tehran and Turin etc. (Taylor, 1999). In total he identified 55 World Cities with 11 in the USA, 5 in Germany, 3 in China, 2 each in Australia, Canada, Italy, Japan, Spain, Switzerland, India does not figure anywhere except with very initial beginning in case of Delhi, Mumbai and Bangalore.

Indian mega-cities perhaps outshine many of the urban agglomerations of the world in terms of parameters which focus on the problematic urban living, possibly compounding in the complexities and conflict-ridden situations of varying hues and shades. Some of them are common to all and many may be location specific within the intra-urban structures and functionality. However, it is necessary to add here that the emerging crises and conflict situations in the case of the mega-cities of India are the product of demographic over-whelming multiplication, both on account of net-increase and the net-immigration and urban incapability and mismanagement. Some of the common ailments and critical situations are listed below.

Emerging Crises and Conflicts in Metropolitan India

- 1. Massive sprawl of the million-plus cities accompanied with shattering spatial growth on the periphery has already disturbed the balance of water, land and living organism and resulted in the desiccated landscape causing irreparable damage for example Yumna river Khaddir-lands (Delhi) are being rendered desertified in terms of aquatic sub-culture.
- 2. Extensive resource depletion has already taken place, specially in the context of land and water. Inadequacy of potable water is a general rule and it is being fetched from great distances, e.g. Delhi is drawing up water from a distance of 180 km from the sources of Ram Ganga river in Uttar Pradesh and draining up its under-ground water tables; Bangalore has actively planned to draw water from Cauvery at a distance of 100 km, Indore from Narmada 75 km. To acquire building materials, large scale earth excavations around have created physical destruction of the eco-systems and thus creating environmental issues and problems.

New planned cities and industrial complexes on account of burgeoning metropolitinization is fast consuming the precious agricultural lands around and also pouring in untreated industrial water and wastes, sewage and solid wastes in large quantities, thus endangering the living environment. Even the metropolises are massively pouring in solid waste to a great extent like Delhi about 4500 metric tonnes daily, Calcutta 6500 metric tonnes and Mumbai 5500-6000 metric tonnes per day in an inefficient municipal management system, thus causing health problems.

- 3. There is a colossal waste of energy for living in the modern glass-coffins with heat, smoke and enveloping smog, especially in evenings and morning hours. For example in winters Delhi urban landscape is fully enveloped by a thick smoke lining, which causes repiratory-system ailments to many. More vigorous polluted smog and smoke lining is most strongly visible in Ludhiana (Panjab), Kanpur (UP) and Patna (Bihar).
- 4. The urban living is almost blighted on account of mass housing, encroached pavements and uncared open-spaces, and gardens and bad smelling neighbourhood except in few oasis like Lutyens Delhi, Gandhinagar (Ahmedabad) and New Bhopal

- etc. Once the garden cities, Bangalore and Visakhapatnam, now are facing almost loss of aesthetics in their urban living environment.
- 5. General decline in the quality of urban life on account of rapid metropolitanization and resulting over-powering slums and squatter colonies and pavement dwellings. In a casual visit in the old Delhi areas near the Red-Fort one may observe people sleeping on the pavements even in the severe winter nights. Such scene could be visible in other metropolises, specially in the northern plains of India, where ruralization of metropolises has brought in complete decay in urban living conditions.
- 6. Urban crimes are on ascendancy and getting highly organised leading to security issues of several types and varying magnitude. Urban living is most hazardous in cities like Delhi, Patna, Kanpur etc. This prevailing disorder may soon deteriorate into serious conflict and violence.
- 7. Metropolises are generally suffering on account of financial, institutional and functional inadequacies. They can not update their amenities, services and infrastructure due to high budgetary deficits and pressure groups hijacking the resources.
- 8. Urban politics in inherent in the governments of these centres. "Who gets, what, where and how and who governs the city". The existing management and chaos favours professionals, bureaucrats and urban elite, resulting into inequities of allocation of resources, leaving large chunks of living areas without support system. There seems to have no coordination between the private and public agencies for a pragmatic planned redressal and development framework.

In real terms the metropolitan planning and development can not stand the mounting pressure of the rapidly increasing human population. The situation is that it is a serious stage of physical and social environment degradation and the urban landlessness and urban poverty has increased many folds. The urban development and management system is very closely inter-twined with the conflicts, which are sociocultural, economic and functional in origin. They are mostly location specific and

psychological in substance on account of environmental decay and politically maneuvering by the pressure groups, party in power and elite hijacking-practices.

V. A search for possible stratagem

The problems are massive in order to have a sustainable metropolitan city. The past experiences and failures must lead to a future vision. There is marked existing spatial fragmentation, inadequate resource mobilization, sectoral mismatch and unnerving pressure on services and existing massive pollution. There is lack of institutional coordination, leading to unmanageability. "The obesity of metropolitan cities has produced deformities in their metabolism and functional framework". The metropolises are the true mirror of national scene of chaos, disorder and parasitism. In the national planning ethos, specially with the 6th Five-Years Plan, there has been much concentrated attention on the urban issues and problems, which are mostly generated due to the onslaught of the large influx of migrants. Spatial planning has been accorded high priority - specific plans in the form of National Capital Region, Bombay Urban Development Project and Correa Plan, Calcutta Metropolitan Planning Organisation Projects which are being initiated. The spatial urban development models have been critically examined and perhaps applied in some cases to make options between the Cellular Metropolis framework, the Multifunction polis and the clustered metropolitan city development. Many metropolitan development authorities are being specifically established. However, the planned visions have never been fully realised, leaving wide-open gaps responsible for urban chaos and disorder. Recently the Peoples Action groups have come, some with success stories and some with miserable failures.

Even some attempts are being initiated towards comprehensive realistic planning as well as the framing of the National Urban Policy, which has been missing in spite of the several decades of planned development ethos. Why we have not achieved the desired perspectives? One has to seek correct answer to have a balanced effective vision of sustainable urban future. Perhaps, Sayeed Shafi (1999) is right when he discusses the trio of the political elite, bureaucrat, and the urban technocrat, where the first two are more effective in over-riding technological options and plans by the urban

technocrats. This mismatched power syndrome is perhaps responsible for multiplying urban problems and chaos, resulting into the deteriorating quality of urban living in metropolitan India. The metropolitan development decision making becomes remote and ineffective on account of no peoples participation in decision making.

Being vexed and worried over the resulting urban chaos and possible conflicts and crises in the Urban India, recently 74th Constitutional Amendment Act was done for devolution of power to the local urban bodies to play the effective development role. However, it seems that intended purpose has been not achieved, probably on account of the absence of the political will to redress and recover from the urban chaos. The sustainability of a balanced metropolitan growth and development is most desired and needs comprehensive holistic development framework. A decisive action plan has to be taken immediately. Politics, planning and sustainable urban development must go together for building safer cities.

Note

1) Other metropolises and up-coming million-plus cities share some of these characteristics with probability of high magnified intensity, making the living environment very trying and difficult, e.g. Patna, Ludhiana, Agra, Indore, and Guwahati.

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