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Challenges and Issues in Mega City Planning in India

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Abstract: ***This paper entitled "Problems and issues in mega –city planning in India" deals with the issue of the emerging urban problems due to the rapid growth of the cities in India. The main reason of the rapid growth of the cities is the migration from the surrounding areas of the cities not the natural growth. So its outcome is countless types of problems in the city region. To cater with such problems planning is essential .Problems like environmental challenges Demographic problems, socio-economic problems and Administrative problems.***

Keywords: Development, City Planning, Urban Problems and Issues.

1. Introduction

The development of gigantic and small town and cities with the system called the structural pattern of urbanization. Each urban system is characterized by the occurrence of few large cities and an outsized number of small towns the large cities account for a large share of the total population, whilst the small towns, notwithstanding their number account a small share. Planning may be viewed as extremely disciplined and formalized activity through which a society produces change in itself. It involves the application of scientific knowledge in order to answer the problems and accomplish the goals of a social system. Any social system, therefore, which has adopted planning, whether it is a firm, family, town or region may hope to establish its own future. Further, in evaluating the steps taken to reach this future, it may learn and through learning it may employ in a continual process of self-realization. City planning refers the organized development of the city. The office of the registrar general and census commissioner of India projected the urban population for the year 2011 to 358 million , and estimated that urban population growth rates would decline from 2.75% per annum observed during 1991-2001 to 2.23 during 2001-20011(Registrar General and census commissioner 2006) . According to the census of India, the urban population grew to 377 million showing a growth rate of 2.76% per annum during 2001-2011. The level of urbanization in the country as a whole increased from 27.7% in 2001 to 31.1% in 2011 an increases of 3.3 percentage points during 2001-2011 compared to an increases of 2.1 percentage point during 1991-2001. The eleventh five year plan argued that the urbanization should be seen as a positive factor contributes about 62% of the GDP. There is also a growing realization that an ambitious goal of 9-10 % growth in the GDP fundamentally depends upon a vibrant urban sector (Planning Commission 2008). But on the other hand cities facing so many problems like: Environmental problems, Demographic problems, social economic problems etc. so we need for the sustainable development of the cities. There are some reasons for the study of these problems. They are categorized are:-

- Excessively strained on report of day-to-day monotonous predicaments.
- Besides, there is restricted access to determine the problems on account of limitation of jurisdiction and scantiness of resources.
- The issues have assumed hefty proportion from point of view of management.

2. Major Problems and Issues in Mega City Planning in India

2.1 Physical & Environmental

2.1.1 Location Drawbacks

The geomorphology of city sites has also seriously impeded physical development and the stipulation of services Not many cities founded by British have been founded on perfect sites. Many are located in swamps and marshes because strategic or trading considerations in colonial times made proximity to the sea or to a major waterway an overriding priority. For ex. Kolkata has emerged as a vast metropolis even though larger part of the city is built on low lying rice fields and marshes that continue to be inundated during annual monsoon. The city of Mumbai originally comprised of various islands that were connected to each other by filling up the creek position between these islands. The recovery and filling up not done homogeneously. Colossal urbanization has seriously compounded these natural shortcomings.

2.1.2 Paucity of Land

Foremost to over spilling of urbanization beyond the municipal limits Mumbai: The population of suburbs grew from 1.38 million in 1961 to 4.95 million in 1981 and 5.2 million in 1991 with a growth of 70.91% over 1971-81 as compared to only 7.1% in the island

2.2 Land Uses Proposals and Land Classification

2.2.1 Land Uses Proposals

Western replica used. Concept of mixed land use overlooked.

2.2.2 Land Uses Classification

Detail land use classification not proper to be more precise confusing. Ex. The residences within academic institution as group housing but by definition they are part of institutional area. Likewise surface drainage classified as public utilities whereas it is a part of water body

2.2.3 Distorted Land Assembly and Land Distribution Policies

Over 70% of the underprivileged and low income categories have access to 20% of land whereas 30% middle and higher income have access to 80%. Shortage for low income group results in slums The quality of human settlement created either impulsively through the landing of squatters on public and private land, road margin, railway track, greens or through planned settlements by public and private agencies display two versions of depth of poverty and heights of prosperity.

2.2.4 Distortion in Land Market

While the cost of land and development should reasonably are 20-40% of the overall cost of house and the balance contributed by the building construction cost. There are many situations where of land and development cost alone accounts for 80-90% of the cost of the product with only 10% going into building construction cost.

Today development boards across the country are auctioning land parcels to private developers at exorbitantly high prices. Thus making housing inaccessible to poor the only way the vicious cycle can be broken is through the creation of substantial amount of developed land in all the major cities and towns. The optimum utilization of land with mixed uses, low-rise-high density and high-rise-high density developments holds the key too many of the vexatious problems and housing access.

2.3 Socio-Economic Problems

Urban problems spring from concentration of population. Again, the political economy of the State and the correlation of class forces are primarily responsible for the plight of not only the rural poor but also the urban poor. Slums, unemployment, crimes, delinquencies, begging, corruption, drug abuse, environmental degradation, etc. are all urban problems which are generally the result of intolerable living conditions in town and cities. In city life, anonymity increases cases of riots, communal conflicts and agitations. Social Problems and Social Change in India Societies often face problems because of the imbalance in the forces of caste, race, gender, class, and so on. Social change is change in the patterned roles, or a change in the network of social relations, or in the structures and organisation of a society. Social change is never complete or total; it is always partial. It can be minor or fundamental. Further, the change can be spontaneous or planned. Planned change is to achieve some set of collective ideals. For example, after Independence, India also had set some collective goals to achieve. Some of the important changes that we find in our society since Independence are:

- Change from tradition to modernity in certain values and institutions
- Change from ascribed status to achieved status
- Change from predominance of primary groups to predominance of secondary groups
- Change from non formal means of control to formal means of control change from collectively of individualism
- Change from non antiscientific methods of investigation to scientific methods of investigation
- Change from folkloric knowledge to rationalist knowledge
- Change from homogeneity to heterogeneity

Change in the increasing awareness of rights among various sections of society due to the spread of education, weakening of the caste system and religious fundamentalism (needs critical debating), weakening of traditional sources of security, occupational mobility, enactment of several social laws, and so on. Though we have achieved many of the set collective goals, many contradictions have also set into our system. For example, accessibility to the legal system has become a problem for the common masses of our country. At times the forces of fundamentalism and parochialism destroy the ethos of nationalism by practising castes, regionalism, communalism, linguist, extremism, terrorism, and so on. Many laws have been enacted but either these laws are full of loopholes or they are not properly implemented. Impartiality is preserved in the Preamble of the Constitution of India but the State enforces discrimination in more ways than one

2. 4 Demographic

2.4.1 Housing

- Population growth and concentration in Mega cities
- Uneven population Distribution in various parts of cities
- Problem of Floating population.
- Pavement Dwellers
- Housing Shortage

3. Population Growth and Concentration in Mega Cities

Of the total urban population in 2001 nearly one fifth (48.8 million) lives in four mega cities. In 1991-2001 Delhi had a growth rate of 52% whereas Mumbai had a growth rate of 30% and Kolkata grew by 22%.The population of Delhi doubled in 30 years (1901-31).It increased to more than three times in next thirty years (31-51 partition) due to large influx of population after partition It almost doubled again in next ten years (51-61) Even after that Delhi's population is showing an average increase of 50% in ten years.

The Rapid growth of urban population has caught the urban planners, municipal administrators and other associated with urban development unprepared to meet the situation. Another problem is gap between the projected and actual population while preparing master plans Delhi is a typical example.

Table 1: Population Growth Variations 1961-81: A Comparison

Planning Divisions	*Population(in lakhs)*			
	Proposed	*Existing*	*Difference*	
			Absolute	*Percentage*
Old Delhi	3.22	6.22	+3.00	+93
Old City Ext.	3.98	5.68	+1.7	+43
Civil Lines	3.88	5.31	+1.43	+37
New Delhi	6.34	4.96	-1.38	-22
East Delhi	9.69	10.29	+.6	+1.22
South Delhi	8.27	8.22	-0.05	-0.60
West Delhi	8.03	8.68	+.65	+ 8.11
North West Delhi	9.20	5.18	-4.02	-43.76
Total	52.62	54.54	+1.90	+3.63

Source: Delhi Development Authority (1982) Population Holding Capacity: Uneven population Distribution in various parts of cities

4. Problem of Floating Population

4.1 Housing Shortage

Housing is one of the three basic needs of mankind, in India. The modern concept of housing is the home in which all the basic needs of a family are fulfilled. In India most of the population lives in the slums. At present there is acute shortage of houses in the urban area and much of the available accommodation is quality of sub-standard type. Due to unplanned industrialization, the problem of housing has become grave in urban area.

Table 2: Estimated Shortage of Houses in Selected Megacities-1991

City	*Housing Shortage App. (No. of Units)*
Kolkata	750,000
Bombay	500,000
Delhi	300,000
Chennai	420,000

More than 90% of this shortage is for poor and low income category leading to unauthorized construction and slums & pavement dwellers. According to NBO (National Building Organization) .In Mumbai, half of city's 12 million residents are either slum dwellers or homeless (occupying 6% of city's land) more than 45% of Kolkata population lives in bustees or slums.

Table 1.3: Slum Population in Mega Cities- 1981, 1991, and 2001

Mega Cities	Percent to total urban Population(1981-2001		
	1981	1991	2001
Mumbai	34.3	34.9	48.9
Kolkata	32.9	34.9	32.5
Delhi	31.4	32.7	18.9
Chennai	32.1	35.0	25.60

Source; School of Planning and Architecture, New Delhi

4.2 Problems of Infrastructure

4.2.1 Water Supply

In Mumbai, it is estimated that in 1986, 28% of the population was supplied water at three to five hours a day and 72% at five to six hours a day. The unrecognized slums do not have any legal access to stand pipes. Another problem is that the real cost of providing city services has been raising rapidly. In Kolkata water supplies have never been metered on a significant scale. In course of development natural water bodies have been ignored. Ex. Kolkata and Delhi. The Development Plan of Delhi prepared to meet the growth demands of Delhi in post independence period, did not recognize these natural endowments and as result there is no water in the Hauz Khas tank and in other natural water bodies.

4.2.2 Wastage and Sewage Disposal

It is estimated that in India about one lakh metric ton of municipal waste is generated daily. The collection efficiency ranges from 70 to 90 percent in metro cities. Another problem relates to capacity of the system. Many systems were designed for a much smaller clientele and cannot meet the demands of today. One such systems is Kolkata sewage network, it must now serve the population twice the size for which it was originally designed. Similarly, the present sewerage system in Mumbai is 70-100 years old. The capacity and the effectiveness of sewage system have been further reduced due to the massive development of low-lying vacant plots

4.2.3 Solid Waste Management

In majority of urban centers solid waste disposal is not an established profession. Health risk to those handling the waste as well as those living in the vicinity of the disposal site. This also poses risk of surface, ground water pollution and their interface with food chain.

Table 4: Solid Waste Management in the Mega Cities

City	*Solid Wastes Generated (MT/Day)*	*Solid Wastes Lifted (MT/Day)*
Mumbai	5000	4850
Kolkata	3500	2625
Delhi	4600	4140
Chennai	3500	3150

Source: Background Information, Ministry of Non-Conventional Energy Government of India, 1996

Table 5: Waste Water Management in the Mega Cities

City	*Waste Water Generated (MLD)*	*Waste Water Treated (MLD)*
Mumbai	2228*	12***
Kolkata	1384*	690***
Delhi	1634**	1271**
Chennai	276*	173***

Source: * CPCB Report 1994-95, ** O& M Proceedings of MUA & E (1996), ***

Problems of infrastructure are acute in slums. For example 53 percent of slums today have access roads. About 85 percent of population in general has access to protected

water supply while it is restricted to only 65 percent in slums. In Mumbai majority of the chawls have shared facilities such as toilets, staircases and corridors for access. The average size per household is 6.3 persons per households and natural water holding ponds.

5. Pressure on Transport

Traffic congestion (fuel loss, efficiency loss, Time loss), Accidents, Pollution, Poor public transport forces urban users to use private modes of transport. Private motorized work trips in Chennai increased from 8.5% in 1993 to 42% in 1998. Average travel time increased from 33 minutes to 55 in Mumbai. The suburban train system in Mumbai was providing 3.9 million passenger trips a day over the western and central railway lines(some 50 kilometers in length), yet neither of these lines had received any significant investment for repairs. In 1981 assessment reported that the system was overloaded by 150%. Similarly transport services in Kolkata are no longer able to cope up with estimated 5 million trips daily.

Resource Consumption: About 15 to 20% of developed land is under transport use. In Delhi around 50 square kilometers of land is used for parking. Hence there is a need for transport planning for following reasons: (i) MTS(ii) Multi tier road System, (iii) Cost effective Technology, (iv) Transport Planning Authority for single ticketing, (v) Cycle Tracks In Delhi many such schemes such as Monorail, Elevated Ring Road, Integrated Rail Bus Transit System and High Capacity Bus System are at a planning stage.

6. Administrative

6.1 Multiplicity of Authorities

Mumbai UA consists of Mumbai municipal Corporation, Kalyan, Thane, Ulhasnagar, New Mumbai, Mira Bhayandar municipal corporations. Apart from these , Bombay BEST provides electricity & transport services in Greater Mumbai whereas Maharashtra Water Supply and Sewerage Board, Maharashtra Housing and Area Development Authorities, City and Industrial Development Corporation& Mumbai Port Trust. Kolkata UA consists of Kolkata Municipal Corporation plus 129 other municipal corporations, municipalities and outgrowths. Delhi UA includes Delhi municipal corporation, New Delhi Municipal Committee, Delhi Cantonment Boards, 23 other towns and villages. Apart from this D.D.A, DVB, DWSSB. Apart from this many central ministries Chennai Municipal Corporation plus 57 other municipalities and village panchayats.

Table 6: Administrative Set up of Delhi in 1991 & 2001

Administrative Units	*1991*	*2001*
Number of Districts	1	9
Number of Tehsils	2	27
Number of Statuary Towns	3	3
Number of Census Towns	29	59
Number of Villages	209	165

Source: School of Planning and Architecture, New Delhi

It was felt that municipal government was not competent enough to deal with specialized needs of urban planning. Functional and specialized agencies with wider jurisdiction were set up. Though this has led to inter-authority and inter-agency coordination problems. Of late there is an emerging opinion that powerful local institutions are required to make an impact on urban scene. CIDCO in Mumbai, DDA in Delhi, and CMDA in Kolkata etc. are portends of such trends.

However, very often, there is no direct communication between various bodies involved in administration and planning of the city. Initially there may have been amity, progressively these bodies have started to fight with one another and appear to the general public as having opposite interests. For example in Delhi, apart from Delhi Administration, there are autonomous or statutory bodies like Delhi Transport Authority, Delhi Development authority, Delhi Electric Supply Undertaking, Delhi Milk Supply, etc, prepare their own plans.

Delhi Administration which is responsible for preparation of an overall plan for Delhi does not even know as to what these various agencies plan to do. Apart from the serious problems of lack of coordination of the plans of various agencies, even within a particular sector, there is more than one agency responsible for the planning and execution of the development programmes. For instance, in case of road programme, there are three different agencies responsible for the construction and maintenance of roads of Delhi, namely PWD in Delhi Administration, Delhi Municipal Corporation and New Delhi Municipal Committee. Besides these, three agencies, Ministries of Transport and Railways also come into picture for the planning and implementation of certain programmes like constructing roads of economic importance or over-bridges. Further, long range planning and development transcend local boundaries and certain types of services require a metropolitan or regional approach and these are beyond the compass of the local body.

Further the pattern of present growth, migration, industrial concentration and transport and communication networks have rendered it difficult to organize competent expert groups at the local levels.

7. Conclusion

Urbanisation is a chief transform that is taking place globally. The urban global tipping point was reached in 2007 when over half of the world's population was living in urban areas, around 3.3 billion people. There are currently megacities (population of over 10 million) and there are expected to be 27 by 2020. This rapid growth of megacities causes severe ecological, economical and social problems. 30% of urban populations in developing countries live in slums or informal settlements. Rapid urbanisation is setting the greatest test for land professionals in the application of land governance to support and achieve the Millennium Development Goals (MDGs). problems to be managed within megacities Administrations in large cities are often confronted with a multitude of key problems, like high urban

densities, inadequate transport, traffic congestion, energy inadequacy, unplanned development and lack of basic services, illegal construction both within the city and in the periphery, informal real estate mar kets, creation of slums, poor natural hazards management in overpopulated areas, crime, water, soil and air pollution leading to environmental degradation, climate change and poor governance arrangements. Further population growth is inevitable. Monitoring population change effectively and responding through planning and infrastructure development will be major challenges.

Due to the rapid growth of the cities in India facing the many problems relating for the sustainable Planning of the cities. In India the population increases in the city at a very high rate in 1981 only 24% population lives in the cities but now 31.1% population live in the urban areas which increase the pressure on the land of the urban areas which leads many types of problems in the urban areas. This leads so many problems for the planners in the cities of India. Other challenges for planners' are-(I) Financial Constraints: Due to resource crunch piece meal approach. Because of lack of money infrastructure could not be provided. (ii)Implementation Phase Slow acquisition, implementation delays, plan violations, partial implementation of the land use proposals, wavering policies and loop holes, problem of multiplicity of authorities and agencies, financial constraints and lack of enforcement machinery.

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