



Urbanization volume and trend: An analysis in the context of India

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ABSTRACT

Urbanization is an index of transformation from traditional rural economies to modern industrial one. It is a long term process. This paper endeavors to illuminate on the process of urbanization in India over a century with emphasis on level, tempo of urbanization and urban morphology using Indian Census data during 1901-2001. It will try to trace urban problems and related policy issues. At the moment, India is among the countries of low level of urbanization. Number of urban agglomeration /town has grown from 1827 in 1901 to 5161 in 2001. Number of population residing in urban areas has increased from 2.58 crores in 1901 to 28.53 crores in 2001. Only 28% of population was living in urban areas as per 2001 census. Over the years there has been continuous concentration of population in class I towns. On the contrary the concentration of population in medium and small towns either fluctuated or declined. The graduation of number of urban centers from lower population size categories to class I cities has resulted top heavy structure of urban population in India. India's urbanization is often termed as over-urbanization pseudo-urbanization. The big cities attained inordinately large population size leading to virtual collapse in the urban services and followed by basic problems in the field of housing, slum, water, infrastructure, quality of life etc. Urbanization is a product of demographic explosion and poverty induced rural-urban migration. Urbanisation is occurring not due to urban pull but due to rural push. Globalization, liberalization, privatization are addressing negative process for urbanization in India. Policy relates to proper urban planning where city planning will consist of operational, developmental and restorative planning. Redirection of investment is recommended to develop strong economic base for small and medium city neglected so far so that migration flows are redirected to small and medium cities.

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Introduction

Urbanization is an index of transformation from traditional rural economies to modern industrial one. It is progressive concentration (Davis, 1965) of population in urban unit. Quantification of urbanization is very difficult. It is a long term process. Kingsley Davis has explained urbanization as process (Davis, 1962) of switch from spread out pattern of human settlements to one of concentration in urban centers. It is a finite process--- a cycle through which a nation pass as they evolve from agrarian to industrial society (Davis and Golden, 1954). He has mentioned three stages in the process of urbanization. Stage one is the initial stage characterized by rural traditional society with predominance in agriculture and dispersed pattern of settlements. Stage two refers to acceleration stage where basic restructuring of the economy and investments in social overhead capitals including transportation, communication take place. Proportion of urban population gradually increases from 25% to 40%, 50%, 60% and so on. Dependence on primary sector gradually dwindles. Third stage is known as terminal stage where urban population exceeds 70% or more. At this stage level of urbanization (Davis, 1965) remains more or less same or constant. Rate of growth of urban population and total population becomes same at this terminal stage.

The onset of modern and universal process of urbanization is relatively a recent phenomenon and is closely related with industrial revolution and associated economic development. As industrial revolution started in Western Europe, United

Kingdom was the initiator of Industrial Revolution. Historical evidence suggests that urbanization process is inevitable and universal. Currently developed countries are characterized by high level of urbanization and some of them are in final stage of urbanization process and experiencing slowing down of urbanization due to host of factors (Brockerhoff, 1999; Brockerhoff and Brennam 1998)). A majority of the developing countries, on the other hand started experiencing urbanization only since the middle of 20th century

Study Objective:

This paper endeavours to illuminate on the process of urbanization in India with emphasis on level, tempo of urbanization and urban morphology using Indian Census data during 1901-2001 in a Macro level and this study is mainly on secondary data basis. It will try to trace pattern of urbanization, urban problems and related policy issues

An overview on world urbanization:

The urban population (UN, 1993) was estimated to be 2.96 billion (table 1) in 2000 and 3.77 in 2010. It was estimated that nearly 50 million people are added to the world's urban population and about 35 million to the rural population each year. The share of world's population living in urban centers has increased from 39% in 1980 to 48% in 2000. The developed countries have higher urbanization level (76% in 2000) compared with developing countries (40% in 2000). The urbanization level has almost stabilized in developed countries. Africa and Asian countries are in the process of urbanization.

Table 1 : Percentage of world Population Residing in Urban Areas by Region

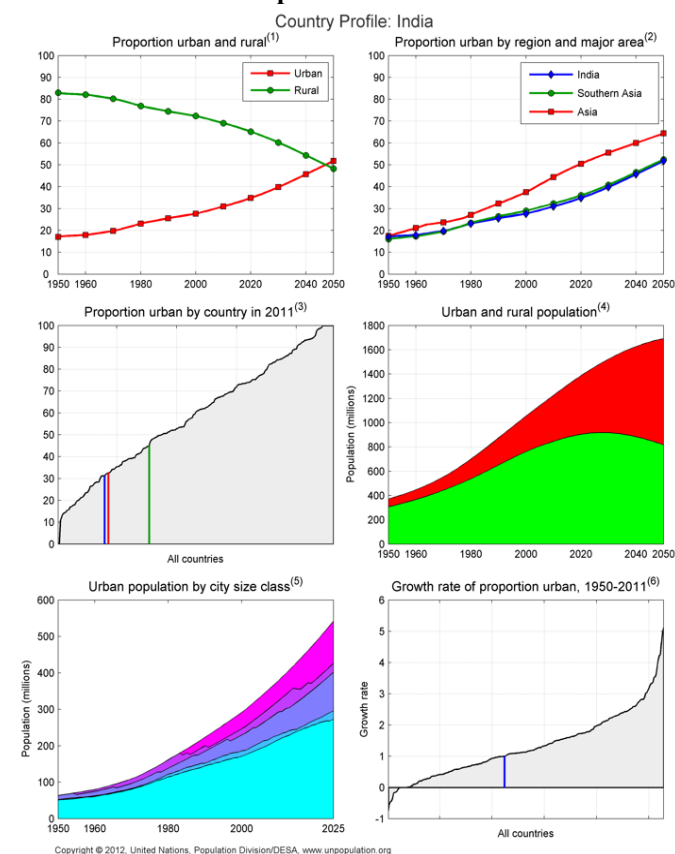
World/ Region	1980		1985		1990		2000		2010	
	%	in billion	%	in billion	%	in billion	%	in billion	%	in billion
World	39.4	1.752	41.2	1.997	43.1	2.282	47.6	2.962	52.8	3.779
More developed region	70.2	0.797	71.5	0.838	72.7	0.880	75.8	0.968	79.1	1.060
Less Developed region	28.8	0.954	31.5	1.159	34.3	1.401	40.3	1.993	46.8	2.717
Africa	27.3	0.130	29.6	0.164	32.0	0.205	37.6	0.322	44.2	0.493
Asia	26.2	0.678	28.6	0.813	31.2	0.974	37.1	1.369	43.8	1.845
Latin America	65.0	0.233	68.4	0.273	71.5	0.315	76.6	0.400	80.4	0.482

Source : World Urbanisation Prospects- The 1992 Revision , United Nations. New Work, 1993

Volume and trend of urbanization in India:

India shares most characteristic features of urbanisation in the developing countries. Number of urban agglomeration /town has grown from 1827 in 1901 to 5161 in 2001. Number of total population has increased from 23.84 crores in 1901 to 102.7 crores in 2001 whereas number. of population residing in urban areas has increased from 2.58 crores in 1901 to 28.53 crore in 2001. (table 2) This process of urbanization in India is shown in Fig 1 . It reflects a gradual increasing trend of urbanization. India is at acceleration stage of the process of urbanization

The following figures gives the clear picture of India's Profile of urbanization pattern:



Source: United Nations, Department of Economic and Social Affairs, Population Division (2012): World Urbanization Prospects: The 2011 Revision. New York

Notes: for the above pictures

- (1) Proportions of urban and rural population in the current country or area in per cent of the total population, 1950 to 2050.
- (2) Proportions of urban population in the current country as compared to the major area and region in which this country is located. The proportion is expressed in per cent of the population between 1950 and 2050.
- (3) Proportion of urban population in the current country (blue line), major area (red line) and region (green line) as compared to the ranked urban proportions of all countries of the world (gray area). The figure illustrates what level of urbanization a country has compared to its major area and region, as well as compared to all other countries of the world.
- (4) Urban and rural population in the current country.
- (5) Urban population of the current country by size class of its urban agglomerations in 2011. The light blue area is a residual category, which includes all cities and urban agglomerations with a population of less than 750,000 inhabitants. The size classes correspond to the legend below:



- (6) Average annual growth rate of the urban population of the current country between 1950 and 2011 (blue line), as compared with the average annual growth rates of the urban population of all countries of the world (gray area). The figure illustrates that urban growth rates between 1950 and 2011 were positive in the great majority of the countries of the world. Only a few countries had negative urban growth rates - indicating that their urban proportion was declining between 1950 and 2011. Due to limitations of space official country names had to be abbreviated in the figure legends.

Table 2: Population of India by Residence

Census years	Number of Urban agglomeration/town	Total population	Urban population	Rural
1901	1827	238396327	25851873	212544454
1911	1825	252093390	25941633	226151757
1921	1949	251321213	28086167	223235046
1931	2072	278977238	33455989	245521249
1941	2250	318660580	44153297	274507283
1951	2843	361088090	62443709	298644381
1961	2363	439234771	78936603	360298168
1971	2590	598159652	109113977	489045675
1981	3378	683329097	159462547	523866550
1991	3768	844324222	217177625	627146597
2001	5161	1027015247	285354954	741660293

Sources: Various Census reports

Table 3: Population of India by sex and residence: 2001

	Male	Female	Total Person	Sex ratio
Urban	150135894	135219060	285354954	900
Rural	381141184	360519109	741660293	945
Total	531277078	495738169	1027015247	933

Pace of urbanisation:

Urbanisation in India has been relatively slow compared to many developing countries. The percentage of annual exponential growth rate of urban population (table 5) reveals that in India it grew at faster pace from the decade 1921-31 to until 1951. Thereafter it registered a sharp drop during the

decade 1951-61. The decades 1961-71 and 1971-81 showed a significant improvement in the growth which has thereafter steadily dropped to the present level 2.7. The sharp drop in urban rate during 1951-61 was mainly due to declassification of a very large number of towns during that period. Rural growth has been fluctuating since 1901.

Chart.2: Tempo of Urbanization 1901-2001:

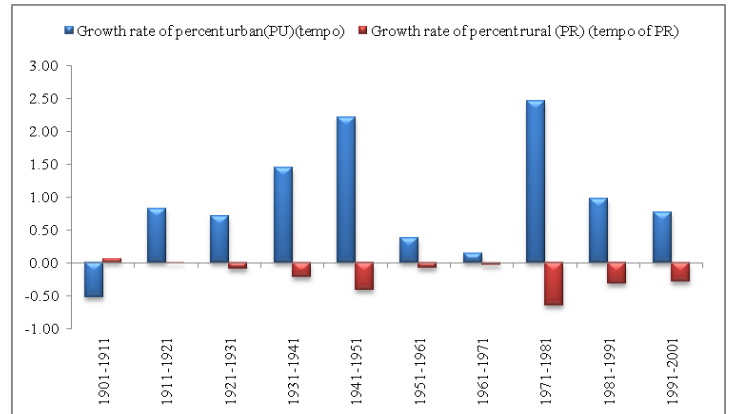


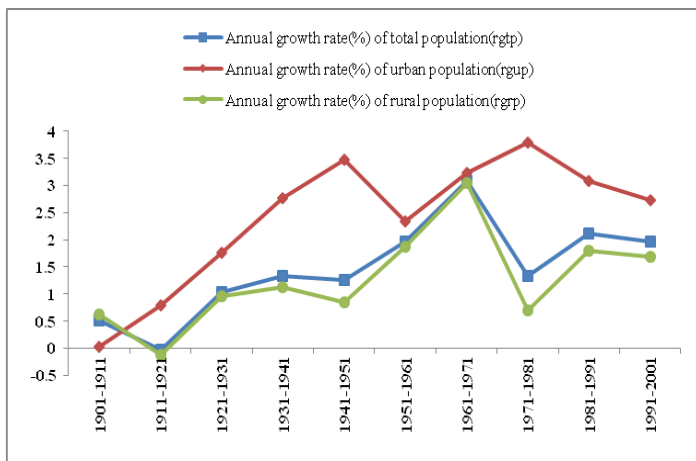
Table 5. Annual Growth rate of Population by Residence

year	Annual growth rate(%) of total population (rgtp)	Annual growth rate(%) of urban population (rgup)	Annual growth rate(%) of rural population (rgrp)
1901-1911	.51	.03	.62
1911-1921	-0.03	.79	-0.13
1921-1931	1.04	1.75	.95
1931-1941	1.33	2.77	1.12
1941-1951	1.25	3.47	.84
1951-1961	1.96	2.34	1.88
1961-1971	3.09	3.24	3.05
1971-1981	1.33	3.79	.69
1981-1991	2.12	3.09	1.80
1991-2001	1.96	2.73	1.68

Table 7: Growth rate of urban -rural ratio

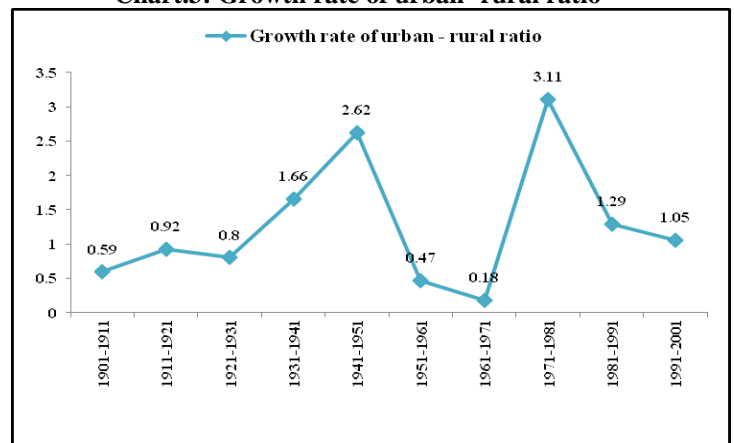
year	Growth rate of urban - rural ratio
1901-1911	.59
1911-1921	.92
1921-1931	.80
1931-1941	1.66
1941-1951	2.62
1951-1961	.47
1961-1971	.18
1971-1981	3.11
1981-1991	1.29
1991-2001	1.05

Chart 1: Annual Growth rate of Population by Residence:



The major advantage of measuring tempo of urbanization is by taking urban- rural ratio is that it does not tend to zero when the country approaches the 100 percent level of urbanization ; however it does regress toward the growth rate of the urban population.

Chart.3: Growth rate of urban -rural ratio



Tempo of urbanization refers to speed of urbanization and is measured as change registered in the level or degree of urbanization over the years. From the following table 6 it is clear that tempo or speed of urbanization is not uniform over the years. It shows a fluctuating trend over the years 1901-1981 and a declining trend during 1981-91, 1991-2001. Again it is required to mention tempo of urbanization measured as a per cent will tend toward zero as the urban population reaches the 100 percent level, since the urban and total population growth would become the same.

Table 6: Tempo of Urbanisation 1901-2001

year	Growth rate of percent urban (PU) (tempo)	Growth rate of percent rural (PR) (tempo of PR)
1901-1911	-0.5240	.06184
1911-1921	0.8250	-0.0099
1921-1931	0.7054	-0.0924
1931-1941	1.4444	-0.2139
1941-1951	2.2160	-.04072
1951-1961	0.3846	-0.0823
1961-1971	0.1492	-0.0329
1971-1981	2.4629	-0.6434
1981-1991	0.9734	-0.3161
1991-2001	0.7714	-0.2815

Component of urban growth in India:

Urban growth (Bhagat, 1992) can be attributed to mainly three components 1) Natural increase, 2) Net migration, 3) Areal reclassification. These components have been estimated using residual method. Since separate information in wake of change in the area and population due to extension of municipal boundaries during the inter-censal period is not available either for total or for migrant population it is difficult to estimate decadal migration to urban areas. Besides migration data for new and declassified towns are not available separately and so there is a possibility error error in estimating contribution of migration in the share of urban growth.

Table 8: Number of towns and percentage of urban population by size class

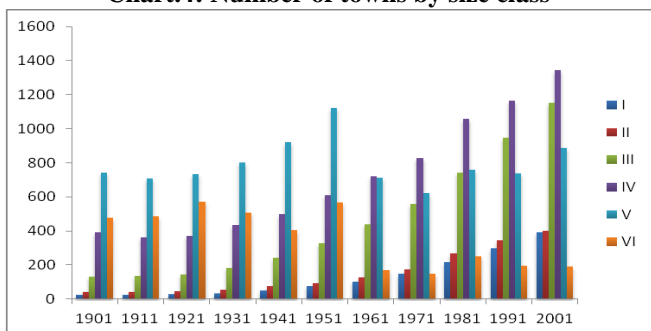
Census years	No. of Towns by						Percentage of urban population by					
	I	II	III	IV	V	VI	I	II	III	IV	V	VI
1901	24	43	130	391	744	479	26.0	11.2	15.6	20.8	20.1	6.1
1911	23	40	135	364	707	485	27.4	10.5	16.4	19.7	19.3	6.5
1921	29	45	145	370	734	571	29.7	10.3	15.9	18.2	18.6	7.0
1931	35	56	183	434	800	509	31.2	11.6	16.8	18.0	17.1	5.2
1941	49	74	242	498	920	407	38.2	11.4	16.3	15.7	15.0	3.1
1951	76	91	327	608	1124	569	44.6	9.9	15.7	13.6	12.9	3.1
1961	102	129	437	719	711	172	51.4	11.2	16.9	12.7	6.8	0.7
1971	148	173	558	827	623	147	57.2	10.9	16.0	10.9	4.4	0.4
1981	218	270	743	1059	758	253	60.3	11.6	14.3	9.5	3.5	0.5
1991	300	345	947	1167	740	197	65.2	10.9	13.1	7.7	2.6	0.3
2001	393	401	1151	1344	888	191	68.6	9.67	12.2	6.8	2.3	0.2

Class I : Greater than 1,00,000 population Class II : 50,000--1,00,000 population

Class III : 20,000---50,000 population Class IV : 10,000--20,000 population

Class V : 5,000---10,000 population Class VI : less than 5000 population

Source : Various census reports

Chart.4: Number of towns by size class

From table 9 it is evident that during 1971-81 about 41% of urban growth (estimated by Jain, RG 1991 Census) can be attributed to natural increase which reflects the role of demographic momentum , 36% due to net migration and municipal boundary changes and 19% due to reclassification of area . But urban growth due to natural increase has increased from 42% in 1971-81 to about 60% during 1981-91. Urban growth due to migration and changes in municipal boundaries has reduced from 39% in 1971-81 to 22% in 1981-91. But estimates (figures in parenthesis) by Pathak and Mehta for these components of urban growth reflects slightly different results(Pathak and Mehta, 1995). It is clear that urbanization process in India is not mainly "migration lead" but a product of demographic explosion due to natural increase. People migrate to cities not due to urban pull but due to rural push. Poverty led migration (Sen and Ghosh, 1993) has induced very poor quality of urbanization followed by misery, poverty, unemployment, exploitation, rapid growth of slum, inequalities, degradation in the quality of urban life.

Table 9: Components of Urban Growth

Percent share	1971-81	1981-91
Natural increase	41.7 (45.1)	59.9 (58.7)
Net Migration + Changes in municipal boundaries	39.4(36.1)	22.6 (23.7)
Areal reclassification	18.8 (18.8)	17.4(17.5)

Source: Census of India, 1991 ; Figures in parenthesis are from Pathak, and

Mehta, (1995) Recent Trends in Urbanisation and Rural-Urban Migration in India : Some Explanations and Projections " , Urban India, Vol.15 , No, 1 , pp.1-17.

Basic feature and pattern of India's urbanization:

Basic feature of urbanization in India can be highlighted as :

- 1 Lopsided urbanization induces growth of class I cities
- 2 Urbanisation occurs without industrialization and strong economic base
- 3 Urbanisation is mainly a product of demographic explosion and poverty induced rural - urban migration.
- 4 Rapid urbanization leads to massive growth of slum followed by misery, poverty, unemployment, exploitation, inequalities, degradation in the quality of urban life.
- 5 Urbanisation occurs not due to urban pull but due to rural push.

6 Poor quality of rural-urban migration leads to poor quality of urbanization(Bhagat,1992).

7 Distress migration initiates urban decay

Problem of urbanization:

Problem of urbanization is manifestation of lopsided urbanization, faulty urban planning, and urbanization with poor economic base and without having functional categories.

Hence India's urbanization is followed by some basic problems in the field of :

- 1) housing,
- 2) slums,
- 3) transport
- 4) water supply and sanitation,
- 5) water pollution and air pollution,
- 6) inadequate provision for social infrastructure (school, hospital, etc). Class I cities such as Calcutta , Bombay, Delhi, Madras etc have reached saturation level of employment generating capacity (Kundu,1997).

Since these cities are suffering from of urban poverty, unemployment, housing shortage, crisis in urban infra-structural services these large cities can not absorb these distressed rural migrants i.e poor landless illiterate and unskilled agricultural labourers. Hence this migration to urban class I cities causes urban crisis more acute.

7. Most of these cities using capital intensive technologies can not generate employment for these distress rural poor. So there is transfer of rural poverty to urban poverty. Poverty induced migration of illiterate and unskilled labourer occurs in class I cities addressing urban involution and urban decay.

8 Indian urbanization is involuted not evolved (Mukherji, 1995). Poverty induced migration occurs due to rural push .Megacities grow in urban population (Nayak,1962) not in urban prosperity, and culture. Hence it is urbanization without urban functional characteristics. These mega cities are subject to extreme filthy slum and very cruel mega city denying shelter,

Conclusion and Policy Implication:

Urbanization is an index of transformation from traditional rural economies to modern industrial one. It is a long term process. This paper endeavors to illuminate on the process of urbanization in India over a century with emphasis on level, tempo of urbanization and urban morphology using Indian Census data during 1901-2001. It will try to trace urban problems and related policy issues. At the moment, India is among the countries of low level of urbanization. Number of urban agglomeration /town has grown from 1827 in 1901 to 5161 in 2001. Number of population residing in urban areas has

increased from 2.58 crores in 1901 to 28.53 crores in 2001. Only 28% of population was living in urban areas as per 2001 census. Over the years there has been continuous concentration of population in class I towns. On the contrary the concentration of population in medium and small towns either fluctuated or declined. The graduation of number of urban centers from lower population size categories to class I cities has resulted top heavy structure of urban population in India.

Policies concerned with urbanization and urban development must pay special attention to increase the access of the poor to urban incomes and amenities so that they also take advantages of urbanization. There should be a mechanism for sustainable urban environmental management so that the urban environment will be supportive to the needs of a rapidly increasing urban population. The urbanization is always a supportive force for economic and social development and it should be welcomed, indeed we must seek out creative and sustainable ways to accelerate it in the interest of both common masses and our environment.

Redirection of migration flows is required. Since the mega cities have reached saturation level for employment generation and to avoid over-crowding into the over congested slums of mega cities i.e Bombay, Calcutta, Delhi, Madras etc it is required to build strong economic sector (Kundu and Basu, 1998) in the urban economy, growth efforts and investments should be directed towards small cities which have been neglected so far so that functional base of urban economy is strengthened. Then redirection of migration to this desirable destination will be possible.

Policy should also relate to proper urban planning where city planning will consist of operational, developmental and restorative planning. Operational planning should take care of improvement of urban infrastructure, e.g roads, traffic, transport etc. Developmental planning should emphasize on development of newly annexed urban areas. Various urban renewal process can be used. Restorative planning should aim to restore original status of old building monuments which have historic value.

India's urbanization is often termed as over-urbanization pseudo-urbanization. The big cities attained inordinately large population size leading to virtual collapse in the urban services and followed by basic problems in the field of housing, slum, water, infrastructure, quality of life etc. Urbanization is a product of demographic explosion and poverty induced rural-urban migration. Urbanization is occurring not due to urban pull but due to rural push. Globalization, liberalization, privatization are addressing negative process for urbanization in India. Policy relates to proper urban planning where city planning will consist of operational, developmental and restorative planning. Redirection of investment is recommended to develop strong economic base for small and medium city neglected so far so that migration flows are redirected to small and medium cities.

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