UNABATED URBANISATION: A CASE RELATED TO INDIA WITH FOCUS ON BANGALORE

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Abstract:

Urbanisation has occurred mostly after the era of industrialisation which was an explicit product of high economic growth. The developed world has witnessed vast patterns of urbanisation while the developing world is slowly moving towards it with high potential of being urbanised. India is too urbanising at a faster rate and is predicted to become one of the highly urbanised countries in the coming time.

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Introduction

Urbanisation is one of the oldest and most pervasive processes of change that has helped shape societies around the world. Urbanisation is a dynamic set of processes, responding to changing values and perceptions of the intrinsic characteristics of rural versus urban areas (Bryant, 2003, p. 2). Urbanisation per se is often a positive development as urban areas tend to be more productive than rural areas and therefore act as a power house of economic growth and development (Overman and Venables, 2005). Yet rapid urbanisation which is currently taking place at a high rate in many developing countries can outstretch the capacities of cities to absorb and cater for an ever growing number of inhabitants. The unchecked urbanisation at an alarming rate in developing nations has a series of negative impacts attached with it (Matuschke, FAO, 2009, p.5). Between 2007 and 2050, the world population is projected to increase from 6.7 to 9.2 billion and most of this growth will occur in urban areas of developing countries (United Nations, 2008, p. 1). Urbanisation rates in developing regions differ widely. While in Latin America and the Caribbean, urbanisation rates stand at 78 percent, only 38 percent of the African population reside in urban areas. Urbanisation rates are expected to increase to 70 percent in 2050 with African and Asia being projected as the regions that will experience the largest growth in their urban populations (United Nations, 2008, P. 4).

Between 2007 and 2050, the world population is expected to increase by 2.5 billion, passing from 6.7 billion to 9.2 billion. At the same time, the population living in urban areas is projected to gain 3.1 billion, passing from 3.3 billion in 2007 to 6.4 billion 2050. Thus, the urban areas of the world are expected to absorb all the population growth expected over the next four decades while at the same time drawing in some of the rural population. As a result, the world rural population is projected to start decreasing in about a decade and 0.6 billion fewer rural inhabitants are expected in 2050 than today. Furthermore, most of the population growth expected in urban areas will be concentrated in the cities and towns of the less developed regions. Asia, in particular, is projected to see its urban population increase by 1.8 billion, Africa by 0.9 billion, and Latin America and the Caribbean by 0.2 billion. Population growth is therefore becoming largely an urban phenomenon concentrated in the developing world (United Nations, 2008, p. 1)

Migration from rural to urban areas has historically played a key role in the rapid growth of cities and, together with the reclassification of rural localities into urban centres; it continues to be an

important component of city growth. However, natural increase, that is to say, the difference between births and deaths on site, can contribute significantly to urban growth, particularly in countries where fertility levels remain high. Today, natural increase makes a larger contribution to urban population growth than internal migration and reclassification in the majority of developing countries (Cited in UN, DESA, 2011, p. 1).

Sprawling cities may put constraints on the ability to meet new demand patterns due to, among other factors, land-use changes associated with urbanisation and increased competition for irrigation water (Matuschke, 2009, p. 5). Land-use changes due to city expansions can also result irreversible losses in biodiversity (Pauchard, 2006).

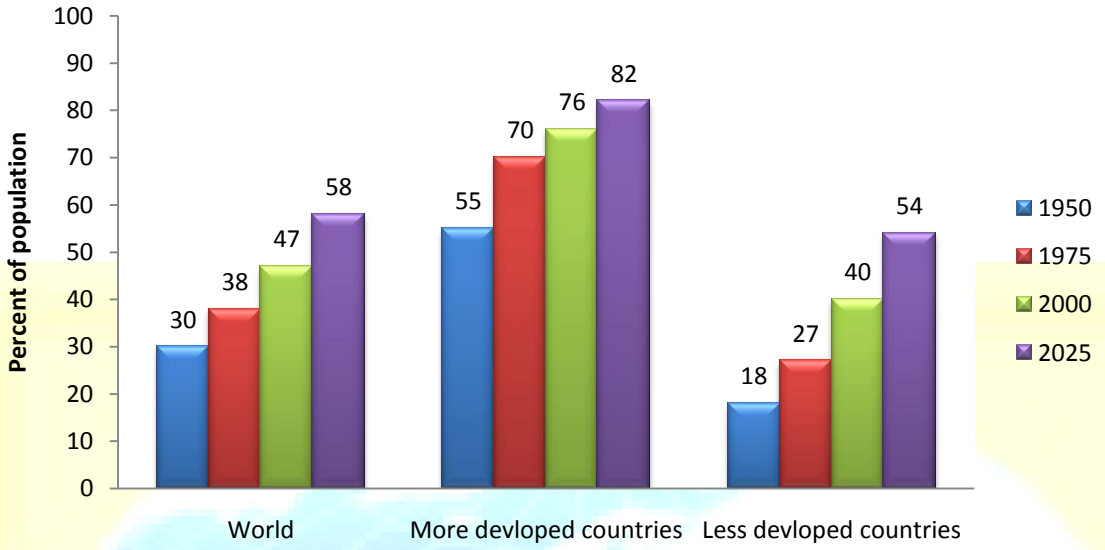
This paper analyses the unabated urbanisation in both developed and developing countries like India as a case study with special focus on Bangalore.

1. Urbanisation: Developed vs. Developing countries

Today large urban regions exist in all parts of the world and in areas at all stages of economic development (Hartshom, 1992, p. 33). Urban population has risen from 30% of the global population in 1950 to an estimated 47% in 2000 (Brockerhoff, 2000). According to the United Nations, urban growth is slowing in more developed regions while rapid urbanisation is taking place in less developed regions (United Nations, 1995, p. 23). The population of more developed countries (MDCs) was already 55% urbanised in 1950 and had reached 76% by 2000. In contrast the level of urbanisation in less developed countries (LDCs) was just 18% in 1950 but had neared 40% by 2000 (Brockerhoff, 2000).

Developed countries are characterised by strong and established economies and slower urban growth rates (**Figure 2).** Brockerhoff (2000) states that, in MDCs the annual urban growth rate fell from 1.99% between 1950 and 1975, to 0.83% between 1975 and 2000. In contrast, developing countries are characterised by unstable economies of varying strength, a lower proportion of population living in urban areas **(Figure 1)** and faster population growth (United Nations, 1995, p. 23).

Figure 1. percent of population living in urban areas in major world regions -1950 to 2025



Source: United Nations, World Urbanisation Prospects: The 1999 Revision (2000).

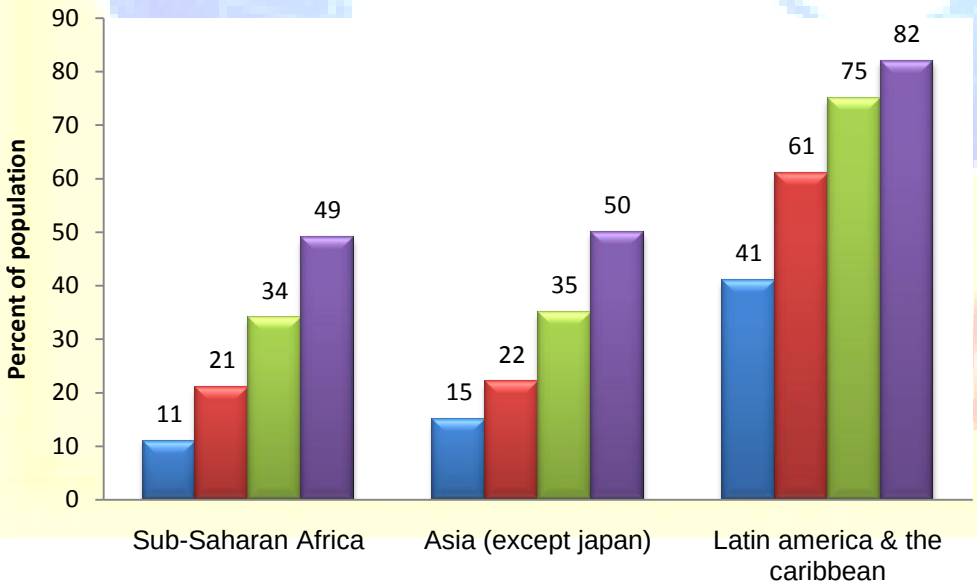
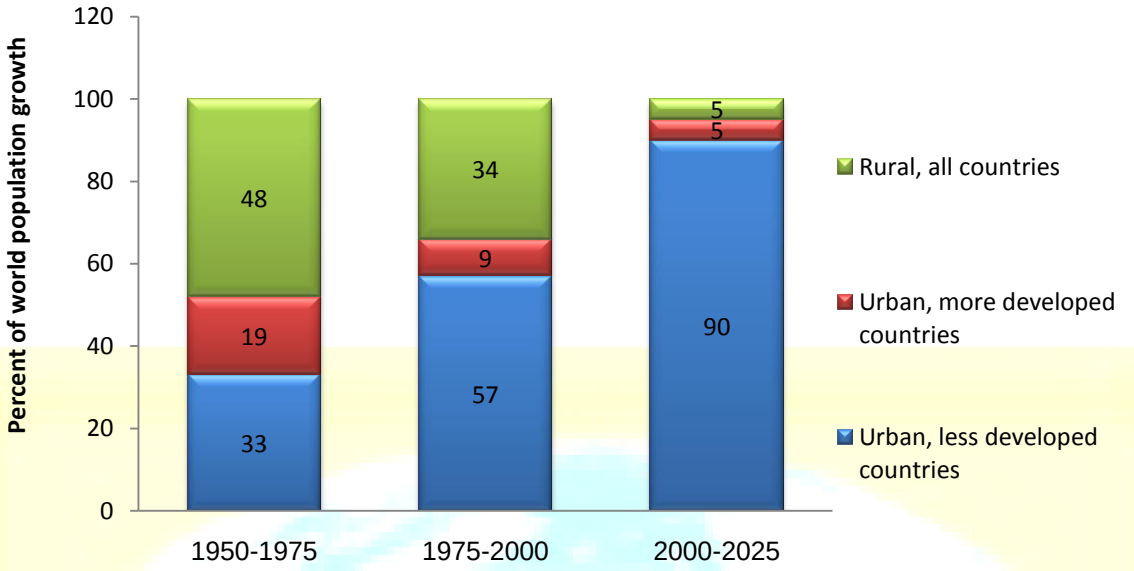


Figure 2: Share of World Population Growth in Urban and Rural Areas, Less and More Developed Countries, 1950-2025.



Source: United Nations, World Urbanisation Prospects: The 1999 Revision (2000).

Economic growth within developed countries has supported continued urbanisation, even though the emphasis of commerce has changed from manufacturing to transaction-related industry. The emergence of manufacturing industries within early cities of MDCs allowed the support through employment of increasing levels of urban populations. However advances in manufacturing technologies have meant that less employment has been available within those original industrial sectors. Within MDCs the continuing evolution of modern commerce particularly the transactional industries has lead to an increase in clerical workers and other service-related providers (Johnson, 1980, p. 26). In less developed countries, however the need to support industrial economies has not been such a major factor of increasing urbanisation. Although the phenomenon of urbanisation is also occurring in developing countries, the same stages of industrialisation as occurred in MDCs have not been experienced. Due to the ability of developing countries to import technology and the lack of an original manufacturing base, commerce-based industry has been more prominent, for example in Hong Kong and Singapore which have become financial centres for the Asia-Pacific region (Hartshorn, 1992, p. 57).

Although many developing countries are still reliant upon the export of raw materials, some are also able to promote their regions to overseas companies due to the availability of both cheap labour and cheap land on the outskirts of their cities (Brockerhoff, 2000). For example, foreign investment in Shanghai, China has lead to increasing urbanisation of coastal areas in the region

(Chen & Parish, 1996, p. 67). Urban change in North Africa and the Near East regions since the 1970 has also been due mainly to exports of raw materials namely oil. However the urban growth occurring in developing countries is not supporting increased employment and does not equate to increased economic circumstances for the majority of urban populations (Brockerhoff, 2000).

A major non-economic factor of urbanisation is the level of natural increase of a population, which is defined as the number of births exceeding the number of deaths (Brockerhoff, 2000). Since the 19th century, improvements in modern medicine and health services, sanitation and the general standard of living, have lead to the rates of natural increase within urban areas surpassing those of rural areas, which have in fact been decreasing (United Nations, 1995, p. 28).

In less developed countries (LDCs), natural increase is a dominant factor in rapid urban growth (Johnson, 1980, p. 28). Between 1960 and 1990, approximately 60% of urban growth in LDCs excluding China, was attributed to natural increase. For example, in Africa where fertility levels are high and economies weak, 75% of urban growth is due to natural increase. In contrast, Asia has lower fertility levels and stronger economies, so 51% of urban growth is attributed to natural increase. Increased availability of medical and health services in urban areas has also lead to lower levels of mortality and disease in urban areas than in rural areas. As most urban growth in LDCs in recent years has been attributed to natural increase, some countries have attempted to deal with this by the introduction of specific policies. The most well-known example of this is China, with the implementation of a one-child policy. This policy has been more strictly enforced in urban areas, so natural increase only accounted 28%of urban growth in China during the 1980s (Brockerhoff, 2000).

Employment opportunities, the cosmopolitan living and availability of services have great attraction for in migration into urban areas within developed countries. The effect of migration on urbanisation in developed countries is considerable (United Nations, 2000, p. 1). However, there has been a new development in the urbanisation process in MDCs, with the emergence of large urban agglomerations and population distribution shifting between these urban zones is found to be more significant than rural to urban migration (Brockerhoff, 2000). The blurring of boundaries between previously structured urban areas, through increased urbanisation of hinterlands, has lead to the development of chains of metropolitan centres. This trend has been supported by the increase of high speed transport and communications. The term coined to

describe this phenomenon was Megalopolis, originally used in relation to the north-eastern seaboard of the United States; the term is now used for other areas displaying the same advanced conurbations. The changing emphasis from manufacturing to transaction-based commerce has assisted in the development of the megalopolis as a viable form of urbanisation (Hartshorn, 1992, p. 35).

The effect of in-migration upon urbanisation in MDCs in small compared to the impact of in-migration on urban populations within LDCs. In these regions, rural-urban migration is making a larger contribution to urban growth than natural increase (Gugler, 1996, p. 4). The economic situation in rural areas of developing countries has lead to large numbers of mainly unskilled and uneducated migrants being lured to urban areas, based on greater opportunities for employment and increased standards of living (Johnson, 1980, p. 34). However despite increased development of economies through some manufacturing and transactional commerce, there remains an extreme lack of available employment in urban areas of LDCs (Hartshorn, 1992, p. 41). In China, for example, the general decline of agricultural production lead to a large amount of migration from rural to urban areas (Chen & Parish, 1996, p. 63). A surprising trend became apparent in the 1970s and 1980s when the urbanisation process appeared to be in reversal within MDCs. The term counter-urbanisation was characterised by decreasing size and decreasing density of urban populations (Turner, 1990, p. 116). Populations were observed to be moving away from major cities to more outlying urban areas, as well as rural areas (United Nations, 1995, p. 21). This process was seen to be occurring in most of the world's advanced economies. For example, Canada experienced a slowing of urban growth rates between 1985 and 1990. This trend was also evident in North and West Europe, albeit with a delay of 5 to 10 years. Between 1975 and 1990, Australia displayed a negative urbanisation rate (United Nations, 1995, p. 22), whilst in the United States, the rate of urban population growth has seen an increasing rate of decline over successive decades since 1950 (Mayer, 1986, p. 363). In 1950, almost 70% of populations in metropolitan areas in MDCs lived in urban areas. By 1990, this figure had declined to less than 40% (Brockerhoff, 2000). Counter-urbanisation is not seen as a major trend in LDCs except where government policy has been implemented. For example, the Socialist Revolution in South Vietnam and Kampuchea lead to forced administrative mechanisms against urbanisation. Also China's anti-urban policies of the 1960s and 1970s included strict control of rural-urban migration and the attempted suppression of general urban consumption along with

the promotion of urban to rural migration for the purpose of communal agriculture experiments (Chen & Parish, 1996, p. 65).

2. Urbanisation in India

Growing at 1.9 per cent per annum compound over the 1990s, India crossed the one billion mark and enumerated 1027 million persons in 2001. So, almost 17 per cent or one sixth of the global population lived in India in 2001 (Registrar General, 2001a). Urban population increased at 2.6 per cent a year and improved its share in the total barely, by 2 percentage points, from 25.5 per cent to 27.2 per cent between 1991 and 2001. These urban dwellers lived in 5161 cities/towns and were estimated at 285 million. Urban population is reported so far, for only 5151 of them which is 279.84 million (Registrar General, 2001 d). Population living in urban India is indeed large, considering that 281.4 million lived in USA in the year 2000 (Registrar General, 2001a).

The postulates regarding India's purported current hyper-urbanisation, and the supposition that this trend would continue for the next few decades, are mostly based on absolute population figures (or increments therein) or India's share of regional or global totals. Understandably, the increments work out to be high due to the large size of India's population base, which accounts for 67 per cent of the total population of South Central Asia and 29 per cent of that of Asia. However, inferences regarding the dynamics of urban development based on India's share of the total or incremental urban population and its comparison with that of other countries or regions can be misleading (Kundu, 2011, p. 4).

An overview of **Table 1 & 2** (overleaf) reveals that the pace of demographic growth in urban areas of Latin America and the Caribbean during the second half of the last century was spectacular, the percentage of urban population going up from 41 to 75 per cent. Africa also registered rapid urban growth during 1950–70, the rate slowing down after this period. Within Latin America, the South American portion of the region recorded higher urban–rural growth differential (URGD) throughout the entire half-century, as did Sub-Saharan Africa within the African continent. It has been argued that Asia will now replicate the experience of

Table 1: Average Annual Growth Gate of Urban Population for World's Major Regions and India, 1950-2050.

Period	World	More developed regions	South America	Northern America	Europe	Less developed regions	Less developed regions, excluding China	Latin America and the Caribbean	Africa	Sub-Saharan Africa	Asia	East Asia	South-Central Asia	South Eastern Asia	Western Asia	India
1950-55	3.12	2.35	4.70	2.67	2.06	4.17	3.92	4.52	4.64	4.88	3.93	4.57	2.89	3.95	5.08	2.41
1955-60	3.14	2.27	4.52	2.61	2.04	4.21	4.08	4.44	5.05	5.48	3.85	4.28	2.97	4.15	4.90	2.34
1960-65	3.08	2.07	4.28	1.99	1.99	4.19	4.17	4.31	5.10	5.45	3.86	4.01	3.39	3.97	4.84	3.00
1965-70	2.67	1.77	3.83	1.57	1.60	3.58	4.09	3.92	4.66	5.11	3.28	2.66	3.51	4.03	4.80	3.15
1970-75	2.56	1.37	3.56	0.95	1.35	3.64	4.01	3.67	4.39	4.83	3.38	2.56	3.96	3.96	4.56	3.74
1975-80	2.67	1.15	3.43	0.97	1.11	3.89	3.96	3.43	4.45	4.84	3.72	3.18	4.20	4.03	4.05	3.89
1980-85	2.70	0.92	3.17	1.16	0.80	3.93	3.73	3.01	4.29	4.51	3.88	3.77	3.60	4.41	4.78	3.30
1985-90	2.63	0.95	2.81	1.37	0.71	3.65	3.43	2.75	4.15	4.53	3.63	3.71	3.28	4.10	3.80	3.10
1990-95	2.38	0.76	2.46	1.68	0.32	3.24	2.95	2.49	3.79	4.27	3.17	3.43	2.84	3.48	2.74	2.81
1995-00	2.22	0.61	2.23	1.67	0.11	2.97	2.74	2.21	3.44	3.89	2.93	3.03	2.63	3.53	2.63	2.58
2000-05	2.20	0.67	1.94	1.41	0.32	2.83	2.43	1.90	3.40	3.81	2.83	3.36	2.46	2.25	2.51	2.37
2005-10	1.92	0.68	1.59	1.31	0.40	2.40	2.33	1.60	3.36	3.71	2.28	2.18	2.43	2.22	2.35	2.31
2010-15	1.85	0.64	1.33	1.22	0.37	2.27	2.27	1.38	3.28	3.60	2.17	1.94	2.49	2.16	2.09	2.38
2015-20	1.76	0.58	1.12	1.10	0.34	2.14	2.21	1.19	3.14	3.43	2.04	1.68	2.50	2.11	1.97	2.42
2020-25	1.65	0.51	0.92	0.98	0.29	1.99	2.13	1.02	2.98	3.25	1.89	1.36	2.47	2.07	1.86	2.43
2025-30	1.54	0.45	0.76	0.86	0.24	1.85	2.05	0.86	2.84	3.08	1.73	1.06	2.42	1.96	1.71	2.41
2030-35	1.43	0.38	0.62	0.76	0.20	1.70	1.93	0.71	2.68	2.90	1.57	0.82	2.30	1.78	1.57	2.29
2035-40	1.31	0.32	0.48	0.67	0.16	1.55	1.78	0.57	2.50	2.71	1.40	0.65	2.11	1.57	1.40	2.08
2040-45	1.19	0.26	0.37	0.60	0.11	1.40	1.62	0.43	2.31	2.50	1.24	0.49	1.90	1.37	1.25	1.87
2045-50	1.05	0.21	0.25	0.54	0.05	1.24	1.45	0.30	2.12	2.30	1.06	0.31	1.68	1.17	1.09	1.64

Source: united Nations Population Division (2010), World Urbanisation Prospects: The 2000 Revision (POO/DB/WUP/Rev.2007) United Nations Department of Economic and Social Affairs, New York.

Table 2: Percentage of Urban population and Urban-Rural growth differential for World's Major Regions and India, 1950-2050

Period	World		Less Developed regions		Less developed regions, excluding China		Latin America and the Caribbean		Africa		Asia		South-Central Asia		India	
	Percentage Urban	URGD	Percentage Urban	URGD	Percentage Urban	URGD	Percentage Urban	URGD	Percentage Urban	URGD	Percentage Urban	URGD	Percentage Urban	URGD	Percentage Urban	URGD
1950-55	28.83	1.93	17.61	2.63	20.18	2.31	41.38	3.20	14.40	2.91	16.33	2.46	16.44	1.25	17.04	0.75
1955-60	30.85	1.97	19.60	2.69	22.11	2.29	45.30	3.23	16.29	3.26	18.08	2.43	17.31	1.12	17.58	0.47
1960-65	33.00	1.72	21.80	2.45	24.14	2.37	49.32	3.17	18.64	3.30	19.95	2.16	18.13	1.50	17.92	1.15
1965-70	34.93	1.01	23.96	1.46	26.37	2.29	53.28	3.06	21.27	2.67	21.74	1.14	19.27	1.56	18.79	1.25
1970-75	36.08	0.97	25.32	1.73	28.66	2.25	57.06	3.04	23.59	2.30	22.73	1.46	20.51	2.06	19.76	1.93
1975-80	37.21	1.45	26.99	2.43	31.01	2.26	60.74	3.03	25.73	2.23	24.03	2.37	22.24	2.36	21.33	2.05
1980-85	38.92	1.55	29.44	2.60	33.48	2.01	64.29	2.77	27.91	2.02	26.26	2.69	24.35	1.62	23.10	1.38
1985-90	40.78	1.51	32.21	2.35	35.76	1.83	67.40	2.72	29.99	2.00	28.95	2.46	25.87	1.38	24.35	1.28
1990-95	42.62	1.49	34.83	2.21	37.89	145	70.32	2.68	32.13	1.83	31.54	2.30	27.22	1.08	25.55	1.09
1995-00	44.45	1.57	37.37	2.22	39.61	1.45	73.04	2.55	34.16	1.58	34.08	2.37	28.30	1.13	26.59	1.08
2000-05	46.40	1.79	40.00	2.33	41.36	1.20	75.48	2.53	35.95	1.68	36.80	2.57	29.47	1.12	27.67	1.04
2005-10	48.63	1.47	42.82	1.83	42.82	1.28	77.74	2.26	37.91	1.74	39.83	1.94	30.65	1.33	28.72	1.25
2010-15	50.46	1.53	45.08	1.84	4439	1..42	79.63	2.02	39.98	1.83	42.17	1.98	32.08	1.64	30.01	1.60
2015-20	52.37	1.64	47.36	1.92	46.15	1.63	81.22	1.85	42.20	1.95	44.60	2.08	33.89	1.97	31.72	1.97
2020-25	54.41	1.78	49.76	2.03	48.18	1.85	82.59	1.70	44.59	2.09	47.19	2.20	36.13	2.29	33.89	2.34
2025-30	56.62	1.93	52.30	2.15	50.49	2.07	83.78	1.66	47.18	2.22	49.94	2.33	38.81	2.61	36.56	2.71
2030-35	58.97	2.04	54.98	2.23	53.08	2.23	84.87	1.70	49.95	2.30	52.85	2.41	41.95	2.81	39.75	2.93
2035-40	61.41	2.09	57.72	2.27	55.84	2.28	85.93	1.73	52.82	2.35	55.84	2.43	45.40	2.82	43.30	2.93
2040-45	63.85	2.14	60.46	2.30	58.63	2.33	86.94	1.76	55.73	2.40	58.82	2.46	48.92	2.83	46.93	2.93
2045-50	66.29	2.20	63.18	2.34	61.42	2.38	87.91	1.78	58.66	2.44	61.76	2.49	52.46	2.84	50.58	2.93

Source: United Nations Population Division (2010), World Urbanisation Prospects: The 2000 Revision (POO/DB/WUP/Rev.2007) United Nations Department of Economic and Social Affairs, New York.

Note: The percentage of urban population is for initial year in each period.

these continents ushering in an "urbanisation avalanche", with India and China determining the regional trends due to their large demographic weights (ibid, p. 5).

The central point here is that, despite significant fluctuations over the past few decades, urban growth has at best been modest in India. Moreover, contemporary growth scenarios in India cast serious doubts on the prospect for rapid urbanisation in the future. Correspondingly, the Indian URGD was below 1 per cent during the fifties and rose gradually to 2 per cent by the early 1980s (**Table 2).** However, it fell dramatically during the 1980s and further in the 1990s. The growth rate for the latest quinquennial period (2000–05) for India has been estimated by the UNPD as only 1 per cent. This is below all the continents of the world except Europe, the countries coming out of the former Soviet Union and those undergoing some kind of political instability. Both urban growth and URGD are still much below that of South America and Sub-Saharan Africa during the entire period. All these trends confirm the declining overall trend of urbanisation and question the popular theories of „urban explosion" , or „over-urbanisation" in India, as well as the future urban scenario put forward by various expert committees set up by the government and international agencies over the past two-and-a-half decades. In the early 1980s, the Indian Planning Commission (1983) had projected the country's urban population for the years 1991 and 2001 using alternate variants. The exercise was undertaken under the shadow of the "urban explosion" observed during 1971–81 and, consequently, the projected figures were on the high side. All other official projections made during the 1980s and 1990s also reflected this optimism and gave figures for future urban population that are even larger than that of the Planning Commission. The Expert Committee for Population Projections for the Eighth Plan, for example, had predicted urban growth (annual exponential) rates of 4.4 per cent during the 1980s and 4.1 per cent during the 1990s. The Expert Group on the Commercialisation of Infrastructure Projects (EGCIP 1996) also implicitly assumed a rapid pace of urbanisation as a consequence of the new economic policy (Kundu, 2001, p. 8).

3. Urbanisation in Bangalore

Bangalore, a globally known Information Technology (IT) and Biotechnology (BT) centre, but without such global facilities in terms of infrastructure and services, has been passing through unhealthy process of unplanned growth and development, and associated infrastructure and service deficiencies contributing to its inefficient management. Such a disturbing growth process is in spite of well-developed planning institutions like; Bangalore Development Authority (BDA)

and Bangalore Metropolitan Regional Development Authority (BMRDA) established by specific acts of legislation by the state to promote the planned growth of the city and its region. On the other hand, such unplanned development may imply that Bangalore might have inherited the development process from its past experiences of development. In this context, it is worth reviewing the process and pattern of historical development of the city of Bangalore (Sastry, 2008, p. 2). If one looks into the historical foundation of the city, the Fort near the present City Market or Krishna Rajendra Market and the Barracks near the Halsoor tank were the main foundations of the city built in 1537 and 1809 respectively. These historical foundations were gradually developed with unique specificity. The Fort neighbourhood was developed on the basis of the philosophy of a city by temple builders, agriculturist turned warriors who patronaged wholesale and retail traders, highly skilled artisans etc. Hence, the Fort neighbourhood was developed as a typical native town with traditional characteristics of bazaar, temples and residential neighbourhoods etc. The barracks neighbourhood, on the other hand, was developed to cater to the needs of British troops and officers who were relocated from Srirangapatnam near Mysore. Halsoor neighbourhood was developed as a 'spot of England in India' with artillery and cavalry, barracks, parade ground, the mall, fine and spacious bungalows, classical gothic, public houses, bars, taverns**,** and night clubs. Hence, the city was developed on east - west zonation with east having high concentration of churches and mosques thus encouraging, by and large, the western civilization, and west with temples characterizing the traditional city. However, as the city gradually developed, a fine-tuning of inter-mix of two cultures has been evident in the form of location of these people in both the areas (ibid, p. 3).

Bangalore, which had a population of 5.6 million in 2001 is currently estimated to have 7 million and has been one of the rapidly growing metropolitan cities in India. An analysis of the decadal growth (Table 3 below) shows that the city recorded its highest growth rate of 91.5% during 1941-51. The decade 1971-81 also registered an impressive growth rate of 76 percent, the highest for any metropolis in India. While there has been a decline in the following decades - 39.8% during 1981-91 and 37.7% during1991-2001, the growth rate has been relatively high compared to several other cities in the country. The population of Bangalore is estimated to rise to 7.8 million by 2011 and 10.7 million by 2021.

Table 3: Decadal Growth of Population of Bangalore

Year	Population	% increase over 10 years
1901	1,59,046	…
1911	2,89,485	+19.1
1921	2,37,496	+25.3
1931	3,06,470	+29.0
1941	4,06,760	+32.7
1951	7,78,977	+91.5
1961	11,99,931	+54.0
1971	16,53,779	+37.8
1981	29,13,537	+76.2
1991	33,02,296	+30.04
2001	43,13,248	+30.61

Source: Census of India: 2001

The current socio-economic fabric of the city has the following four categories - high income, middle income, low income, and slum households which may be to a great extent identified as below poverty line households. These categories have their specific requirements in terms of residential, transport, education, health, water and sanitation, commercial, leisure-time and recreation activities. As it is, the city has been experiencing serious problems in serving the people in the above said sectors according to their requirements. Now, one more category of households, the so called urban or rural households with imposed urban characteristics (urban) is being added to the existing group whose requirements may differ significantly from that of the said urban household categories (Sastry, 2008, p. 9).

The environmental condition of the city mainly in terms of air pollution, water and sanitation, solid waste, open spaces, greenery and water bodies etc. will be more serious, on account of the expansion of the city area. With the existing road conditions and additional pressure on account of additional dependence of the so called added urban population on the city functions and services, air pollution will be a more serious issue on account of greater number of people involving in travel for work, shopping, religious, and recreational activities. A rough estimate of

emission of various pollutants to the city atmosphere by the transport sector is 2,858 tonnes per day (Sastry, 2008, p. 12).

The estimated loss to the sericulture industry owing to urbanization is pegged at Rs102 crore. TH Somashekar, former director of the Central Silk Board, said earlier Karnataka used to produce 8,000 tonnes of silk but now the production has come down to 2,000 tonnes. He was speaking on the sidelines of the week-long Silk Utsav on Wednesday. He said earlier district areas in and around Ramnagar, Hoskote and Siddlaghatta were known for sericulture industry but now the developed land there was gobbled up for various development projects. "As long as women continue to wear the sari and we respect the rich Indian tradition of using silk, the sericulture industry will survive," said Somashekar. At the Silk Utsav, people can learn about different types of silk and acquaint themselves with different weaving techniques. "We have brought together weavers and producers of silk from all over the country. Apart from helping consumers of silk, we also wanted weavers and designers to directly interact with consumers and other weavers and get a feedback on modern designs, new technology and so on," Somashekar said. He added that another area that the utsav aims to address is marketing of products by weavers (DNA, newspaper, Oct. 13, 2011).

Currently, most of Bangalore's lakes have fallen prey to urbanization, with encroachment in the catchment area, further worsening the inter-connectivity of water bodies. As the city gained an international popularity in 1990s as "Silicon Valley", Bangalore's inorganic growth constantly caused its urban areas to merge with the peripheral rural fringes, engulfing the existing water bodies and settlements as urban villages. In 1971, the Bangalore urban agglomeration was only 177.3 sq. km, which within three decades had tripled in size to an area of 530.9 sq. km. During this period, about 421ha of water cover area was lost due to development. There was also enormous reduction in lake area from 1971 (227.7 sq. km) to 2001 (105.42 sq. km), with about 18.3 sq. km getting transformed into built-up area. By 1993, the number of lakes in Bangalore had come down to merely 80. This transformation came as a serious concern, as urbanization had impacted not only the quantity in terms of its count but also the quality of water bodies severely. The presence of sewage and degrees of eutrophication recorded in 1996 identified about 28% of the lakes as sewage receptacles. The spread of the city has also blocked the storm water drains which were the prominent feeders of lakes. Compared to total number of lakes present in 1990-2000, 70% of the lakes had already vanished by 2010 (Samana & Gopinath, 2012, p. 25).

Conclusion

The world's level of urbanization is likely to continue increasing, as long as the long-term trend in most low- and middle-income nations is for economic growth. Among these nations, those with the most economic success will generally urbanize most. Higher income nations may no longer urbanize, but this is largely the result of non-agricultural workers being able to live in rural areas or industrial and service enterprises located in rural areas. Low- and middle-income nations with no economic success will have little urbanization. The process of urbanisation in India has continued to be top-heavy, oriented towards large cities. This is because of higher demographic growth in larger cities, attributable to both natural increase in the resident population (which, though based on lower fertility than in rural areas and smaller towns, still brings huge increments because of the size of the base population) and higher net in-migration. In turn, this is consistent with the fact that larger cities are generally more efficient in generating growth and attracting investments, thus attracting more population. Given the new dynamics of urban industrial development associated with the strategy of globalisation, the small and medium towns, located away from the emerging global centres of growth, particularly those in backward regions, have not attracted much private investment. Moreover, many of these towns were declassified during the 1990s (Kundu, 2011, p. 48-49). But in India, the urbanisation is unabated and uncontrolled which has umpteen negative impacts on the environment and it lack proper planned way of urbanisation. So there is an intense need of sustainable urbanisation which caters all the needs of man without affecting land use in a negative way and to protect the natural resources in their original form. A strategy should be developed and framed by policy makers including government bodies to exercise the objectives of sustainable urbanisation where it is necessary to keep check on unchecked urbanisation. The urbanisation in Bangalore is unabated and resulting at a large scale and is growing at a higher rate than other cities in India.

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