

Decennial Assessment Of Trend And Tempo Of Urbanization: A Study Of Arunachal Pradesh, India

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Abstract

As a matter of demographics, urbanization refers to the migration of people from countryside to towns/cities, where all sorts of economic activities are centred mostly around secondary and the tertiary industries instead of primary industries such as trade, manufacturing industry and management. Today, more than half of the world's population lives in urban regions, i.e., more and more densely populated cities. While cities are a relatively recent occurrence in human history, they do provide a number of advantages. It's no secret that urbanization has had a profound impact on people's thinking patterns, lifestyle, behavior models, values, and culture etc. Development, industrialization, and migration have increased urbanization throughout human history. This paper is an attempt to analyze an overview of decennial assessment of trend and tempo of urbanization in Arunachal Pradesh to investigate the level of urbanization and its inter-district variations and impact of such disequilibrium upon society. The study has been accomplished mainly through secondary data which have been collected from Census records published by the Government of India. Besides, various books and published articles in journals have also been consulted. Immediate effect of urbanization in Arunachal Pradesh could be seen at various levels in employment opportunity, marketing, agricultural expansion, and socio-economic development etc.

Keywords: Arunachal Pradesh, Decennial Trend, Urbanization, Urban Population

INDRODUCTION

Humans begin to live in towns and cities that are dominated by industry and service sectors, rather than scattered agricultural settlements. It entails the expansion of existing towns and cities in order to accommodate more people. This is the process of society's transition from a rural to an urban population. Both the number and the proportion of individuals engaged in non-agricultural occupations living in urban settlements have increased in recent years. To determine whether a

location is urban, various nations employ different criteria. It is difficult to establish a standard population size for a location to be classified as urban since there is no standard population size norm. To designate a location as urban, several nations utilized a minimum population size as one of the most significant criteria. Again, this varies greatly across nations. United Nations recommends a population threshold of 20,000 for a location to qualify as an urban area for international comparison.

According to the census of India, there are two types of towns i.e., statutory towns and census towns. An urban area comprises of a municipality corporation, cantonment board, or notified town areas committee, as defined by state law is called as statutory towns whereas census towns are places that meet the following requirements:

- A. A population of at least 5000 people.
- B. Non-agricultural activities are pursued by at least 75% of the male working population.
- C. At least 400 people per square kilometer of population density. In addition, if regarded as outgrowths (OGs) of the primary urban unit, certain regions surrounding a city or town are also designated urban areas.

The proportion of urban residents to the overall population in the Northeast area has increased over the course of the census years, although it remains lower than national statistics (Devi, Kh. Bimolata, 2012).

Urbanization is considered to be synonymous with progress and modernity. To get a thorough knowledge of the urbanization phenomena in northeastern India, it is necessary to examine several elements of urbanization. It is no more any secret that the north-eastern states are underdeveloped. Globalization has touched every corner of India except the northeast. There is a wealth of material accessible for the study of urbanization in mainstream India. However, relatively few academics have tried to investigate the north east's urbanization problems. The majority of them leave Sikkim out of their calculations. The majority of urban literature focuses on India's main states, which exclude the north-eastern states, with the exception of Assam. As a result, there is a dearth of literature on urbanization in north-eastern India. Henceforth, research in this area is very difficult. The rate of urbanization is a key indication of modernity and progress. They are more affluent socially and economically if they have a high degree of urbanization. Conversely, if it is low, they are

socioeconomically backward. Development and urbanization are inextricably intertwined.

The term "urbanization" refers to a process in which the industrial structure shifts away from basic industries and toward secondary and tertiary industries. Changes in working population from primary activities to secondary and tertiary activities. Urbanization also brought about drastic changes in lifestyle, behavior models, thinking patterns, norms, values, and culture. In terms of material development, urbanization often entails the creation of new urban infrastructure and public service facilities to accommodate these shifting economic and social conditions. Owing to this, urbanization is said to be a complicated and multidimensional process including people movement from rural to urban regions, land conversions between rural and urban areas, settlement reconfiguration, and changes in governance and administration (GU Chaolin, 2020). Urban areas currently shelter more than half of the world's population and generate more than two-thirds of global GDP (Jiang and Neill, 2017). (Acuto et.al. 2018; Seto et.al., 2017). More than two-thirds of the world's population will live in cities by 2050. (Jiang and Neill, 2017; Florke et.al. 2018; Li et.al., 2019) Fast urbanization provides opportunities for economic growth (Keeler et.al., 2019).

Since the end of 2008, the United Nations has projected that more 50% of the world's population lives in cities. By 2050, urbanization is expected to reach 64.1% in poor countries and 85.9% in developed countries. As the population shifts from rural to urban regions, the percentage of people living in urban areas will rise over time. Sometimes, urbanization is linked to such things as technological advancements, globalization, and social rationality. This is due to urbanization's complexity and seeming irreversibility, which has both good and bad consequences. Positive urbanization may help

human settlements continue to evolve and advance; otherwise, urbanization-related difficulties and regional development issues would be more difficult to address in the future, particularly in rapidly-urbanizing emerging nations. However, despite all planning attempts to curb urban sprawl, such as compact city laws and urban growth management programs, urban land use change will continue to rise globally (Angel et al. 2011). An important feature of urbanization is the degree of urbanization (Tufail, M., 2014).

The expansion of urban land use is a global trend that affects a variety of ecosystem services by reducing vegetation and biodiversity, habitat functions, agricultural resources, and soil (Haase et al., 2018). The effect of urbanization is destroying the scope of social forestry and causing ribbon development throughout all of the state's metropolitan regions, particularly in the capital complex. Unplanned building is causing landslides, soil erosion, water logging, particularly during the rainy season, and a loss of fertility on adjacent agricultural land. It is once again causing sewage issues and traffic gridlock (Mandal et. al, 2020). The Atlas of Urban Expansion is a more contemporary publication that depicts worldwide urban development (2019). Urbanization is a worldwide land use change megatrend that may be seen in all areas of the globe. By 2050, cities will house almost 70% of the world's population (Eurostat, 2016). The urban/rural status as a dynamic variable is significant because it distinguishes a much broader range of variation in settlement patterns throughout the rural-urban universe. From a conceptual perspective, they were discussed in relation to two key features of settlement patterns (Schroeder & Pacas, 2021).

The reasons why the world population is more drawn to city living than ever before have been extensively explored in the literature (Adli, 2017).

A great deal of works explored on the factors that explain why the world population is more drawn to city life now than it has ever been (Adli, 2017). Indeed, urbanization has shown to be the most important factor in the overall growth of emerging countries, as seen by the rise in employment, income, and the overall quality of life in these countries. However, as a result of these advancements, natural vegetation is being destroyed (Lonchung & Mandal, 2020).

In reality, most urban development occurs in the suburbs. We live in a suburban world and are striving to urbanize it (Keil, 2017). According to Munir and Ameer (2021), urbanization and environmental degradation have similar relationship as do technological advancements and environmental pollution. They also examined the nonlinear effects of trade liberalization, economic development, and technology over the course of the twentieth century.

The urbanization in Northeast Region (NER) is going fast. This indicates that both the process of urbanization and development have concentrated in these states. Thus, in NER the situation and problems associated with the process of urbanization is more complex than elsewhere because of large concentration of urban population in capital towns than other towns. However, it is remarkable to note that the percentage of urban population has decreased in the year 2011 in comparison to 2001 especially in Manipur, Meghalaya, and Tripura. Again, the overall percentage of urban population to total population in NER has decreased in 2011 in comparison to 2001 though there was an increasing trend up to 2001. But there is increasing trend in case of all India level also (Mandal, R.K, et al., 2022).

Peri-urban regions may become dense urban fabric over time, and rural areas can have centers with urban cores and a high degree of centrality and service quality as a result of suburbanization (Hugo, 2017). If you live in a polycentric region, where several cities are connected to create huge

metropolitan areas, the line between rural and urban areas gets even more blurred (Danielzyk et al., 2016).

THE STUDY AREA

Arunachal Pradesh sprawls between 26.28° to 29.30° N latitude and 91.20° to 97.30° E longitude and has an area of about 83,743 km² (Fig. 1). Arunachal Pradesh is one of the states of Northeast India which refers to India's

easternmost region, and shares a common border with five countries i.e., Bangladesh, Myanmar, China, Nepal, and Bhutan. Due to its geographical location in India, it is known as “Land of Dawn/Lit Mountains”.

Arunachal Pradesh became a state on 20 February 1987. It is the largest of the Seven Sister States of Northeast India by area. As of the 2011 Census of India, Arunachal Pradesh has a population of 1,382,611.

Location Map Showing Arunachal Pradesh in India

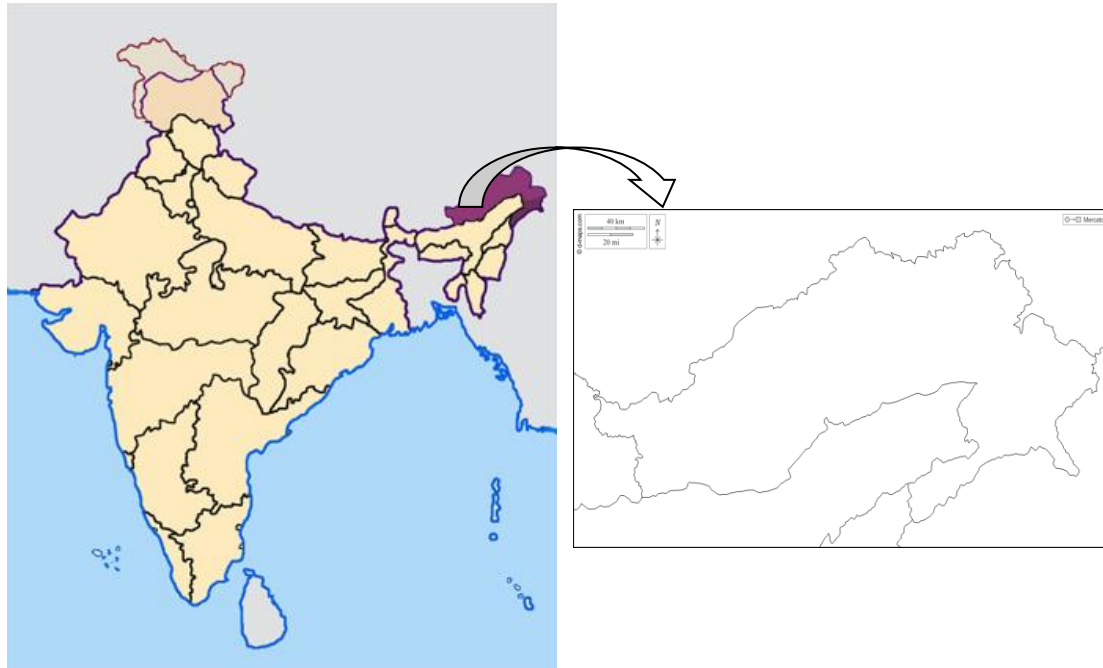


Fig. 1

The state is home to 45 different tribes and sub-tribes, making it the most diverse state in the country. Monpa make up the majority of population in the state's western region, while Tanis and Tais populate its central region, and Nagas populate its southern region. Apatani, Nyshi, Galo, Tagin, and Adi are the major tribes of the state.

OBJECTIVES OF THE STUDY

The study has been initiated to fulfill the following threefold objectives.

- To assess the decennial trend and tempo of urbanization in Arunachal Pradesh.

- To investigate the level of urbanization and its inter-district variations.
- To understand the Spatio-temporal dimensions of changing employment opportunity, marketing, agricultural expansion, and socio-economic development etc. at various levels.

METHODOLOGY

In India, there is lack of data on urbanization. Census data have been and still are the main source of information on urbanization in India. It is only in every ten years that we get an opportunity to know about the overall

urbanization in India by studying the census data. This study has been accomplished mainly through secondary data which have been collected from Census records published by the Government of India. Apart from these a number of articles published in various magazines, periodicals and National and International journals have also been consulted for the purpose.

Data Analysis

The different materials collected from the various sources have been scrutinized, processed, organized, and tabulated logically and systematically under appropriate head in rows and columns of statistical tables in such a way to get the requisite result. In addition to graphical

Table 1: Census wise List of Urban Centres since 1961

Census	No. of Census Town	Name of Census Town
1961	Nil	Nil
1971	4	Along, Bomdila, Pasighat and Tezu
1981	6	Along, Bomdila, Pasighat, Tezu, Naharlagun and Itanagar
1991	10	Along, Bomdila, Pasighat, Tezu, Naharlagun, Itanagar, Ziro, Roing, Namsai and Khonsa
2001	17	Along, Bomdila, Pasighat, Tezu, Naharlagun, Itanagar, Ziro, Roing, Namsai, Khonsa, Tawang, Seppa, Daporijo, Basar, Changlang, Jairampur and Deomali
2011	27	Along, Bomdila, Pasighat, Tezu, Naharlagun, Itanagar, Ziro, Roing, Namsai, Khonsa, Tawang, Seppa, Daporijo, Basar, Changlang, Jairampur, Deomali, Dirang, Rupa, Sagalee, Boleng, Yingkiong, Miao, Longding, Koloriang, Anni and Hawaii

Source: All Census Reports of various years and Statistical Abstract-2017, Directorate of Economics and

Statistics, Govt. of Arunachal Pradesh, Itanagar. As per the census definition discussed earlier, all the urban centres stated above in table-1 have fulfilled the criteria. All these towns are administrative centres. In most cases, before the establishment of administrative centres; these places were full of forest. In 1961, there was no urban centre. The whole State was rural. In 1971 Census, there were four urban centres like Along, Bomdila, Pasighat and Tezu. In the 1981 Census,

representations (Line and Bar Diagrams), simple arithmetical calculations like percentage of the urban population, the decennial growth rate and annual growth rate of the urban population have been calculated.

RESULTS AND DISCUSSION

Growth of Urban Centres in Arunachal Pradesh

Till 1961 census the State of Arunachal Pradesh was entirely rural having no urban centre. Census wise trend in urbanization is shown in the following table 1.

the number of urban centres was increased to six. They were Along, Bomdila, Pasighat, Tezu, Naharlagun and Itanagar. In subsequent censuses, the numbers of the urban centre were increased to ten in the 1991 Census, seventeen in 2001 Census and twenty-seven in 2011 Census respectively, as shown in table 1.

Trend and Tempo of Urbanization in Arunachal Pradesh since 1961

As observed in the Table-1 above, the urban population of the State in the year 1961 Census was nil. The Census was started in the State in 1961, i.e., the first Census was taken in 1961, when there was no urban town in the State. In the next Census 1971, there was 3.70% of her population lived in the urban areas. Likewise, 6.56%, 12.14%, 20.78% and 22.94% of her population lived in the urban Census towns in 1981, 1991, 2001 and 2011 Censuses respectively. Since 1971, the urban population has steadily increased, and it has shown a rising trend. However, it is also to be taken into view that while the pace of urbanization is growing at

a faster rate, this considerable rise in urban population and their livelihood strategies are at different levels of economic development spread over the three belts (Upper, Middle, and Lower) of the State, which are territorially different and varies in terms of economic opportunities that the terrain provides. Additionally, the pace of urbanization in the region has never attracted any external investment and attention of the urban local bodies to provide for the basic amenities that generally follow in other parts of the country. The trend of Urbanization and Urban Population in the State since 1961 is shown in table-2 and figures-1, 2 and 3.

Table 2: Trend of Urbanization and Urban Population in Arunachal Pradesh since 1961

Year	Total No. of Census Towns	Total Population	Total Urban Population	Percentage of Urban Population
1961	-	336558	-	-
1971	4	467511	17288	3.70
1981	6	631839	41428	6.56
1991	10	864558	104973	12.14
2001	17	1096702	227881	20.78
2011	27	1383727	317369	22.94

Source: Statistical Abstract-2017, Directorate of Economics and Statistics, Govt. of Arunachal Pradesh,

Itanagar. Calculation based on Census Data, 1961-2011.

In table 2, according to 1971 and 1981 Censuses, 3.70% and 6.56% of people lived in four and six urban areas respectively. Again, according to

1991 census 12.14% of people live in ten metropolitan areas while as per 2001 Census 20.78% and as per 2011 Census 22.94% of people live in seventeen and twenty-seven urban areas.

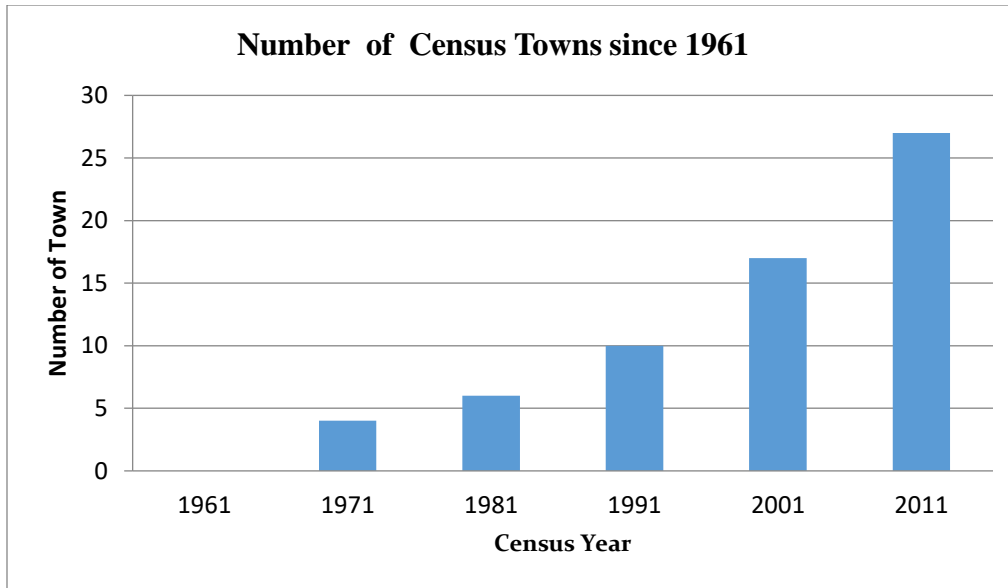


Fig. 2

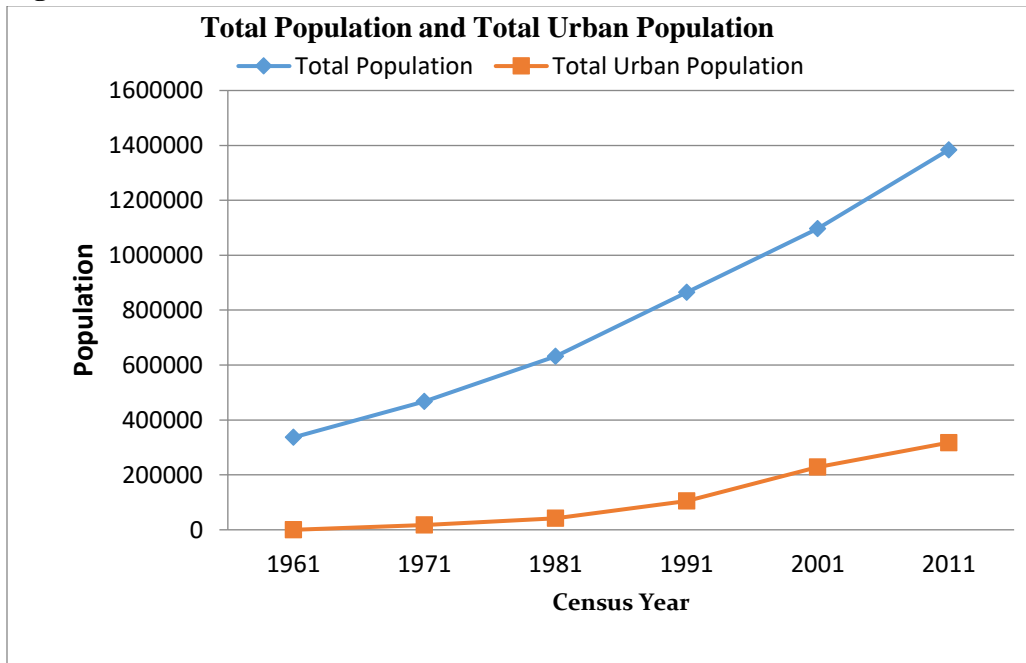


Fig. 3

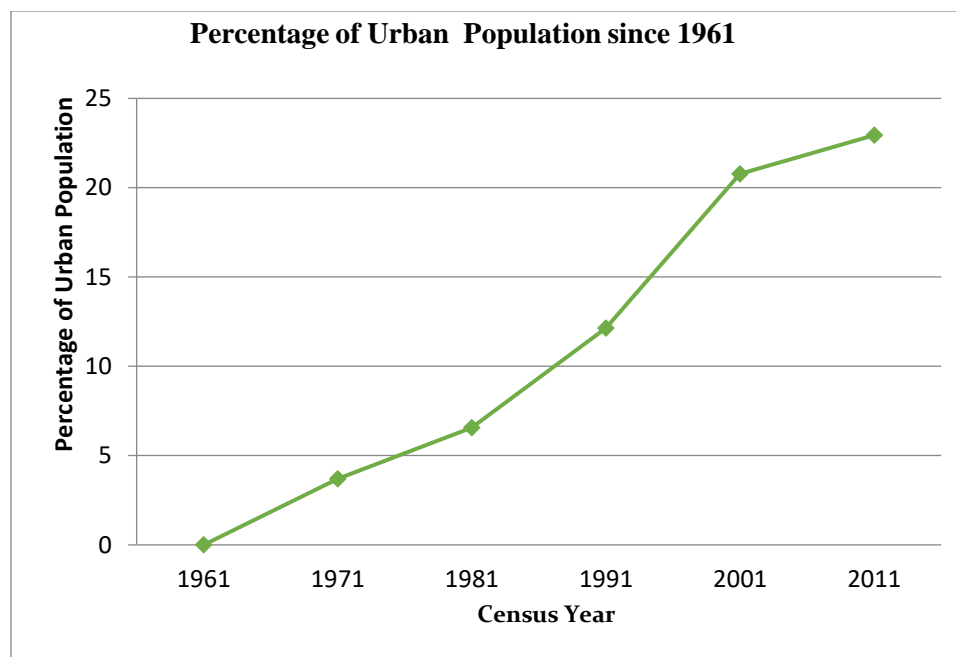


Fig. 4

Explanation of Figures 2, 3 and 4

In figure 2, each bar shows the Census year-wise number of Census towns since 1961. In 1961 Census, there was no Census town in the State having no Bar. After the 1961 Census, the number of Census towns is increasing. As a result, the height of each bar is larger than the previous bar. The Bar for the 2011 Census is highest because of the highest number of towns. Figure 3 shows the time plot of the total population and the total urban population in the State. Both the curve is upward rising meaning that both the populations are increasing Census year wise. The red curve stands below the green curve, indicating that the sum total of the population in the State living in rural as well as in urban areas are always higher than that of the urban area.

Figure 4 indicates the Census year wise time plot of the percentage of the urban population since 1961. In 1961 Census the percentage of urban population was nil. That is why; the curve starts from the X-axis and rising upward, showing that the percentage of urban population is increasing.

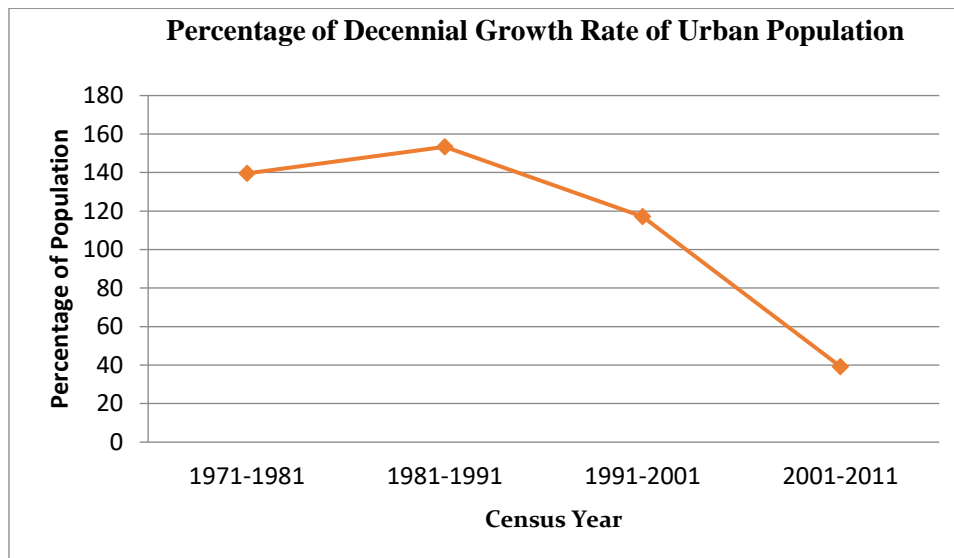
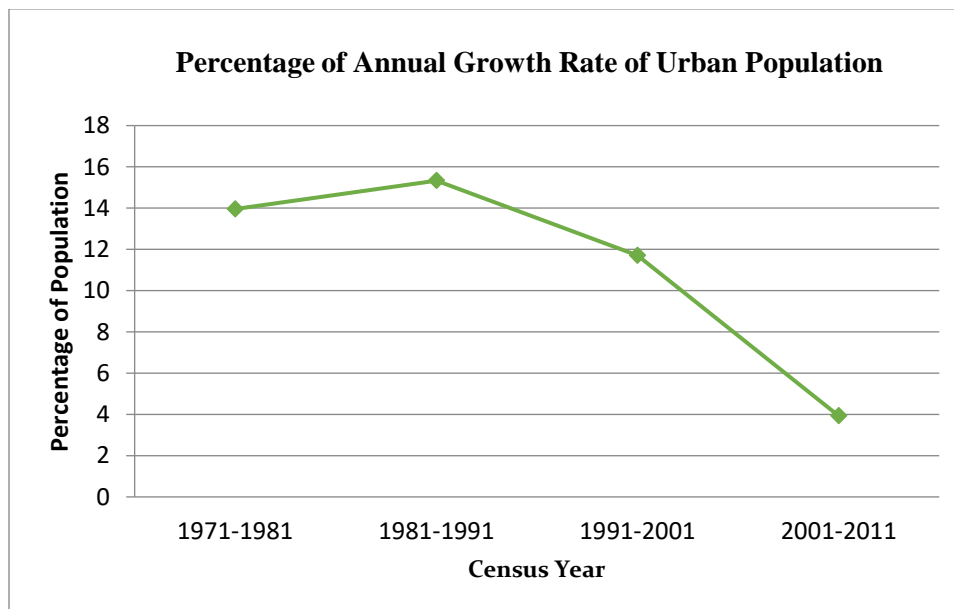
Growth of Urban Population in the State

Growth of Urban Population in the State regarding Decennial Growth Rate of Urban Population in percentage and Annual Growth Rate of Urban Population in percentage is shown in Table-3 and Figures-4 and 5 below. The percentage of decennial urban growth rate in the State was recorded as 139.63 in 1971-81, 153.38 in 1981-91, 117.08 in 1991-2001 and 39.27 in 2001-2011. Again, the percentages of the annual growth rate of the urban population are 13.96 in 1971-81, 15.33 in 1981-91, 11.70 in 1991-2001 and 3.93 in 2001-2011.

Table 3: Growth of Urban Population in Arunachal Pradesh

Year	Decennial Growth Rate of Urban Population (%)	Annual Growth Rate of Urban Population (%)
1971-1981	139.63	13.96
1981-1991	153.38	15.33
1991-2001	117.08	11.70
2001-2011	39.27	3.93

Source: Self Calculation based on Census Data of Table-1

**Fig. 5****Fig. 6**

Explanation of Figures 5 and 6

Both the curves of Percentage of Decennial Growth Rate of Urban Population and Percentage of Annual Growth Rate of Urban Population are downward sloping. It indicates that decennial and annual growth rates of the urban population are decreasing.

FINDINGS

Due to absence of a statutory body, the urban centres have been constructed in the unplanned way leading to lack of urban amenities like the narrowness of road with its less density, sufficient drinking water, sanitation and sewage, electric supply, etc. Urbanization in the State brings so many structural changes shown below:

Employment Opportunity: Due to the increase of towns, the scope of employment has been broadened formally and informally.

Market: Market has been developed in every urban centre because inside agricultural products and various outside manufactured products are transported and sold.

Agricultural Diversification: Due to the engagement of outside people in various sectors, the local people have come in contact and known how to produce multiple agricultural, horticultural and different cash crops.

Social Economic Development: The villagers have understood the good fruits of small family size, the value of education, marriage age, sanitation, hygienic atmosphere, etc.

Transportation and Communication: Many inaccessible villages are connected with roads, and the villagers can communicate with others.

Trade: Different business activities are practiced by local and non-local people in every urban centre due to which many items, which were

unavailable and unknown, are now available to the local people.

CONCLUSION

Arunachal Pradesh is one of the poorest states in India. It is not only lacking in economic development but also in human development. In fact, its performance in human development is worst among the significant non-special category states in India. In terms of urbanization, Arunachal Pradesh is one of the least urbanized states in India. Despite substantial growth of urban population in the State, the proportion of the urban population to total population is about 20.41 only as per 2001 census. This is comparatively very low in contrast to most of the states of the country. Besides, the level of urbanization in the State also varies substantially from district to district. From the viewpoint of urbanization trend, the State reveals that the level of urbanization and its inter-district variations are very slow. But it was believed that the slowdown of urbanization was only temporary phenomenon and commented that it was a mistaken to presume that urbanization would continue to be slow during the recent century and beyond (Visaria, 1997; Mohan, 1996). The statutory body like municipal committee should make a proper master plan before setting up an urban centre under sustainable development planning. Therefore, to reduce the adverse effects of urbanization on socio-economic development of local people more scientific, systematic, and in-depth study is required before urban planning. It will help the urban planners and policymakers and will also give new insights to the upcoming researchers in this area of research.

DATA STATEMENT

The information in this review is not sensitive and is available in the Public Space. The data is accordingly accessible and not of a confidential nature.

DECLARATION OF CONFLICT OF INTEREST

No conflicts of interest.

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