

URBANIZATION IN ARUNACHAL PRADESH: PROSPECTS AND CHALLENGES

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Urbanization is regarded as one of the most important indicators of economic development and social transformation of any given region. It generally refers to a process by which a section of people adopts urban life. The process of urbanization is said to begin with the movement of people from agricultural communities to large non-agricultural industrial communities. The percentage of urban population to the total population is considered an index of the degree of urbanization. Economic, social, and demographic factors significantly affect the degree of urbanization. In India, the urbanization process started during the first half of the 20th century. Urbanization arrived late in case of the Indian State of Arunachal Pradesh. The index of urbanization was only 3.69 percent in 1971, and it gradually rose to 22.94 percent in 2011. Presently, there are 27 towns in the State. The highest urban population is in Itanagar, i.e., 59,490 whereas Hawaii records the lowest—982. The present paper is an attempt to document the challenges or factors affecting the growth of urbanization in Arunachal Pradesh as well as its prospects. The causes of low index of urbanization in the State are also examined and some recommendations to ensure optimal development are made. The study is conceptual in nature, substantiated by available official records and personal observation of the area concerned.

Keywords: Arunachal Pradesh, urbanization, economic activities, agriculture, population

Urbanization is a process of population transformation from rural areas to urban areas (Singh, 2017). It refers to a process by which a section of people adopts urban life. Others have the opinion that the process of urbanization

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is involved with the movement of people from agricultural communities to other large non-agricultural industrial communities. In fact, urbanization is regarded as one of the most important indicators of economic development and social transformation of any given region. According to Trewartha, urbanization is a cyclical process through which the nations pass as they evolve from agrarian to industrial societies (as cited in Qazi & Qazi, 2010). The percentage of urban population to the total population is considered an index of the degree of urbanization. Economic, social and demographic factors very much affect the degree of urbanization.

In India, the urbanization process started during the first half of the 20th century and, marked by increased urban based economic activities, concentrated around cities. However, it arrived late in case of Arunachal Pradesh. Being one of the frontier states of northeast region of India, Arunachal Pradesh is yet to establish a remarkable benchmark in the context of urbanization despite consistent efforts from the state government since attainment of statehood status. Due to its rugged topography and dense forest, this region remained isolated for a long period from the other parts of India (Sharma, 2008). Sharma further mentions that it is only after independence of India, more specifically after attainment of statehood in 1987, the state of Arunachal Pradesh entered the path of development. As per the available records, the degree of urbanization was only 3.69 percent in the year 1971, which gradually rose to 22.94 percent in 2011. Presently, there are 27 towns in the State. Itanagar (the state capital) has the maximum urban population—59,490. The town of Hawai has the lowest—only 982.

The present paper is an analysis of the existing challenges and future prospects of urbanization in the hilly state of Arunachal Pradesh.

Brief Review of Literature

Urbanization is a process by which people, instead of living in predominantly dispersed agricultural villages, start living in towns and cities dominated by industries and service sector (Pautunthang, 2018). Pautunthang has extensively studied the level of urbanization and growth and concentration of urban population in North East India. Rajkhowa (2016), studying the trends in urbanization in the North East India and its economic implications in the region, concludes that there were acute challenges of employment, land, and basic amenities in the towns and cities. An in-depth picture on

trends of urbanization in the state of Arunachal Pradesh has been investigated by Sharma (2008), chronicling the salient features and consequences of urbanization in Arunachal Pradesh as well as providing recommendations to solve problems related to urbanization and to improve the urban situation in Arunachal Pradesh.

Singh (2017) has analyzed the concept of urbanization and highlighted the process and trends of urbanization in the whole of India. Shaw (2017) discusses pertinent issues related to the urbanization transition in India, focusing on the idea of humane urbanism in the context of Indian cities and discussing the possibilities and the limitations of achieving humane urbanism under the existing political and economic framework.

Significance of the Study

Urbanization has been one of the major challenging issues in the hilly state of Arunachal Pradesh since its inception. The successive government mechanisms have undertaken many projects to help towards urbanization. The present study was undertaken to further understand the various factors having significant impact on urbanization of the State. It may assist policy makers and strategists to explore the reasons for the low degree of urbanization in the State and to respond to the challenges.

Major Objectives

The major objectives of the study are the following:

- a) To identify the factors affecting the growth of urbanization in Arunachal Pradesh
- b) To find out the reasons for low index of urbanization in Arunachal Pradesh
- c) To identify the various challenges of urban centers.

Method

The present study is theoretical in nature. Both primary and secondary data have been used, supported by the first-hand knowledge of the researchers in the area concerned. The opinions and suggestions put forward by the officials of the governmental agencies through personal discussions comprise the

primary data. Information extracted from office records, bulletins, articles, journals, and books form the secondary data. The data so obtained have been analyzed and conclusions were arrived at within the framework of the stated objectives.

Urbanization in Arunachal Pradesh – An Overview

Urbanization in Arunachal Pradesh is almost a new concept in comparison to other northeastern states of India, for Arunachal had been severely reeling under numerous socio-economic deficiencies. The reasons for such deficiencies are plenty including social, economic, political, technological, and topographical. Demographic factor is yet another pivotal element negatively influencing the pace of urbanization process in the State.

It is noteworthy to mention that the method of classification of urban centers is done on the basis of the criteria adopted during census operation. The criteria for urban centers during 2001 census were:

1. All the places which have municipality corporation, cantonment board, or notified town area committee (known as statutory town), and
2. All the other places which satisfy the following criteria (known as census town):
 - a. The place having a minimum population of 5,000.
 - b. Seventy five percent of the male working population engaged in the activities other than agriculture.
 - c. Population density of at least 400 persons per sq.km.

In Arunachal Pradesh, the classifications of urban centers, especially the census towns, are basically carried out as per the norm of the minimum population size. At present, there are 27 urban centers in the hilly state (Statistical Abstract, 2014). The highest urban population is recorded in Itanagar—59,490. Hawaii, the present headquarters of Anjaw district, has recorded the lowest urban population—982. The Itanagar municipality is the first urban civic body of Arunachal Pradesh which came into force in 2013. Another civic body was introduced at Pasighat, the district headquarters of East Siang district, in the same year. Moreover, both the municipal towns have been recently included in the Smart City project under ‘Smart City

Mission' launched by the Government of India. This is a great achievement for the tribal state in the field of urbanization. The following table provides the details of the towns of Arunachal Pradesh and their respective categories as per the 2011 population census

Table 1

Showing number of towns in Arunachal Pradesh and their population size as per 2011 population census

Sl. No.	Population Size of the Town	No. of Towns	Categories of Towns	Name of Towns
1	1,00,000 and Above	-	Class I	Nil
2	50,000 to 99,999	01	Class II	Itanagar
3	20,000 to 49,999	03	Class III	Aalo, Naharlagun, Pasighat
4	10,000 to 19,999	07	Class IV	Daporijo, Namsai, Roing, Seppa, Tawang, Tezu, Ziro
5	5,000 to 9,999	07	Class V	Bomdila, Changlang, Deomali, Jairampur, Khonsa, Miao, Yingkiong
6	Less than 5,000	09	Class VI	Anini, Basar, Boleng, Dirang, Hawaii, Koloriang, Longding, Rupa, Sagalee

Source: Population Census 2011

It can be observed from the above table that the State does not yet have Class I town where population size must be 100,000 and above. Moreover, it has got only one town under Class II category having population between 50,000-99,999. It can further be observed that there are three towns under Class III category, and seven towns each under Class IV and V categories. The maximum number of towns falls under Class VI category having a total population of less than 5,000. Hence, it is evident that the population factor plays a very important role in the making of urbanization.

Moreover, the decadal growth rate and the degree of urban population of the state are also not very satisfactory. As per the available records, the degree of urbanization was only 3.69 percent in the year 1971 which gradually rose to 22.94 percent in 2011. Table 2 provides the details of the population growth rate in Arunachal Pradesh:

Table 2

Showing urban population, decadal growth rate, degree of urbanization and number of towns in Arunachal Pradesh for the last five decades

Census Year	Urban Population	Decadal Growth (in %)	Degree of Urbanization (in %)	Number of Towns
1971	17,288	-	3.69	NA
1981	41,428	139.63	6.55	NA
1991	1,10,628	167.03	12.79	10
2001	2,27,881	105.98	20.75	21
2011	3,17,369	39.26	22.94	27

Source: Population Census of various years

Table 2 reveals the trend of degree of urbanization and the decadal growth rate of urban population in Arunachal Pradesh for the past five decades, i.e., from 1971 to 2011. It can be observed that decadal growth rates have been quite high (above 100 percent) for three consecutive decades from 1981 to 2001, the highest being 167.03 percent during the census year 1991. However, there has been a steep decline of decadal growth rate in the census year 2011. This extreme dip in the growth rate is significant and hence, must be researched into, but is not within the scope of this paper.

However, the trend of degree of urbanization is found to be positively increasing in every passing census year. The most commonly used method of measuring the degree of urbanization is the percentage distribution. The percentage of urban population to the total population is considered an index of the degree of urbanization. Table 2 shows the increasing degree of urban population, i.e., from 3.69 percent during 1971 to 22.94 percent in 2011 which can be considered a positive incidence though not very impressive as the national figure of the same is 31.16 percent as per 2011 census.

The reasons for having low degree of urban population can be attributed to many factors. However, no written official records with regards to the causes of low degree of urban population were found during the course of the present study. Since no research documentation exists to analyze the causal or contributing factors, we have held interviews and discussions with the officials and people concerned to arrive at the possible factors contributing to such low rate of urbanization. They are discussed below.

Causes of Low Degree of Urban Population

Low Decadal Growth Rate in Urban Population

The family welfare planning is extensively executed in the state and the tribal societies, especially the learned sections of the people, too have enthusiastically adopted the project. Those already residing in the urban centers knew the economic burden of having excess members in a family. This has reduced the decadal birth rate in the urban centers thereby affecting the natural growth of urban population of the State. Table 1 has clearly revealed the fact of decreasing decadal growth rate of urban population.

Lack of Employment Avenues

One of the reasons for migration from rural areas to urban towns is the search for employment. Degree of urbanization is significantly affected by the availability of job opportunities. Unfortunately, the State is facing acute job crisis since there is negligible number of private players in its economy. On the other hand, urban job creation is generally more difficult and costlier (Rajkhowa, 2016). As of now, the government sector is solely absorbing the highest percentage of job seekers, the rate of which is declining periodically due to low job creation. This drawback has its negative effect on the degree of urbanization of the State.

Industrial Backwardness

The near-total absence of industrial units in the State is yet another reason causing low degree of urbanization. The contribution of the manufacturing sector to the economy is negligible and this proves the scant existence of industrial activities in Arunachal Pradesh (Chakrabarti, 2009). Chakrabarti further notes that economy, outside agricultural sector, is virtually run by the government alone and this may be considered a major deterrent towards

achieving a self-sustaining economy. Had there been a few units of industry or factory of any genre, the rural youth would have migrated commensurately into the urban centers in search of job. The potentials remain unexploited thereby directly having a bearing on the degree of urbanization in the State.

Slow Pace of Infrastructural Development

The current pace of infrastructural development of the State is extremely slow. Many institutes (education, health, sport, etc.), commercial centers, and other structures are yet to have optimal infrastructure, which would open up employment as well as residential possibilities for people seeking to move to urban areas. Such delay in construction inhibits the inflow of people from rural areas, negatively affecting the degree of urbanization.

Agro-based Occupational Activity of the Rural Masses

The primary occupation of the indigenous people of the State is agriculture. As per the 2011 census, 77.06 percent of populations live in villages, solely relying upon agriculture for their very sustenance. According to Chakrabarti (2009), the contribution of the primary sector has fallen but the people relying on it have not fallen neither in percentage nor in absolute terms. On the other hand, there are no effective mechanisms (pull factors) in the hands of the state government to shift the occupational interest of the rural masses from agriculture to non-agriculture sectors. In such backdrop, it would be difficult from the part of the state government to alter the mindset of the rural population who consider agriculture as essential. Consequently, it lessens the scope of migration of rural population to the urban centers.

Prospects of Urbanization in Arunachal Pradesh

Since urbanization results from the process of centralization of preference in a particular place, it will enable people to get access to all the preferences which include better communication, transportation, medication, education, and other facilities (Boro, 2014). According to Sharma (2009), “urbanization is one of the key factors responsible for improving demographic characteristics, art, culture and human values of the society” (pp.216-217). Sharma further mentions that the level of urbanization is closely linked with the level of development, for towns and cities have always acted as the center of innovations, and scientific, technical, and industrial development.

The State can realize effective process of urbanization by adopting various means to exploit the available resources since the State is endowed with varied natural resources, rich flora and fauna, and picturesque landscape which has a capability to completely change the picture of the State if utilized judiciously. In this context, there lies the scope of establishing varied industrial units in different locations subject to availability and accessibility of raw materials. For example, an agro-based industry at a place where agricultural production is very large, a mineral-based industry where raw materials for the same are in plenty are viable options. In the same manner, a forest-based industry can also be established by the state government in order to tap forest resources since a major portion of the State's area is under forest coverage. According to the development profile published by the Department of Planning, Govt. of Arunachal Pradesh (2008), "forest has traditionally been the primary source of livelihood in Arunachal Pradesh. It is one of the 'Hotspots' of biodiversity in the world because of the abundance of the varied flora and fauna including medicinal and aromatic plants" (p.10). However, utmost care must be taken while utilizing these or else draining of forest resources will invite numerous natural disasters. Prior to the Supreme Court of India's order of banning timber factories across the nation, there was a factory known as *Nocte Timber Corporation* (now defunct) at Deomali, Tirap district. Such factory should be revamped in order to utilize the forest resources which lie abundant in the State. Thus, the problems of unemployment could be solved up to a considerable extent. Also, such a development will bring good rapport to urbanization in the eyes of common people, for it will boost the State's overall economy.

Tourism sector is another major area which can boost the pace of urbanization as well as of the economy. This sector has already been declared as an industry by the state government. The State has huge potential in offering ecotourism, adventure tourism, and cultural tourism, provided tourism infrastructure is properly developed for the convenience of the tourists. It will ensure inflow of money into the State's exchequer besides providing employment opportunities.

Water resource is yet another underexplored front of the State. There are hundreds of streams and rivers which have a capability to generate approximately 50,000 megawatts of electricity. However, the potential has not yet been harnessed owing to numerous social and environmental issues.

Once it is cleared, it can generate employment as well as facilitate optimal urbanization.

Besides all the above discussed underlying opportunities, opening of higher educational institutions such as medical colleges, engineering colleges, veterinary colleges, law colleges, games and sports academies, schools of drama, and state universities are but some of the areas that will certainly enable rural to urban migration. Arunachal Pradesh is still lagging far behind in these sectors in comparison with other northeastern states. There are a few other areas carrying equal prospects to boost the process of urbanization such as marketing, finance and urban housing, which need to be dealt cautiously by the state administration. Inclusion of these in the developmental master plan of the State will facilitate the pace of urbanization.

Challenges of Urbanization in Arunachal Pradesh

In fact, the pace of growth of urbanization in Arunachal Pradesh is not encouraging, owing to numerous factors enumerated below.

Demographic Factor

Demographic or population factor is one of the major concerns for the State with regard to socio-economic and political development. No doubt people used to migrate from rural areas to towns in search of better socio-economic life. However, the effect of such movement is insufficient and hardly augments the overall population of the urban areas.

Unfavourable Geo-Physical Terrain

A city can be built over a rocky mountain provided the geo-physical features are favourable. But in the case of Arunachal Pradesh, building and construction activities require extraordinary expenses owing to unfavorable geo-physical factors such as loose and sandy type of soil, recurrence of ridges and steep slopes across the mountainous regions, high vulnerability to natural calamities such as landslides and floods. Moreover, the State is situated in seismic zone V which is considered high earthquake prone zone. Hence, establishing urban centers and building infrastructure in such terrains are indeed herculean tasks.

Inadequate Educational Institutions

Education is one of the most pivotal aspects of any society or region. It is the backbone of the society. The degree of urbanization of a given region is greatly affected by the number of educational institutions it has. A large number of people, especially the youth, migrate to metropolitan cities to pursue their higher education. Such movement not only increases the degree of urban population of the region but also broadens the scope of economy. In the case of Arunachal Pradesh, higher education is still in a nascent stage. There is a need for more higher educational institutions in various fields such as medicine, engineering, sports, defence, art and culture, law, science and technology, management and statistics to provide educational opportunities and employability to the young minds. The recent policy to introduce one each medical college, law college, and defence academy (*Sainik* school) in the State is a welcome move, but is no match for the great need of the State in the area of education.

Transportation and Communication

The transportation and communication services in the State are still very poor due to absence of all-weather type road connectivity. In addition, the State is insufficiently connected with all three modes of transportation such as road, air, and water. With regards to railway service, since 2014, Naharlagun is the only town with railway connectivity, while towns such as Tawang, Roing, and Pasighat are in the line of getting the connectivity soon. Of late, a civil airport has also been opened at Pasighat town which is operating weekly. Besides, the national government project for the Trans-Arunachal Highway is yet to be completed. Therefore, absence of proper transportation and communication facility is one of the most serious hindrances to urbanization.

Absence of Adequate Power Supply

Without adequate supply of electricity, no business or industrial unit can operate smoothly. In spite of the great hydroelectric potential of Arunachal Pradesh, it has been underutilized. The State is considered as the 'future powerhouse' of the country, having an overall capacity of 50,000 MW. However, the realization of power from the respective river sources is still a distant dream for both the state and central governments. The absence of adequate power supply also restricts the process and pace of urbanization.

Absence of Adequate Civic Bodies

As of now, there is an acute shortage of civic bodies in the various urban centers excluding the two towns Itanagar and Pasighat. A strong civic body is the need of the hour in order to urbanize the existing urban centers of the State in all required areas. Such development, when realized, will definitely augment the growth of urbanization in the State.

Lack of Drinking Water and Sanitation Facilities

Almost all the urban centers of the State face shortage of potable water though the State is endowed with many rivers and streams. The problems of drinking water are more severe in those urban centers situated on the hilltops and plateaus. Due to altitudinal problem, drawing water from the ground is found to be very difficult.

On the other hand, the availability of sanitation facilities is far from desirable. Disposal of garbage is extensively carried out without care for people's hygiene. The state government has not yet come out with a scientific waste management mechanism. They are simply disposed off by throwing them into nearby rivers or vacant areas thereby polluting the environment. *Swachh Bharat Abhiyan*, the sanitation campaign launched by the Government of India to commemorate the birthday of Father of the Nation, Mahatma Gandhi, is still in nascent stage; but when implemented on a full scale, it is likely to improve the sanitation standards.

Conclusion

From the above discussion, we may conclude that urbanization is still an incomplete chapter for the State of Arunachal Pradesh. Being one of the frontier states and situated in strategic locations sharing international boundaries with the Republic of China, Myanmar, and Bhutan, it is an imperative for this land-locked State to have a sound economy to withstand natural or human made challenges. This feat can only be achieved by establishing new urban centers and augmenting the existing towns. Merely establishing new administrative centers or expanding of existing ones will not hold much water in respect of functional urbanization. In fact, the government agencies need to study the matter comprehensively and work out a master plan envisaging best possible results. Arunachal Pradesh is a diverse state both in terms of people and land. The state administration, therefore,

should not adopt the one-size-fits-all policy, instead, should prepare separate action plan document for every different belt or region so that the process of urbanization goes smooth and uninterrupted leading to a balanced regional development in the long run. Simultaneously, the state administration needs to identify the various existing problems and constraints of urban centers in order to facilitate their further development, equipping them with modern amenities so that they could attract more people from the rural areas. This must also be done without doing damage to the needs of the rural areas as well as protecting the agricultural sector. Urbanization in Arunachal Pradesh is not an eco-catastrophe as environmentalists usually consider; rather it is a means to open and broaden the economic gateway of the State in an optimally beneficial manner for the entire people of the State.

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