

# **URBANISATION AND GROWTH OF SMALL TOWNS IN ASSAM, INDIA.**

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## **INTRODUCTION:-**

Urbanisation is the process by which an increasing proportion of the country's population starts residing in urban areas. "Understanding of Urbanisation" (Jha, 2006), the term is related to the core concern of Urban Geography. It stands for the study of Urban Concentration and Urban phenomena. By Urban Concentration what is meant in the different forms of urban setting; and by urban phenomena we mean all those processes that contribute to the development of urban centers and their resultant factors. Thus the scope of the term is certainly comprehensive. (Mallick, 1981)

According to Census an urban area was determined based on two important criteria, namely: (i) statutory administration; (ii) certain economic and demographic indicators. The first criterion includes civic status of towns, and the second entails characteristics like population size, density of population, and percentage of the workforce in the non-agricultural sector. (Khawas V. 2002)

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. Out of the total 5161 towns in 2001, 3800 are statutory towns and 1361 are census towns. The number of statutory towns and census towns in 1991 was 2987 and 1702 respectively. The 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. It reflects a gradual increasing trend of urbanization. India is at acceleration stage of the process of urbanization. (Shah, 2006). Large cities are the focus of urban policies and programmes (Mahadevia 1999a), though poverty is concentrated in the small towns (Dubey et al, 1999), which also have lower levels of basic services than the large cities (Kundu 1999).

Assam is one of those states of India, which is traditionally rural in character with agriculture and allied activities being the primary occupation of its population. Assam is one of the least urbanised states of the country. While the share of urban population to total population of Assam in 1951 was only 4.29%, it increased to 12.90% in 2001, which is still lower than the national average of 27.78%.

According to the Census 2011 Assam, (Provisional) the decadal (2001-10) growth of urbanization at 27.61 percent is slower than the previous decade, even though the share of the urban population increased from 12.90 percent to 14.08 percent as compared to 31.16 percent in 2011. Another striking feature is the wide inequalities observed in urbanization in terms of share of urban population in the district of Assam. The exception of Kamrup (Metro) district with 82 percent of the urban dwellers as against Baksa district with 1.28 percent. The important aspect of urban growth is the dominance of the capital city, the state capital city Guwahati with urban population of 24 percent have experienced the faster urban growth primarily due to migration from infrastructure deficient areas. (MoDoner & ADB, 2006a).

As against this backdrop the paper attempts to study the status and levels of development of small and medium towns in Assam.

## **METHODOLOGY:**

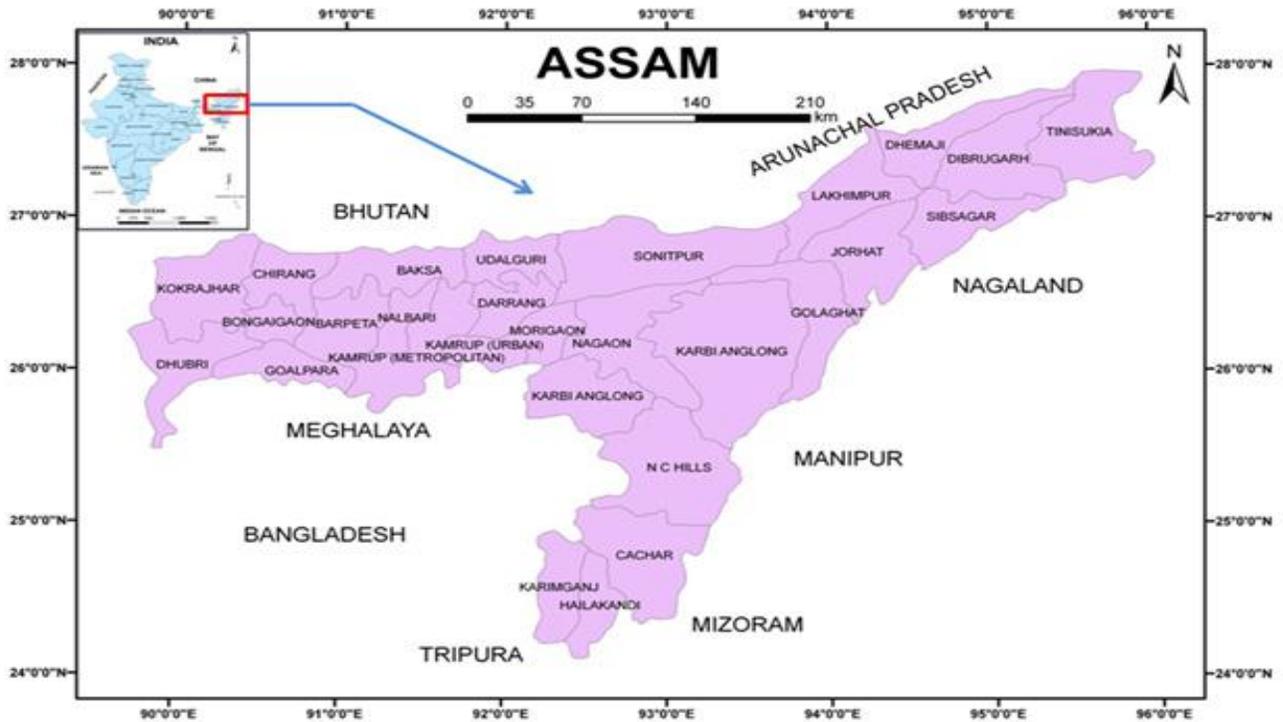
The paper is based on the both secondary data and primary data.

**Data and Maps:-**Data for the purpose of spatio-temporal behavior of urbanization, growth trend of individual urban centers and their resource potentiality have been collected mainly through census publications, i.e. Town Directory, District census Handbooks, Assam Statistical Hand book, Several statistical publications of the government, including Master Plan of Guwahati City from Directorate of Town and Country Planning, Assam, Report of Directorate of Statistics and Evaluation, and published articles and journals from government and other organizations have also taken into consideration.

To provide a more rational and especially to study the spatial pattern of small towns and to find the trend of growth of towns during various phases, all the small towns of Assam has been taken.

Different techniques of tabulation, calculation, correlation, cartographic representation and map preparation have constituted the essential parts of analysis. The degree and nature of imbalances and their relationship at different levels and the identification of facts have been achieved through analysis of 'Size Index', 'Growth Index.' etc, and to understand the infrastructural development of small towns centrality score has been calculated. On the statistical and quantitative methods the applications of cartographic techniques such as maps and tables have proved helpful in giving the geographic treatment of the study on a sound base.

## LOCATIONAL MAP OF ASSAM



### **Growth of small towns in the study region:**

The tempo of urbanization does reflect nature of urban growth in study region at the state level which can be understood by further disaggregating down to the district level. Even then the nature of towns' growth remains unclear. Kundu (1983) Looking at the origin and growth of towns of in study area, one finds, Guwahati, Dhubri, Tejpur, Goalpara, Barpeta, Nowgaon, Jorhat, Dibrugarh, Sibsagar, Golaghat, Silchar, Karimganj are the oldest towns established in 1901 by the British. Guwahati has been called the 'Gateway to the North East.' For quite a long period, it was the lone town in the region. It is noticeable that the growth of small towns tells the tale of fluctuating fortunes and misfortunes through different decades of census and each small town has its own history of growth. To provide a detailed

growth analysis, it is essential to trace the growth of individual small towns of the study area since 1901.

The growths of towns in Assam from 1901 to 2001, after independence remarkable growth of towns were seen; in 1961 as many as 29 new small towns emerged. Among these Lumding has shown continuous population growth since 1921 in 1961 its growth rate was 51.76 percent. Regarding Palasbari town it had experienced negative growth rate of -16.30 percent during 1951-61. Similarly, the population of Hailakandi town shows an increased growth rate of 71.94 percent in 1961 had experienced negative growth rate of -10.14 during 1921-31. It also got the status of medium size town had a population of 25,479 in 1991 census. Digboi being rich in mineral (coal and petroleum) contains as high as 45.80 percent of the major industrial units.

The huge concentration of population since 1961 in class III and IV towns and their rapid growth of population are attributed to the following factors. Firstly, due to the independence and partition of the country, large number of people were displaced and settled in different places of Assam. Settlement of displaced persons was an important factor, which led to the growth of area and population of the towns. Second major factor was, shifting of capital of Assam from Shillong to Guwahati in 1971. The planners of newly formed capital felt the need to develop the urban areas and thus there was a rapid expansion of basic infrastructure like roads, medical and educational institutions in these towns. It is due to an all round development of road transport, trade as well as visible signs of increase in the infrastructure of the economy.

During the period 1971-81 the appreciable growth rate of North Lakhimpur by 205.57 percent is remarkable. In 1971 census 17 new towns emerged among them Tangla with 121.63 percent and Jorhat town with 183.23 percent of growth rate during 1971-81 decades, Jorhat (112,030) got the status of Class I city in 1991. Some 18 new towns were added in 1991 census, of the 18 new

towns Chapar town is the most populous town, with a population of 16,246 followed by Udalguri with a population of 12,086. The population of Bokajan and Lumding town with 11, 025 and 9015 respectively is still not that low when the populations of the two new towns are seen, 2,217 in Mahur and 8,298 in Donkamakum.

Towns Declassified and wholly merged with others in 1991 census, during 1981-91 no towns was declassified or merged with others but after 1971 census, one town was declassified and two towns were merged with other town. As 1981 Census was not conducted in Assam the following table is prepared with reference to 1971 Census.

Table 1: Towns declassified and wholly merged with others during 1971-91

Name and status of the town	Population 1971 census
(a) Declassified i) Ramakrishna Nagar (CT)	6,657
(b) Wholly merged with other town i) Pandu (CT) Guwahati Municipal Corporation ii) Kamakhya (TC)	38,876 6,397

Source: Census 1991

As can be seen from the table, that in between 1971-81, 2 towns of 1971 Pandu and Kamakhya, were merged with the municipal corporation of Guwahati and, one town, Ramakrishnagar in Cachar district, was declassified in 1981. The most spectacular has been the increase in formation of small towns in 2001 census, 37 new towns were added ,with Lumding of high decadal growth rate of 583.01 percent during 1991-2001 period, this small town developed particularly due to the Guwahati-Lumding broadgauge line (177 km) and being the North –East Frontier Railway Junction. Duliajan Oil town had a high growth rate of 194.64 percent during 1991-2001 is remarkable, the town gained Class III status in 2001 with the population of

23,763. The other towns with high growth rate were Chabua (185.60), Hamren (124.54), Mahur (182.54) and Lakhipur with (162.02) percent respectively. This has been due to social stability in the state, expansion of economic activities and transportation link with the various trade centers in and around their respective district headquarters. However, 9 small and medium towns have experienced negative growth rates during the census decades of 1991-2001. They were, Barbari AMC (-26.17), Dhubri (-3.09), Sapatgram (-3.92), Sarthebari (-1.03), Sualkuchi (-1.24), Digboi Oil (-1.23), Namrup (-3.64), Senchoa gaon (-44.54) and Marioni with (-0.02) percent.

### **Growth Pattern: Temporal Assessment:**

The growth history of individual small and medium towns reveals the fact that no small and medium towns of Assam have constant growth characteristics. The stagnant or slow and negative population growth shows that they are poor in their functional stand. While studying the trend of growth of small and medium towns of Assam, three distinct phases have been marked

**Stagnant Growth Period** -1901, 1921-31, 1941-51, 1971-81. The period from 1911-41 has been that of stagnant growth period of urbanization, with the negative growth of Palasbari (-5.14 percent) during the decade of 1901-11. It is quite surprising to see that in the post-independence period when urbanization process has gained a momentum in the nook and corner of the country the growth of towns in the study area became stagnant with no emergence of new towns during 1971-81, this situation may be the result of social unrest that prevailed in whole of Assam due to the student's agitation against the illegal immigrants.

**Slow Growth Period**- 1911, 1931-41 The period between 1931-41 was slow growth period, due to Assam always been an agrarian state and activities like trade and commerce, services, transport and communication, industry etc. has been very slow and also the prevalence of

frequent earthquakes. The highest and the lowest decadal growth rates during the said period were 3.42 percent of Gauripur and 35.79 percent for Guwahati during 1931-41. The striking period is between 1981-91 as it shows a slow growth of urbanization the reason behind was the state has to regained the social stability although Assam Agitation was virtually slowed down the was slow during this period, industrialization came to an halt in growth process of towns.

**High Growth Period-** 1951-61, 1981-91, and 1991-2001: The small towns have shown a rapid increase during the said period. The total number of small towns rose to 52 and 69 in 1961 and 1971 respectively. During 1961-71 all the small towns have shown positive growth rates. The highest decadal growth rate was 121.63 percent for Tangla and the lowest was 5.66 percent for Palasbari. Guwahati witnessed considerably a high growth of population during that period, this is mainly due to large -scale migration for the shift

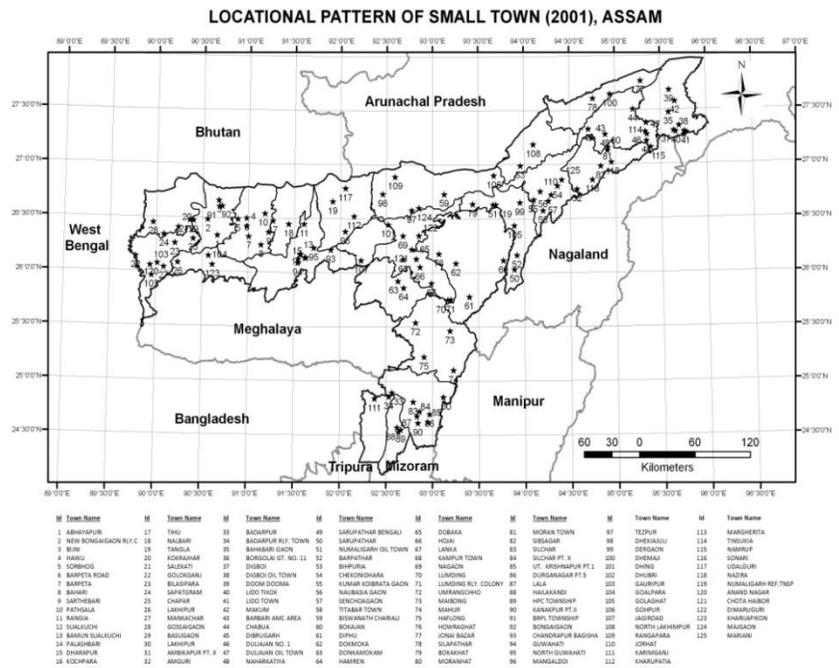
mainly due to large -scale migration for the shifting of capital of Assam from Shillong to Guwahati in 1971. . During 1981-91, the small towns of the region witnessed an average growth rate due to the negative growth rates of few towns e.g. Barpeta (-4.12 percent) ,Sapatgram (-3.92 percent), Sarthebari (-1.03 percent), Sualkuchi (-1.24 percent), and Dhubri (-3.09 percent), Hamren (-83.48 percent).The highest growth rate was 408.53 percent for Sonari and 407.41 percent for Halflong town.

Post-independence period witnesses increasing trend of urbanization throughout the region as a result of growing economic base and agricultural development. This increase may be linked to the influx of refugees from Bangladesh (erstwhile East Pakistan) at the time of partition of India. The period between 1951- 61, 1991-2001, records maximum increase in the formation of new towns. In 1991, 87 and in 2001 125 towns were added to the total number of small towns. Lumding had high decadal growth rate of (583.01 percent) during 1991-2001period, this small

town developed particularly due to the Guwahati-Lumding broadgauge line (177 km) and being the North –East Frontier Railway Junction. The decade 1991-2001 stands in remarkable period in the increase of population of some of the small towns in the region, for Chabua the population was 6,104 in 1991 rose to 17,433 with the growth rate of 185.60 percent. The most spectacular has been the increase in formation of small towns in 1991, 87 new towns were added to the list.

### Spatial distribution of small towns of the study region:

Unevenness of the distribution was another common phenomenon of India’s population in the Geographical studies.(Chandna, 1976) For the study of distribution of small towns the grid map is studied with the help of total 119 equal grids made in the interval of 15 minutes latitude and longitude. In



this study of Small towns present uneven distribution pattern of towns, implying that some of the towns were either sparsely distributed or were crowdedly. While sparsely distributed grids confined mostly to the border areas, surrounded by less urbanized states of India namely, Nagaland, Arunachal Pradesh, and Meghalaya. The crowded zones namely grid 12, 13, 16, 19, 21, 22, 23, 24 and grid 34 give us an understanding that Guwahati being the primate city give impetus to the growth of small towns in its proximity, likewise Digboi Oil Town in the grid 12 as a petroleum based industrial town contribute to the growth of small towns in and around it. New Bongaigoan town both an Oil town and as a railway junction helps in the growth of small towns

near it. In grid 34 lies the Silchar town, the city is constantly witnessing a huge influx of people from nearby smaller places due to increasing future prospects and other developments in the field of education, medical facilities and the more recently booming real estate market and other commercial enterprises. For the study of distribution of small town the grid map is studied by the help of total 128 equal grids made in the interval of 15 minutes latitude and longitude.

Nature and degree of towns concentration over a region is best explained by spacing. Spacing of the study region at different regional scale has been worked out by using the formula:

$S = A/N$  where A= area of the region

N= No. of small towns.

As revealed in the fig 1 the distribution of small towns seems to be quite uneven highlighting the following facts:

- Towns are distributed in the grid/zone as a group of 3, 4,5,6,7 a good number of grids has shown single town in it.
- There are nine numbers of zone of maximum concentration i.e. the group of 6-7 towns which falls under the grid of 12, 13, 16, 19, 21,22 and 23,24 and 34 namely, Guwahati, Sualkuchi, Palasbari, North Guwahati, Abhaiyapuri, Bongaigaon, Rangia, Kokrajhar, Pathsala, Barpeta, Silchar, Tinsukia, Nagaon, Namrup, Jorhat, Dibrugarh.
- It implies that high concentration of towns leads to high population density.
- The towns along the River Brahmaputra form almost a linear pattern.

**Growth Indices of Small and Medium towns:** The above analyses of growth behavior of small towns of the region reveal the fluctuating fortunes of their growth history. An overall

trend reveals that in general the small towns of the region have established their continuity of growth right from the time of independence. G.M Shah (2006) this observation finds support with the result obtained from the calculation of growth indices of small towns in the region by the following formula: Growth Indices of small towns:

GI=  $\frac{P2}{P1} \times 100$  Where p2 = Population of small towns in recent decade. (i.e. Year for which

P1 the GI is required)

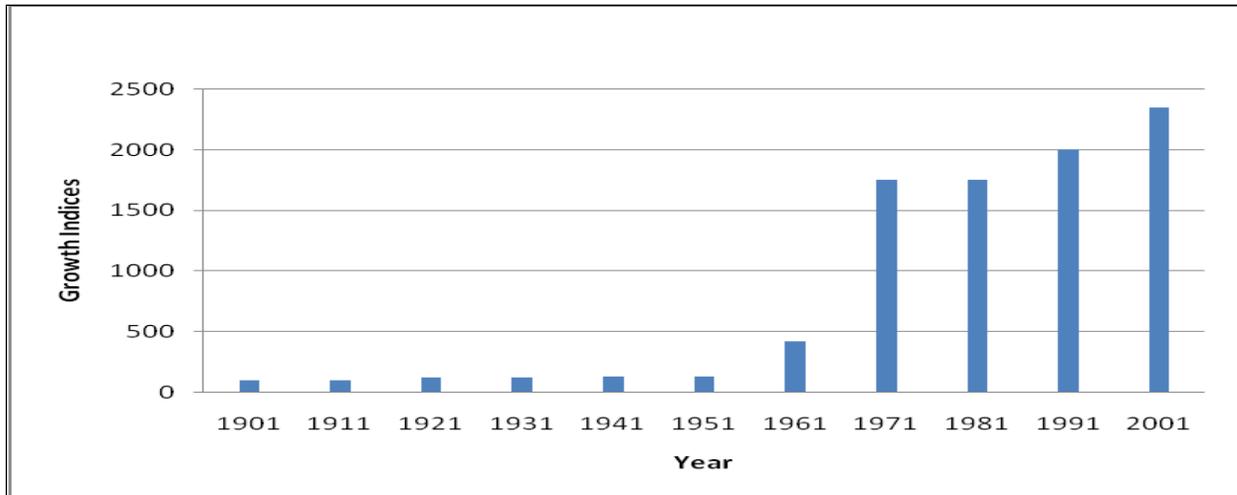
P1 = Base year C (i.e. 1901 in present context).

Table 3:- Growth Indices of small Towns in the study area.

Year	No. of small towns in the region	Total population of small towns	Growth Indices
1901	12	77064	100
1911	14	81109	105.2489
1921	21	98038	127.2163
1931	21	98038	127.2163
1941	23	101616	131.8592
1951	23	101616	131.8592
1961	52	324311	420.8333
1971	69	1352022	1754.415
1981	69	1352022	1754.415
1991	87	1543823	2003.3
2001	125	1809443	2347.974

Source: Census Town Directory

Fig:-1 Growth Indices of small Towns in the study area



The above growth history of individual small towns reveals the fact that no small town of this region has a constant growth characteristic. Their stagnant or slow and high population growth shows that they are poor in their functional stand. The above table shows that the, growth indices of small towns in the study region during various decades include two distinct phases, viz. (i) Pre-Independence and (ii) Post- Independence period. The growth indices of pre- independence period during various decades show the trend of relegating growth while the figures of post-independence period point to promising growth indices. However, considering the agriculture-oriented economy of the region and increasing number of small towns since independence, the recent decades figures are encouraging.

### **Infrastructural Development of Small and Medium towns of Assam:**

To study the levels of infrastructural development, centrality score of the selected indicators have been obtained by assigning them weightages. After making the weighted values scale free the composite scores were obtained by adding together scores of different functions for each town of Assam.

### ***Hierarchy of Towns:***

The study of hierarchy of towns gives a clear idea about the functional complexity of towns. The higher the level of hierarchy of a town, the higher is its functional complexity and the reverse is equally true. Kuldip Singh (2006). As mentioned above the 125 small and medium towns of Assam have been classified into six categories on the basis of the centrality scores. All the six categories have been discussed as under:

#### ***First order Town:***

The first order towns are the highest order towns of the study area. In this order there is only one town, Guwahati with 1012.57 points of centrality score has fallen in this category. The centrality score given above of Guwahati city indicate that Guwahati has maintained its dominance and lead as the prominent town over the other towns of the region. As the city is still controlling certain important functions of the region like higher education, cinema, libraries, medical, and with all the civic and socio-economic faculties. In terms of population size also Guwahati city has high growth of population than the rest of the towns which guarantees its future dominance in the region.

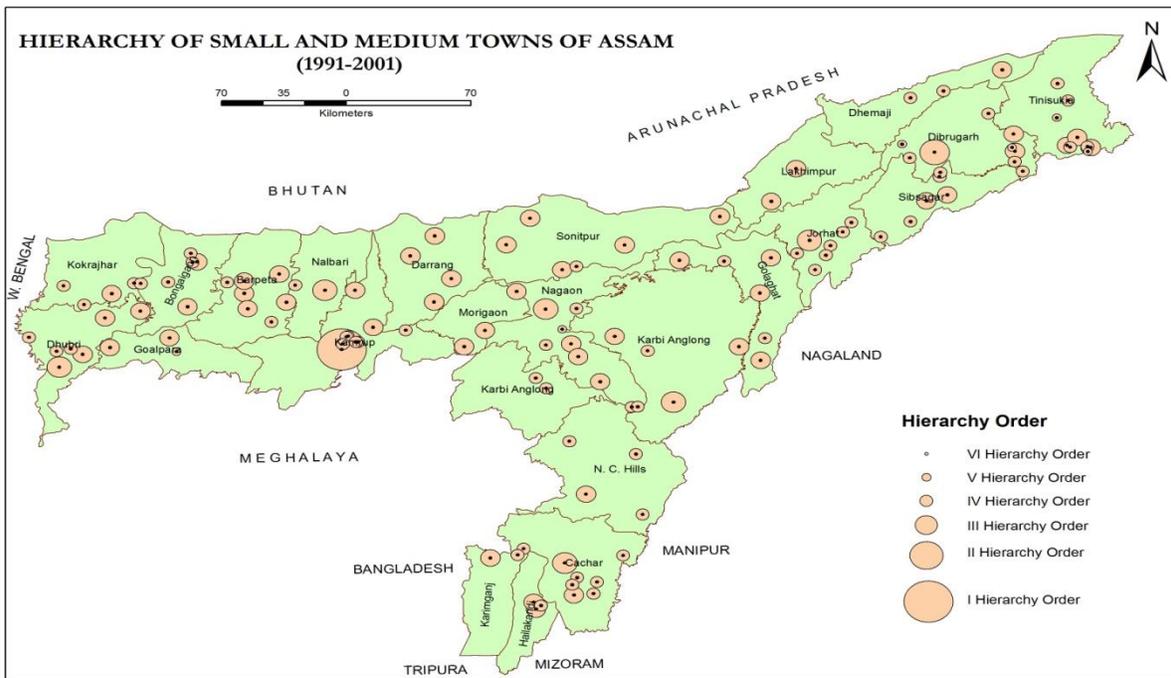
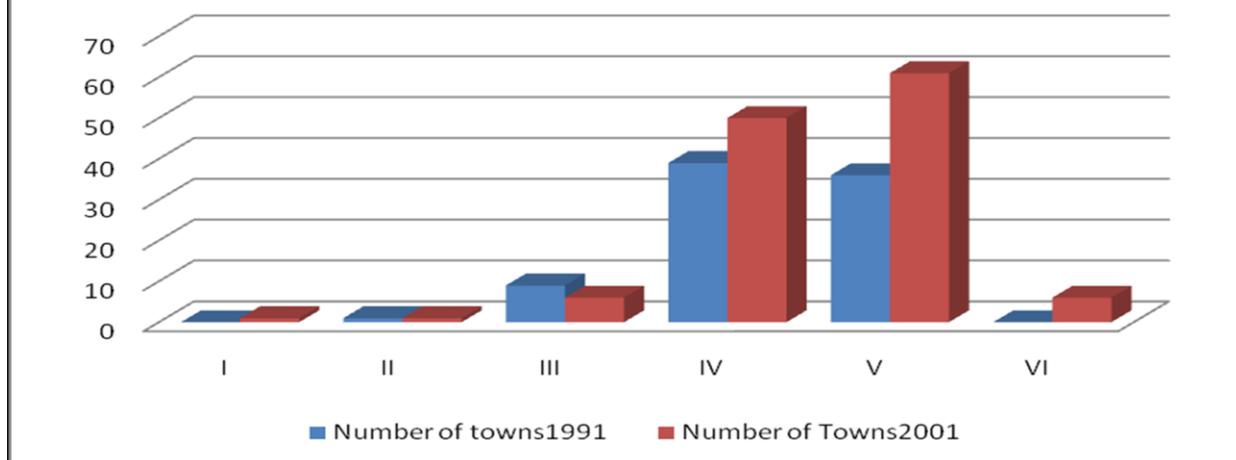


Table 6: Hierarchy of Small and Medium towns Assam (1991-2001)

Hierarchy orders	Class Interval of Centrality scores	Number of towns 1991	Percent of Towns	Number of Towns 2001	Percent of Towns
I	640 and above	0	0	01	0.8
II	320-640	01	1.1	01	0.8
III	160-320	09	10.58	06	4.8
IV	80-160	39	45.88	50	40.0
V	40-80	36	42.35	61	48.8
VI	0-40	0	0	06	4.8
All Hierarchies	Total	85	99.91	125	100

Source: Census town directory 2001

## Hierarchy of Small and Medium Towns Assam (1991-2001)



Source: Census town directory 2001

### ***The second order towns:***

Guwahati is only one town in this order in 1991 with 371.86 and in 2001, Dibrugarh town with 416.94 points of centrality score in 2001. This belongs to the class size of 320 to 640 centrality scores. Guwahati being the only prime city shows its dominance since beginning. Dibrugarh town is emerging as an important trade and commercial center and transport node in the region. It is also the major tea producing area of the state with almost 134 tea estates and Moran is an important center of tea industry. Besides tea industry the district has Dibrugarh University, Assam Medical College, Adult literacy centers, Nursing homes etc. The oil fields of the district are located at Moran and Naharkatiya, Duliajan is known for natural gas. The Development department and many other public offices libraries, cinema halls, stadium etc have already been established in Dibrugarh town.

***The third order town:***

The third order town of Assam is six in number and constitutes 4.8 percent in 2001 of the total towns of the region. These towns fall in the class size of 160 to 320 points of centrality scores. Lala is the least important town in this category in terms of infrastructural facilities whereas, Jorhat is higher in terms of infrastructural facilities, the town has attracted many central functions like Jorhat Medical College, Jorhat Agricultural College, Tocklai Tea Center, Jorhat Regional Research Center, libraries many nationalized banks etc. Nowgaon town though has attained Class I size has medium level of facilities.

***The fourth order town:***

There are fifty towns in fourth order town, is the second largest category of hierarchy of towns constituting 45 percent in 1991 and 40 percent in 2001 of the total towns of the region. The thirty nine towns in 1991 and fifty towns in 2001 falling in this category have class size of 80-160 points.

Tinsukia and Jorhat both the towns have attracted many central functions such as different science and arts colleges, high schools, Medical college, Nursing homes, Primary health centers and bank branches of State Bank of India, United Bank India, Punjab National Bank of India. Jorhat town has acquired centrality mostly because of easily accessible to the surrounding towns.

***The Fifth order town:***

This is the largest category of towns; there were 36 towns in this order in 1991, increased to 61 towns in 2001. The Class size of centrality scores of this category of towns is between 20-40 points. The development in infrastructural facilities (civic, educational, medical, and cultural facilities) between 1991 and 2001 has been more in small and medium towns, probably due to

the increasing demand of growing population. The future development of Assam depends primarily on this category for the location of policy and non-policy central functions for rapid urban transformation of this region.

***The sixth order town:***

This is the bottom level category of all towns' hierarchy of the region. There were only six towns in this category in 2001 and in 1991 no town falls in this category. Most of the towns belonging to this category poorly accessible and have a very low level of socio-economic infrastructural facility.

The foregoing analysis gives us a clear understanding that high centrality score stands at 1012.57 points in Guwahati city and as low as 52 centrality score points in Sarupathar Bengali town. This wide variation may have a close relation with that of the inequalities in urbanization among the districts of Assam as Kamrup district with 36.01 percent in (2001 Census) may be because of Guwahati with highest centrality score records the highest percentage share of urban population as against the Sarupathar Bengali town with 52 points of centrality score in Dibrugarh district with 19.28 percent shows a low urban population, (2001 Census).

This wide variation between urban population and centrality score has paved way for Geographers and Planners to put in place matching infrastructure in other small and medium towns so that they can cope and grow in balanced way.

## **A SUMMARY OF CONCLUSION:**

- With regard to the growth behavior two distinct phases namely, pre-independence marked by stagnancy and slow growth and post- independence by medium and high growth with an exception during 1971-91 when the growth is hampered due to the social unrest that prevailed in the whole of Assam.
- Growth indices of pre- independence period during various decades show the trend of relegating growth while the figures of post- independence period point to promising growth indices.
- Spatial distribution of small towns in the study region reveals unevenness, linear in pattern, high concentration around the primate city and industrial town and its absence in and along the border areas.
- Guwahati has maintained its dominance and lead as the prominent town with both high centrality score high population growth rate. The inequalities of urbanization among the districts of Assam may be addressed by giving impetus for a balanced infrastructural development in small and medium towns of Assam.

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