Status of Urbanisation in Assam and Its Relationship with Human Development

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Abstract: Rapid growth of urban population is a matter of great concern in 20th century's world. Urbanisation is one of the major social changes sweeping the globe especially in developing countries. The term urbanisation refers to the increasing proportion of total population living in urban areas sociologically (S. Dharmaraj). There has been a rapid trend towards urbanisation in India particularly after independence in spite of the predominant rural nature of our economy. Population residing in urban areas in India, according to 1901 census was 11.4%. This count increased to 28.53% according to 2001 census and crossing 30% as per 2011 census. Assam is one of those states of India among North East region, which is traditionally rural and agriculture and allied activities being the primary occupation of its population. However, over the years there has been an upward trend towards urbanisation and it got momentum particularly in the post independence period. The major objective of this paper is to study the trend and level of urbanisation in Assam and investigate the relationship between urbanisation and Human Development in Assam. This study is based on secondary sources of data collecting from census of India handbook, statistical handbook of Assam 2016, district census handbook, various journals, articles etc. To find the degree or level of urbanization in Assam percentage Urban-Rural ratio has been calculated. To know the concentration of urban population in different districts Location Quotient (L.Q.) is done. To find out the relationship between urbanization and Human Development Index correlation coefficient has been used and to study the cause effect relationship between them regression has been done by taking HDI as dependent variable and level of urbanization as independent variable. The study revealos that the degree of urbanization in Assam is very low as compared to the national average. Prior independence degree of urbanization increased at a very low rate. However, after independence degree of urbanization started growing relatively faster than the previous period. It is also found that urban decadal growth rate is always higher that the rural and compound decadal growth rate of Assam during the period of 1901-2011. As per the relationship between urbanization and human development index is concerned the correlation coefficient is found 0.51 indicating a moderate positive correlation between them. At the district level Kamrup Metro, Dima Hasao, Jorhat, Tinsukia and Dibrugarh show high level of urbanization and high level of human development. On the other hand, there are few districts like Baksa, Darrang which have low level of urbanization and low level of human development. Again the result of the regression model indicates that rate of urbanization have statistically significant effect on the level of human development.

Key words: Assam, Human Development, Trends and pattern, Urbanization.

I.INTRODUCTION:

Urbanization is one of the major social changes sweeping the world especially in growing nations. It is the most significance phenomenon of the 20th century, which involved all facets of national life in India. The term urbanisation refers to the increasing proportion of total population living in urban areas sociologically (S. Dharmaraj). In economic term, urbanisation means increasing proportion of people

depending on the non agricultural activities on the urban sector of the occupational pattern (S. Dharmaraj). Urbanization is an index of transfer of nation from traditional rural economic system to a modern industrial one. It is progressive concentration of population in urban unit (Davis, 1965). Kingsley Davis has explained urbanization as a process of switch from spread out pattern of human settlements to one of concentration in urban centers.Urbanisation refers to the transformation of society including some drastic geographic, economic and social changes. It represents the movements of population to towns and cities.

There has been a rapid trend towards urbanization in India, particularly after independence in spite of the predominant rural nature of our economic system. The development of urban population was so galloping during the final few decades that it may be considered nothing short of urban explosion (Bhattacharjee and Adhikari, 2010). The pace of urbanization is very high in the third world nation like India. Prior to World War II, when most of the commonwealths of the 3rd world nations were under the dominance of colonial powers, the pace of urbanization was not really gamey. After World war II, the lagging growth and increasing unemployment that affected a number of major urban shopping malls as well as many smaller cities with depressed regions through the problem of urban economic growth to the attention of the whole country (Khawas, 2002). This transformation has been associated with dramatic decrease in agricultural employment. After the attainment of independence like many third world countries in India also, the rate of urbanisation was faster. Population residing in urban regions in India, according to 1901 census was 11.4%. This count increased to 28.53%, according to 2001 census and crossing the 30 % as per 2011 census.

Recombination of UN the census of India classified its urban places into 6 categories as follows:

Class I cities having a population of lakh or more.
Class II Cities having population of 50,000-99,999.
Class III Cities having population of 20,000-49,999.
Class IV Cities having population of 10,000-19,999.
Class V Cities having population of 5000-9999.
Class VI Cities having population of less than 5000.

History of urbanisation in North East

During the colonial period, large parts of North East region were kept as "Excluded Areas" or "Partially Excluded areas". Further under the inner line Regulation outsiders were prohibited from entering into the tribal areas beyond the inner line without an "Inner line pass" issued by the competent executive authority. The British rulers, through such measures, sought to protect the tribals from so called exploitation by the non tribals. The tribals were also largely left to themselves to pursue their traditional methods of livelihoods and manage their affairs in accordance with their ancestor customs. Consequently the level of urbanisation in the region was very low. But after independence and particularly since planning era began, substantial amounts of investment have been made in building up and expanding the basic infrastructure in the region (Ganguly, 1995). For the growth of factory farm and allied activities and industries considerable amounts resources have been spent for the balanced development of this area. Such evolution has been resulting in the increase of urban centers in the area. Assam is one of those countries of India, which is traditionally rural in character with agriculture and allied activities being the principal occupation of its population (Khawas, 2005). Nevertheless, over the years there has been an upward trend towards urbanization and it got momentum particularly in the post independence.

Statement of the Problem

It is argued that urbanisation accelerates the process of development which implies not only growth of national income but also increase in quality of life. Urbanisation is regarded as one of the key dimensions of the process of socio economic and human development. Here Human Development is defined as the process of widening people's choices. The most critical ones are to be educated, to lead a long and healthy life and to enjoy a decnt standard of living. Additionl choices include guaranteed human rights, political

freedom and self respect– what Adam Smith called the ability to mix with others without being ashamed to appear in public (HDR 1990). In order to measure the level of human development of a particular area a simple composite index was suggested by the Human Development Report 1990 which is known as Human Development Index. It is a composite index of three basic dimensions of human life – a long and healthy life (measured by longevity), Knowledge (measured by literacy and enrollment) and a decent standard of living (measured by per capita income). Urbanization contributes to human development – as well as constrains it. Urban areas are the centres of affluence – as well as concentrations of poverty. They bring out the best in human enterprise – as well as the worst in human greed. They contain some of the best social services available in the country. But they are also host to many social ills like overcrowding, unsanitary living conditions, drug addiction, alienation, social unrest and environmental pollution (HDR, 1990). Therefore,the present paper makes an attempt to study the trend and pattern of urbanization in Assam. It also makes an attempt to investigate the relationship between human development and urbanisation in Assam.

II. OBJECTIVE:

The specific objectives of this study are:-

    1) To study the level and trend of urbanization in Assam.

    2) To examine the relationship between human development and urbanisation in Assam.

III. METHODOLOGY:

Data Source –

The present study is based on secondary data sources, which are collected from the following data sources –

1. Census of India, 2011, General population tables.
2. Statistical handbook of Assam, 2016.
3. District census handbook.
4. Relevant district level data relating to Human Development Indices of the state of Assam are collected from Assam Human Development Report 2014. Here HDI is calculated by using the UNDP's methodology.

Methods –

For the purpose of the study following methodology has been executed –

1. For the first objective secondary data have been collected which are analyzed by using simple statistical techniques and presented in tables and diagrams.

    To find the degree or level of urbanization in Assam percentage Urban-Rural ratio has been calculated. The formula of Urban-Rural ratio is following-

$$\text{Urban- Rural ratio} = \frac{\% \text{ of urban population}}{\% \text{ of rural population}} \times 100$$

    To know the concentration of urban population in different districts Location Quotient (L.Q.) is done. Location Quotient is a way of quantifying how concentrated a population is in a region as compared to the nation (Anisujjaman, 2015). The formula of Location Quotient is-

$$\text{LQi} = \frac{P_{ij}/P_i}{P_j/P}$$

Where, P_{ij} = Number of the person in jth category of area i.

P_i = Total population in area i.

P_j = Sum of the person of category j in all the area.

P = Sum of P_i in all the areas.

2. For the second objective to find out the relationship between urbanization and Human Development Index correlation coefficient has been used and to study the effect of urbanization on human development regression has been done by taking HDI as dependent variable and level of urbanization as independent variable.

$Y = \alpha + \beta X$

Where, Y is the dependent variable and X is the independent variable, α is the constant and β is parameter.

HDI = $\alpha + \beta \times$ Level of urbanization

IV. DISCUSSION AND ANALYSIS

Trend of urbanization in Assam –

Assam is a state, which is traditionally rural in character with agriculture and allied activities being the primary occupation of its population. However, over the years there has been an upward trend towards urbanization and it got momentum particularly after the post independence era. The two salient features of urbanization pattern in Assam are low level of urbanization and the excessive concentration of urban population in Kamrup metro district. The level of urbanization in Assam, at 14.10% in 2011, is significantly lower than the national average of 31.16%. Assam's level of urbanization is far below than the advanced states of India like Punjab (37.49%), Kerela (47.72%), Telengana (38.66%), Gujrat (42.58%) Karnataka (38.57%), Tamil Nadu (48.45%) and Maharastra (48.45%).
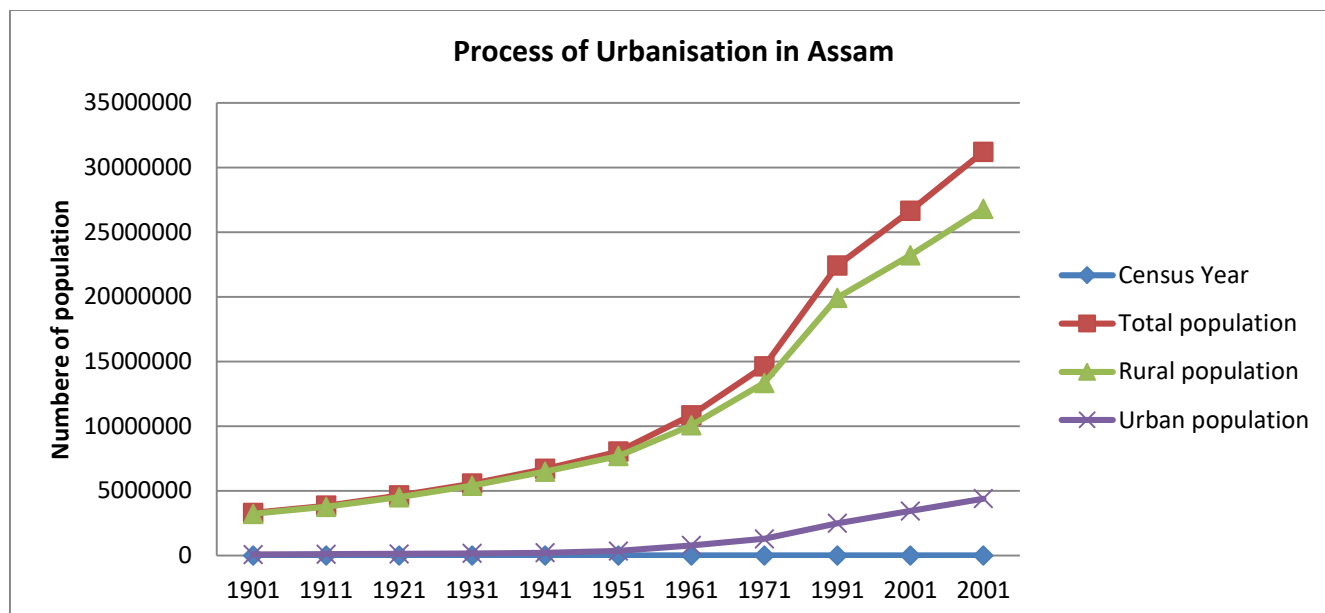
The following table shows the total rural urban population and percentages of rural and urban population of Assam since 1901 to 2011.

Table 1: Rural Urban population of Assam (1901-2011)

Census Year	Total Population	Rural Population	Urban Population	% of Rural population	% of Urban Population
1901	3289680	3212606	77074	97.66	2.34
1911	3848617	3755701	92916	97.59	2.41
1921	4636980	4509873	127107	97.26	2.74
1931	5560371	5398205	162166	97.08	2.92
1941	6694790	6486723	208067	96.89	3.11
1951	8028856	7684025	344831	95.71	4.29
1961	10837329	10056041	781288	92.79	7.21
1971	14625152	13335930	1289222	91.18	8.82
1991	22414322	19926527	2487795	88.9	11.10
2001	26655528	23216288	3439240	87.10	12.90
2011	31205576	26807034	4398542	85.90	14.10

Source: Census of India.

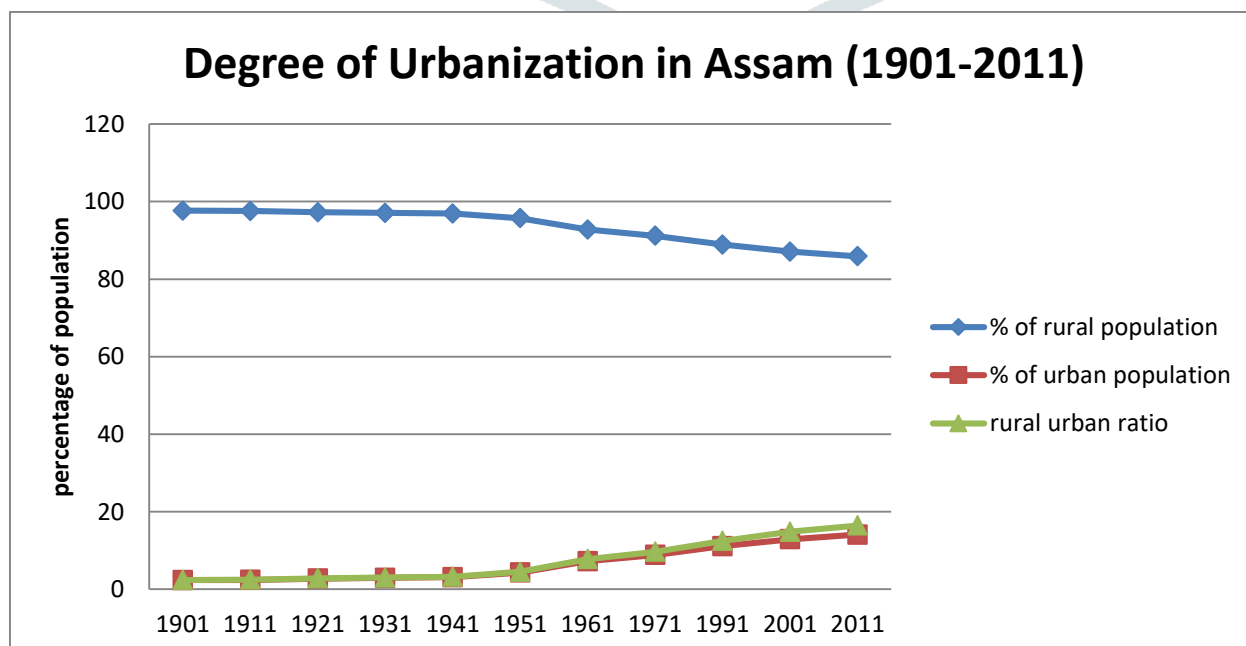Figure - 1

Process of Urbanisation in Assam

From the above table it is seen that the process of urbanization in Assam was very low prior independence. However, the process of urbanization slightly increases in the post independence era which is not all satisfactory.

Degree of Level of Urbanization in Assam –

The degree or level of urbanization is defined as relative number of people who live in the urban areas. Percentage of urban population ($\frac{U}{P} \times 100$), percentage of rural population ($\frac{R}{P} \times 100$) and Urban Rural ratio ($\frac{U}{R} \times 100$) are used to measure the degree of Urbanization. The Urban Rural ratio has a lower limit of 0 and upper limit of 1 i.e. $0 < \frac{U}{P} < 1$. If the index is zero it means that entire population is rural population and if the index is 1, it means that total population is urban. Urban Rural ratio which is a simple index measuring number of urbanities for each rural person. In case of Assam, the Urban Rural ratio is 16.41 percent in 2011; it means that there is 16 persons urbanities in every 100 ruralties.

Figure - 2

Degree of Urbanization in Assam (1901-2011)

From the above figure it is seen that degree of urbanization in Assam is very low as compared to the national average. Prior independence degree of urbanization increased at a very low pace. After independence it started growing relatively faster than the previous period however, it is not satisfactory at all.

Again in the below table percentage of decadal Urban and Rural population growth rate in Assam is shown.

Table 2: Percentage of decadal growth rate of Rural and Urban population in Assam

Year	Decadal (Urban) Growth rate	Decadal (Rural) Growth Rate	Compound Decadal Growth Rate
1901-1911	20.55	16.91	16.99
1911-1921	36.80	20.08	20.48
1921-1931	27.58	19.70	19.91
1931-1941	28.30	20.16	20.4
1941-1951	65.73	18.46	19.93
1951-1961	126.57	30.87	34.98
1961-1971	65.01	32.62	34.95
1971-1991	92.97	49.42	53.26
1991-2001	38.24	16.51	18.92
2001-2011	27.89	15.47	17.07

Source: Census of India

The above table shows that percentage of decadal urban growth rate is not smooth. It was highest during the period of 1951-1961. However, it declined during the period of 1961-1971. It further increased to 92.97% during the period of 1971-1991. Most interesting fact is that the decadal urban growth rate is in decreasing trend from the 1991 onwards. The percentage of urban decadal growth rate is 38.24 and 27.89 in the last two censuses. It is clear from the above table that urban decadal growth rate is always higher that the rural and compound decadal growth rate of Assam during the period of 1901-2011.
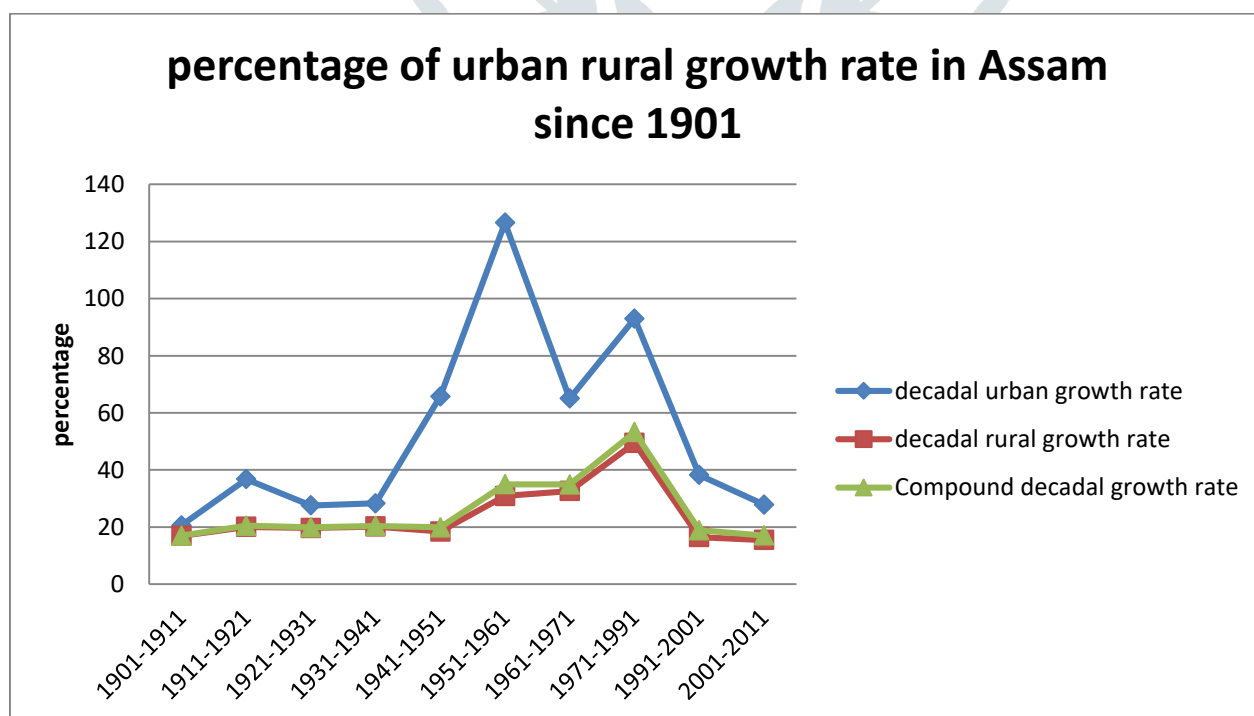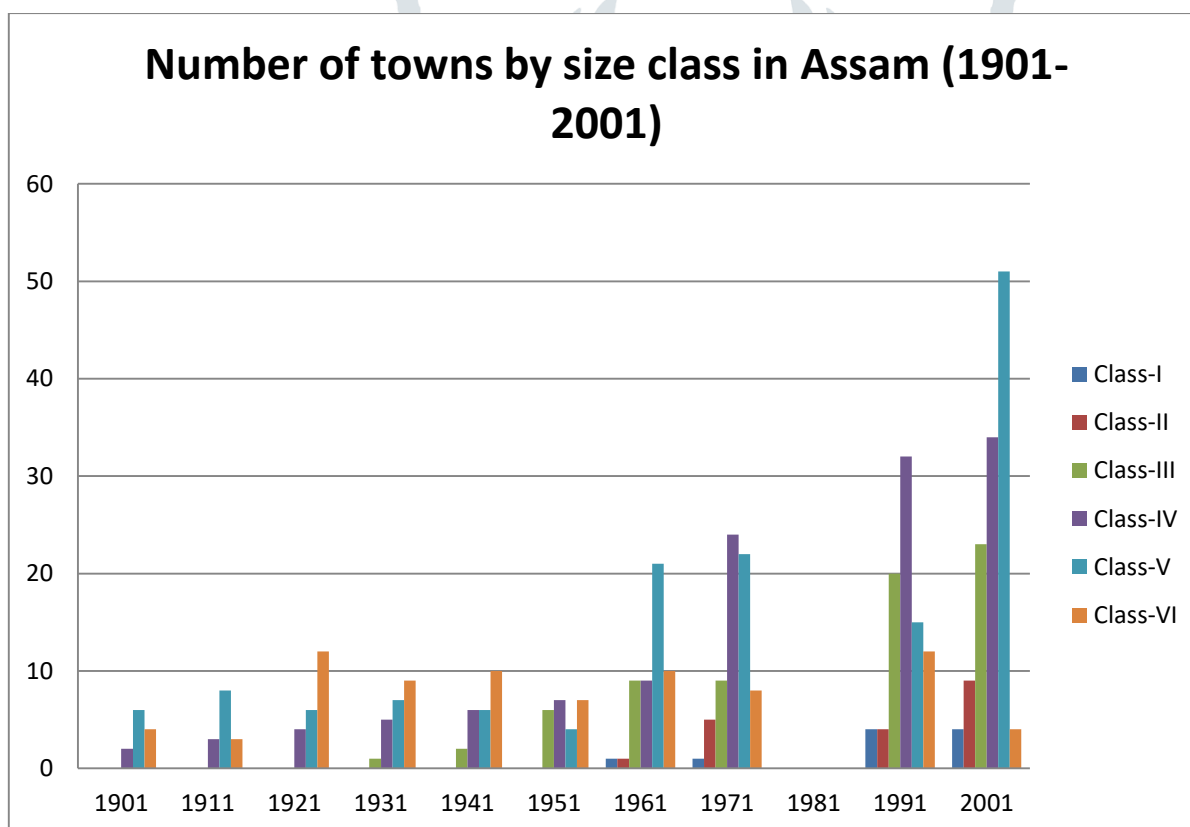
Figure 3

Table 3: Number of towns by size-class in Assam (1901-2011)

census year	NO. OF TOWNS BY SIZE CLASS					
	Class-I	Class-II	Class-III	Class-IV	Class-V	Class-VI
1901	0	0	0	2	6	4
1911	0	0	0	3	8	3
1921	0	0	0	4	6	12
1931	0	0	1	5	7	9
1941	0	0	2	6	6	10
1951	0	0	6	7	4	7
1961	1	1	9	9	21	10
1971	1	5	9	24	22	8
1981	0	0	0	0	0	0
1991	4	4	20	32	15	12
2001	4	9	23	34	51	4

Source: Census of India

Figure :4

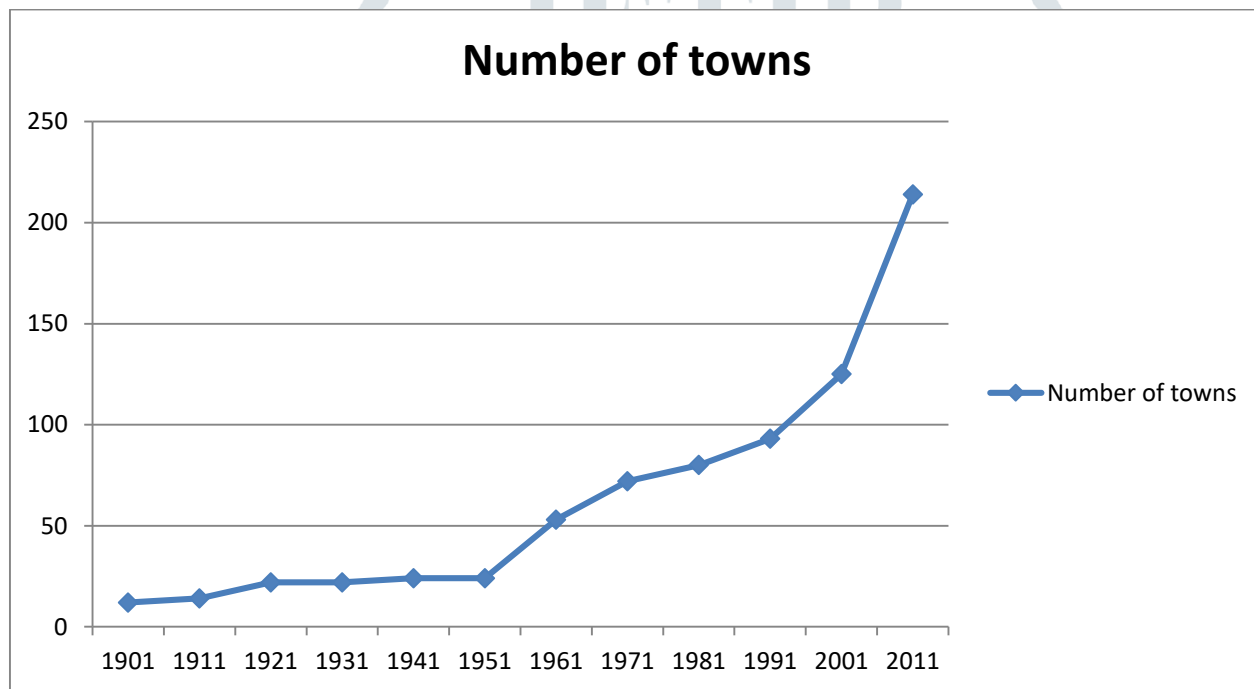Number of towns by size class in Assam (1901-2001)

From the above representation we can see that the rate of urbanization has not been uniformly spread in Assam. Class V and class IV towns have witnessed a significant growth in Assam in the last few decades. On the other hand, class I and class II towns are not growing sufficiently in Assam. According to 2011 data, Assam has 4 class I towns, 9 class II towns, 23 class III towns, 34 class IV towns, 51 class V towns and 4 class VI towns.

Table 4: Progress in the number of towns in Assam (1901-2011)

Census Year	Number of towns
1901	12
1911	14
1921	22
1931	22
1941	24
1951	24
1961	53
1971	72
1981	80
1991	93
2001	125
2011	214

Source: Census town Directory

Figure 6

From figure 6 we can see that number of towns of Assam is constantly increasing over the years. However, we can see a clear difference between the period of pre independence and post independence. Number of towns in Assam has increased significantly after the independence of India.

Table 5: District wise total urban population, percentage of urban population to the total population and Location Quotient, 2011

District	Urban Population	Level of Urbanization	Location Quotient
Kokrajhar	54941	6.19	0.439366
Dhubri	203701	10.45	1.687409
Goalpara	138062	13.69	1.310421
Barpeta	147353	8.70	0.635342
Morigaon	73298	7.66	0.879925
Nagaon	369534	13.09	1.709374
Sonitpur	173845	9.04	0.69041
Lakhimpur	91333	8.76	0.969997

Dhemaji	48285	7.04	0.802973
Tinsukia	264743	19.94	2.832994
Dibrugarh	243730	18.38	0.921735
Sivasagar	110096	9.56	0.520501
Jorhat	220534	20.19	2.11093
Golaghat	97736	9.16	0.453717
Karbi Anglong	112966	11.81	1.289472
Dima Hasao	62489	29.19	2.470786
Cachar	315464	18.17	0.62239
Karimganj	109700	8.93	0.491496
Hailakandi	48140	7.30	0.817824
Bongaigaon	109810	14.86	2.035575
Chirang	35337	7.33	0.493088
Kamrup	142394	9.38	1.280307
Kamrup Metro	1037011	82.70	8.813661
Nalbari	82730	10.72	0.129641
Baksa	12242	1.29	0.120184
Darrang	55494	5.98	0.463841
Udalguri	37574	4.52	0.755916

Source: Census of India

From the above table it is seen that the top districts in term of percentage of urban population to the total population of Assam are Kamrup Metro, Dima Hasao, Jorhat, Tinisukia, Dibrugarh, Cachar and Bongaigaon. On the other hand, the least urbanized districts are Baksa, Udalguri, Darang, Kokrajhar, Dhemaji, Hailakandi, Chirang and Morigaon. Among all the districts, Kamrup Metro registered the highest rate of urbanization at 82.70% and Baksa registered the lowest urbanization at1.29 in 2011. As far the Location Quotient is concerned, it is one of the indicators of the measurement of urban disparity. The districts like Kamrup Metro, Dima Hasao, Jorhat, Tinsukia, Bongaigaon Nagaon and Dhubri had showed the highest Location Quotient. On the other hand, districts like Baksa, Nalbari, Darrang, Kokrajhar, Sivsagar, Karimganj etc. showed the very lower value of Location Quotient that means that these districts are lagging behind in terms of urbanization.

Human Development in Assam –

The human Development Report has defined Human Development as the process of enlarging people's choices since its lqunce in 1990. The most critical ones are to lead a long and healthy life, to be educated and to enjoy a decent standard of living. Additional choices include political freedom; other guaranteed human rights and various ingredients of self respect. Human development is thus defined as a process of widening people's choices as well as raising the level of well being achieved (HDR 1990). The concept of human development looks beyond per capita income. In turn it assesses such factors as human freedom, dignity and human agency i.e. the role of the people in development (HDR 1994). Human Development Index (HDI) has been employed as a tool for measurement of the non economic dimension of quality of liveliness. It is built as a composite indicator of three basic dimensions of development – longevity, knowledge and income (HDR 1990). The material wealth of a country is its people and the purpose of development is to create an enabling environment for a long and healthy life, to access knowledge and teaching and to have the resources required for a sane standard of living, which are the primary social concerns of a company.

The HDI for the state of Assam and her districts were estimated by following UNDPs methodology and presented in Assam Human Development Report 2014. The HDI for the state was 0.557 and the corresponding figure in different districts ranged from the lowest figure of 0.437 of Hailakandi district to the highest figure of 0.703 in Kamrup (M) district (AHDR 2014). 15 districts including Barpeta, Bongaigaon, Chirang, Dibrugarh, Dima Hasao, Goalpara, Jorhat, Kamrup, Kamrup(M), Karbi Anglong, Lakhimpur, Marigaon, Nagaon, Nalbari and Sivsagar had HDI higher than the state average. On the other hand, the remaining 12 districts had HDI below the state average.
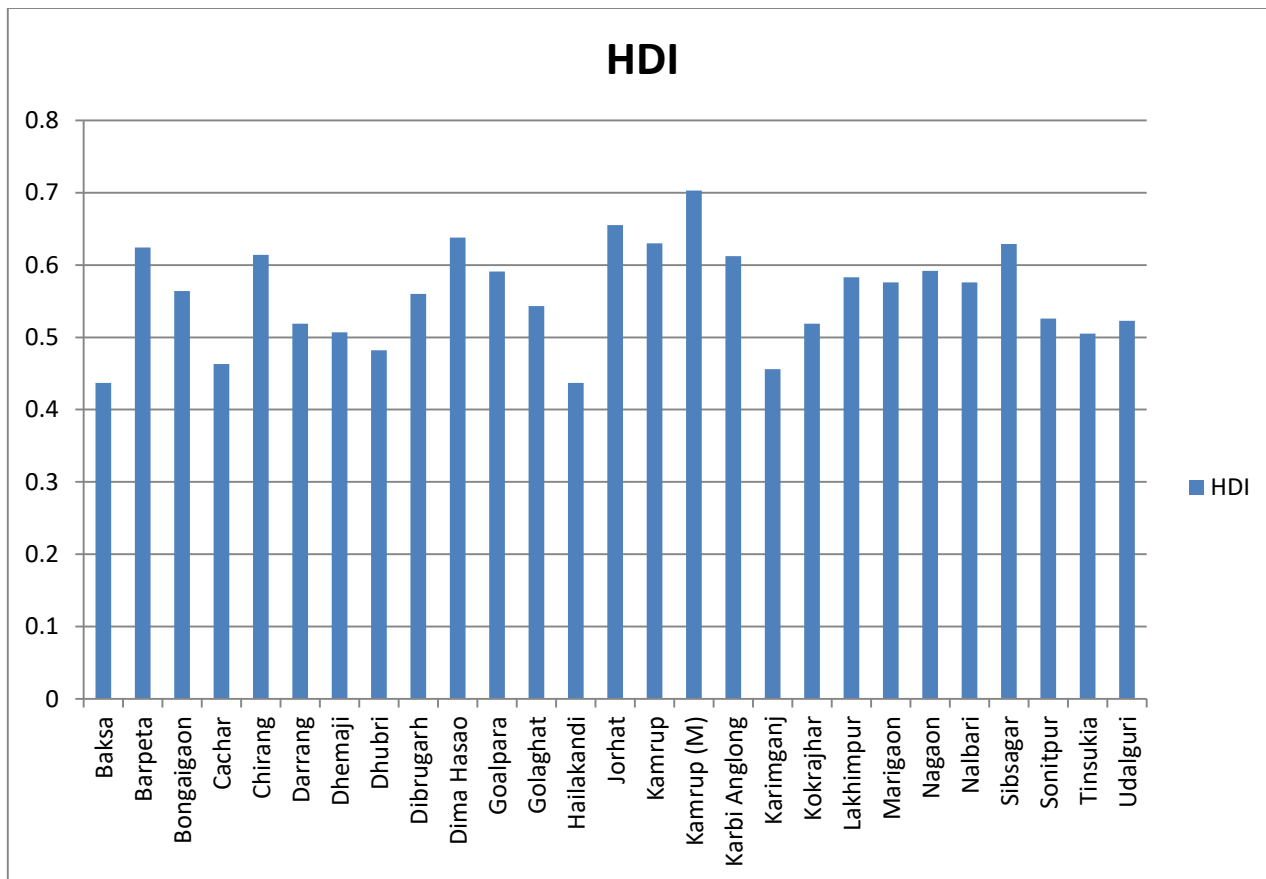
Table 6: Human Development Indices by Districts in Assam 2014

District	HDI
Kokrajhar	0.519
Dhubri	0.482
Goalpara	0.591
Barpeta	0.624
Morigaon	0.576
Nagaon	0.592
Sonitpur	0.526
Lakhimpur	0.583
Dhemaji	0.507
Tinsukia	0.505
Dibruhgarh	0.560
Sivsagar	0.629
Jorhat	0.655
Golaghat	0.543
Karbi Anglong	0.612
Dima Hasao	0.638
Cachar	0.463
Karimganj	0.456
Hailakandi	0.437
Bongaigaon	0.564
Chirang	0.614
Kamrup	0.630
Kamrup M	0.703
Nalbari	0.576
Baksa	0.437
Darrang	0.519
Udalguri	0.523

Source: Assam Human Development Report, 2014

Figure -7

HDI of the Different Districts of Assam

The above representation suggests that, on the whole the human development in Assam remains about half way in relation to the desired level. The progress and status of human development in Assam are far from satisfactory. There has been high degree of inequalities and disparities among the different districts of the state as reflected in levels of human development in various dimensions of human development. The districts, namely, Kamrup(M), Jorhat, Dima Hasao, Dibrugarh, Sivsagar are performing much betterthan the state as whole. On the other hand districts like Hilakandi, Baksa, Karimganj, Cachar and Dhubri are performing poorly.

Relationship between Urbanization and Human Development –

Does any relationship exist between urbanization and human development? To study this relationship in the perspective of Assam we have rates of urbanization and HDI of the districts and to find out the relationship the regression analysis has been performed. In the regression analysis HDI is taken as the dependent variable and the level of urbanization as independent variable. To show the relationship between urbanization and human development a linear regression model has been applied.

$Y = \alpha + \beta X$

Where, Y is the dependent variable and X is the independent variable, α is the constant and β is parameter.

HDI = α + β × Level of urbanization

The results of the regression analysis carried out for 27 districts of Assam are furnished in the below tables –

Model Summary[b]

Model	R	R	Adjusted	Std. Error	Change Statistics	Durbin-

		Square	R Square	of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Watson
1	.510[a]	.260	.230	.061177	.260	8.784	1	25	.007	1.311

a. Predictors: (Constant), URB

b. Dependent Variable: HDI

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.033	1	.033	8.784	.007[b]
	Residual	.094	25	.004		
	Total	.126	26			

a. Dependent Variable: HDI

b. Predictors: (Constant), URB

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	.524	.016		32.095	.000	.491	.558
	URB	.002	.001	.510	2.964	.007	.001	.004

a. Dependent Variable: HDI

In the first table we can see that R = .510 which indicates a moderate positive correlation between HDI and urbanization. Here R square is 0.260, it means the independent variable explains 26% variation in the dependent variable. Here the regression model is statistically significantly predicts the outcome variable. From the last table we can present the regression equation as

HDI = .524 + .002 (rate of urbanization)

So we can say that rate of urbanization is a significant determinant of human development in Assam.

CONCLUSION

The foregoing discussion reveals that Assam as a whole experienced urbanization after independence, however, the slight growth in urbanization in the post independence era is not entirely satisfactory. The degree of urbanization in Assam is very low as compared to the national average. Prior independence degree of urbanization increased at a very low rate. After independence it started growing relatively faster than the previous period. It is clear from the discussion that urban decadal growth rate is always higher that the rural decadal growth rate and compound decadal growth rate of Assam during the period of 1901-2011. As per the relationship between urbanization and human development index is concerned the correlation coefficient is found 0.51 indicating a moderate positive correlation between them. At the district level Kamrup Metro, Dima Hasao, Jorhat, Tinsukia and Dibrugarh show high level of urbanization and high level of human development. On the other hand, there are few districts like Baksa, Darrang which have low level of urbanization and low level of human development. Again the result of the regression model indicates that rate of urbanization have statistically significant effect on the level of human development.

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