

Urbanisation and Human Development: A Study of West Bengal

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Abstract: *Urbanization is now a burning issue in all over the world and it related with many things all together. Urbanization is regarded as one of the key dimensions of the process of socio-economic development. It is a multifaceted process. It is a necessary condition for economic development, because economies of scale and of agglomeration in the urban areas make possible economic development through industrialization. India is at accelerating stage of the process of urbanization. In the current paper West Bengal, an Indian state, which was one of the most urbanized states of India before independence, has been taken as unit of the study. Still the state of West Bengal is one of leading urban state of India with 28.03% of the total population residing in various urban areas. The state West Bengal has a particular pattern of urbanization that is the overwhelming role of the primate city. It may be said that this contrasting pattern of urbanization has a great deal to do with the differing land tenure systems, the colonial economic policies pursued by the British, and the course followed in terms of economic development in these two types of areas during the post-independence period. Keeping in view all the background history of urbanization of the state of West Bengal, The major objective of this paper will be to assess the present trends and patterns of urbanization in West Bengal and also to examine the relationship with the urbanization and human development index, which is an indicator of socio-economic development. For the purpose of this study the secondary data source has been used i.e. Census of India, 2001, Town directory of West Bengal.*

This paper finds that there is sluggish urban growth rate is observed in comparison to other advanced states of India during the post-independence period and the huge concentration of urban growth in and around Kolkata districts. This paper also finds the fact that, at the district level there is a positive relationship between the level of urbanization and the HDI.

Keywords: *Urbanisation, Trends and Pattern, Human Development, Socio-economic indicators, West Bengal,*

I. INTRODUCTION

Urbanization is now a burning issue in all over the world and it related with many things all together. Urbanization is regarded as one of the key dimensions of the process of socio-economic development. But there is a difference between impacts of urbanization on socio economic development in the case of developed countries in the case of developing countries. The characteristic of urbanization of developed countries is different from the developing countries. The cities in the developed world are considered as the engine of growth where as in the developing countries the cities are considered as parasites, taking away resources from rural areas. Nevertheless, it may be also said that urbanization is a multifaceted process. It is a necessary condition for economic development, because economies of scale and of agglomeration in the urban areas make possible economic development through industrialization.

While the process of urbanization is experienced much earlier by the western world, it is an accelerating phenomenon in the third world countries. India is now experiencing an accelerating stage of the process of urbanization. In the current paper West Bengal, an Indian state, which was one of the most urbanized states of India before independence, has been taken as unit of the study. The state of West Bengal is one of highly urban state of India with 28.03% of the total population residing in various urban areas. By this index of urbanization, West Bengal ranks sixth position among the industrially advanced state of India. The West Bengal has a particular pattern of urbanization that is the overwhelming role of the primate city, the wide between the former and the other major cities in the region in terms of population size, economic activities and cultural influence, and the predominantly rural character of the other areas in the region-is distinct from the alternative pattern of decentralized urbanization one sees in Punjab, Haryana, Kerala and some other states.(Dasgupta, Biplab 1987). It may be said that this contrasting pattern of urbanization has a great deal to do with the differing land tenure systems, the colonial economic policies pursued by the British, and the course followed in terms of economic development in these two types of areas during the post-independence period.

In the first part, this paper deals with the historical background of urbanization of West Bengal. In the second part this paper discussed the present trends and patterns of urbanization in West Bengal. In the last part this paper examines the relationship with the urbanization and human development index, which is an indicator of socio-economic development.

The present study is based upon Secondary data sources, which is collected from the following demographic data sources

- Census of India, 2001, General Population tables, Paper-2: Rural-Urban Distribution of Population, West Bengal, Series 19.
- Town directory of West Bengal, and
- District census handbooks (DCH)

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

- To find out the degree or level of urbanisation in West Bengal percentage Urban-Rural ratio has been calculated, the formula of Urban-Rural ratio is following:

$$\text{Rural-Urban Ratio} = \% \text{ Urban Population} / \% \text{ Rural population} * 100.$$

- To know the concentration of urban people in the different districts Location Quotient (L.Q) is done. The formula of Location Quotient is:

$$LQ_i = P_{ij} / P_i \cdot \frac{P_j / P}{P_j / P}$$

Where, P_{ij} = number of person in j th ($=1, 2 \dots m$) category of area i ($=1, 2 \dots n$)

$P_i = \sum P_{ij}$ = total population in all the category of area i

$P_j = \sum P_{ij}$ = Sum of persons of category j in all the n area *i.e.* population of region Under Category j

P = Sum of P_i in all the areas *i.e.*, total population of the region in each category.

- To find out the relationship between urbanization and HDI regression has been done.

II. HISTORICAL BACKGROUND OF URBANIZATION IN WEST BENGAL:

First we take up the level and pattern of urbanization in the area during the pre-colonial days. In those days the towns were mainly trading centres, army camps or places of pilgrimage. Some of the largest urban centres were Tamralipta, Chattagram, Dacca were the port cities. The growth of the textile trade with patronage of foreign interest led to the growth of urban centres like Murshidabad (which was also the capital), Dacca, Malda and Cossimbazar. Through these towns excessive trade was conducted along the river of Ganga or along the sea coast of up to as far as Surat, in addition to what the foreign ships carried for Europe. The level of urbanization was very high at that time.

But the scenario was drastically changed with the arrival of Britishers. One of the immediate consequences of the British takeover of Bengal was rapid de-urbanization and deindustrialization of the territory. The traditional textile industry was experienced severe blow from which it never covered. While the rural based industries too suffered from competition of factory made cheaper supplies. Subsequently with the collapse of economic base, the population of Dacca and Murshidabad registered rapid drops. The present pattern of urbanization was largely the creation of the British. Beginning in the 1830s, the jute factories on the both sides of river Ganga in the neighbourhood of Calcutta, the railway tons after 1851 and the coal and tea plantation towns in the second half of the 18th century and the early part of 19th century formed the basis of the new urbanization pattern based on industrialization. The activities around commercial crops such as Indigo, Opium and mulberry had led to the setting up of many 'Kuthis' or factories in the rural areas, which also grew into towns in due course. In all the cases the rationale of production was export and was not linked up with the consumption needs of local people. These local towns had few linkages with local markets in terms of labour supply, market demand or even meeting the consumption needs of the local people. On the other hand, the growth of the administrative and trading towns were also encouraged by the British Policies, the links with the rural hinterland were stronger. But the importance of these towns were not comparable to those of industrial towns which had their origin in the British colonial economic policies.

The most vital thing was the growth of the Calcutta city itself from mainly three villages namely Govindapur, Sutanuti and Kolkata. Like other port based colonial cities in the third world, the main basis of Calcutta's economy was export trade for this it was elaborately linked by way of roads and railways with the hinterland. Thus Calcutta became the seat of the colonial administration and centre of colonial trade. Most of the major labour movement from Bihar, Orissa, and Uttar Pradesh tend to concentrate in the Calcutta region and its gained massive population. Subsequently the industrial growth, based primarily on export oriented jute industry, took place around Calcutta because of the port facilities, internal river transport network and the railway transportation. Another important aspect in its growth was the concentration of absentee Zamindars, which brought with them an enormous concentration of purchasing power and became instruments through which the rural surplus was transferred to this primate city. This colossal concentration of purchasing power brought in its

wake goods, services and people to serve the elite in various capacities, who in their turn, made further demands for goods, services and people. Through a process of cumulative causation the growth of the Calcutta city was going on and on.

The external factor which contributed to urbanization and also urban concentration immediately before independence was huge refugee migration from the eastern part of Bengal. According to Dasgupta (1995) the historical perspective of urbanization in West Bengal was determined largely by the exogenous factors rather than being a part of the endogenous development of the region. This fact was reflected in the low rate of intra-state rural-urban migration. In 1961, 54% of urban cities were migrants but only about 11% were intra-state rural migrants. So we can see the evolution of the existing pattern of urbanization in West Bengal, clearly points to its two important features ,it was externally imposed in order to meet the needs of the colonial economy and was therefore mainly based on the export trade, and it was delinked from the developments in the rural areas. As the statistical data show, agricultural production remained virtually stagnant during the British period and could not, therefore, play any role in urban growth, except in a negative way, by pushing out the rural destitute. Towns were, in the main, entities ruled by the immigrants who came, in many cases, from distant areas and produced or mobilized goods for the external market. Urban development was far from spontaneous or based on indigenous factors, as would have been the case had there been no colonial rule.

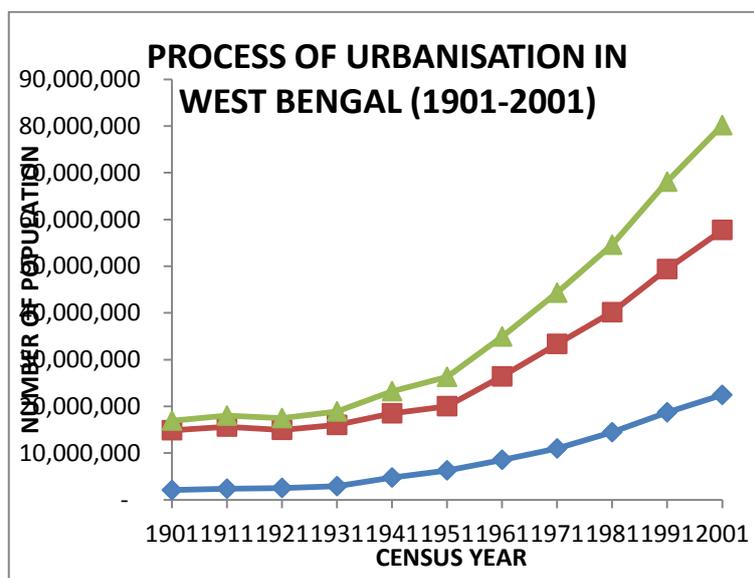
So the above historical account of urbanization in the state of West Bengal shows that the present pattern of lopsided urbanization is the result of colonial economy and administrative policies. While Calcutta, the port city, grew as also certain other towns in its periphery, the rest of the state remained backward and neglected.

III. URBANIZATION IN WEST BENGAL:

The two prominent feature of urbanization pattern in West Bengal are the low level of urbanization and the excessive concentration of the urban population in Kolkata metropolis and the near districts of Kolkata. The level of urbanisation, at 27.97% in 2001, is marginally higher the national average of 27.78% but lower than the those advanced states such as Tamil Nadu(43.9%), Maharashtra(42.4%),Gujrat(37.4), Punjab(34%), Karnataka(34%)

Table 1: Rural Urban Population of West Bengal (1901- 2001)

Census Year	Total population	Rural population	Urban population	% rural population	% urban Population
1901	16,940,088	14,873,538	2,066,550	87.801	12.199
1911	17,998,769	15,649,161	2,349,608	86.946	13.054
1921	17,474,348	14,956,474	2,517,874	85.591	14.409
1931	18,897,036	16,001,169	2,895,867	84.676	15.324
1941	23,229,552	18,489,330	4,740,222	79.594	20.406
1951	26,299,980	20,018,338	6,281,642	76.115	23.885
1961	34,926,279	26,385,437	8,540,842	75.546	24.454
1971	44,312,011	33,344,978	10,967,033	75.250	24.750
1981	54,580,647	40,133,926	14,446,721	73.531	26.469
1991	68,077,965	49,370,364	18,707,601	72.520	27.480
2001	80,176,197	57,748,946	22,427,251	72.028	27.972



IV. DEGREE OF URBANISATION IN WEST BENGAL:

The degree of Urbanisation is defined as relative number of people who live in urban areas. Percent urban $[(U/P)*100]$, percent rural $[(R/P)*100]$ and Urban-Rural Ratio $[(U/R)*100]$ are used to measure the degree of Urbanisation. The ratio $U/P*100$ has lower limit 0 and upper limit lie. $0 < U/P < 1$. If this index is 0 it means total population is rural population and if the index is 1, it means the total population is urban.. Urban rural ratio which is a simple index measuring number of urbanites for each rural person. The urban-rural ratio has a lower limit of zero and upper limit i.e. $0 < U/R < \infty$. Theoretically upper limit will be infinite when there is no rural population ($R=0$) but this is impossible. (Pranati Datta, 2006). In case of West Bengal, the urban-rural ratio is 38.83 percent, it means there 38 persons urbanites in every 100 ruralites.

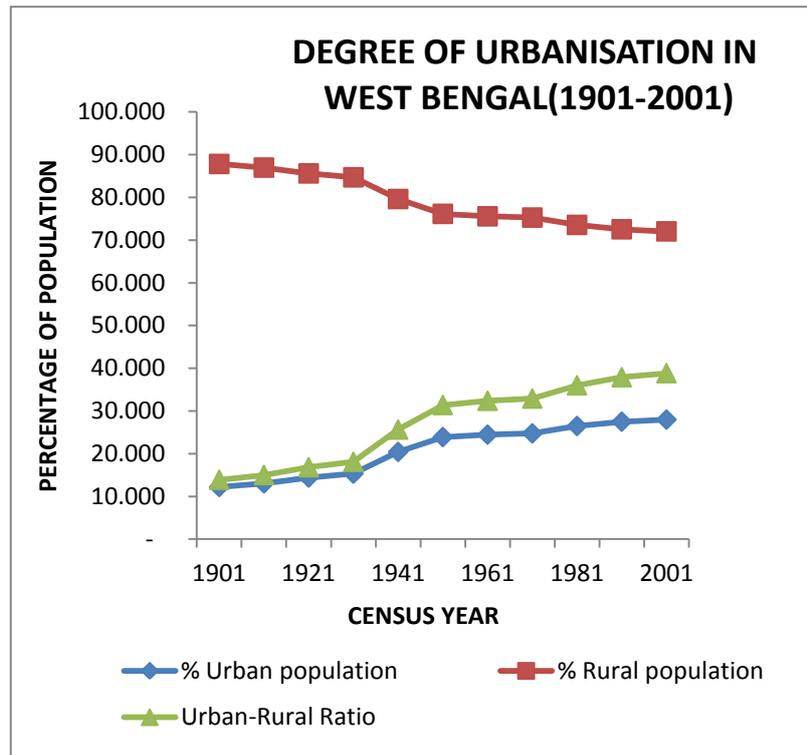


Table2: Percentage of Decadal Urban and Rural Growth Rate in West Bengal (1901- 2001)

Census Year	Decadal urban growth rate	Decadal Rural Growth Rate
1901-1911	13.7	5.21
1911-1921	7.16	-4.43
1921-1931	15.01	6.98
1931-1941	63.69	15.55
1941-1951	32.52	8.27
1951-1961	26.97	31.81
1961-1971	28.41	26.38
1971-1981	31.73	20.36
1981-1991	29.49	23.01
1991-2001	20.20	16.94

From the table we can see that the percentage of decadal urban growth rate is not smooth. It is high during the period of 1931-41. The most interesting fact is that the decadal urban growth rate is in decreasing trend from the 1971 onwards. The percentage of urban decadal growth rate is 29.49 and 20.2 respectively in last two decadal census years.

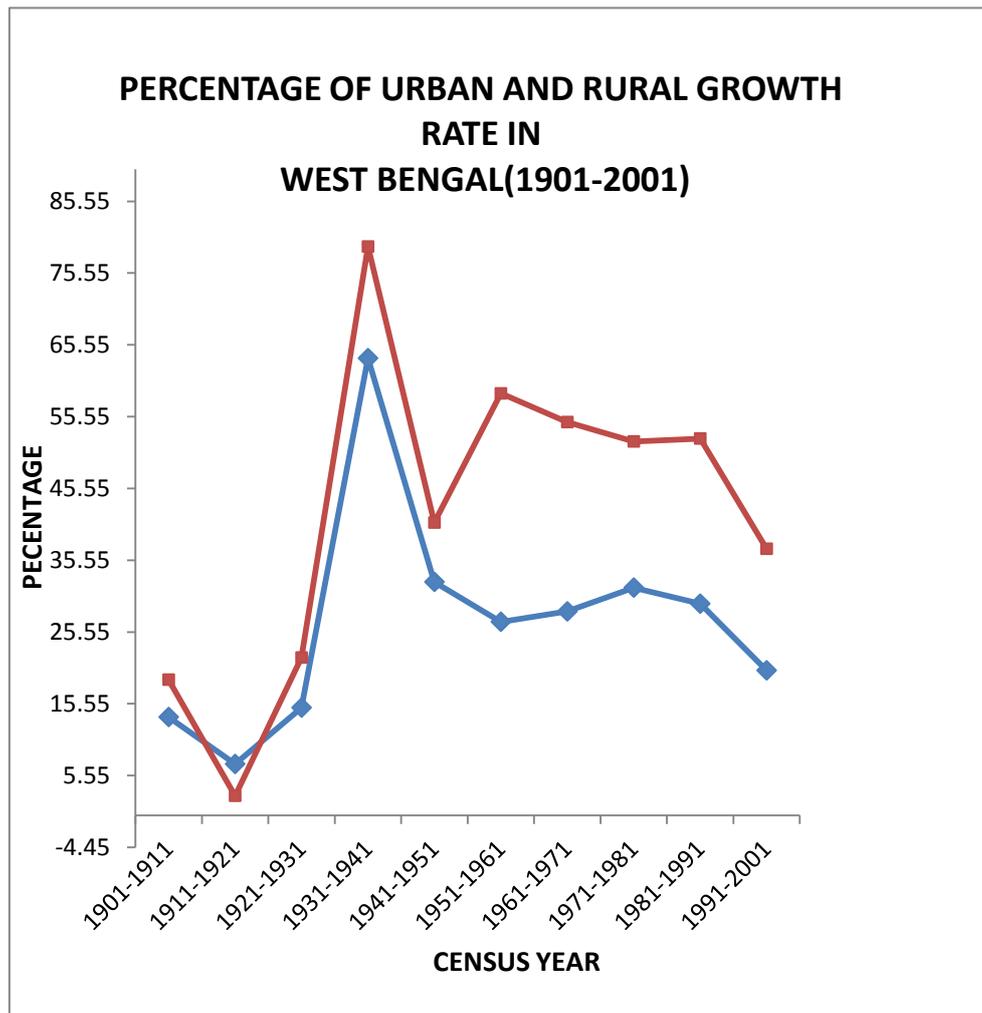
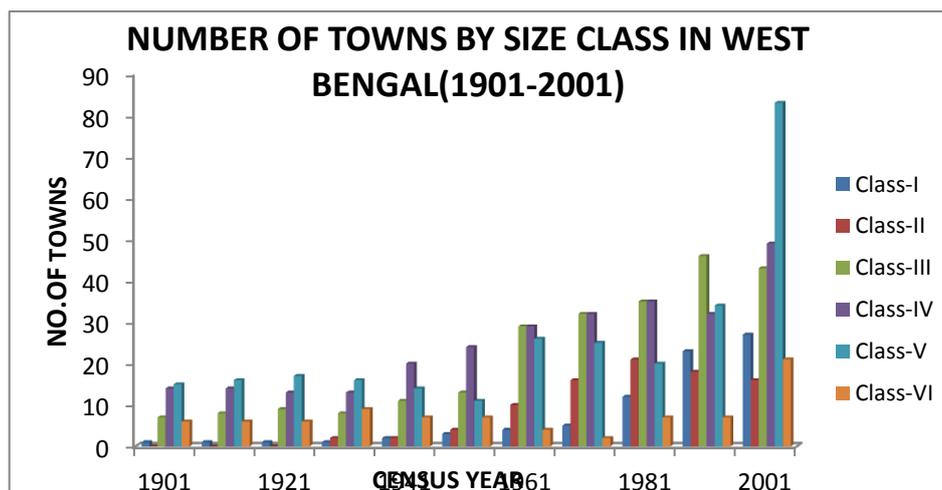


Table3: The Number of towns and percentage of urban population by size-class in West Bengal(1901-2001)

Census Year	NO. OF TOWNS BY SIZE CLASS						PERCENTAGE OF URBAN POPULATION BY SIZE CLASS					
	Class -I	Class -II	Class -III	Class -IV	Class -V	Class -VI	Class -I	Class -II	Class -III	Class -IV	Class -V	Class -VI
1901	1	0	7	14	15	6	73.59	0	9.46	10.24	5.50	1.21
1911	1	0	8	14	16	6	74.77	0	10.52	8.39	5.40	0.92
1921	1	0	9	13	17	6	75.30	0	10.86	7.04	6.12	0.68
1931	1	2	8	13	16	9	74.24	4.25	8.58	6.38	5.39	1.16
1941	2	2	11	20	14	7	79.25	3.17	8.18	6.08	2.98	0.34
1951	3	4	13	24	11	7	79.56	3.78	7.79	6.33	1.95	0.59
1961	4	10	29	29	26	4	76.60	7.19	8.59	4.74	2.70	0.18
1971	5	16	32	32	25	2	75.79	10.40	7.22	4.35	2.14	0.10
1981	12	21	35	35	20	7	77.72	8.85	6.60	4.86	1.70	0.27
1991	23	18	46	32	34	7	80.02	5.63	7.32	4.08	2.66	0.29
2001	27	16	43	49	83	21	83.51	4.35	5.98	3.15	2.58	0.43



It has already been mentioned that the index of urbanization in West Bengal has remained higher than India. However, this has not been uniformly spread in the State. . A closer look on percentage of urban population by size class would show that the percentage share of urban population in class-I continued to dominate the scene. In 2001, the share of urban population in class-I cities is very high (83.51%).Where as the percentage share of urban population in class-III, IV, V cities are in decreasing trend.

Table 4: District-wise total urban population, percentage of urban population to the total population and locational quotient, 2001

Districts	Urban population	level of urbanization	Locational Quotient
Darjiling	520432	32.342	1.155
Jalpaiguri	606882	17.843	0.637
Koch Bihar	225618	9.101	0.325
Uttar Dinajpur	294443	12.058	0.431
Dakshin Dinajpur *	196854	13.096	0.468
Maldah	240940	7.322	0.262
Murshidabad	732734	12.490	0.446
Birbhum	258420	8.570	0.306
Barddhaman	2547048	36.938	1.319
Nadia	979519	21.272	0.760
North Twenty Four Parganas	4850947	54.296	1.939
Hugli	1687749	33.474	1.195
Bankura	235248	7.368	0.263
Puruliya	255426	10.070	0.360
Medinipur	983905	10.238	0.366
Haora	2151990	50.361	1.799
Kolkata	4572876	100.000	3.571
South Twenty Four Parganas	1086220	15.727	0.562

Talking at the district level pattern of urbanization , the top five districts in terms of percentage of urban population to the total urban population of West Bengal are Kolkata,North-24parganas,Haora,Barddhaman and Hugly which all are situated near Kolkata .The least urbanized districts are situated mostly in the western part of West Bengal namely Purulia, Bakura, Medinipur.In the middle part of Bengal ,the districts namely Malda, Murshidabad, Birbhum also registered a very low level of urbanization. Among all districts Malda registered the lowest urban percentage (7.32%) in 2001.Taking North Bengal into consideration, we can see apart from Darjiling (31.51%) the rest of the districts namely Jalpaiguri,Koch Behar, Uttar Dinajpur and Dakshin Dinajpur registered low level of urbanization. As far as Locational Quotient (L.Q) is concerned, that is one of the indicators of the measurement of urban disparity. The districts like Kolkata, Haora, Barddhaman, North Twenty Four Parganas shows higher value of L.Q. that means these districts are the most urbanized districts. On the other hand the districts namely Maldah, Bankura, Puruliya shows very lower value of L.Q that means these districts are lagging behind in terms of urbanization.

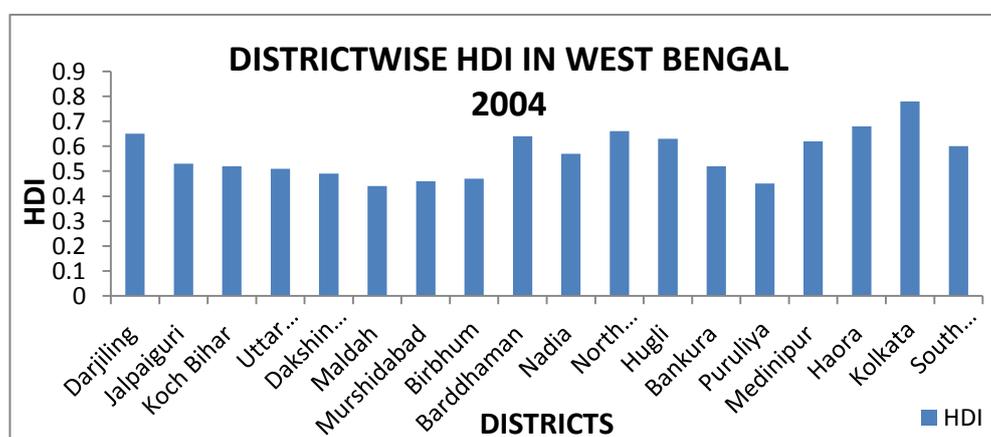
Human Development Index of West Bengal:

With a population of about 82 million in 2001, West Bengal is the fourth most populous state, with the highest population density of 904 persons per square kilometre. Greater population pressure inevitably puts more pressure on basic infrastructure as well as on the provision of health and education services. The extremely high population density obviously affects per capita resource allocation, so whatever West Bengal has achieved has been in spite of this critical negative factor of having the highest population density in the entire nation. The variation across districts in this regard also needs to be borne in mind when considering inter-district differences in human development indicators.

In terms of the more obvious indicators of human development, the state is somewhere in the middle of all Indian states. In demographic terms, West Bengal has been successful in bringing down both birth rates and death rates, with one of the most rapid declines in birth rate in India. The decline in the birth rate from 30.2 per thousand to 25.4) has been nearly double that of the all-India average over the period 1991-2001, while the decline in the death rate has been one and a half times that of the national average. Infant mortality had also declined at a marginally more rapid rate than all of India. Life expectancy in West Bengal (at 69 years for males and 65 years for females) is well above the national average. In terms of income West Bengal is a middle-income state, ranked ninth among the fifteen major states in terms of both per capita income (SDP) and per capita consumption expenditure. Several outcome indicators for health and nutrition suggest that while average conditions could have improved more rapidly, there is substantially more equality of access across the population than in other parts of India. West Bengal ranks third in India with respect to infant mortality rates. Not only that the sex-ratio of the state is also increased from the last census period.

Table 5: Human Development Indices by district in West Bengal, 2004

	HDI
West Bengal	0.61
Darjiling	0.65
Jalpaiguri	0.53
Koch Bihar	0.52
Uttar Dinajpur	0.51
Dakshin Dinajpur	0.49
Maldah	0.44
Murshidabad	0.46
Birbhum	0.47
Barddhaman	0.64
Nadia	0.57
North Twenty Four Parganas	0.66
Hugli	0.63
Bankura	0.52
Puruliya	0.45
Medinipur	0.62
Haora	0.68
Kolkata	0.78
South Twenty Four Parganas	0.6



Human development in West Bengal presents a mixed picture, and this picture is further complicated by the variations across districts in the state. Table presents the calculations for the Human Development Index for the different districts, as well as for the state as a whole. There are very substantial differences across districts, such that the HDI ranges from a high of 0.78 for Kolkata, to a low of 0.44 for Malda.

V. RELATIONSHIP BETWEEN URBANIZATION AND HUMAN DEVELOPMENT

Does any relationship exist between urbanization and human development? To examine this relationship in the perspective of West Bengal we have percent of urban population to the total population of the districts, and HDI of the districts and then try to find out the relationship the regression analysis has been done. In this regression analysis HDI is the dependent variable and the level of urbanization is independent variable. To establish a relationship between urbanization and human development a Linear regression Model has been used.

$$Y = \alpha + \beta_1 X_1$$

Here, Y is dependent variable and X_1 is the independent variable, α is constant and β_1 is parameter.

$$\text{HDI} = \alpha + \beta_1 * \text{level of Urbanization.}$$

From the above tables this regression has been calculated. The result is following:

$$\text{HDI} = 0.348 + .003 \text{ level of Urbanization}$$

$$\text{t-value} \quad (5.857) \quad (6.704)$$

$$R^2 = 0.757$$

This modal has $R^2 = 0.757$, it means modal explain 75.7% of the relationship between independent variable i.e. level of urbanization to dependent variable (HDI). The above regression shows that if there is one unit change in level of urbanization HDI change with .003 units and it is also statistically significant.

VI. CONCLUSION

West Bengal experienced a slower rate of urbanization compared to all India in the post independence decades. The gap between urbanization level of West Bengal and all India declined sharply from 6.59 percentage points in 1951 to 1.67 percentage points in 1991 and 0.6 percentage points in 2001. West Bengal has typical urban feature that is its high degree of spatial concentration with a mammoth dominance of Calcutta city i.e. Calcutta urban agglomeration. The feature of urbanization in the post-independence West Bengal is the growing importance of the large urban centres, mostly, urban agglomerations, consisting of a number of adjacent urban units. The slow rate of urbanization is accompanied by a high and increasing degree of urban size concentration – more and more urban population living in cities. Further the proportion of urban population living in lower order towns in isolation declined consistently over the decades. As far as the relationship between urbanization and Human Development Index is concerned at the district level, there few districts like Kolkata, Haora, and North 24-parganas, Bardhaman which show high level of urbanization as well as high HDI. There are also few districts like Malda, Purulia, and Bankura which so low level of urbanization as well as low HDI. Therefore at the district level there is a positive relationship between the level of urbanization and the HDI.

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