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The Process of Urbanization in Bihar, 1951-71

URBANIZATION in Bihar can be traced to very olden times. The existence of the university town of Nalanda, a great seat of learning in ancient India,¹ is a striking example of urban settlement in Bihar. The present town of Rajgir in Nalanda district (formerly part of Patna district) is also mentioned as the capital of the mighty King Jarasandha during the Mahabharat period. The ancient city of Pataliputra² (Patna at present) had been the capital of India in the Mauryan period and also in the Gupta period—a golden era of Indian history. Gaya is another ancient city which has always been a famous religious place which draws pilgrims not only from all over the country and also from the neighbouring countries.

At present, Bihar is passing through the modern phase of urbanization. New towns are coming into existence either through the influence of the existing cities and towns or independently because of technological and industrial development. According to 1971 census of India, Bihar ranks the second most populous state in India, consisting of 10.28% of the total population of the country. But from the urbanization point of view it ranks 17th among 21 states of India. Of the 56.35 million people

1. Majumdar, R. C., Ray Chaudhary, H. C., and Datta, K. K., *Advanced History of India*, Third Edition, ST. Martin's Press, New York, 1967, 191.

2. *India*, 191.

of the state, 5.63 million (10%) live in 202 towns including 9 large cities. However, the urban population of the state doubled during 1951-71, i.e., it increased from 2.63 million in 1951 to 5.63 million in 1971 and the degree of urbanization increased from 6.77% in 1951 to 10% in 1971.

The main purpose of the present paper is to focus attention on the process of urbanization in Bihar during 1951-71. Its scope is limited to the following aspects of urbanization.

1. Variation in the levels and trends of urbanization in the state.
2. Inter-district variations in the levels and trends of urbanization in Bihar.
3. Growth of cities and towns.**
4. Analysis of variations in the growth rates of towns and cities. Sources

of Data and Limitations

Data utilised in this paper have been taken from the censuses of India 1951, 1961 and 1971. No adjustment in the urban population of 1951 has been made for the change in the definition of a town in 1961 census.

Methodology

There are two customary indices to study the level and trends of urbanization in a country/state etc. They are : (1) degree of urbanization : it is the percentage of total population living in urban areas. In accordance with international comparison, this index is further refined in two ways : (a) instead of total urban population, population living in cities (places with 100,000 and more inhabitants) is considered as urban population,

**The term cities in the present paper refers to class P towns (i.e., urban places having at least 100,000 inhabitants) and the term 'towns' refers to the urban places of size classes II-VI. This has been further classified into three broad categories :

- (i) Medium sized towns ; urban places with population 20,000-99,999 (classes II and III).
- (ii) Smaller towns : urban places with population 5,000-19,999 (classes IV and V).
- (iii) Tiny towns : urban places with population below 5,000 (class VI).

and (b) in place of total urban population, the population living in urban places of at least 20,000 inhabitants is considered as urban population. (2) Rate or speed of urbanization : it is a simple arithmetic rate of growth of degree of urbanization between two or more censuses.

There are, according to Davis, two ways of measuring urban growth. One, the instantaneous method, ascertains the population in all urban categories at each and every census, tracing the changes in each class regardless of the cities that make it up. The other, the continuous method, begins with particular cities and traces the subsequent expansion of these groups. The instantaneous method has the disadvantage of including, at each census, new towns in a given class that were not in that class³. These two methods have been used to study urban population growth by different categories of towns considering 101 towns of 1951, none of which was declassified in the next censuses.

Levels and Trends of Urbanization in Bihar, 1951-71

The level or the degree of urbanization in Bihar, is only half of the degree of urbanization in the country as a whole. The state is backward in this respect as compared to most of the states of India; Nagaland, Assam, Orissa and Himachal Pradesh are the only states where the degree of urbanization is found lesser than in Bihar in 1971.

The level of urbanization in the state increased during 1951-71 from 6.77 percent to 10.0 percent. The number of towns increased from 108 in 1951 to 153 in 1961 and 202 in 1971. The urban population doubled during the last twenty years. Considering only cities' population as urban population it may be observed that the level of urbanization was only 2 percent in 1951 which increased to about 3 percent in 1971. Similarly if the population living in the urban places of 20,000 and above, is considered as urban then the level of urbanization was little less than 5% in 1951 and it increased to about 7% in 1971. There were 30 towns with 20,000 and more population in 1951 which increased to 71 in 1971. Thus it can be said that the level of urbanization in Bihar has shown a steady increase

3. Davis, Kingsley, *The Population of India and Pakistan*, Princeton University Press, 1951, 128-129.

as measured in terms of the urban population living in localities of at least 20,000 population.

TABLE 1 (a)—DEGREE OF URBANIZATION IN INDIA BY STATES, 1971

India	19.19	11. Madhya Pradesh	16.29
1. Maharashtra	31.17	12. Kerala	16.24
2. Tamil Nadu	30.26	13. Meghalaya	14.55
3. Gujarat	28.08	14. Uttar Pradesh	14.02
4. West Bengal	24.75	15. Manipur	13.19
5. Mysore	24.31	16. Tripura	10.43
6. Punjab	23.73	17. Bihar	10.00
7. Andhra Pradesh	19.31	18. Nagaland	9.95
8. Jammu and Kashmir	18.59	19. Assam	8.87
9. Haryana	17.66	20. Orissa	8.41
10. Rajasthan	17.63	21. Himachal Pradesh	6.99

SOURCE: Computed from Census of India 1971, Series I-India, *Final Population*, pp. 85-88.

Inter-district Variations in the Level and Trends of Urbanization

Table 2 reveals that Dhanbad is the most urbanized district followed by Singhbhum, Patna, Ranchi, Hazaribagh in Bihar. Its degree of urbanization was 43.51% in 1971 and rate of urbanization was the highest in both the decades and during the period 1951-71 (396.12%) as compared to the other 16 districts. In contrast Saran, Darbhanga and Saharsa were the least urbanized districts in 1971. Saharsa in this group was entirely rural in 1951. Only about 4% of the population of this district was classified as urban in 1961. This level increased to 4.53% in 1971.'

In 1961, Patna was the most urbanized district followed by Singhbhum and Dhanbad but due to faster growth of urban population in Dhanbad and Singhbhum districts respectively it lost its first position and remained as third highly urbanized district in Bihar at the time of 1961 and 1971 censuses. All the districts except Bhagalpur and Palamau have shown continuous increase in the degree of urbanization for the period 1951-71, but the rate of urbanization was faster in districts like Dhanbad, Hazari-

TABLE 1 (b)-LEVELS OF URBANISATION IN TERMS OF CUSTOMARY INDICES IN BIHAR, 1951-71

All Urban Areas		Urban areas with 100,000 and more Population			Urban areas with 20,000 and more Population				
Years	No. of towns	Population	Percentage of total Population living in all urban areas	No. of towns	Population	Percentage of total Population living in urban areas of at least 100,000 Population	No. of living in towns areas of at least 20,000 Pop.	Population	Percentage of total Population living in Urban areas of atleast 20,000 Pop.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1951	108	2626261	6.77	5	856720	2.21	30	1845113	4.76
1961	153	3913920	8.43	7	1297545	2.79	47	2793988	6.01
1971	202	5633966	10.00	9	1821061	3.23	71	4170984	7.40

SOURCES : Census of India 1961, Vol. IV : Bihar, Part II-A, *General Population Tables*, pp. 173, 271-273 and Census of India, 1971, Ser. I, India : *Final Population*, pp. 85-88.

TABLE 2—PROGRESS OF NUMBER OF TOWNS, DEGREE OF URBANIZATION AND RATE OF URBANIZATION IN BIHAR 1951-71

State/District	Number of Towns			Degree of Urbanization			Rate of Urbanization		
	1951	1961	1971	1951	1961	1971	1951-61	1961-71	1951-71
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>Bihar</i>	108	153	202	6.77	8.43	1000	24.25	18.62	47.71
1. Patna	8	10	14	18.11	20.13	22.54	11.55	11.97	24.46
2. Gaya	10	10	12	7.06	7.27	7.63	2.97	4.95	8.07
3. Shahabad	8	9	12	6.72	7.20	8.22	7.14	14.17	22.32
4. Saran	5	6	7	4.00	4.18	4.20	4.50	00.48	5.00
5. Champaran	10	9	10	4.17	4.84	5.21	1607	7.64	24.94
6. Muzaffarpur	6	6	8	3.85	4.58	5.25	18.96	14.63	36.36
7. Darbhanga	7	6	6	4.25	4.32	4.43	1.65	2.55	4.24
8. Mongbyr	13	13	17	9.37	11.08	11.87	18.25	7.13	26.68
9. Bhagalpur	2	5	5	8.54	10.91	1061	27.75	-2.75	2424
10. Saharsa	0	6	7	-	3.91	4.53	-	15.86	-
11. Purnea	4	8	11	4.21	6.01	6.34	42.76	5.49	50.59
12. Santhal Parganas	7	10	11	4.17	5.34	5.76	28.06	7.86	38.13
13. Palamau	3	5	5	3.75	4.73	4.69	26.13	-0.85	25.07
14. Hazaribagh	8	10	22	6.87	8.40	12.87	22.27	53.21	87.34
15. Ranchi	3	9	12	6.77	9.47	13.67	39.88	44.35	101.92
116. Dhanbad	4	19	26	8.77	25.02	43.51	185.29	73.90	396.12
17. Singhbhum	10	12	20	17.00	21.50	26.24	26.47	22.05	54.35

SOURCE: (a) For 1951 to 1961, Census of India 1961/ Vol. IV : Bihar, Part II-A : General Population Tables, p. 11 and for 1971, Census of India 1971, Series I, India : Final Population, pp. 85-88. (b) *Ibid.*, pp. 21, and 266 for 1951 and 1961 and pp. 85-88 for 1971 respectively.

bagh, Ranchi, Singhbhum during 1961-71 and also during the whole period 1951-71.

These districts are located in the region which contains : (i) Hydro-electricity generation units, as for example, Maithon and Panchet in Dhanbad district, Jhumari Tilaiya in Hazaribagh, (ii) One of the biggest river valley projects, say, Damodar Valley Corporation (D.V.C.) project, (iii) The biggest coal-mining belt-The Dhanbad-Jharia coal belt, (iv) The largest concentration of steel and heavy engineering industries specially in Ranchi and (v) It is a region where some industries were established some decades ago as for example, Tata Iron and Steel Company at Jamshedpur in Singhbhum district and Fertilizer Factory at Sindri in Dhanbad district—both biggest in Asia. Apart from these, this region is rich in mineral resources and has good facilities for transport and communication supporting the industrial development.

Distribution and Growth of Urban Population by Class of Towns

The distribution of urban population in six classes (according to census classification) reveals that more than one-third of the urban population is concentrated in the cities in all the three censuses. This is similar to the concentration of urban population for all India, 1941-61.⁴ The effective urban population⁵ (population living in urban places with 20,000 and more population) was little more than 70% during the last two decades. The increase in the concentration of population in cities was mainly because of the movement of class II towns.⁶

The growth in the number of towns in each class, as given in Table 3, reveals that in first four classes the number of towns almost doubled during the period 1951-71 while in class V it increased significantly (from 30 to 46) during 1951-61. In the last size class the number of towns decli-

4. Bose, Ashish, "Six Decades of Urbanization in India", *The Indian Economic and Social History Review*, II (1), January 1965, 37.

5. Bose, Ashish, *Studies in India's Urbanization*, Institute of Economic Growth, University Enclave, Delhi 7, 1966 (Mimeographed), 33.

6. Ram, R. B., *Growth of Cities in Bihar 1901-71*, Demographic Research Centre, Department of Statistics, Patna University, Patna—5 (Mimeographed), 9.

TABLE 3—DISTRIBUTION OF URBAN POPULATION AND NUMBER OF TOWNS BY SIZE CLASS OF TOWNS 1951-71

Class of Towns	1951			1961			1971		
	No. of towns	Population	Percentage of urban population	No. of towns	Population	Percentage of urban Population	No. of towns	Population	Percentage of urban Population
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
I 100,000 and above	5	856720	32.62	7	1297545	33.15	9	1821061	32.32
II 50,000-99,999	6	424396	16.16	7	494430	12.63	11	761014	13.51
III 20,000-49,999	19	563997	21.48	33	1002013	25.60	51	1558909	28.20
IV 10,000—19,999	37	515575	19.63	52	731049	18.68	72	1051929	18.67
V 5,000—9,999	30	223170	8.50	46	358847	9.17	47	365324	6.49
VI Below 5,000	11	42403	1.61	8	30036	0.77	12	45729	0.81
All Classes	108	2626261	100.00	153	3913920	100.00	202	5633966	100.00

NOTE: Each town has been treated as an independent unit.

SOURCE: Same as Table 1 (a & b).

ned 1951-61 and increased during 1961-71. The growth of population in different classes points out that population doubled in the cities and towns of size classes I, II and IV while it had nearly a three-fold increase in size class III. Out of remaining two classes, in class V population increased by little more than 50%, while in class VI it has remained almost constant.

Population Growth of Cities and Towns of Bihar

Population growth of cities and towns as studied in the present paper by continuous approach differs significantly from the growth pattern of cities and towns' population growth based on instantaneous approach; (Table 4). For example, population growth was only 61.49% during 1951-

TABLE 4—PERCENT POPULATION GROWTH IN DIFFERENT CATEGORIES OF TOWNS IN BIHAR, 1951-71

	<i>Continuous method*</i>		<i>Instantaneous method</i>			
	<i>1951-61</i>	<i>1961-71</i>	<i>1951-71</i>	<i>1951-61</i>	<i>1961-71</i>	<i>195-71</i>
1. Cities	26.70	25.29	58.76	51.45	40.35	112.56
2. Medium Sized Towns	26.51	21.11	53.20	51.40	57.03	137.75
3. Smaller Towns	42.27	22.82	74.74	47.53	30.04	91.84
4. Tiny Towns	54.74	29.89	101.00	-41.17	52.25	7.84
All Towns	31.21	23.08	61.49	49.03	43.95	114.52

*NOTE : Only 101 towns of 1951, nona of which was declassified in 1961 & 1971 census,, have been considered under study.

SOURCE : Computed from Census of India 1961, Vol. IV Bihar Part II-A, *General Population Tables*, pp. 273-296 and Census of India 1971, Series I India, *Final Population*, pp. 85-88

71 according to calculation based on previous approach as contrary to the growth rate of 114.52% as given by instantaneous approach. The difference in the growth rates of cities and towns as observed in this Table 4 are described in the following paragraphs.

(i) *Cities*. The combined growth of population of 5 cities of 1951 is very low as compared to other subcategories of towns; excepting the medium sized towns. The growth rate was 26.70% during 1951-61 which slightly declined to 25.29% during 1961-71; the population increase was little less than 60% during 1951-71. The growth rates are quite low as compared to the growth rates observed through the instantaneous approach, obviously because the impact of movement of towns is not isolated.

(ii) *Medium Sized Towns*. The growth rate of medium sized towns in Bihar is low as compared to all such classes of towns. The pattern of population growth of these towns is similar to that of cities' population growth as observed by continuous method in Table 4.

(iii) *Smaller Towns*. Population growth of smaller towns was higher than of cities and medium sized towns, but lower than tiny towns. Further growth rate of these towns was significantly higher during 1951-61 (42.27%), which was reduced to nearly a half (22.82%) in the next decade. The overall growth rate of this group was about 75%.

The growth rate calculated through continuous and instantaneous approaches are quite different; this is because emergence of new towns has been more pronounced in this category.

(iv) *Tiny Towns*. Population growth in tiny towns reveals quite an interesting picture; decade variation in population during 1951-61 was 54.74% which declined to about 30% during 1961-71 and overall growth rate during 1951-71 was little more than 100%. When these growth rates are compared with the growth rates observed according to instantaneous approach, the picture changes drastically; here there was a decline of 41.17% in the population in 1951-61 and the growth rate of more than 50% in 1961-71; and overall growth rate in 1951-71 was about 8%. The explanation for this contrast lies in the impact of declassification of towns at the time of 1961 census and the emergence and movement of towns during 1951-71. The tiny towns or the smallest urban units have grown faster as compared to all other categories of towns and their growth rate was higher in 1951-61 than in the following decade.

Variations in the Growth Rate of Towns in Bihar, 1951-71

Table 5 reveals the variations in the growth rates of the towns of 1951

TABLE 5-DISTRIBUTION OF CITIES AND TOWNS ACCORDING TO THEIR GROWTH RATES DURING 1951-61 AND 1961-71

<i>Percent Growth of Population</i>	<i>Number</i>	
	<i>1951-61</i>	<i>1961-71</i>
(-50). (-30)	3	2
(-30-(-10)	1	4
(-10)-(10)	8	8
10-30	39	60
30-50	26	18
50-70	10	5
70-90	6	2
90-110	2	1
110-130	0	0
130-150	2	0
150-170	0	1
170-190	1	0
190-210	0	0
210-230	1	0
230-250	1	0
250-270	1	0
Total	101	101

NOTE : Continuous method has been followed up for consideration of towns.

during the period 1951-61 and 1961-71. It may be observed that the growth rates of the most of the towns (39 during 1951-61 and 60 during 1961-71) fall in the range of 10 to 30%. The large variations in the growth rate of towns may be observed during 1951-61 as compared to that of during

1961-71. This indicates that the process of urbanization was more rapid during 1951-61; There were also large variations in the growth rates of the towns, for example, the population of Barauni and Barauni Railway Colony in Monghyr district increased by 269 percent, Bagaha in Champaran district by 234 percent, and Sindri in Dhanbad district by 217 percent in 1951-61. The large inter-town variations in the growth rates during 1951-61 may be attributed to the location of these towns in the industrial belt, high speed of industrial development and having good facilities of transport and communication system etc.