

Nagarlok Vol. XLI No. 4 October - December 2009**Trends in the Spatial and Temporal
Pattern of Urbanization
– A Case Study of Jharkhand**

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INTRODUCTION

INDIA IS passing through a stage of massive urban transition. With the second largest urban population, India has now become one of the top contributors to the world's urban population growth. The salient feature of Indian urbanisation entails a very high growth of urban population grown in 1960s, 1970s and 1980s. The component of natural growth dominated the 1960s and 1970s and rural to urban migration along with natural growth played significant role in 1980s' (Bhasin, 2001). It has also been found that during this period the rate of urban population growth was higher than the growth of the number of towns. It indicates that high urban growth of India has been mainly caused by the enlargement of the existing towns, particularly the large towns. Another significant characteristic of India's urbanisation has been the regional variations in the distribution of urban population concentration. A large proportion of the urban population has been concentrated in the six most urbanised states: namely, Maharashtra, Gujarat, Tamil Nadu, Karnataka, Punjab and West Bengal, accounting for about half of the country's urban population. Actually, in India, regional disparity in socio-economic development has led to variations in the levels of urbanisation and urban growth. Except for Punjab, the industrialisation process of 1960s and 70s in the above mentioned five states has accelerated their urban growth.

In case of Jharkhand the magnitude of urban growth in the last century particularly after 1950's has fostered considerable interest in the process and forms of growth. Not only the urban population recorded a continuous increase in this period but marked redistribution of urban centres has also occurred due to industrialisation and emergence of new administrative and commercial centres in the different parts of the state. This is the reason why urban population of the study area has increased by more than seven times during the last five decades. Despite this, at present Jharkhand is one of the least urbanised states of the country with 23.78 per cent of population living in urban centres. This figure is less than that of many states, as well as for India i.e. 27.73 per cent. Differences in the level of urbanisation and urban growth are also seen in various districts and territories of Jharkhand. The geographical

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factors and different levels of economic development have influenced urbanisation in Jharkhand.

Evolution and Growth of Urban Centres

A study of the evolution and growth of urban centres in Jharkhand possibly raises several issues on urbanisation and urban development of the region. The progress in urbanisation is necessary to understand the nature and magnitude of the urban forces and processes operating in the region and also to discern the pattern of urban growth itself. Such a study might also be helpful in visualising the future prospects of urbanisation.

The history of urbanisation in Jharkhand dates back to the 17th Century. At that time several local chiefs ruled over the region and the centres of their residences grew progressively into cultural landscapes that were distinct from the dispersed rural settlements of the Chotanagpur plateau. Even before that,

TABLE: 1 JHARKHAND: PROGRESS IN THE NUMBER OF TOWNS (1901-1941)

DISTRICTS	YEAR				
	1901	1911	1921	1931	1941
Godda	-	-	-	-	-
Sahibganj	1	2	2	2	2
Dumka	-	1	1	1	1
Deoghar	2	2	2	2	2
Dhanbad	-	-	1	1	2
Giridih	1	1	1	1	4
Hazaribagh	2	2	2	2	2
Palamu	2	2	2	2	2
Lohardaga	1	1	1	1	1
Gumla	1	-	-	-	-
Ranchi	2	2	2	2	2
Purbi Singhbhum	-	1	1	2	3
Paschimi Singhbhum	1	1	2	2	7
TOTAL	13	15	17	18	26

SOURCE: Census of India, (1991), General Population Table, Bihar, Series - 5

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Chotanagpur plateau was a virtual 'no man's land' mainly due to its rugged topography and dense forests and hence was known as 'Jharkhand'. It is stated that during the reign of Ashoka, this region was known as 'Atavi' or 'forest states'. During the Mughal period this region was known as the 'Kokrah' region.

During the British period, few small princely states such as Ramgarh, Kharagdiha, Kendy etc., already existed in Jharkhand and when the Britishers constructed roads and railways for the exploitation of minerals and forest products it brought further development and some new settlements in the region. In the 17th Century, Palamu was the capital of the 'Chero' chief. Another town that existed before British period, was 'Palkot; the capital of Raghunath Rai. In 1772 'Ichak' turned into a town, which supported a population of about 5000. Apart from these sporadic developments, urban growth in Jharkhand roughly coincides with the extension of British rule in India. By 1854, several places were selected as administrative headquarters and they gradually flourished into towns.

During the early British period, in Jharkhand, certain factors of secondary importance had also encouraged urbanisation. The British also stimulated the growth of the pre-existing administrative centres. The urban centres that evolved during this period can be classified as: (1) Regimental Centres (2) Christian Missionary Centres and (3) Tea plantations; such as Chatara, Ramgarh and Doranda (Ranchi) that were also regimental centres. Ranchi and Hazaribagh were developed as Centres of Christianity in Jharkhand. Prior to 1901 Census, nine towns already existed in Jharkhand. In 1901 Census, this number had become 13 (table 1), Lohardaga and Ranchi had the largest population at that time. In 1911, the number of towns increased up to 13. Two new towns were included in 1921 and they were Dhanbad and Chakradharpur. Jugsalai was recognised as a town in 1931. It evolved as an urban sprawl of Jamshedpur, which was established in 1907. The decade of 1931-41 was significant as eight new towns had grown up. Several new mining towns also emerged during this period. They were Jharia, Bermo, Kargali, Bokaro, Musabani, Noamundi and Manoharpur. Most of the new towns were located in Giridih, Hazaribagh and in Paschimi Singhbhum district. During this period Jamshedpur became the first class- I town of Jharkhand.

From the above facts it is clear that almost all the towns in Jharkhand originated and grew up during the last century. A great number of them owe their origin and growth to mining and industrial activities, consequent to the introduction of railways by the Britishers.

Population Growth and the Process of Urbanisation

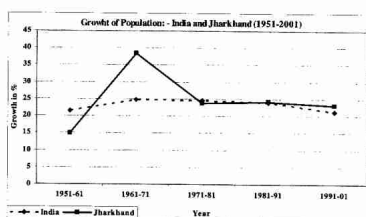
The state of Jharkhand ranks fifteenth in terms of the total area of the

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country. It comprised a total population of over 26.90 million in 2001 Census (table A.1) and was the residence of 2.62 per cent of the total population of India. The total population of the state increased from 8.93 million to 26.90 million during 1951-2001. So it had more than tripled in 50 years. If we compare the population growth of Jharkhand with that of India then it can be observed that except 1951-61 and 1971-1981 in all other decades the total population growth of Jharkhand has been mostly higher than India's average (Graph 1).

However, there are considerable differences between the urban population growth of Jharkhand with that of India's average urban growth. If we analyse the growth of urban population during various decades we find that contrary to the general population growth rates, urban population growth rate has been very high in Jharkhand (Graph 2). It was 76.80 per cent during 1951-61; however, during the same period population growth rate was only 25.84 per cent. But after that there was a regular decline in urban population growth rate in Jharkhand and even during 1981-1991 and 1991-2001 the growth rate was only 30.73 and 28.35 per cent respectively (Table 2). So one can assume that, in last two decades the process of urbanisation in Jharkhand has slowed down. The reasons for a high urban growth rate in the 50's and 60's may be the post-independence stress placed on developing the key and basic industries in the Jharkhand mineral belt.

GRAPH: 1



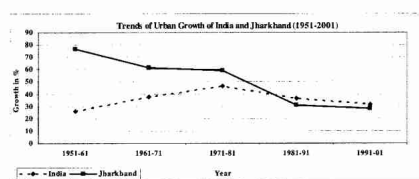
SOURCE: Census of India, (1991), General Population Table, Bihar, Series -5
Census of India, (2001), Provisional Population Table, Rural Urban Distribution, Jharkhand, Series-21

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GRAPH 2



SOURCE: Census of India, (1991), General Population Table, Bihar, Series – 5

Census of India, (2001), Provisional Population Table, Rural Urban Distribution, Jharkhand, Series-21

District Level Urban Population Growth

Urban population growth in the various districts of Jharkhand exhibit unequal concentration of population in different regions. Those regions, which are geographically favourable, industrially and commercially developed, have been attracting migrants from the countryside in search of employment which further accelerated the process of urbanisation.

The comparative trends of urbanisation in Jharkhand and India have been shown above in Graph 2. Evidently up to 1981, Jharkhand recorded a much faster growth in the urban population than that of India. Hence, for a better understanding of the pattern of urbanisation in Jharkhand, a district level analysis is essential. The trends of urban growth (1951-2001) among the districts are provided in Table 2. A perusal of the figures given in the table shows that during 1951-1961, Dhanbad recorded exceptionally high urban growth, i.e. 264.78 per cent. The other district which had higher growth than state average (76.80%) was Paschimi Singhbhum (76.97 %). Dhanbad had registered rapid growth due to increase in the size of population by 190 per cent as well as due to the appearance of six new towns in the district¹. Low urban growth in Jharkhand was recorded in Lohardaga (25.08%), Deoghar (28.06%) and Sahibganj (36.58 %) districts.

The decadal growth during 1961-1971 (61.15 %) also reveals a high urban growth in Jharkhand. But it also shows a decline in urban growth rate in Jharkhand from the previous decade. This deceleration in the urban growth during 1961-1971 has been witnessed in most of the districts of Jharkhand except in Ranchi and Lohardaga. Ranchi recorded 84.39 per cent growth.

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TABLE: 2 JHARKHAND: DISTRICT WISE URBAN POPULATION GROWTH (IN %)

Districts	Year				
	1951-61	1961-71	1971-81	1981-91	1991-01
Godda	-	29.10	44.37	68.18	56.60
Sahibganj	36.58	30.29	27.65	13.97	41.62
Dumka	75.90	31.85	69.24	33.11	24.68
Deoghar	28.06	24.57	31.08	40.31	27.72
Dhanbad	264.78	120.07	67.56	30.00	27.06
Giridih	61.15	60.19	44.89	39.77	20.85
Hazaribagh	40.97	29.98	51.41	54.54	28.25
Palamu	51.76	25.62	53.19	13.68	36.23
Lohardaga	25.08	29.019	36.76	36.05	45.58
Gumla	-	41.05	34.89	27.46	43.81
Ranchi	46.97	84.39	86.00	29.19	31.14
Purbi Singhbhum	53.77	49.23	42.50	25.48	16.46
Paschimi Singhbhum	76.97	20.49	35.92	18.18	71.10
Jharkhand	76.80	61.15	55.96	30.73	28.35

SOURCE: Census of India, (1991), General Population Table, Bihar, Series – 5
Census of India, (2001), Provisional Population Table, Rural Urban Distribution, Jharkhand, Series-21

However, despite deceleration in the pace of urbanization, Dhanbad once again registered the highest urban growth i.e. 120.07 per cent.

The above Table 2 reveals that a further decline in urban growth rate to 55.96 per cent occurred in the 70's. During 1971-1981, most of the districts showed a moderate urban growth. In previous decade only two or three districts had unprecedented growth rate which raised the state's average urban growth. During this decade Ranchi district had highest urban growth rate, i.e. 86 per cent. Other districts, which had higher growth rate than the state average, were Dumka (69.24 %) and Dhanbad (67.56 %). Dhanbad district's urban growth was mainly due to the establishment of three industrial and mining centres and the existing population of Dhanbad city had also increased by 39.2 per cent. In Ranchi district no new towns were included in 1981 Census but the population of Ranchi and Patratu town increased by 60 per

cent. However, Patratu town also become a class III town. So the overall urban population increased considerably. During 1971-1981, least urban growth was recorded in Sahibganj (27.65 %), which was less than half of the state's growth. Deoghar, Gumla, Paschimi Singhbhum, and Lohardaga districts also had lower growth rate of 31.08, 34.89, 35.92 and 36.76 per cent respectively.

The Census of 1991 recorded a phenomenal decrease in urban population growth rate of Jharkhand as it was only 30.73 per cent. At the district level there was once again a variation in the urban growth rate (Table 2). The districts, which had higher growth during 1971-1981 recorded lower urban population growth; for example, during 1981-1991 Ranchi district had gained only 29.19 per cent growth, as compared to 86.00 per cent during previous decade. Dhanbad district had also recorded only 20.08 per cent increase during 1981-1991 as compared to 67.56 per cent of the 1970s. During this period highest growth rate was recorded in Godda district (68.18 %). Interestingly this district has only one town, i.e. Godda itself. Another district which had higher growth rate was Hazaribagh (54.54 %), which gained nine new towns in 1991 Census. Palamu (36.05 %), Deoghar (40.31 %) Giridih (39.77 %) were the other districts which had higher growth rate than the overall state average.

Urban growth rates had further decreased during the last (1991-2001) decade and it was only 28.35 per cent in Jharkhand. Again lower growth was discernable in most of the highly urbanised and industrialised districts. For example the districts of Purbi Singhbhum (16.46 %), Dhanbad (27.06%), Deoghar (27.22 %) and Hazaribagh (28.25 %) had lowest urban growth in 2001. On the other hand urban growth was higher in the least urbanised districts like Paschimi Singhbhum (71.10 %), Godda (54.60 %), Lohardaga (45.58 %), Gumla (43.81 %) and Palamu (36.23%). It seems that the towns of the districts were highly urbanised getting saturated and in the absence of further growth of industries, commerce and other economic activities they are attracting less migrants. The rapid expansion of transportation facilities has also made it more convenient for people to move towards other places of the state and country. So it can be said that urban population of Jharkhand increased rapidly during 1951-1971 and to some extent in 1971-1981 due to the establishment and growth of several industrial complexes, like Jamshedpur, Ranchi, Dhanbad, Bokaro, Sindri, Gomia, Patratu and others. But in the late 80's and particularly in 90's there had been no further investments for industrial development. In the absence of additional industrial employment generation, opportunity of rural to urban migration had considerably slowed down and this has affected urban growth in recent years.

Urban Growth by Size Class

The growth in number and size of towns is a good indicator of urbanisation. A study of the growth and distribution by various size classes

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highlights the concentration of urban population within the different class towns as well as within the different regions. They may also reflect the socio-economic setting of the area. For instance, the concentration of high population in large cities is often associated with a high degree of industrialisation and development of infrastructure. Table 3 provides an overview of the uneven distribution of population in the various size class towns/cities during 1951-2001.

In general, there has been a predominance of class I cities since 1951. Class I cities had 42.74 per cent of urban population in 1951 and it increased to 50.16 per cent in 1961. In 1971, there were four Class I cities having population more than one lakh, viz. Dhanbad, Jamshedpur, Ranchi and Bokaro. These four cities had 51.08 per cent of total urban population. In 1981, Giridih became a class I city and during 1991-2001 four new cities, i.e. Deoghar, Ramgarh, Chirkunda and Patratu were included in the Class I category. Population of class I cities also increased to 62.91 per cent in 1991 and 71.34 per cent in 2001. Table A.5 shows that only 10 out of a total of 95 cities/towns of Jharkhand had more than three fourth of the total urban population.

The number of class II cities/towns increased from one in 1951 to two in 1971 and eight in 1991. But in the next 2001 Census, two of the class II towns had been upgraded to class I cities and no new towns had entered in the class II category. Out of the two class II towns in 1971, Giridih and

TABLE: 3 JHARKHAND: PERCENTAGE OF POPULATION
IN DIFFERENT SIZE CLASSES (1951-2001)
Urban Population Share

Classes	1951	1961	1971	1981	1991	2001
I	42.74	50.16	51.08	61.94	62.91	71.34
II	9.67	4.51	5.41	12.85	12.20	7.09
III	19.79	24.16	21.05	13.72	15.41	12.34
IV	14.68	11.60	10.58	8.16	5.52	5.16
V	9.04	8.87	6.63	2.89	3.63	3.51
VI	4.08	1.19	1.00	0.43	0.32	0.55
All	100.00	100.00	100.00	100.00	100.00	100.00

SOURCE: Census of India, (1991), General Population Table, Bihar, Series - 5
Census of India, (2001), Provisional Population Table, Rural Urban Distribution,
Jharkhand, Series-21

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Hazaribagh districts had one each. In 1981, Hazaribagh district gained three new class II towns and these towns had 69.2 per cent of the district's urban population. In the same decade, Deoghar was also a class II town having 66.1 per cent of district's urban population. In 1991, out of eight class II towns, Giridih had two and Hazaribagh had three. The number of class II towns declined in 2001 from nine to six, which was mainly because of the upgradation of Deoghar and Ramgarh into class I cities.

Table 3 also shows that except class I cities, the share of population had reduced to more than half from 1951 to 2001 in other size classes. In class III towns, population has reduced from 19.79 per cent to 12.34 per cent during 1951-2001; in case of class IV, population has reduced from 14.68 per cent to 5.16 per cent; in class V towns from 9.03 per cent to 3.51 per cent and in class VI towns from 4.08 per cent to 0.55 per cent. Despite this, the number of each size class had increased during this period. There were only five class III towns in 1951 Census and this number increased up to 14 in 1971 and 22 in 2001. If we analyse their distribution, we find that almost all districts have one or two class III towns.

The growth pattern of class IV towns is also same as class III towns. In 1951 there were only seven class IV towns in Jharkhand and they had 14.68 per cent of state's urban population. But in the coming decades despite the increase in number of class IV towns, i.e. 17 in 1971 and 20 in 2001, their share of population to the total urban population reduced in each successive Census and it was only 5.16 per cent in 2001 Census. Most of the 20 class IV towns were located in the district of Hazaribagh (5), Gumla (4), Paschimi Singhbhum (4), and Purbi Singhbhum (2) (Table A.5). Basically most of these towns are characterised by mining activities. Their development is based only on these activities, which helped in explaining why they had only 5.16 per cent of total urban population of the state.

The number of class V towns increased from nine to 29 during 1951-2001 but their distribution was not uniform across the state, most of them were located in four districts only. In 2001, out of 29 Class V towns, 11 were in Hazaribagh, seven each in Dhanbad and Paschimi Singhbhum districts (Table A.5). As far as the share to the total district's urban population is concerned, their percent was negligible in all districts except Paschimi Singhbhum, which had 14.08 per cent of the total urban population living in different class V towns (Table A.9). Majority of the population of Jharkhand has preferred to live in relatively bigger cities/towns of the state. That is why the share of class I cities to the total population in Jharkhand has been increasing in each Census. This clearly indicates that Jharkhand is no exception to the "top-heavy" urban structure as is found in India.

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TABLE: 4 JHARKHAND: DIFFERENT CLASS WISE (TOWN/CITY)
POPULATION GROWTH (1951-2001)

Town/City Wise Urban Population Growth Rate (in %)

Classes	1951-61	1961-71	1971-81	1981-91	1991-01
I	105.81	88.11	75.08	32.78	35.55
II	-18.19	105.56	270.77	24.66	-25.34
III	114.98	49.42	01.64	46.89	2.79
IV	32.57	63.44	20.35	-11.49	19.84
V	-72.16	28.01	-31.93	64.06	24.25
VI	-48.6	43.31	32.44	-2.79	117.50
All	76.80	61.15	55.96	30.76	28.36

SOURCE: Census of India, (1991), General Population Table, Bihar, Series - 5
Census of India, (2001), Provisional Population Table, Rural Urban Distribution, Jharkhand, Series-21

Level of Urbanisation

The level of urbanisation is the proportion of urban population to the total population of the region. It can be expressed in two ways: (a) percent of urban population to total population (b) the urban rural ratio. It is a variable that is independent of the size of urban population, the number of urban settlements and their average size. Degree or level of urbanisation is one of the most important characteristics of urbanisation. However, the degree of urbanisation varies from region to region.

In Jharkhand, the district level analysis showed very high variations in the level of urbanisation. Some districts had higher level of urbanisation since 1951. For example, in 1971, the level of urbanisation was 43.51 per cent in Dhanbad and 43.03 per cent in East Singhbhum. It was much higher than the overall urbanisation level (15.78 %) of state. But some districts of Jharkhand had negligible level of urbanisation, for instance Godda and Gumla had only 1.62 and 3.19 per cent of urbanisation respectively in 1971. The other least urbanized districts of Jharkhand were Dumka (3.73 %), Palamu (4.69 %), Sahibganj (7.15 %), Lohardaga (8.47 %), Giridih (13.45 %), and Hazaribagh (12.46 %). Thus out of the 13 districts, only three had a higher level of urbanisation. The higher degree of urbanisation in these districts had been due to the economic activities based on their mineral and industrial resources, and also due to the development of transportation and communication linkages in these districts.

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In 1981, despite the high growth in the level of urbanisation in Jharkhand (from 15.78 per cent to 20.28%) once again most of the districts had shown minor increases in the growth of urban per cent. Table 5 shows that the level of urbanisation in Godda had increased marginally from 1.62 per cent in 1971 to 1.97 per cent in 1981, in Dumka from 3.73 per cent to 5.67 per cent, and in Gumla from 3.19 per cent to 3.96 per cent. The situation of Sahibganj, Palamu, and Lohardaga was not very different. On the other hand, districts like Dhanbad, Ranchi and Eastern Singhbhum, which had already higher level of urbanisation, registered higher growth in the level of urbanisation (Table 5). The highest increase was seen in Ranchi district which was almost 10 per cent from 21.03 per cent to 31.62 per cent. Basically in the late 60s several industries and research institutes like HEC, MECON, and R&D etc. were established in Ranchi, which had attracted a large number of labour force from the surrounding regions.

TABLE 5 JHARKHAND: LEVEL OF URBANISATION

Districts	1951	1961	1971	1981	1991	2001
Godda	0.00	1.51	1.62	1.97	2.75	3.53
Sahibganj	6.16	6.56	7.15	7.70	7.30	8.23
Dumka	2.12	3.30	3.73	5.67	6.12	6.52
Deoghar	10.09	11.32	11.64	12.58	13.63	13.76
Dhanbad	16.11	27.27	43.51	50.80	51.30	53.75
Giridih	9.36	12.34	13.45	14.20	15.45	14.90
Hazaribagh	5.46	6.08	12.46	15.11	18.06	18.44
Palamu	4.37	5.50	4.69	5.64	5.01	5.35
Lohardaga	4.37	5.50	8.47	10.15	11.00	12.68
Gumla	0.00	2.04	3.19	3.96	4.45	5.48
Ranchi	9.89	12.57	21.03	31.62	33.78	35.09
Purbi Singhbhum	37.10	40.15	43.03	53.97	52.92	54.97
Paschimi Singhbhum	7.84	8.57	10.29	11.69	11.45	16.86
Jharkhand	8.14	11.52	15.78	20.28	21.35	22.25

SOURCE: Census of India, (1991), General Population Table, Bihar, Series - 5
Census of India, (2001), Provisional Population Table, Rural Urban Distribution, Jharkhand, Series-21

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In 1991, first time Purbi Singhbhum (52.92 %) stood ahead of Dhanbad district (51.30 %) in the level of urbanisation. A perusal at the figures, given in Table 5 shows that almost all the districts of state had low increase in the level of urbanisation, even in the case of Ranchi district whose level had increased only from 31.62 per cent (1981) to 33.78 per cent (1991). On the contrary, the level of urbanisation in Palamu district had reduced from 5.64 per cent in 1981 to 5.01 per cent in 1991. If we analyse the decennial growth rate of Palamu district (Table 5), we find that during 1981-1991, despite an increase in the total population to 21.02 per cent, the level of urbanisation had reduced. This was because of the fact that the district's total population had recorded a higher growth (27.91 %), which was higher than the urban growth in the same decade.

According to Table 5, it is clear that till 2001, five districts of Jharkhand were not able to achieve even the 10 per cent level of urbanisation or half of the state's urbanisation level. These districts were Godda (3.53%), Sahibganj (8.23%), Dumka (6.52%), Palamu (5.35%), and Gumla (5.48%). This is due to the backwardness of the region and poor development of secondary and tertiary sector activities. Thus most of the people live in rural areas. Table 5 also reveals that there had been a slow down in the level of urbanisation particularly after 1981. High level of urbanisation has been experienced in only three districts, viz. Dhanbad, Purbi Singhbhum and Ranchi. These districts also have the maximum share of urban population of Jharkhand. On the other hand, most of the districts of the Santhal Pargana region and in the western parts of Jharkhand had a very low level of urbanisation.

Spatial Pattern of Urbanisation

The concentration of population in cities and towns depends upon several factors. For instance, the ecological setting, initial population size, economic structure, functional characteristics and relationships with the hinterland etc., are the major factors that affect the growth of population in urban centres. Industrialisation, mechanisation, employment opportunities, accessibility created by new methods of transport and development in trade and commerce are other factors that cause an overall urban growth of a region. A city/town can be taken as an indicator of economic development and social change. So the spatial pattern of the urbanisation reflects the level of regional development across geographical space.

In order to bring out the distributional pattern of cities/towns as well as urbanisation pattern, Jharkhand can be broadly divided into five areas/sub regions on the basis of their level of urbanisation and they are:

- (i) Very high concentration (above 35 per cent level of urbanisation)
- (ii) High concentration (25-35%)

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(iii) Medium concentration (15-25%)

(iv) Low concentration (5-15%)

(v) Very low concentration (below 5%)

Very High Concentration

Since 1971, Dhanbad and Purbi Singhbhum had higher concentrations of urban population. In 2001, Ranchi district also achieved a high level of urbanisation. According to 1971 Census this region had 14 towns out of 61 towns of Jharkhand, where, about half of Jharkhand's urban population resided (49.77 %). This area in particular, coincides with several coal mining centres of the Damodar Basin, and industrial establishments of East Subarnarekha Basin. According to Pandeya, P. (1971), "there is a city/town for every 26 square miles in the Damodar Basin, and almost all towns of this sub-region are related to mining and coal based industries", like Chaitudih, Malkera, Chandil, Bhojdih, and Nirsu. Bokaro steel plant is also located in this region. Sindri is another important industrial centre here. The Damodar Valley Project has also led to the establishment of some towns like Maithon, Panchet and others. Moreover, two class I cities are located here, i.e. Dhanbad, which became a million plus city in 2001 and the other one is the Bokaro Steel City.

East Singhbhum also had experienced a higher level of urbanisation and Jamshedpur is the biggest and most representative city of the district. TISCO was established at Jamshedpur in 1907, which further stimulated other ancillary industries to grow like TELCO, Tin Plate Industries and several subsidiary industries in Jugsalai and in other adjacent areas. Musabani (copper mining) and Ghatsila (copper mining) have also developed as important towns in Purbi Singhbhum. In 1991 and 2001, Ranchi became a part of this sub region of high concentration, having seven towns. Out of these towns, Ranchi is a class I city since 1961, which is situated in the central part of state and this is well connected by roads and railways with other parts of Jharkhand as well as India. This has resulted in Ranchi's development as an administrative and industrial centre. As of today, it is one of the most important business centres of Eastern India. Near to Ranchi, Lac Research Institute is located in Namkum and along with it Khunti has also developed as a commercial centre. The town of Muri has been developed on a railway junction and is also renowned for its aluminium plant. In 2001, Ranchi District had seven towns and possessed about 17 per cent of state's urban population.

High Concentration

Upto 1981, Ranchi district was located in the sub-region of high urban concentration. This district is endowed with many industrial and mining centres.

TABLE 4. JHARKHAND: SPATIAL PATTERN OF URBAN POPULATION CONCENTRATION

Urban Population (%)	1971	1981	1991	2001
Below 5	Goddha, Dumka, Palamu Lohardaga, Gumla	Goddha, Dumka, Gumla	Goddha, Palamu Dumka, Gumla	Goddha, Gumla
5-15	Sahibganj, Deoghar, Giridih, Hazaribagh, Ranchi, Paschim Singhbhum	Sahibganj, Deoghar, Giridih, Lohardaga, Palamu, Paschim Singhbhum, Ranchi, Paschim Singhbhum	Sahibganj, Dumka, Deoghar, Lohardaga, Palamu, Paschim Singhbhum	Sahibganj, Dumka, Deoghar, Lohardaga, Palamu, Giridih
15-25	Dhanbad	Ranchi	Giridih, Hazaribagh	Paschim Singhbhum Giridih Hazaribagh
25-35		Dhanbad	Ranchi	
35 and above	Purbi Singhbhum	Purbi Singhbhum	Dhanbad, Purbi Singhbhum	Ranchi, Dhanbad, Purbi Singhbhum

TRENDS IN THE SPATIAL AND TEMPORAL PATTERN 33

For example, within Ranchi city, Heavy Engineering Corporation (H.E.C.) was established in 1959. The other industries of the district are: wire-rope and insulator factory in Tatisilwai, Ball Bearing factory in Ratu, Lac Industry in Namkum and others. All these industries led to Ranchi as an important urban centre of the region. Apart from Ranchi town, Khelari town is important for its cement industry, Itaki for horticulture, Khunti for commercial functions and Muri for an aluminium smelting plant. However Ranchi moved up to very high concentration zone in 1991.

Medium Urban Concentration

Medium urban concentration in Jharkhand is found in Hazaribagh, Paschim Singhbhum and Giridih districts. Most of the urban centres of these districts are based on mining activities and they have smaller population and areal size. The urban centres of these districts are spread over the entire sub-region. In Hazaribagh district, Kodarma and Jhumritilaia, are important mica production centres. Ramgarh and Hazaribagh are important as coal washery centres. In Giridih district, Giridih is important for coal and mica trade, Chandrapura is important for coal mines and also for a thermal power plant. Dugda town was also established for coal mining purpose. In Paschim Singhbhum, Chaibasa town is an administrative as well as industrial centre. Chaibasa also has a cement factory, a lac production unit and a wood production unit. Chakradharpur had developed as an important centre for the South-Eastern Railways. Noamundi is famous for iron-ore mining.

Low Concentration

Low level of urbanisation in Jharkhand is found in Sahibganj, Dumka, Deoghar, Lohardaga, Palamu and Giridih districts. Basically these districts are characterized by poor subsistence agriculture, absence of proper transport network and industrial development. Here only few small urban settlements have grown up. In case of Sahibganj, Dumka and Deoghar districts which are also the parts of the Santhal Parganas region, agriculture dominates other activities.

In the absence of industries, only a few administrative and service centres have been developed here that cater to the surrounding regions. Palamu and Lohardaga districts are also economically backward regions of Jharkhand. Their rugged terrain and forest cover also make agricultural activities difficult. In the absence of economic development, Lohardaga district thus has only one class III town.

Very Low Concentration

There are two districts (Gumla and Godda) in Jharkhand that have less than five per cent level of urbanisation. The process of urbanisation in both

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the districts has been very slow. Geographically, Gumla district comprises of steep slopes and scarps and this sub-region receives the highest amount of rainfall in Jharkhand resulting in a luxuriant forest cover of bamboo and sal trees. Most parts of this district are also not connected by transport facilities. There is also dearth of industrial units in the district. All these have restricted the evolution of a large urban centre. In 2001, only two towns existed (Simdega and Gumla) in this district. On the other hand, Godda is an agriculture dominated and economically backward region. Godda town is the only one class III town found in the sub-region. So in the absence of urban centres, Godda's urbanisation level is below four per cent even at present.

CONCLUSION

The above analysis and tables show that urbanisation in Jharkhand is a post-independence phenomenon. During ancient and medieval period few settlements were present in Jharkhand. It was the Britishers who developed few administrative centres, cantonments, hill towns for their own requirements and hence modern urbanisation started in Jharkhand.

After Independence, in response to the administrative changes as well as due to mining and industrial development, many regions of Jharkhand achieved unprecedented urban growth particularly during 1951-1981. The sudden spurt in urbanisation surprisingly happened in the industrialised districts of Jharkhand. Studies also revealed that there is a great disparity in distribution of urban settlements. There are four districts which have higher number of cities/towns; they are Dhanbad, Hazaribagh, Purbi and Paschimi Singhbhum. Again growth rate of different class towns show that the towns/cities having population more than one lakh are growing much faster than smaller towns. In case of small and medium towns despite the growth in their number, their proportion to total urban population is reducing in each census. Those districts, which are geographically favourable, commercially and industrially developed such as Purbi Singhbhum, Dhanbad and Ranchi, have higher urban population concentrations. On the other hand the districts such as, Godda, Gumla, Lohardaga, Sahibganj and Dumka have very low concentration of urban population.

It can be said that the deceleration in the process of industrialisation in 80s has let the urbanisation process slow down in Jharkhand. Apart from that in most of the districts, mining activities were also either closed or reduced. Therefore, in the absence of employment opportunities in other sectors, the magnitude of rural to urban migration had reduced in the last few decades, which resulted in slower pace of urbanisation. However, the pace of urbanisation in Jharkhand is likely to increase in coming decades. The liberalisation and privatization policy of post 90s has given urban centres an

opportunity to diversify their function and furthermore, Jharkhand has become a separate state in the year of 2000, therefore, high growth in urban population is likely in the near future.

REFERENCES

- Bhasin, R. (2001): "Urban Poverty and Urbanisation", Deep and Deep Publication, Rajouri Garden, New Delhi, pp.136-137.
- Bhatt, S.C. (2002): 'District Gazetteer of Jharkhand', Gyan Publications, New Delhi.
- Clark, P.J. and Evans, F.C. (1954): "Distance to Nearest Neighbour as a Measure of Spatial Relationships in Populations", *Ecology*, 33, pp. 445-53.
- Census of India (1991): General Population Table, Series-5, Paper-II, Bihar.
- Census of India (2001): Provisional Population Table: Rural Urban Distribution, Paper II, Jharkhand.
- Guglar (ed.) (1988): 'The Urbanisation in Third World', Oxford University Press, New York.
- Kailash (1988): "Growing Industrialization and the Structural Change in Urbanisation in Jharkhand", *Social Science Probing*s, March-Dec., pp. 56-61.
- Mahmood, A. (1998): 'Statistical Methods in Geographical Studies', Rajesh Publications, New Delhi.
- Pandeya, P. (1970): 'Impact of Industrialisation on Urban Growth, A Case Study of Chotanagpur', Central Book Depot, Allahabad.
- Prasad, A. (1973): 'Chotanagpur: Geography of Rural Settlements', Ranchi University, Ranchi.
- Rakesh Mohan and Pant, C. (1982): "Morphology of Urbanisation in India: Some Results from 1981 Census", *Economic and Political Weekly*, September 18 and 25.
- Singh, J. & Singh, D.P. (1982): "Recent Trends of Urbanisation in Bihar", *Southern Economist*, July, pp. 35-37.
- Sinha, V.N.P. (1976): 'Chotanagpur Plateau: A Study in Settlement Geography', K.B. Publications, New Delhi.
- Tiwari, R.K. (1997): "Evolution of Ranchi Town", *Geographical Review of India*, Vol. 59, No. 4, December, pp. 346-54