

## Spatio-Temporal Growth and Pattern of Urbanization in Purulia District, West Bengal

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### Abstract

*The present study analyses the level of urbanization of Purulia district in West Bengal by some indices like – trend and pattern of rural and urban population during the year 1951-2011, percentage of decadal rural and urban growth rate, level of urbanization, decadal growth rate of urban population, urban density. The level of urbanization is very low in this district. From 2001 to 2011 census period decadal growth of urban population increased but maximum no. of C.D. Block level urban density and percentage of urban population are zero and decadal growth rate is negative. It has been concluded that lack of amenities and effective decentralized development are the root cause of lower growth rate of urbanization.*

**Keywords:** Urbanization, Decadal growth rate, Negative growth, Level of urbanization, Urban density.

### Introduction

The growth of population in urban areas is known as 'urbanization'. According to G. Trewartha (1952) the level of urbanization is defined as the proportion of urban population to total population residing in urban places. The shift of population from village into city is called urbanization. Anderson told that urbanization involves not only movement of population to cities but also change in the migrants attitudes, beliefs, values and behaviour patterns. Urbanization is the process where a large no. of population lives in cities. It also related with industrialization and modernization. Populations, economic growth, the number of urban towns and cities have also increased.

According to Census of India, urban area have been defined as,

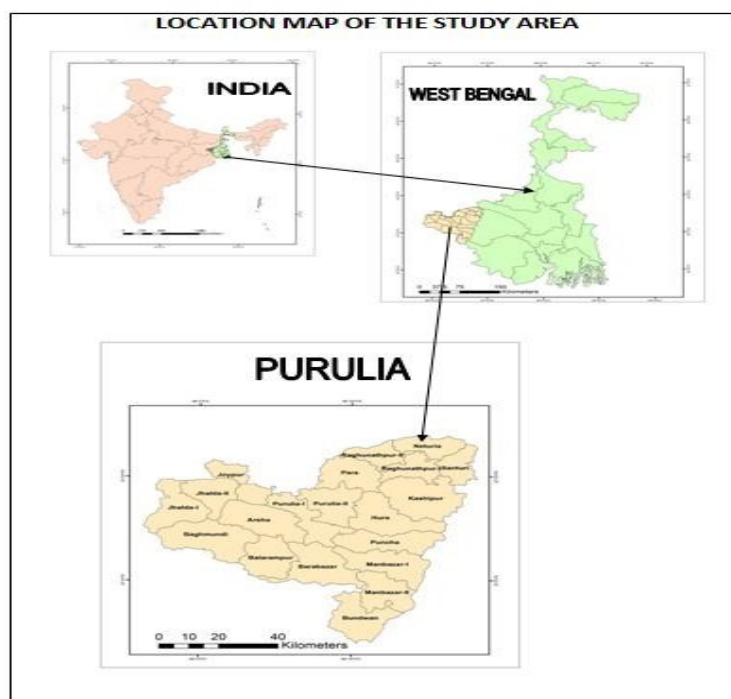
- All places with a municipality, corporation, cantonment, board or notified town area committee etc.
- All other places with satisfied the following criteria;
- A minimum population of 5000.

- At least 75% of the adult male main working population engaged in non-agricultural pursuits.
- A density of population of at least 400 persons/ sq. km.

After Independence urbanization took a rapid pace. Percentage of urban population changed from 17.3 in 1951 to 31.16 in 2011 at national level. The percentage of urban population of Purulia remained very low, from 6.71 in 1951 to 12.75 in the year 2011. Purulia is a sparsely populated area compared to the other districts of West Bengal. Decadal growth rate of urban population in Purulia is very low 17.85% in 1951-61 but it increase to 46.15% in 2001-2011. In present study of urbanization, insight into the current situation and future plans has been provided. This paper has made an attempt to explore the temporal as well as spatial change of urbanization of Purulia district in between the year 1991 to 2011.

### Study Area

Purulia District got its present shape in the year 1956. It is the western most district of West Bengal. Geographically it extends from 23°20'North to 23°33'North latitude and from 86°22' East to 86°37' East longitude (Map no: 1). Jharkhand state surrounded this district of West Bengal along with the districts of Burdwan, Bankura, and Paschim Medinipur. There are twenty police stations, twenty blocks. The district headquarter is located in Purulia town.



## Objective

The main objectives of the study are:-

1. To assess the nature of urban development in study area.
2. To find out the trend and pattern of urbanization in Purulia District.
3. To comment on the slower rate of urbanization.

## Materials and Method

This paper is based on secondary data. Data have been collected from census publications of 1991, 2001 and 2011, district statistical handbooks, published journals from other organizations, internet etc. Mathematical calculation has been made for level of urbanization, urban density, decadal growth rate of urban population. Outputs have been presented as cartograms, maps to get the overall picture of urbanization in the district.

## Results and Discussion

The percentages of urban population of Purulia lower than the state level. The percentage of urban population from 27.78 in 1991 to 31.89 in 2011 in West Bengal. But, the percentage of urban population growth in Purulia district is from 9.44 in 1991 to 12.74 in 2011. So, the level of urbanization has significant difference between district and state level (Table no. : 1).

Table no. 1

Year	West Bengal			Purulia		
	Total Population	Urban Population	% of Urban Population	Total Population	Urban Population	% of Urban Population
1991	68077965	18707601	27.78	2224577	210006	9.44
2001	80176197	22427251	27.97	2536516	255426	10.07
2011	91347736	29134060	31.89	2930115	373314	12.74

Source: District Census Handbook, Purulia, 2011(computed and calculated by Authors)

## Trend and Pattern of Urbanization

Total population of the district has increased from 1169097 in 1951 to 2930115 in 2011 census period(Fig 1). The percentage of urban population increased from 6.71 in 1951 to 12.74 in 2011 census. But the percentage of rural population declined from 93.29 to 87.26 during the period 1951- 2011(Fig 2). The rate of urbanization is very slow till the end of the twentieth century and after it increased to a significant proportion (Table no. : 2).

Table no. 2

Census Year	Total Population	Rural Population	Urban Population	% of Rural Population to Total Population	% of Urban Population to Total Population
1951	1169097	1090627	78470	93.29	6.71
1961	1360016	1267538	92478	93.20	6.80
1971	1602875	1470508	132367	91.74	8.26
1981	1853801	1687039	166762	91.00	9.00
1991	2224577	2014571	210006	90.56	9.44
2001	2536516	2281090	255426	89.93	10.07
2011	2930115	2556801	373314	87.26	12.74

Rural and Urban Population of Purulia District (1951-2011)

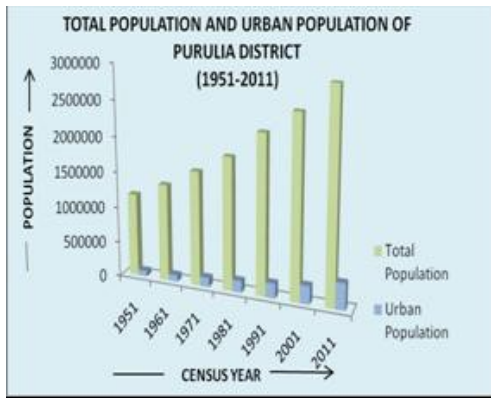


Fig 1 -Total population and urban population of purulia district

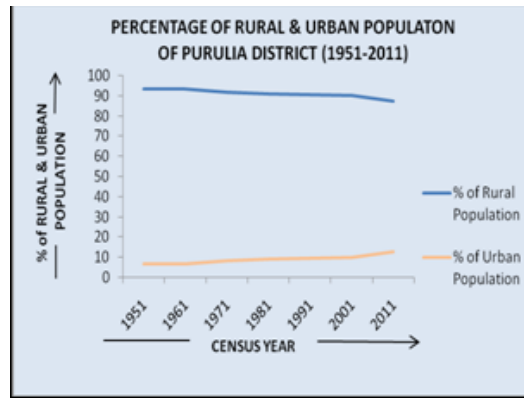


Fig 2: Percentage change of rural and urban population in Purulia

Source: District Census Handbook, Purulia, 2011 (computed and calculated by Authors)

Table no. 3 shows the change of decadal urban growth and urbanization over the census years. The percentage of urban population increased during the decade from 17.85 in 1951-1961 to 43.13 in 1961-1971. In between 1971 to 2001, the decadal urban population growth was fluctuated tremendously (Fig 3). But, the percentage increase of urban growth is 21.63 to 46.15 during 1991- 2001 and 2001-2011 respectively.

Table no. 3

Percentage of Decadal Rural and Urban Growth Rate of the C.D.Blocks of Purulia District (1951-2011)

<i>Census Year</i>	<i>Decadal Rural Growth Rate(%)</i>	<i>Decadal Urban Growth Rate(%)</i>
1951-1961	16.22	17.85
1961-1971	16.01	43.13
1971-1981	14.72	25.98
1981-1991	19.41	25.93
1991-2001	13.23	21.63
2001-2011	12.09	46.15

Source:District Census Handbook, Purulia,2011(computed and calculated by Authors)

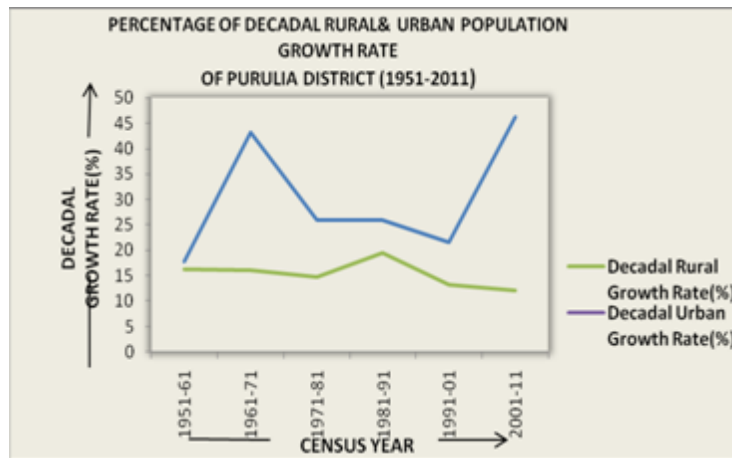


Fig 3 Percentage change of decadal rural and urban population growth rate

### Block wise Level of Urbanization in Purulia District

Percentage of urban population in the C.D. Blocks of Neturia, Para have increased during 1991 and 2011. But, at the same time some blocks like Raghunathpur-I & II, Balarampur, Barabazar have decreased urban population percentage. Urbanization in five C.D. Blocks are zero namely – Hura, Pancha, Arsha, Bagmundi, Manbazar-II (Fig 4). According 2011 census report Joipur, Purulia-I, Purulia-II, Santuri, Jhalda-I, Jhalda-II, Manbazar-I and Bundwan are the new comers in urbanised block list of the district. Number of census town has also increased in the district. As per census 2001 there were three Municipalities and eight Census Towns. But in 2011 there are three Municipalities and twenty five Census Towns in total.

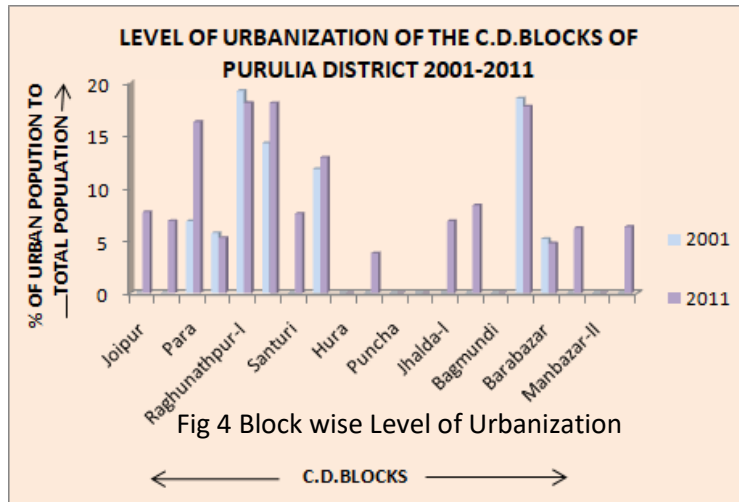


Fig 4 Block wise Level of Urbanization

**Decadal Growth Rate of Urban Population**

Total decadal growth rate of urban population remained a fluctuating component for the district. Thirteen blocks doesn't have any urban population during 2001-2011 census years. Para block has highest decadal urban growth rate 173.60% in 2001-2011(Fig 5). The C.D. Blocks of Raghunathpur-I, Neturia, Balarampur have declining decadal growth rate during 1991 to 2001 and 2001 to 2011.

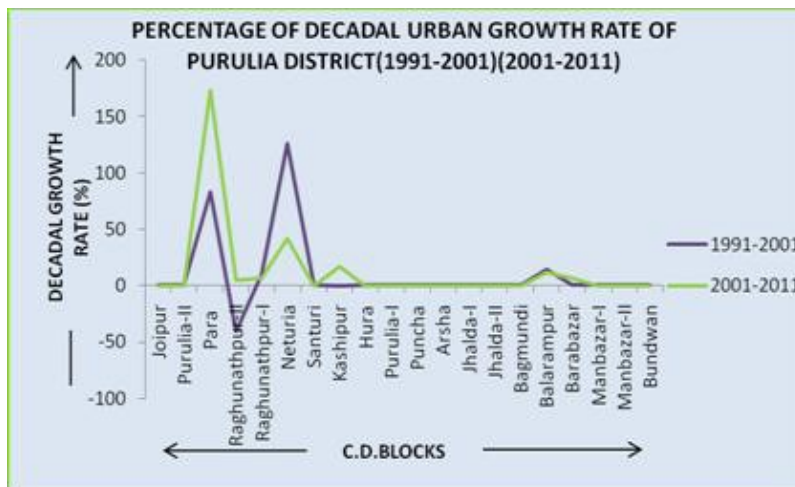
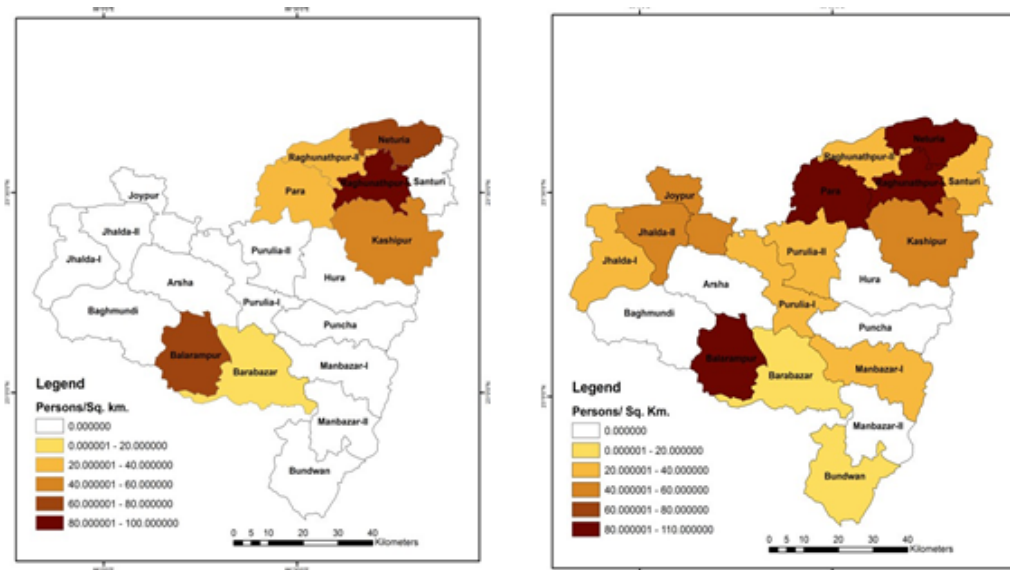


Fig 5 Block wise percentage of decadal growth rate

**Urban Density of Purulia District**

The density of total population of Purulia has increased continuously after independent. The density of population of the district has increased from 218/km<sup>2</sup> in 1961 to 468/ km<sup>2</sup> in 2011. Map no.: 2 & 3 indicates that the urban density is very low among the C.D. Blocks in Purulia. Out of twenty blocks, five blocks have no urban

areas even in 2011 census. Raghunathpur-I, Para have highest urban density. Others blocks have medium urban density.



Map No:2 & 3 Urban density maps of 2001 and 2011 respectively from left to right

## Findings

From the above discussion the following spatial and temporal pattern of urbanization can be noted as findings;

### Areas of Zero urban density

From 2001 to 2011 the numbers of C.D.Blocks with zero urban density have decreased from 13 to 5.

### Areas of very low urban density (Less than 20 Persons/ km<sup>2</sup>)

As per 2001 census only Barabazar C.D. Block has very low population density. In 2011, there are two C.D. Blocks Barabazar and Bundwan in this category.

### Areas of low urban density (20-40 Persons/ km<sup>2</sup>)

As per 2001 census C.D. Block of Para and Raghunathpur-II have low urban density. In 2011 five more C.D. Blocks Purulia-II, Santuri, Purulia-I, Jhalda-I, Manbazar-I have been enlisted in the same category.

### Areas of moderate urban density (40-60 Persons/ km<sup>2</sup>)

In 2001 census only Kashipur C.D. Block has moderate urban density but in 2011, Joipur, Jhalda-II C.D. Blocks have been included in this category.

### Areas of high urban density (60-80 Persons/km<sup>2</sup>)

Neturia and Balarampur C.D. Blocks have high urban density in 2001 while in 2011 there is no C.D. Blocks in this category.

### **Areas of very high urban density (More than 80 Persons/ km<sup>2</sup>)**

Only Raghunathpur-II C.D. Block has high urban density in 2001 compared to the new inclusion in of Neturia, Balarampur, Para and Raghunathpur-I in 2011.

### **Zone of Concentration**

South Western and North Eastern parts of this districts is more urbanized as compared to extreme parts of Eastern and Western, urbanization in the district. Urbanization due to development of minning, industry and agro-basesd industry.

### **Conclusion**

Purulia experienced a sluggish growth rate of urbanization. The pattern of urbanization has been explained by three factors – percentage of urban population, decadal growth rate, urban density during 1991-2011 census. The urbanization in most of the C.D. Blocks of Purulia urban areas are zero. In 2011 census, the level of urbanization is high in Neturia, Para, Raghunathpur-I etc. Comparative growth of infrastructure and amenities caused speedy development in urbanization. But in 2011 census percentage of decadal urban growth rate has decreased in Neturia and Raghunathpur-I. Some economic and social factors also depend for low level of urbanization and decadal urban growth rate in Purulia district.

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