

**TREND OF URBANISATION IN BERHAMPORE MUNICIPALITY: A
GEOGRAPHICAL ANALYSIS**

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ABSTRACT

Urbanization has not been uniform all over the world .Different ages have witnessed localised growth. The dawn of modern age saw the spread of urbanization to almost all the parts of the world. With the spread of globalization, all the places get connected with each other .Developed and developing places are moving towards more urbanized condition. Murshidabad is one of the backward districts of West Bengal ,where the urbanization is spreading now in all over the district .But the head quarter of this district i.e Berhampore has been bearing it urbanized from the historical period. The trend of urbanization in Berhampore town and related problems are most important phenomena in the entire urbanization of murshidabad district .In recent decades, the urban geographic investigations are connected primarily with the areal variations within, between and beyond cities.

KEY WORDS: Urbanization, Backward district, Globalization, Geographic investigation, Urban landscape.

INTRODUCTION

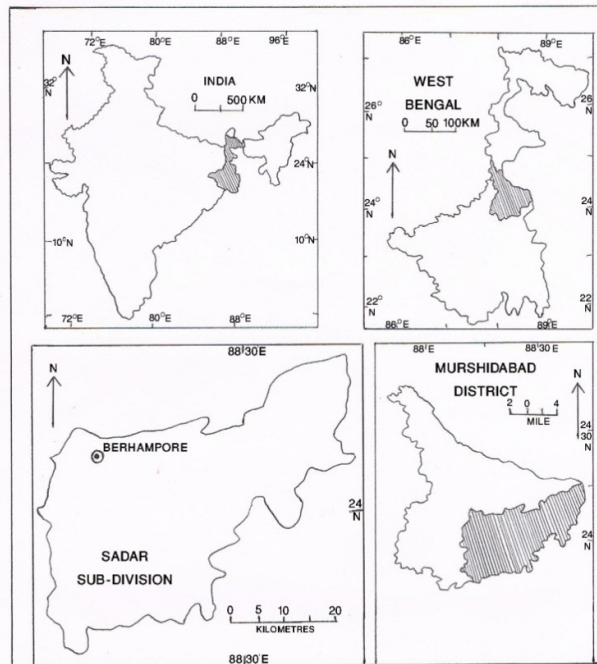
Urban settlement is a part of the settlement fabric. The phenomenon of urbanization therefore occurs on an area and involves links and nodes to create a total system. Urbanization is not a simple phenomenon, no it is uniform spatially. In Murshidabad district, the urbanization is not flourshied uniformly. Most of the areas are rural but some special urbanized areas are also present. Berhampore is one of the most important urbanised areas of Murshidabad district. The overwhelming trend of urbanization in Berhampore is essential to undertake a review for varied reasons.

STUDY AREA

Berhampore is the head quarter of the Murshidabad district. It has been witnessing the urban character from the earliest evidence of history. The town is situated at the right side of river Bhagirathi. This is perhaps the only municipality in the state of W.B, which is the member of IHCN (Indian Heritage Cities Network).The position of Berheampor town is 24⁰6'N latitude & 88⁰15'E longitude. In the year 1876, Berhampore municipality was established. The total area of the municipality is 31.42 sq km. and total no. of wards are 25. Berhampore belongs to tropical wet and dry climate region. The annual mean temperature is approximately 27⁰C. Winters tends to last for only about two and a half months, with seasonal lows dipping to 9⁰C tO 11⁰C during December and January. Rain brought by the Bay of Bengal branch of south-west monsoon comes to the city from June to September.

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LOCATION MAP



OBJECTIVES

- To find out main causes of urbanization and urban expansion.
- To know about urban population of the study area.
- To locate the area of influence of the study area.
- To project future urban trend and urban population pattern.
- To find out the urban problems and suggestions.

DATABASE AND METHODOLOGY

To show the urbanization of Berhampore Municipality, the data has been collected from various sources. Secondary data has been collected from census of India, District statistical handbook and Berhampore Municipality. The first step was to determine population as a function of time and therefore various census records have been compiled. The second step was to determine the expansion of urban area of the municipality as a function of time by the breaking point technique. Statistical & cartographic technique have been used for the study of temporal urban population growth.

1. **Breaking point analysis** can be used to define the sphere of influence between competing centres by using the formula.

$$\text{Breaking point from (B) small town is} - \frac{\text{Distance between AB}}{1 + \sqrt{\text{population A} / \text{Population B}}}$$

2. To find a relationship between the population size of settlement in a region **Rank size rule** is used with the help of following formula-

$$P_R \times R = P_1 \quad \text{Where } P_1 \text{ is population of the largest city, } R \text{ is rank of any city \& } P_R \text{ is population of the city with rank } R.$$

3. A more accurate method of showing the relationship between two variables is **Regression analysis.**

The equation is $Y_c = a + bx$.

MAIN CAUSES OF URBANIZATION IN BERHAMPORE MUNICIPALITY

Urbanization has a degree of predictability over time. In the beginning, there were only a few urban areas in Murshidabad district. Urbanization in Berhampore Municipality is mainly cherished by self induced processes like –

Economic development

It is a true that urbanization development and the economic are intimately associated. The urban area is a heart of economic activities like major commercial areas, trade centres, banking facilities etc. The main economic activities are silk wearing, metal utensil manufacturing, khadi industry. Trading is mainly related with jute, oil seeds and vegetables.

Administrative Facility

Berhampore is the headquater of administrative divisions of Murshidabad. So it is an important urban area. Collector office, D.M office, main Judicial unit, Police headquarter and other important administrative offices are found here.

Educational Facility

Due to educational opportunities, it has become an important educational centre. Most of the inhabitants of the urban areas around Berhampore Municipality come here for the educational purposes .The educational set up of Berhampore Municipality is as follows:

SL NO	EDUCATION CENTRES	NUMBERS
1.	Primary school	73
2.	High School	07
3.	Higher secondary school	11
4.	General College	03
6.	Professional & technical College	06
7.	Special & non Formal education	91

Sources – 1) District Mass education Extension Officer . 2) District School Education Office 3) I.C.D.S. 4) Education cell under B.D.O office .5)Berhampore Municipality

Health Facilities

In Berhampore Municipality, health facility has been improved mainly through the establishment of hospitals , which are under Health and Family Welfare department , Govt. of West Bengal and 20 Private Nursing Homes .Patients come here from different backward areas of Murshidabad .So health facilities is one of the main causes of urbanization of Berhampore Municipality .

Transport Facilities

To flourish one urban area transport plays an important role. Berhampore is the main linkage city between Kolkata and Siliguri. So, by the rail and road the transportation gets developed. Lalgola to Sealdah railway and Howrah to Azimganj rail rout are also important .Kolkata and Siliguri is also connected by NH-34. streching the heart of Berhampore Municipality. Bhagirathi is flowing in the western side of Berhampore. So ferry and steamer services are also available here. Regular boat service is also available from Berhampore to other pocket of Murshidabad. Like Azimganj, Jiaganj etc. The total road length of the Municipality is 650.10km (2001).

Tourism related urbanization

The district has a historical background. A lot of heritage buildings are present here, showing the important of colonial and Nawabi architecture like Hazarduari(Nawab

Palace),Nasipur Rajbari,Khoshbag,Kathgola Bagan etc. Hotels, resorts, restaurants are helping in the urban growth of the Municipality.

Other facilities promoting urbanization

Based on Municipal records (2001), about 29175 houses are electrified. Different kinds of amusement facilities are also present here, like Cinema-Hall, Community Hall, Auditorium, Play Ground etc. All of the items attracting people from different parts of the other portion of Berhampore Municipality based on which counter urbanization is taken place.

URBAN POPULATION SCENARIO OF BERHAMPORE MUNICIPALITY

As a whole, the population pattern, growth and status reflects a wondering population scenario of the municipality. Differing from other municipalities of Murshidabad district (Jiaganj-azimganj, jangipur, Beldanga, kandi etc), Berhampore Municipality has a huge number of urban population. Studying the census, report we can see the population growth from one census year to another. The trend of urban population growth is increasing rapidly in every year.(Table – 1)

TABLE1: POPULATION GROWTH OF BERHAMPORE MUNICIPALITY

YEAR	X ₀	population (y ₀)	X ²	Y ²	xy	Y _c
1951	-5	55613	25	3092805769	-278065	91953.45
1961	-3	62317	9	3883408489	-186951	93906.27
1971	-1	92889	1	8628366321	-92889	95859.09
1981	1	94907	1	9007338649	94907	97811.91
1991	3	115144	9	13258140736	345432	99764.73
2001	5	160143	25	25645780449	800715	101717.6
Total	0	581013	70	63515840413	683149	

Source: Computed by Researcher

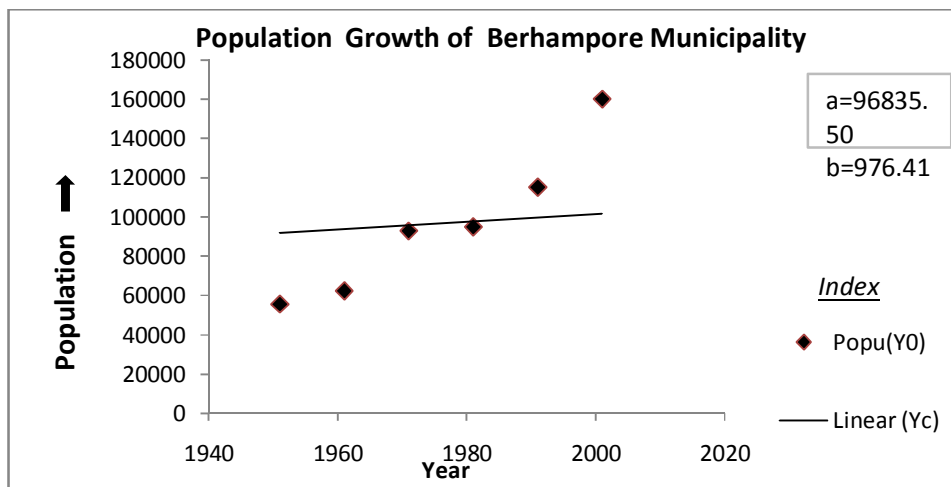


Fig: 1

According to census 2001, the total population of the Berhampore Municipality was 160143 .The number of male population was 81737 and the number of female population

was 78406. In 1991 census, the population was 115144 and the total male population was 58833 and the female population was 56311(Table-2).The literacy rate of the urban population in 2001 census was 79%.

TABLE: 2 TEMPORAL GROWTH OF MALE-FEMALE POPULATION

URBAN POPULATION SCENARIO OF BERHAMPORE MUNICIPALITY			
Year	Total population	Male	Female
1991	115144	58833	56311
2001	160143	81737	78406

Source: District statistical hand book 2008.

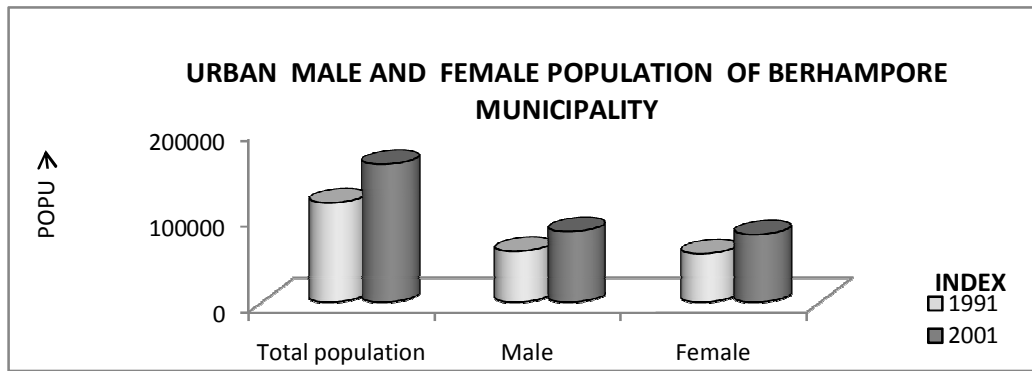


Fig: 2

In addition, Rural-urban migration is much more here. So the population is also increasing day by day. Many migrants are coming from the neighbour country Bangladesh. This also raises the population in an upward direction.

RANK SIZE RULE AND POPULATION DISTRIBUTION

In Murshidabad, urban settlements mainly municipalities are fewer than rural settlements. Rank size rule shows the relationship of the municipalities with their population size. By plotting the variables in logarithmic scale, a linear relationship is found. Berhampore Municipality tends to be a primate city of Murshidabad. From the analysis(table3).

TABLE: 3 RANK SIZE RULE (2001) SHOWING PRIMARY OF BERHAMPORE MUNICIPALITY

Municipalities	Rank (x)	Population (Y)	log x	log Y	Logx X logy	Logx ²	logy ²	log Yc	anti log Yc
Berhampore	1	160143	0	5.2	0	0	27.04	5.32	208929.61
Jangipur	2	74458	0.3	4.87	1.46	0.09	23.71	4.99	97723.72
Dhuliyani	3	72850	0.47	4.86	2.28	0.22	23.61	4.77	58884.36
Kandi	4	50349	0.6	4.7	2.82	0.36	22.09	4.66	45708.81
Jaganj-Azimganj	5	47212	0.69	4.67	3.22	0.47	21.8	4.56	36307.8
Murshidabad	6	36947	0.77	4.56	3.51	0.59	20.79	4.47	29512.09
Beldanga	7	25361	0.84	4.4	3.69	0.7	19.36	4.39	24547.08

Source – District Statistical Handbook 2008

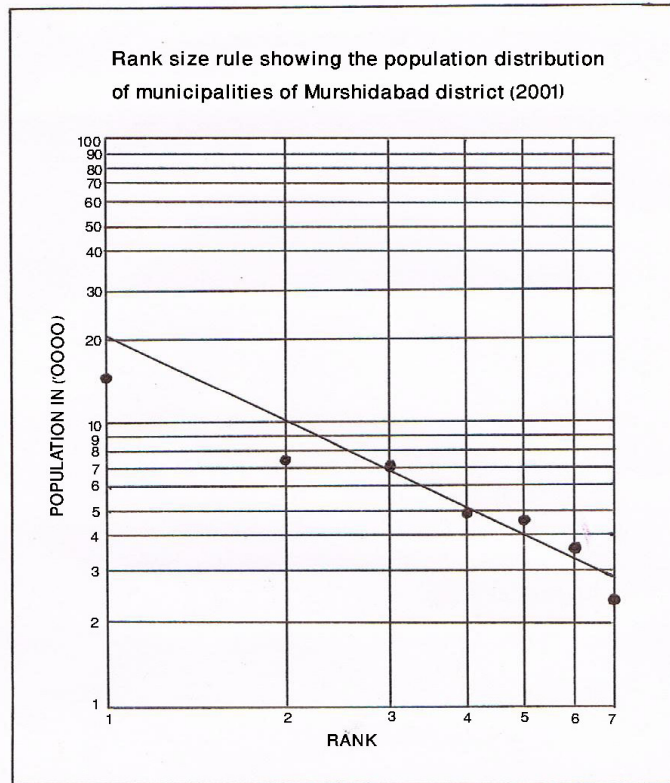


Fig: 3

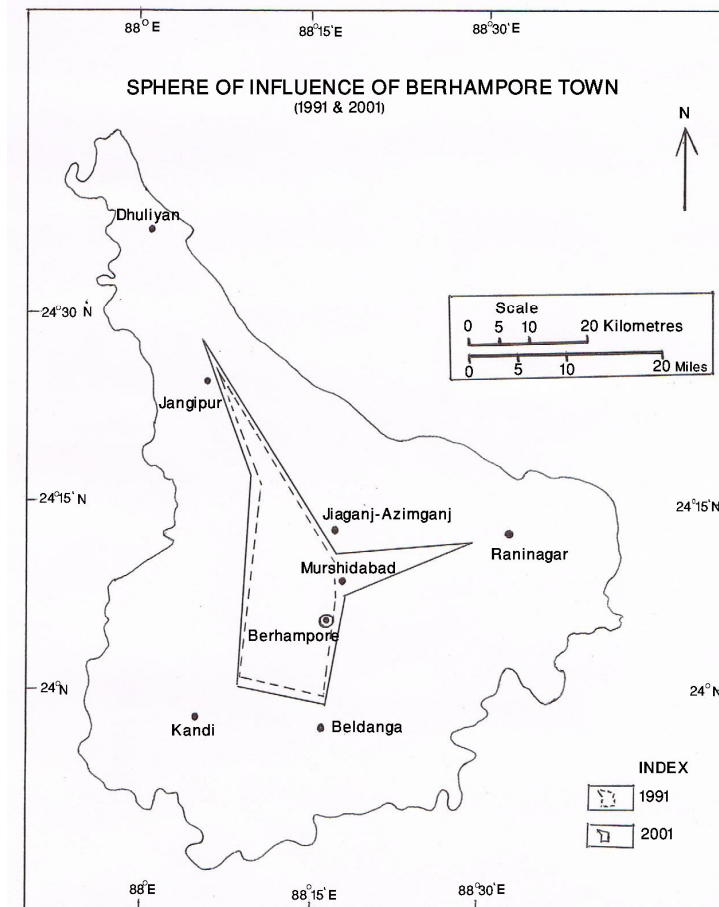
SPREAD OF URBANIZATION AROUND BERHAMPORE MUNICIPALITY

Berhampore is situated at the centre part of the Murshidabad district. The other municipalities are situated like a star shape around the municipality (Table-4. Because of high urbanization of Berhampore Municipality, the sphere of influence of the urban area is increasing and spreading beyond its boundary.

TABLE:4 SPREAD OF URBAN POPULATION IN 1991						
MUNICIPALITY (Origin)	MUNICIPALITIES	POPULATION	DISTANCE (in cm)	DISTANCE (in km)	Bp (in km)	Bp (in cm)
Berhampore	1.Jangipur	55981	6	46.15	18.95	2.46
	2.Jiaganj-Azimganj	42104	2	15.38	5.79	0.75
	3.Kandi	39652	3.7	28.46	10.52	1.37
	4.Dhuliyān	33191	9.5	73.7	25.52	3.32
	5.Murshidabad	30327	1	7.69	2.62	0.34
	6.Beldanga	20249	2.4	18.46	5.45	0.71

TABLE:5 SPREAD OF URBAN POPULATION - 2001						
MUNICIPALITY (Origin)	MUNICIPALITIES & URBAN CENTRE	POPULATION	DISTANCE (in cm)	DISTANCE (in km)	Bp (in km)	Bp (in cm)
Berhampore	1.Jangipur	74458	6	46.15	18.71	2.43
	2.Jiaganj-Azimganj	47212	2	15.38	5.41	0.7
	3.Kandi	50349	3.7	28.46	10.22	1.32
	4.Dhuliyān	72850	9.5	73.7	20.98	3.32
	5.Murshidabad	36947	1	7.69	2.49	0.34
	6.Beldanga	25361	2.4	18.46	5.25	0.68
	7.Raninagar I	8436	4.5	34.62	6.47	0.83

Source: Census of India 1991 & 2001



Source: Computed by Researcher

Breaking point analysis of 1991 and 2001 census is showing the trend of urbanization in Berhampore Municipality. The areas are gradually person of becoming urbanized and urban agglomeration is going ahead.

SUGGESTIONS AND CONCLUSION

- Establishment of an over bridge on N.H.-34 to diminish the transport hazard .
- Residential areas should be developed with municipal rules and regulations.
- Introduction of Sagadighi thermal power station will change the economic character of Berhampore Municipality in future and/ urbanization tremendously / result that will spread throughout the district. This projection should be remembered.

The municipal fringe area has been experiencing the change from rural to an urban setting .The area will ultimately determine the future of the municipality. Therefore, Berhampore Municipality needs some suitable policies to manage the rapid population growth and economic expansion as well as to provide space for future growth.

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