

Growth and Pattern of Urbanisation : An Analysis of Barasat Subdivision, North 24 Parganas, West Bengal.

ABSTRACT

Barasat subdivision comprises the sadar subdivision of the district of North 24 Parganas in West Bengal. This district traditionally has a glorious history of urbanisation being much higher than both the state and national averages. Within the district, this subdivision has shown a slow and steady growth of urbanisation since independence. Although the percentage of urban population has remained below the district average it has been significantly higher than the state and national average. The subdivision was overshadowed in the urban scenario mainly due to the overwhelming presence of neighbouring Barrackpore subdivision till 1981. The situation has significantly altered after Barasat being declared the district headquarter in 1986. However there are spatio-temporal variation in levels of urbanisation within the subdivision. This paper attempts to analyse the growth, pattern and levels of urbanisation within the subdivision in the post –independence period.

KEY WORDS: Level of urbanisation, urban spacing, urban population density

INTRODUCTION

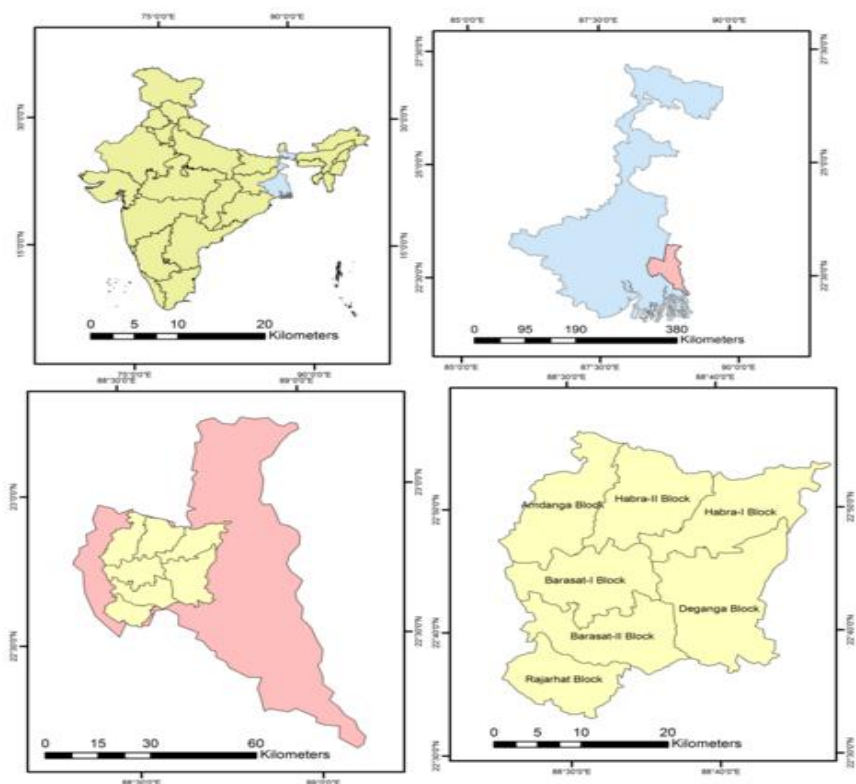
Urbanization refers to an increase in the size of urban places and growth in the number with increasing concentration of population in such places (Hauser,M.P.and Duncan,O.D) . The phenomena of high level of urbanization at the global level specially in the developing countries is relatively a recent phenomena and has gained unprecedented momentum since the 1950's. By 2050, it is predicted that 64% of the developing world and 85.9% of the developed world would be urbanized (The Economist, 2012).

Urbanization in India has shown remarkable progress particularly in the post –independence period. Urban population has increased from 10.84% in 1901 to 17.29% in 1951 to about 31.16% in 2011(Census of India, 2011). With dwindling job opportunities, vagaries like drought, flood, fluctuating crop price in agricultural sectors, urban centres have served as magnet for attracting rural crowd. The situation is identical in the study area, Barasat subdivision. The urban population has shown significant increase in the area in the last century and is taking a toll on the environment. The present study aims to provide an insight into the temporal and spatial dimensions of change in the urbanization pattern in this area..

33 STUDY AREA

34 Barasat subdivision constitutes an important part of North Twenty parganas. The district headquarter,
35 Barasat, is located in the study area. The latitudinal extent is from $22^{\circ}32'21''\text{N}$ to $22^{\circ}57'36''\text{N}$
36 while the longitudinal extent is from $88^{\circ}25'40''\text{E}$ to $88^{\circ}48'29''\text{E}$. In the south, lies parts of
37 Bidhannagar subdivision of North 24 parganas and Baruipur subdivision of South 24 parganas while
38 the northern boundary is flanked by Nadia district. The blocks of Gaighata, Baduria, Bashirhat and
39 Haroa form the eastern boundary while Barrackpur subdivision forms the western boundary. The
40 total area of the subdivision is 1002.48 sq. kilometers with a population of 2,789,611 (Census 2011).
41 It is well connected by road and railways. A project regarding further extension of the Metro services
42 to the towns of Barasat in the near future is under construction.

43 The study area consists of six municipalities namely Barasat, Habra, Rajarhat Gopalpur, Ashoknagar,
44 Kalyanarh, Madhyamgram and Gobardanga. It has seven C.D blocks: Barasat-I, Barasat-II,
45 Amdanga, Deganga, Habra-I, Habra-II and Rajarhat. These seven blocks contain eight census towns
46 and 58 gram panchayats. The subdivision has its headquarters at Barasat.



47
48 Map No. 1: Location of study area.
49

50 **AIMS AND OBJECTIVES-**

51 The study aims to-

- 52 • Analyse the trends and patterns of urbanization in the subdivision in the post-independence
- 53 period.
- 54 • Study the level of urbanisation in the study area in the last six decades.
- 55 • Determine the spatio-temporal pattern of urbanisation in Barasat subdivision

56
57 **MATERIALS AND METHODS** -This involves collection of data from various published
58 sources. The study is primarily based on secondary sources of information. Data has been collected
59 from different sources like District Census Handbooks of North 24 parganas for the years 1951, 1961,
60 1971, 1981, 1991 and census CDs of 2001, 2011, published by Census of India,.

61 Methods include compilation, calculation and presentation of collected data. The collected data has
62 been compiled, calculated and presented in the form of maps, graphs and charts with the help of
63 Statistical and GIS Software. Analysis has been done both quantitatively and qualitatively. Various
64 quantitative methods like Mean, Standard deviation, Z score and Composite scores have been used for
65 data analysis. Statistical analysis has been done using MS-Excel. Maps have been prepared to show the
66 spatio-temporal variation of urbanisation in the subdivision. Maps has been prepared to show the
67 spatio-temporal variation of population density of Barasat Sub-Division. All the GIS related analysis
68 was done in ArcGIS 10.2 software.

69 Barasat Sub-Division Map were initially scanned at 300 dots per inch (DPI) resolution and converted
70 into computer-readable Tagged Image File Format (.tiff) files. These .tiff files are then georeferenced
71 using ArcGIS 10.2 Software with WGS 84 datum and Universal Transverse Mercator (U.T.M.)
72 projection. Digitization of administrative boundary and selected features like major roads, railways,
73 canals, was done through ArcGIS 10.2 Software. Furthermore, population attributes has been attached
74 with the shapefile of Barasat Sub-Division. Finally, population density map of Barasat Sub-Division
75 was prepared in ArcGIS 10.2 Software.

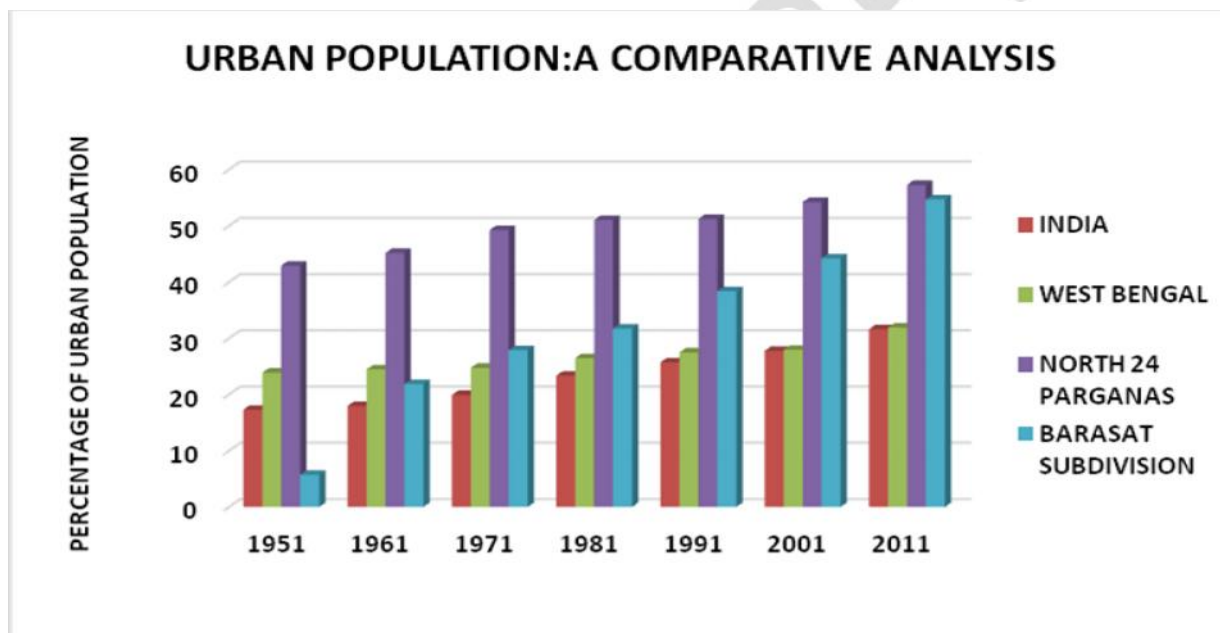
76 **FINDINGS AND ANALYSIS**

77 ***Growth of urbanisation-*** Historically, in the western world, the process of urbanization evolved
78 after the growth of industry characterized by rapid increase in mass production. The Indian

79 subcontinent shares with Mesopotamia and the Nile valley, a long history of urbanization.
 80 Urbanization continued at a much slower pace through the medieval period and started gaining
 81 momentum gradually during the colonial period. The phenomenon has shown remarkable progress in
 82 the post-independence period. After 1947 urban population is increasing by leaps and bounds, often
 83 faster than the global urban growth rate. Urban population has increased from 10.84% in 1901 to
 84 17.29% in 1951 to 31.16% in 2011(Census of India, 2011). Similarly in the post –independence period
 85 the state of West Bengal in general, and the district of North 24 parganas in particular, has experienced
 86 a massive spurt in urban growth. The growth in the percentage of urban population in both has far
 87 exceeded the national average.

88

89



90

91 **Figure 1: Comparative growth of urban population.**

92 The above figure (Fig No.1) depicts the comparative growth of urban population in India, West
 93 Bengal, North 24 Parganas and Barasat subdivision in the post independence period. Percentage of
 94 urban population has shown a steady increase since independence more remarkably since 1991. The
 95 percentage of urban population in India has increased from 17.29 to 31.61 while it has risen from 23.88
 96 to 31.89 in the state of West Bengal. West Bengal has shown a slightly higher degree of urbanization
 97 as compared to the national average. One of the causes for this trend can be attributed to the colonial
 98 legacy of the state. Another cause is the influx of migrant population in the aftermath of partition in

99 1947 and creation of the new nation of Bangladesh in 1971. The district of North 24 parganas has
 100 shown a higher degree of urbanization as compared to both national and state average. It has been
 101 experiencing a very high pace of urbanization both in terms of volume of urban population and number
 102 of urban centres. Urban population has increased from 42.92% in 1951 to 57.27% in 2011. The total
 103 urban population in the district has increased from 967790 in 1951 to 5807128 in 2011 implying about
 104 a six fold increase during the last six decades. Within the district, Barasat subdivision depicts an
 105 interesting picture in terms of urban growth. Here urban population has increased from 5.72% to
 106 54.67% during the same time period. Predominantly being an agrarian belt, the region had a very low
 107 percentage of urban population at the time of independence and thereafter for a considerable period of
 108 time. The process of urbanization started gaining momentum since 1961. Urban population percentage
 109 steadily increased thereafter and crossed the state average in 1971. The granting of subdivisional
 110 headquarter status to Barasat has further aided the process. Although the subdivision has lower
 111 percentage of urban population as compared to the district average but it is far above the state and
 112 national average. The following table depicts the change in rural and urban population in the district
 113 along with the study area during the census years 1951-2011.

114 **Table 2- Comparative growth of urban and rural population in North 24 parganas and Barasat subdivision**

Years	Percentage of population				Change in percentage of population			
	North 24 pgs		Barasat Subdivision		North 24 pgs		Barasat Subdivision	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
1951	42.92	57.08	5.72	94.28	-	-	-	-
1961	45.18	54.82	21.86	78.14	47.34	34.47	520.12	34.55
1971	49.26	50.74	27.91	72.09	45.26	23.31	79.41	29.64
1981	51.03	48.97	31.72	68.28	36.37	27.03	53.26	27.71
1991	51.31	48.69	38.36	61.64	32.06	30.58	79.59	34.09
2001	54.29	45.71	44.23	55.77	30.04	15.36	45.50	14.18
2011	57.26	42.73	54.67	45.33	18.16	4.76	51.80	-0.16

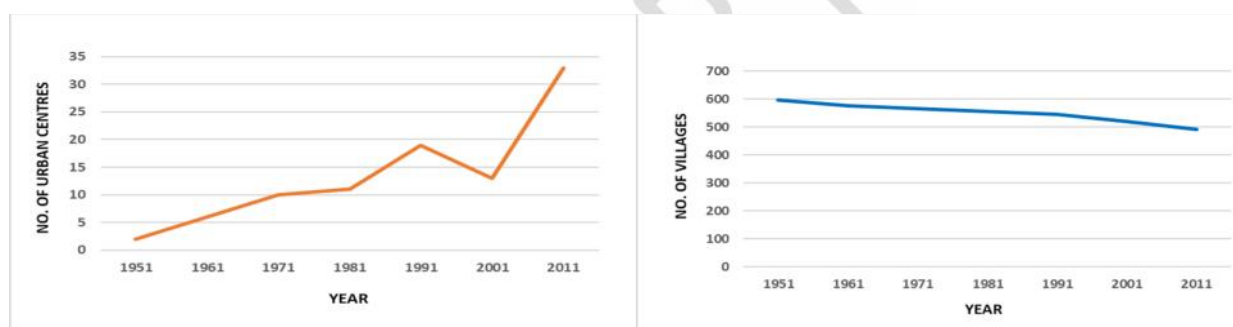
115 Source: Computed by the authors from different census reports, 1951-2011

116 The total number of towns has also grown in the entire subdivision. The number of towns has
 117 increased from 2 in 1951 to 27 in 2011 along with six municipalities (Table no.2). Contrarily the
 118 number of village across various police stations has shown a continuous decrease over the years. The
 119 following table shows the change in the number of villages and urban centres in the subdivision-

120 **Table 4- change in the no. Of villages, urban centres in Barasat subdivision**

Year	No. Of Villages	No. of Urban Centres	Percentage Increase Of Urban Centres	Urban-Rural Ratio
1951	596	2	-	0.06
1961	577	6	200	0.28
1971	567	10	66.67	0.39
1981	555	11	10	0.46
1991	545	19	72.73	0.62
2001	520	13	-31.58	0.79
2011	492	33	153.85	1.21

121 Source : Computed by the authors from District census handbooks, North 24 parganas, Census of India.



126 **Figure 2: Change in the no. of villages and urban centres in Barasat subdivision (1951-2011)**

127 Most remarkable decline in the number of villages is to be noticed in the last two decades primarily
 128 owing to rapid increase in the growth of towns. The number of towns have shown steady increase since
 129 independence. In the census year 2001, the number of towns have declined primarily due to clubbing
 130 of several non-municipalities with the neighbouring municipal towns thus reducing the no. of urban
 131 centres.

132 ***Phases of urbanisation in the subdivision***

133 In the post –independence period the urbanization process in the subdivision can be divided into two
 134 distinct phases-

135 ***Period of Rapid Urbanisation (1951-1981)***

136 During this period urban population grew from 22546 to about 384460 registering almost a seventeen
137 fold increase. The percentage of urban population increased from 5.72 to 31.72. Urban concentration
138 during this period grew due to favourable geo-economic factors . Huge influx of migrant population
139 from erstwhile East Pakistan also aided urban growth. During this period no. of towns increased from 2
140 to 11 while the no. of villages declined from 596 to 555.

141 ***Period of Steady Urbanisation (1981-2011)***

142 During this period urban population grew from 384460 to 1524964 registering almost a four fold
143 increase. The percentage of urban population increased from 31.72 to 54.67. The no. of towns
144 increased from 11 to 33 while the no. of villages declined from 555 to 492. Urbanization showed
145 steady growth during this period primarily due to growth of infrastructural facilities in Barasat
146 subdivision owing to the accordance of district headquarter status to Barasat town in 1986. This led to
147 decline in importance of neighbouring Barrackpore subdivision. Besides, the urban growth in
148 Barrackpore subdivision has almost reached a saturation level which has further aided the urban
149 growth in Barasat subdivision.

150 ***Level of Urbanisation In Barasat Subdivision (1951-2011)***

151 In the earlier part of the analysis, an attempt has been made to identify the nature, degree and tempo of
152 urbanisation in Barasat Subdivision during the post independence period as a whole. However, within
153 the subdivision, there exists wide differences in terms of levels of urbanisation. This part of the study
154 attempts to analyse the spatio-temporal variation in the levels of urbanisation within the subdivision
155 considering the Police Stations (1951-1981) and Community Development Blocks (1991-2011) as the
156 areal units of study.

157 Different parameters have been used to measure the level of urbanisation in the study area. The
158 following factors have been taken into consideration

- 159 a) Percentage of Urban Population to Total Urban Population of the Police Station / C.D. block.
160 b) Percentage of Urban Area to Total Urban Area of the Police Station / C.D. block.
161 c) Urban Population Density
162 d) Urban Spacing

a) Percentage of Urban Population to Total Urban Population of the Police Station / C.D.

block.- This parameter is considered as one of the most important criteria to measure the level of urbanisation. Percentage of urban population in the police stations and C.D.blocks has been calculated with respect to the urban population of the entire subdivision.

Table 5(a) : PS wise percentage of urban population to total urban population of the subdivision (1951-1981)

Police station	1951	1961	1971	1981
Habra	28.91	55.93	45.26	40.74
Deganga	0	0	0	0
Rajarhat	0	0	13.30	17.59
Barasat	71.09	44.07	41.44	41.67
Amdanga	0	0	0	0

Source- Computed by the authors from District census handbooks, North 24 parganas, Census of India(1951-1981)

The above table[Table-5(a)] clearly indicates that there exists wide variation among the police stations (1951-1981) and C.D. Blocks with respect to percentage of urban population. Urban population can be seen only in the police stations of Habra and Barasat in 1951 and 1961. Barasat in 1951 showed a greater percentage of urban population owing to its closer proximity to the state capital of Kolkata. However ,in 1961 , Habra showed a greater percentage of urban population probably due to influx of migrant population from erstwhile East Pakistan not accounted during the 1951 census. Rajarhat burst into the urban scene with a significant percentage of urban population in 1971, thus reducing the monopoly of Barasat and Habra. This scenario continued in 1981.

Table 5(b): CD.block wise percentage of urban population to total urban population of the subdivision (1991-2011)

C.D.Blocks	1991	2001	2011
Habra-I	7.30	6.42	6.22
Habra-II	28.53	25.35	19.98
Deganga	5.79	0	0.63
Rajarhat	21.34	27.73	32.99

Barasat-I	25.48	25.02	26.09
Barasat-II	11.56	15.47	13.65
Amdanga	0	0	0.44

178 Source- Computed by the authors from District census handbooks, North 24 parganas, Census of
179 India(1991-2011)

180 The situation somewhat changed after 1991 with Rajarhat rapidly increasing its share of urban
181 population during the last three census years. Besides Barasat-I has maintained a steady pace of
182 urbanisation throughout owing to its administrative status as the district headquarter. Due to rapid
183 surge of Rajarhat other C.D. Blocks have shown gradual decline in percentage share of urban
184 population. Amdanga has recorded a very late entry into the urban scene only after 2011. Deganga has
185 also shown an insignificant growth in urban population. Although it entered the urban scene in 1991, it
186 was declassified in 2001. It again entered the urban process in 2011. Both these C.D. Blocks have a
187 large agricultural hinterland which accounts for a significant rural population leading to a low
188 percentage of urban population.

189 b) **Percentage of Urban Area to Total Urban Area of the Police Station / C.D. block.-** The
190 change in total urban area of a spatial unit over time is also a significant measure of
191 urbanisation.

192 c) **Table No. 6(a): Percentage of urban area of p.s. to total urban area of the subdivision(1951-1981)**

Police station	1951	1961	1971	1981
Habra	42.11	52.47	39.53	39.20
Deganga	0	0	0	0
Rajarhat	0	0	15.35	14.73
Barasat	57.89	47.53	45.29	46.07
Amdanga	0	0	0	0

193

194 Source- Computed by the authors from District census handbooks, North 24 parganas, Census of
195 India(1951-1981).

196 **Table No.: 6(b) –Percentage of urban area of c.d.blocks to total urban area of the subdivision(1991-2011)**

197

198

199 Source-

C.D.Blocks	1991	2001	2011
Habra-I	10.78	10.12	11.16
Habra-II	29.04	29.06	23.22
Deganga	2.16	0	1.27
Rajarhat	24.23	24.06	24.86
Barasat-I	25.13	22.81	26.70
Barasat-II	8.66	14.00	11.11
Amdanga	0	0	1.69

200 Computed by the authors from District census handbooks, North 24 parganas, Census of India(1991-
201 2011)

202 During 1951 and 1961 the total urban area of the subdivision was shared by Habra and Barasat police
203 stations. Barasat enjoyed a greater percentage during 1951 while the situation reversed in 1961.
204 Rajarhat entered the scene in 1971. It shared a significant part of urban area both in 1971 and 1981
205 thus reducing the percentage share of Habra and Barasat. During the census year 1991, the concept of
206 C.D. Blocks emerged. The percentage share of urban area in Habra-I and Rajarhat has steadily
207 increased in the successive three decades while that of Habra-II has declined gradually. Barasat-I and
208 Barasat-II have shown fluctuating trend. Deganga has a very insignificant percentage of urban area
209 owing to rural dominance while Amdanga has entered the urban scene as late as 2011.

210 d) **Urban Population Density-** Urban Population Density designates the volume of total urban
211 population per square unit of urban area. It is a good measure of the spatial variation of urban
212 concentration.

213

214

215 **Table No. :7 (a)-Urban population density of police stations (1951-1981)**

Police station		1951	1961	1971	1981
Habra		629	5749	3722	4425
Deganga		0	0	0	0
Rajarhat		0	0	2803	5085
Barasat		1125	5010	2962	3851
Amdanga		0	0	0	0

216 Source- Computed by the authors from District census handbooks, North 24 parganas, Census of India(1951-1981)

217 Habra and Barasat had a low density in 1951, but it has steadily increased with a peak reaching in
 218 1961. Rajarhat ,since its emergence on the urban scene, has maintained a high density owing to its
 219 close proximity to state capital Kolkata and a boom in the infrastructural sector.

220

221 **Table No. 7(b): Urban population density of CD blocks (1991-2011)**

C.D.Blocks	1991	2001	2011
Habra-I	3679	4190	3927
Habra-II	5341	5762	6057
Deganga	2696	0	3527
Rajarhat	6230	7610	9347
Barasat-I	5426	7245	6882
Barasat-II	7259	7298	8654
Amdanga	0	0	1824

222 Source- Computed by the authors from District census handbooks, North 24 parganas, Census of
 223 India(1991-2011)

224 After 1981, administrative changes have taken place and analysis have been done taking C.D. Block
 225 as an areal unit. Barasat-I and Habra-I block has shown a slightly fluctuating trend while Habra –II

has shown a steadily rising trend due to increasing population pressure of Habra and Ashoknagar-Kalyangarh municipality. Rajarhat is the key area where urban population density is very high. The region which started as a satellite town is developing very fast due to paucity of space in nearby Kolkata. Open spaces are being rapidly filled up with massive housing development projects and other commercial projects. Barasat-II also has high density due to closer proximity to Kolkata. Deganga and Amdanga have lower density due to their strong agrarian base.

d) Urban Spacing- Spacing of settlements is largely governed by their size. Large settlements would be closely spaced while smaller settlements would be widely spaced. These spatial patterns are constantly changing in time and space which has resulted in an increase in the size of settlements and reduction in their spacing.

Table 8(a)- Urban spacing of police stations (1951-1981)

Police station	1951	1961	1971	1981
Habra	0.097	0.098	0.08	0.07
Deganga	0	0	0	0
Rajarhat	0	0	0.089	0.066
Barasat	0.106	0.110	0.085	0.075
Amdanga	0	0	0	0

Source- Computed by the authors from District census handbooks, North 24 parganas, Census of India(1951-1981)

Taking Police stations(1951-1981) and C.D.Blocks (1991-2011) as areal unit , the spacing of urban settlements have been calculated by employing Sarkar's method for the census years(1951-2011). The Inter-settlement spacing is given by the equation:

Inter-Settlement Spacing: $2.\sqrt{(A/n)}$

Where, n shows the number of urban settlements within the Police Stations/C.D. Blocks with an area of 'A'.

During the period (1951-1981), urban spacing has gradually declined over the decades owing to increase in population pressure. Similar trend can be seen in Barasat police station. Rajarhat has also shown progressive decline in urban spacing in the two decades of 1971 and 1981.

Table No. 8(b)- Urban spacing of c.d.blocks (1991-2011)

C.D.Blocks	1991	2001	2011
Habra-I	0.075	0.063	0.062
Habra-II	0.063	0.057	0.053
Deganga	0.089	0	0.066
Rajarhat	0.057	0.048	0.042
Barasat-I	0.060	0.049	0.048
Barasat-II	0.049	0.048	0.043
Amdanga	0	0	0.095

Source- Computed by the authors from District census handbooks, North 24 parganas, Census of India(1991-2011)

During the period (1991-2011), a similar picture is seen in all the C.D.Blocks(Table 8 b) of the subdivision. As urban population in all the C.D. Blocks is rapidly increasing after 1981, urban spacing has declined in all the blocks. Rajarhat, the fastest growing block in the subdivision , shows the minimum values in urban spacing. It is followed closely by Barasat-II, another fast growing urban area. Urban spacing is also quite low in Barasat-I where the district headquarter is located.

Spatio-temporal pattern of urbanisation in Barasat subdivision

On the basis of the above discussed parameters, the spatio-temporal pattern of urbanisation has been analysed in Barasat subdivision. However this is to be noted that a police-station/C.D.Block does not show same rank in all criteria. A Composite Value of level of urbanisation has been developed on the basis of Summation of Z Score to obtain an overall idea of the combined effect of all the chosen four parameters discussed in the preceding section. The following procedure has been followed in this regard-

- a) Mean and standard deviation values of each attribute for the Police Stations (1951-1981) and C.D.Blocks (1991-2011) during each census year have been computed.
- b) Since the units of measurement for each criteria is different, in order to make them comparable the values of each criteria have been transformed into a standard form using the standard score (Z score).
- c) The Z scores on all the four criteria have been then added together to give a Composite Index (C.I.). Summation of Z scores for some of the areal units have shown negative values. All the negative value of the 'Summation of Z score' has been converted into positive ones by adding '7' with every Zscore of each areal unit.[Table-9] and [Table-10]

Table No.-9: Level of urbanisation during 1951-1981 in Barasat subdivision (p.s.wise)

Police Stations	Composite Z Score For Lu,1951	Police Stations	Composite Z Score for Lu,1961
Barasat	12.67	Habra	11.68
Habra	9.62	Barasat	11.03
Rajarhat	4.23	Rajarhat	4.08
Deganga	4.23	Deganga	4.08
Amdanga	4.23	Amdanga	4.08

Police Stations	Composite Z Score For Lu, 1971	Police Stations	Composite Z Score For Lu, 1981
Habra	10.72	Barasat	10.58
Barasat	10.49	Habra	9.77
Rajarhat	7.87	Rajarhat	8.23
Deganga	2.98	Deganga	2.95

Amdanga	2.98	Amdanga	2.95
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274 Source- Computed by the authors

275 **Table No. 10: Level of urbanisation during 1991-2011 in Barasat subdivision(c.d. block wise)**

C.D. Blocks	Composite Z Score for Lu,1991	C.D. Blocks	Composite Z Score for Lu,2001	C.D. Blocks	Composite Z Score for Lu,2011
Habra-Ii	10.2	Habra-Ii	10.26	Rajarhat	9.9
Barasat-I	9.52	Rajarhat	10.22	Barasat-I	8.96
Rajarhat	9.28	Barasat-I	9.82	Habra-I	8.37
Barasat-Ii	7.19	Barasat-Ii	8.27	Habra-Ii	8.13
Habra-I	6.61	Habra-I	7.2	Barasat-Ii	6.91
Deganga	5.69	Deganga	1.77	Amdanga	5.28
Amdanga	0.69	Amdanga	1.77	Deganga	4.33

276 Source- Computed by the authors

277 On the basis of the Composite values the Police Stations and C.D.Blocks have been classified into the
278 categories of high, moderate and low levels of urbanisation.

279 **Table No. 11: Spatial distribution of police stations for level of urbanisation(1951-1981)**

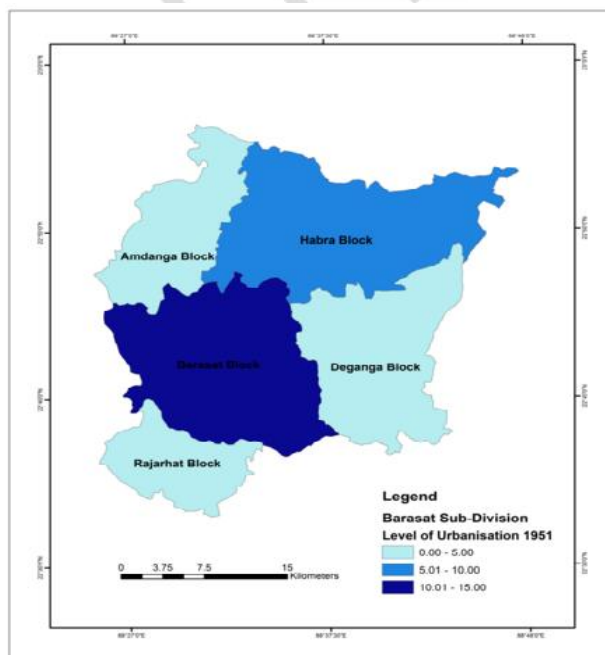
Census Year	Composite Value for Level Of Urbanisation		
	Low (Less Than 5.00)	Moderate (5.00-10.00)	High (More Than 10.00)
1951	Rajarhat, Deganga, Amdanga	Habra	Barasat
1961	Rajarhat, Deganga, Amdanga	-	Habra, Barasat
1971	Deganga, Amdanga	Habra, Rajarhat	Barasat

1981	Deganga, Amdanga	Habra, Rajarhat	Barasat
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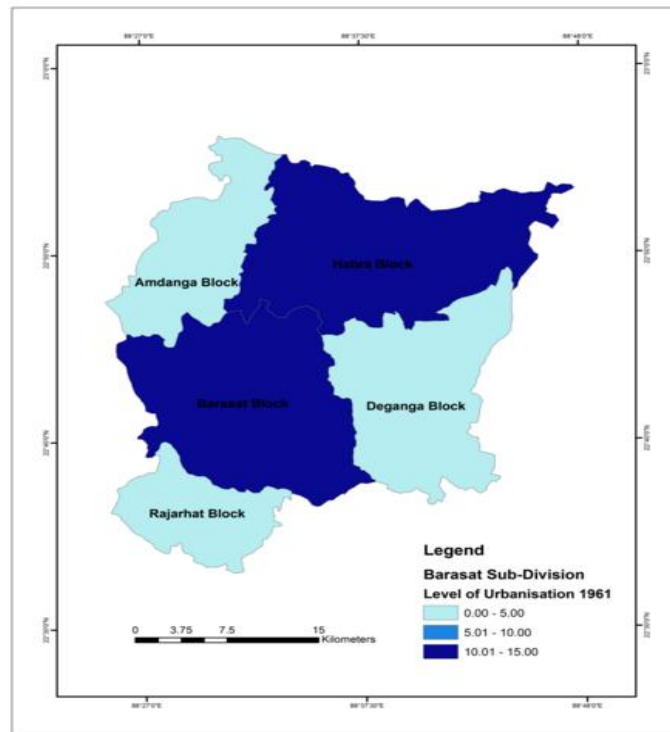
Source- Categorised on the basis of Table-9

The above table clearly indicates the urban scenario in the subdivision till 1981. Deganga and Amdanga police stations, being entirely rural, have consistently shown poor performance in the urbanisation process. Rajarhat was also in the similar bracket till 1961. However a sudden spurt in urbanisation process can be seen in the year 1971 in this police station. The reason may be attributed to its proximity to Salt Lake which was being developed as a planned new township to accommodate the urban spill from the already congested Calcutta metropolice. Habra had shown medium level of urbanisation in the beginning . However it started showing rapid rise in urban development in 1961 making it to the high level of urbanisation in 1961 mainly due to the influx and settlement of migrant population from across the border. But the momentum slightly slackened in 1971 and 1981 and it fell in the medium category along with Rajarhat. Barasat police station, being the headquarters of not only the subdivision, but also the district, has consistently shown high level of urbanisation throughout all the census years.

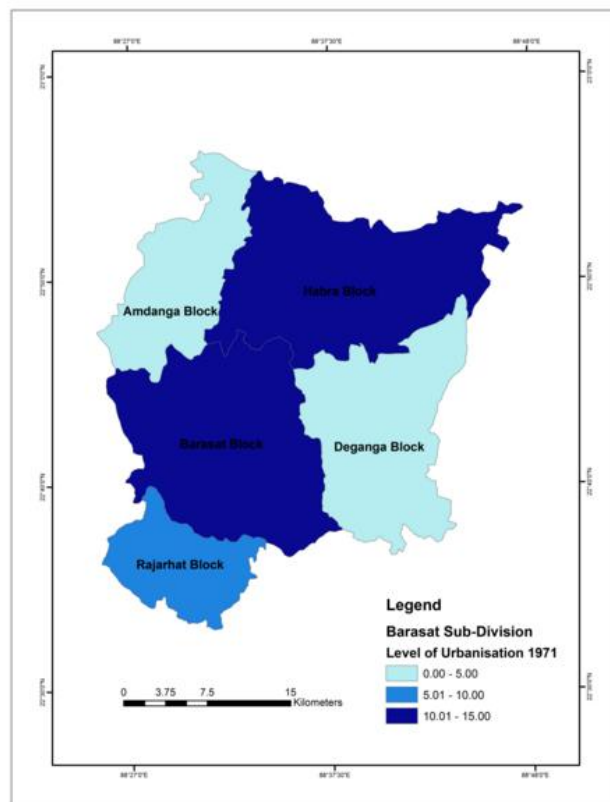
Map No. 2- Level of urbanisation in Barasat subdivision, 1951



Map No. 3: Level of urbanisation in Barasat subdivision, 1961



Map No. 4: Level of urbanisation in Barasat subdivision, 1971.



Map No. 5: Level of urbanisation in Barasat subdivision, 1981.

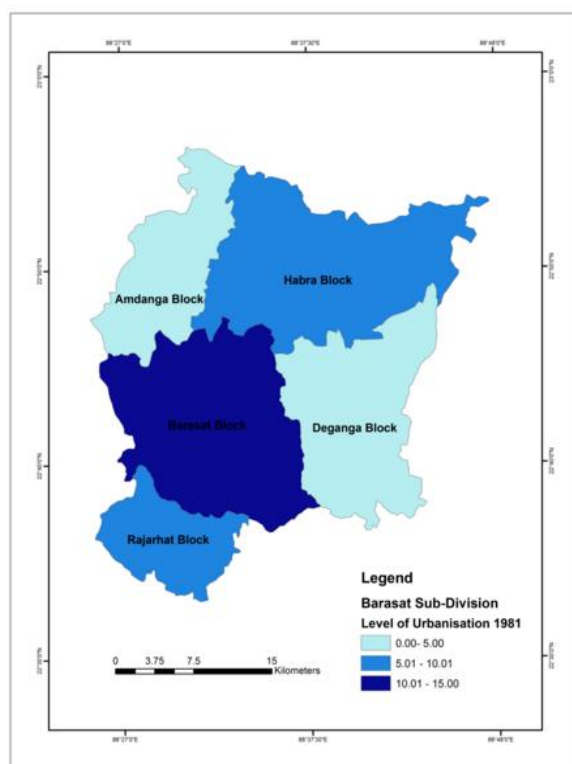
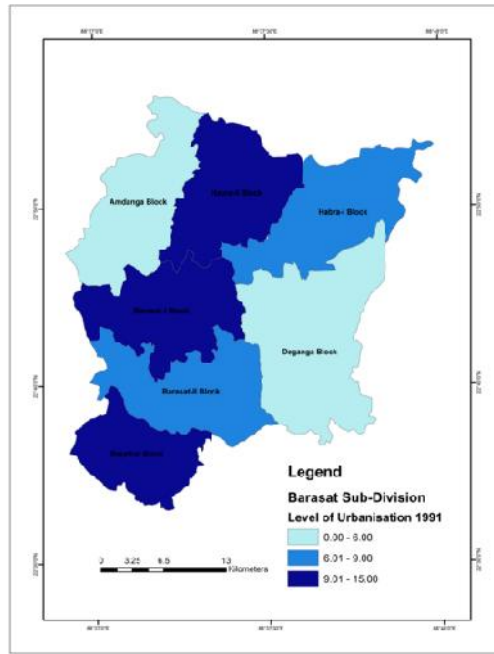


Table No. 12: Spatial distribution of c.d. blocks for level of urbanisation,1991-2011.

Census Year	Composite Value For Level Of Urbanisation		
	Low(Less Than 6.00)	Moderate(6.00-9.00)	High(More Than9.00)
1991	Deganga, Amdanga	Habra-I, Barasat-Ii	Habra-Ii, Barasat-I, Rajarhat
2001	Deganga, Amdanga	Habra-I, Barasat-Ii	Habra-Ii, Barasat-I, Rajarhat
2011	Deganga, Amdanga	Habra-I, Habra-Ii, Barasat-I, Barasat-Ii	Rajarhat

Source- Categorised on the basis of Table-10

Map No. 6: Level of urbanisation in Barasat subdivision, 1991.

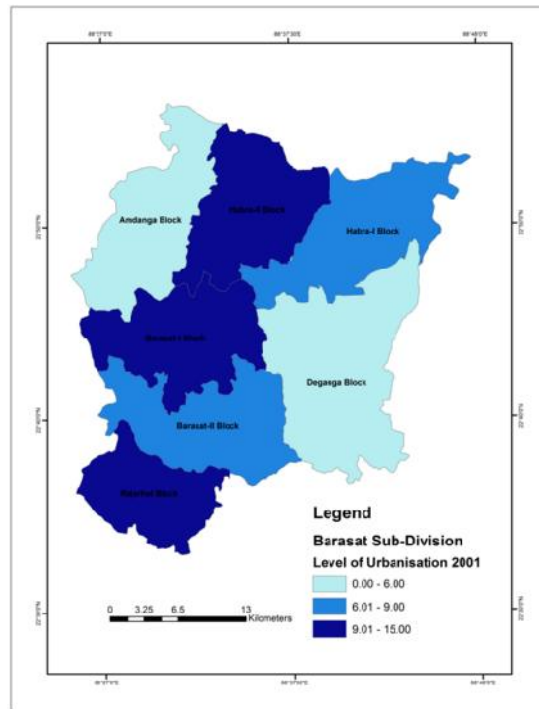


304

305 The scenario has somewhat changed in the 1990s. The administrative set-up changed in the 1991
 306 census with the concept of C.D blocks being introduced. The subdivision, henceforth, has been
 307 subdivided into 7 C.D.blocks. Deganga first entered the urban scene in 1991, but in 2001 it was again
 308 declassified and designated into rural category. It again entered into the urban layout in 2011 along
 309 with Amdanga. However both these community development blocks have shown low levels of
 310 urbanisation due to predominantly rural hinterland and significant agricultural base. Habra-I and
 311 Barasat-II have shown moderate levels of urbanisation both in 1991 and 2001.

312

Map No. 7: Level of urbanisation in Barasat subdivision, 2001.

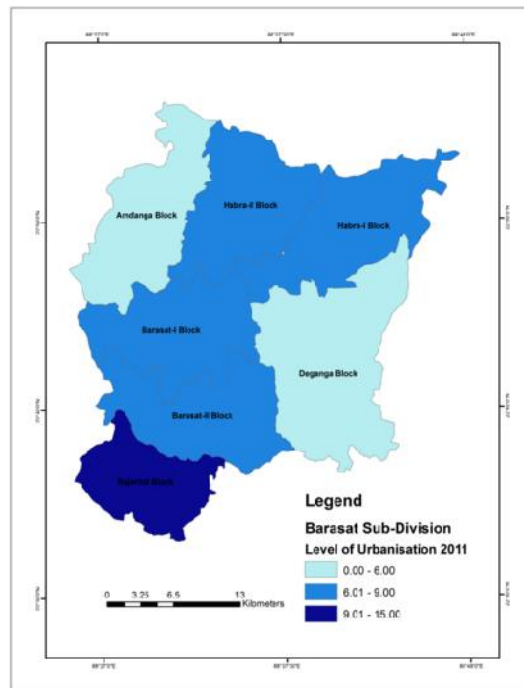


313

314 The reason may be attributed to the fact that these areas traditionally had high level of urbanisation
 315 and are presently stagnating. Similar situation is seen in Habra-II and Barasat-I in 2011.

316

Map No. 8: Level of urbanisation in Barasat subdivision, 2011.



317

318 The most interesting feature has been the overwhelming performance of Rajarhat in the entire period.
319 Despite its late entry into the urban scene it has surged far ahead of all the other C.D.blocks in level of
320 urbanisation owing to its locational advantage of nearness to Bidhannagar subdivision and the state
321 capital of Kolkata. Besides the real state boom and the Government initiatives to develop the region as
322 satellite town to ease the urban pressure of Kolkata has further aided its growth. In fact Rajarhat-
323 Gopalpur municipality has been incorporated within the Bidhannagar municipal corporation in 2015.

324 **CONCLUSION**

325 The study shows that a rising trend of urbanisation in the entire subdivision in the post-independence
326 period similar to that being experienced in the entire country but at a slightly higher pace in
327 consonance with the district's trend which is higher than that of both the state and national average.
328 However the pace of urbanisation is slower in the subdivision than the district rate mainly due to its
329 strong agricultural hinterland and its close proximity to the highly urbanized Barrackpore subdivision.

330 The analysis regarding the level and spatio-temporal pattern of urbanisation in Barasat subdivision
331 during the period 1951-2011 shows that there exists wide variation in the level of urbanisation in the
332 region. In fact the level of urbanisation does not conform to any definite pattern. The level is very low,
333 throughout the period, in the extreme eastern portion of the block comprising the Deganga C.D. block
334 and the north-western portion comprising the Amdanga C.D. block. The major cause is the prosperous
335 agricultural base of these two blocks which support a large rural population. In fact these two blocks
336 have marked their slow entry into the urban fold as late as 2011. Habra-I, Habra-II, Barasat-I and
337 Barasat-II have medium levels of urbanization during the later period of the study (Table No.12).
338 Although Habra and Barasat had traditionally high urban population (Table No.11), the urban surge in
339 Rajarhat in the recent times, has somehow slackened the pace in these regions. The most remarkable
340 feature is the high level of urbanisation being experienced in the southern portion of the subdivision in
341 Rajarhat C.D. block. Despite its late entry into the urban fold in 1971 this area has shown phenomenal
342 rise owing to its favourable geo-economic conditions and administrative support.(Table 11 and12).

343

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