

Population Growth and its Consequences: A Case Study of North 24 Parganas District, West Bengal

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Abstract : *Rapid population growth undermines the functioning of traditional, social, economic and ecological structures. The problems which have arisen out for excessive growth of population are deteriorating the man-land ratio and increase the population pressure on functioning land. The district of North 24 Parganas of West-Bengal is a densely populated area and, therefore, its economic development is closely connected with its population growth. The population in 1981 Census had increased by 31.49 percent over that of 1971. In 1991 the population in the study area increased by 31.69 percent and the growth of population of the study area was 22.69 percent in 2001 and 12.04 percent in 2011. In 1981 there were 12.19 persons in per hectare cultivable land and increase into 22.2 persons in 2001. Marginal worker (work less than 183 days in a year) to total workers has also been increase abruptly. For example it increases from 2.01 percent in 1991 to 14.45 percent in 2011. A more widespread effect of population growth is that people have been crowded into low income work. 53.64 percent of total workers of sample surveyed (2012) earn rupees 5000 and less than 5000 of amount and their highest proportion occurs in the rural area. The pressure of population growth is making the difficult for governments to keep pace with growing social needs such as water supplies and sewerage, housing and education. In rural area there is only 1 health center per 60000 populations, only 1.25 km of surface road per sq. km. and 45.07 percent of households are under sanitation. Mass-exodus of man power from the countryside to towns is taking place due acute agricultural over population and the rate of extreme urbanization is taking place in Barasat, Rajarhat and Kolkata Metropolitan.*

Key words: *Population Growth, Man-land Ratio, Marginal worker, Low Income, Social needs*

Introduction

Everywhere in India is a clear picture of increasing population. According to the Indian census, carried out in 2011, the population of India was exactly 1,210,193,422, and the various studies have projected that India will be globally most populous country, surpassing China, by 2025. According to Phukan (2014), the main common cause leading to over population in India is that birth rate is still higher than the death rate. We have been successful in declining the death rates but the

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same cannot be said for birth rates. Secondly the fertility rate due to the population policies and other measures has been falling but even then it is much higher compared to other countries.

The basic economic-demographic contradiction is propounded in between the character of the population's natural reproduction and the functioning of socio-economic structures in the developing countries. Sen (1989) highlighted that the high level of population growth in developing countries to create demographic threats and to make any substantial progress difficult in the levels of living condition for the majority of their people. Cassen (1978) found that the adverse impact of population growth on socio-economic development. The impact of population growth on development often generates more heat than light. Population growth is reducing the rate of growth of income per head and volume of under-employment labour increased. Saxena (1971) emphasized the effect of population growth on economic development. In densely populated countries, especially of the low income group, population growth has an important bearing on economic growth. It is widely claimed that in the less developed countries rapid rate of population growth are swallowing-up the benefit of economic development. Growth rate is an important factor, especially in low income countries, in the promotion of individual as well as national gains. The significant feature of population growth as such is that a higher rate of population growth implies a higher level of needed investment to achieve a given per capita output. In low income areas, it is especially difficult to attain adequate level of investment, and there is no visible way in such areas by which more rapid population growth can evoke a significantly greater flow of invested resources. When the supply of capital is inelastic, a higher rate of population growth forces the diversion of investment to duplicate existing facilities, preventing an increase in the capital available for each worker (Coale and Hoover, 1958).

Objectives of the study

The present study seeks to fulfill the following objectives:

- To find out the changes that are taking place in population growth and the causes of such changes.
- To investigate into the problems which have arisen out for abrupt population growth in the study area
- To find out the ways to reduce the abrupt population growth and all round development.

The Study Area

The study area comprises of 22 Community Development (C.D.) Blocks i.e., Bagdah, Bongaon and Gaighata of Bongaon Subdivision; Amdanga, Deganga, Habra-I & II, Barasat-I & II and Rajarhat of Barasat Subdivision; Barrackpur I & II of

Barrackpur Subdivision; Basirhat-I & II, Sandekhali-I & II, Minakhan, Haroa, Hasnabad, Hingalganj, Swarupnagar and Baduria of Basirhat Subdivision. There are 5 Subdivisions i.e., Bongaon, Barasat, Basirhat, Barrackpur and Bidhannagar in the study area. Geographically it is located from 21°25'30" North to 23°15'50" North and 88°01'10" East to 89°06'15" East (approximately). It covers 4094.0 km² and consist 10009781 populations (Census of India, 2011). There are 1571 inhabited villages distributed over 22 development blocks. The study area has 22 Panchayat Samities and 200 Gram Panchayats with 2923 Gram Sansads. There are 27 Municipalities and 20 Census Towns in the study area (Source: District Statistical Handbook, North 24 Parganas, 2008). In the east of the study area eight C.D. Blocks

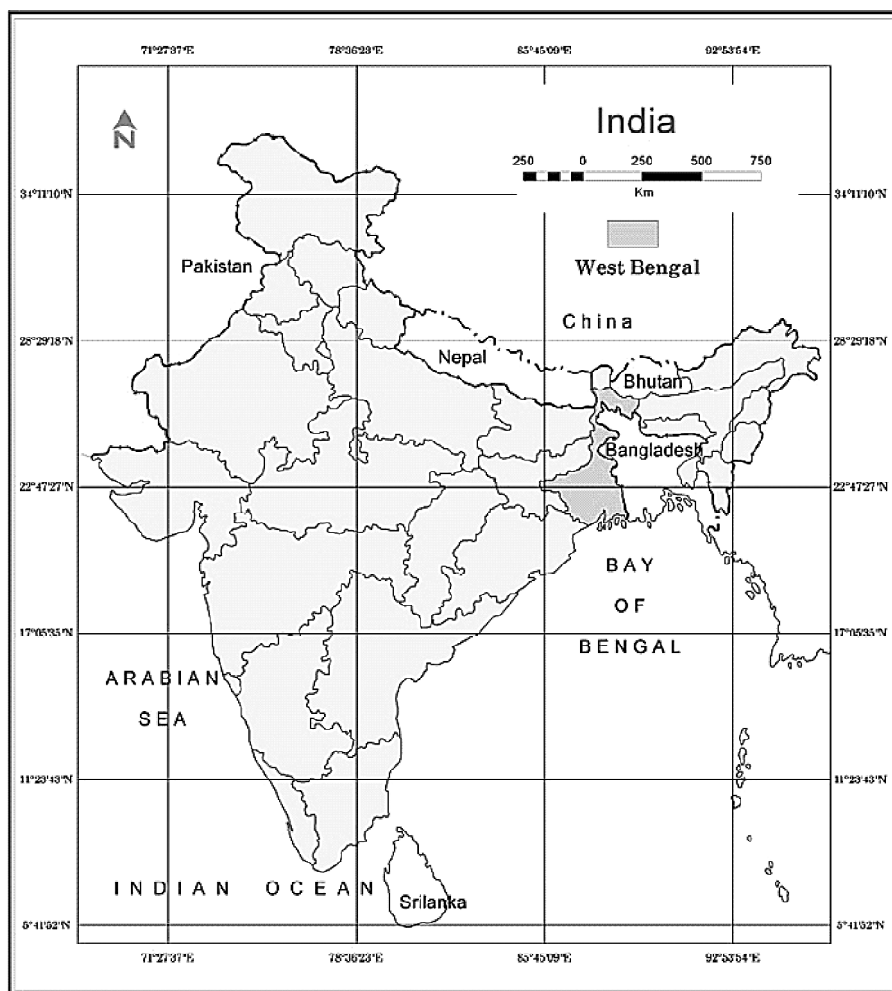


Figure 1: Map of India showing West Bengal

share with international border of Bangladesh and six C.D. Blocks included with in the Sundarban region. On the contrary the western part of the district (Bidhannagar, Barrackpur and part of Barasat Subdivision) belongs in greater Kolkata region.

The study area is bounded by Calcutta and the river Hooghly in the west. Much of its eastern boundary is with Bangladesh. To the north, it is bounded by the southern boundary of Nadia district, and to the south it is bounded by the northern boundary of South 24 Parganas district. Lying at the apex of the funnel shaped Bay of Bengal and serving as the immediate hinterland of Kolkata urban-industrial region, this sensitive border district commands a vital strategic area not only for West Bengal but also for India, in war as well as peace (De, 1994).

Methodology and Database

The present study has been made under a detailed methodology. Present work has been carried out with the review of literature; field study and collection of primary and secondary data as well as other related materials on demographic characteristics and its adverse impact on socio-economic status. Data are collected from different books and reports of conventional institution viz, Bureau of applied economics and statistics, Directorate of Census Operation, Evaluation Wing, Directorate of Agriculture etc. An interview survey was conducted for primary data collection due to diversity in the population profile in term of socio-economic condition random sampling could be taken. The study incorporates different methods and cartographic techniques used for data compilation, data analysis and data representation through various statistical, qualitative, quantitative and cartographic techniques.

Trend of Population Growth and its Causes

In 1981 the total population of the study area was 5529498 persons. Ten years back i.e. in 1971 Census the study area had 4205204 people. The population in 1981 Census had increased by 31.49 percent over that of 1971. The population growth of that time was in between 40 to 44 percent in Barasat, Bangaon and Gaighata Blocks, and it was 30 to 40 percent in the C.D. Blocks of Habra, Bagdah and Haroa. Basirhat Subdivision returned the lowest rate of population growth; because in 1978, West Bengal suffered one of the heaviest floods ever experienced by the state and Basirhat Subdivision of North 24 Parganas district had the maximum area under flood (more than 900 km²). On the whole 1912 mouzas, and 223 wards of 16 municipalities of 24 Parganas district became submerged during this period. More than 200000 people had to be evacuated from Barrackpur, 134000 from Bangaon, 123000 Basirhat and 100000 from Barasat (De, 1994).

In the decade 1981-91, the study area was not affected by any serious flood, famine, drought and disease and it had overcome the adverse effect of flood that

occurred in the previous decade. As a result, in 1991 the population of the study area increased by 31.69 percent, while it was 31.49 percent in 1981. The decadal growth rate had increased in Barasat Subdivision from 34.84 percent in 1971-81 to 45.84 percent in 1981-91, and in Basirhat Subdivision from 23.19 percent in 1971-81 to 29.46 percent in 1981-91.

In this connection it may be mentioned that there was a huge influx of refugees from the erstwhile East Pakistan in the wake of the struggle for Independence of Bangladesh in 1971. From March to August 1971 nearly a million of people fled from Bangladesh. At least 10 percent of them had taken shelter in the different camps

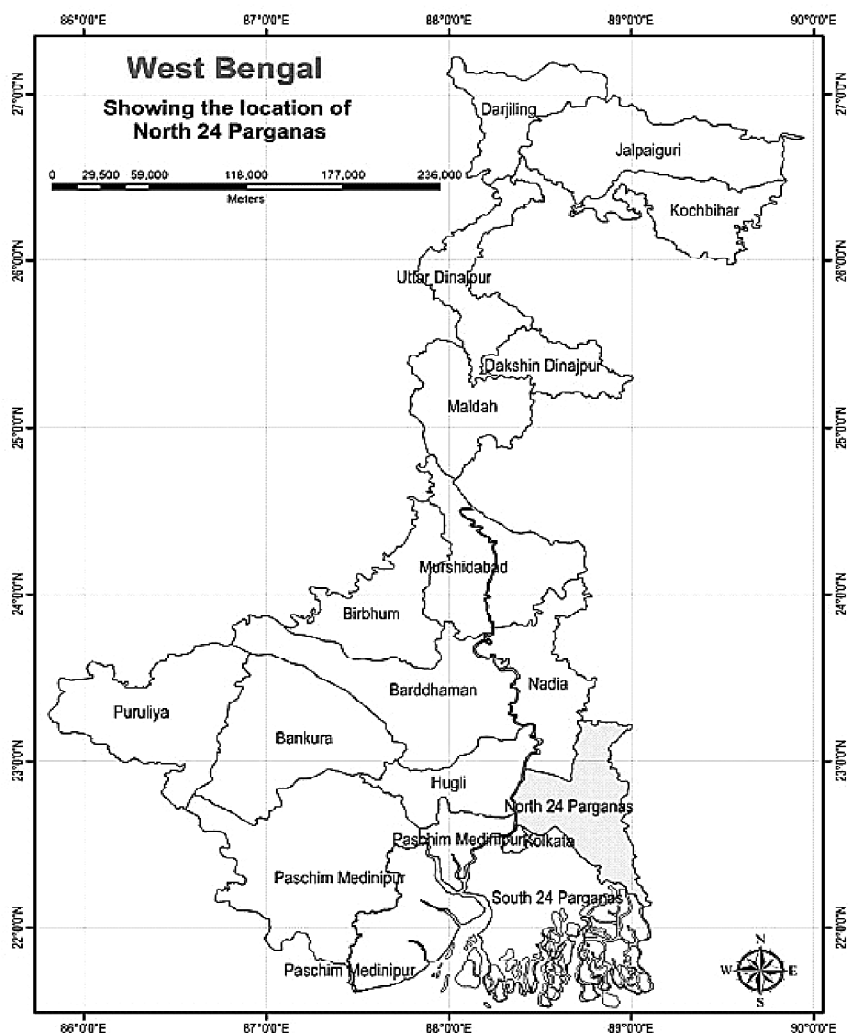


Figure 2: Map of West Bengal showing North 24 Parganas

set up in 24 Parganas. So, in the decade of 1971-81 the study area was influenced by these refugees, and Bangaon Subdivision which shares international boundary with Bangladesh was highly affected by refugees. However, after the Independence of Bangladesh the infiltration of population from country was controlled by the Indian Government, and for this reason the growth of population of Bongaon Subdivision slowed down from the decade 1981-1991. In spite of the restriction on infiltration in Barasat Subdivision it maintained the growth rate due to urbanization, development of communication facilities and different types of economic activities. In this decade of 1981-91 the growth was the highest in Rajarhat Block with was 75.28 percent, followed by 49.17 percent in Barasat C.D. Block.

The growth of population of the study area had fallen to 22.69 percent in 2001. The population growth rate of Rajarhat Block had decreased from 75.28 percent in 1981-1991 to 45.84 percent in 1991-2001 and it also decreased from 49.17 percent in 1981-91 to 34.15 percent of 1991-2001 in Barasat Block. The lowest rate of increase was registered by 9.92 percent in Hingalganj Block.

Table-1: Decennial Growth of Population in the study area

Decades	Decennial Growth of Population in percent		
	Total	Rural	Urban
1971-81	31.49	27.57	35.49
1981-91	31.69	31.15	32.21
1991-01	22.69	14.97	30.04
2001-11	12.04	4.77	18.17

District Census Handbook of 24 Parganas and North 24Parganas District

In 2011, the population had increased by 12.04 percent over that of 2001. The highest population growth was also seen in Rajarhat Block. It was 42.08 percent in 2011. The lowest growth was again found in Hingalganj Block i.e. 11.6 percent. Progress of literacy and family planning awareness, gradual decreasing of early age marriage and religious superstitions causes the population growth slowed down. But the growth rate is also high and anxious till now.

Problems of Population Growth

The impact of population growth on development often 'generates more heat than light' (Cassen, 1978). Different aspects in the current demographic situation are particularly acute in the developing countries. Such as, the 'demographic explosion' aggravates socio-economic problems, making them ever wider in scale and lowering living standards. The demographic problem in the developing countries is closely related to problems of hunger and under nourishment. There is an



Figure 3: Map of North 24 Parganas showing Different Blocks of the Study Area

aggravation of the employment problem, increase of disguise labour, agglomeration of population in low income group etc. The typical demographic pattern in study area creates the following salient features.

Growth of Marginal Workers

Different aspects in the current demographic situation are particularly acute in the developing countries. Among them there is an aggravation of the employment

problem- a major social problem at the current stage of overcoming backwardness. Despite the small proportion of economically active persons in their population a considerable part is unable to participate in socially useful labour and they are considered as marginal workers who worked any time at all in the year preceding the date of enumeration but did not work for the major part of the year, i.e. those who worked for less than 6 months or 183 days. Such as in 1981 and 1991, there were only 2.75 percent and 2.01 percent marginal workers to total workers in the district but in 2001 it was registered by 12.21 percent and increased into 14.44 percent in 2011. It happened due to growth of population in middle age group as well as working age group. As for example, the population in the age group of 20-59 years accounts for 57.75 percent in 2011 as against 49.25 percent (D.S.H.B of North 24 Parganas, 2001, p-35) in 1991 census. This indicates that the economically active population, i.e., the population of middle age group has increased during this period. But the scope for work participation did not increase significantly.

Pressure on Agricultural Land

Population increase in some circumstances, especially in the case of under-developed countries, may hinder economic and social progress. For instance, shortage of land and other natural resources may make it difficult to balance expanding production with population increase. (Agarwala, 1967). This type of consequence is observed in agricultural sectors of the study area. In 1990-91, there was 304351.098 hectares cultivable land in the study area and the land-man ratio was 24 persons / hectare cultivable land. The land has been deteriorating gradually and increases of population pressure on functioning land. The land under cultivation has decreased into 278593 hectares in 2000-01 and 261740 hectares in 2010-11. As a result the pressure of population on cultivable land has been increasing decade by decade. The dependent persons on cultivable land has increased from 24 persons/hectare in 1991 to 38 persons/hectare in 2011 in the district.

Net sown or cropped area means the area that has at least been used for growing one crop in the year (Mukherjee, 1956). Sometimes the net sown area has increased and sometime it has decreased but the long term trend is negative i.e., it is decreasing gradually in the study area. It was 279702 hectares in 1991 that decreased to 259865 hectares in 2001, and further reduced to 223020 hectares in 2011. Urbanization plays an important role for decrease of the net sown area in the district. For example, the net sown area of Barasat-I and Rajarhat Blocks (part of Kolkata conurbation) together was decreased from 28063 hectares in 1993-94 to 10278 hectares in 2000-01, and 9293 hectares in 2003-04.

Workers in Low Income Group of Population

A more widespread effect of population growth is that people have been crowded into low income work. Sometimes this takes the form of additional adults working

on family farms which can barely support the present number. But often it involves large numbers flocking into the cities, adding to the proliferation of badly paid jobs. For example, 53.64 percent of total workers of sample surveyed earn rupees 5000 and less than 5000 of amount and their highest proportion occurs in the rural area.

Lacking of Social Amenities

The pressure of population growth is making it difficult for governments to keep pace with growing social needs- for water supplies and sewerage, for housing and education. For example in rural area there is less than 1 health centre per 60000 populations in 2011, (DSHB of North 24 Parganas, 2012). Only 3.12 km of surface road per sq. km. of the district in 2012 (DSHB of North 24 Parganas, 2012) and 46.32 percent of households in 2008 are under sanitation (HDRCC of North 24 Parganas, 2010). 79.83 percent of villages having electricity for domestic use (HDRCC of North 24 Parganas 2010).

Pressure on Infrastructure

Development of infrastructural facilities is unfortunately not keeping pace with the growth of population. The result is lack of transportation, communication, etc. Only 3.12 km. of surface road per sq. km. of the district in 2012 (DSHB of North 24 Parganas, 2012). There is no railway communication in Bagdah, Hingalganj, Minakhan, Sandeshkhali-I & II in the district.

Scarcity of Resources

Land areas, water resources, forests are over exploited. There is also scarcity of resources. Due to population pressure the area under habitation is increasing day by day and the forest area is deploying gradually in the district. For example there was 181 hectare forest cover in 1994-95 (DSHB of North 24 Parganas, 1995) and it has decreased into 110.3 hectare in 2001-02 (DSHB of North 24 Parganas, 2002).

Sundarban forest land in North 24 Parganas consists of 4221 hectare in the past century. Much of the forest area has been lost during the last century when the reclamation of Sundarban area took place under Zamindar system (HDR, North 24 Parganas, 2010).

Rapid Urbanization

The rural study area is suffering from acute seasonal crisis of the large number of agricultural population. So a tremendous exodus of man power from the countryside to towns is taking place and the rate of extreme urbanization is taking place Barasat and Rajarhat is higher than the ever achieved Kolkata Metropolitan. This process of urbanization have already created many problems of housing, town- planning, supply of socio-economic over heads, employment and it will be much more in the future. Unpretending rates of urbanization reflect not only

massive migration to cities but also very high urban birth rate. The unmanageable rates of urbanization have resulted the spread of huge slums and shanty towns from the “bustees” of Barasat. A careful city planning with special emphasis on land use planning not be operative in order to ensure the development of the periphery surrounding all the towns especially Barasat.

Table-2: Growth of Urban Population of Barasat Subdivision

Census Year	Number of Urban population	percent of Urban population to total population	Decadal growth of urban population
1951	22546	5.72	
1961	139813	21.86	520.12
1971	250847	27.91	79.42
1981	384460	31.72	53.26
1991	657878	37.22	71.12
2001	1004599	44.23	52.70
2011	1524964	54.67	51.80

Source: District Census Hand Books of 24 and North 24 Parganas

For example, Barasat Subdivisions of the study area was considered as rural agrarian zone in a few decades ago. In 1951 census, it was found that the total number of urban population of the study area was 22546 persons i.e. 5.72 percent of total population and in 2011 it was registered with 1524964 urban populations i.e. 54.67 percent of total population in 2011.

As per Census of India, urban towns are divided into six categories. These are Class-I having a population size of 1,00,000 persons or more; Class-II having a population size of 50,000 to 99999 persons; Class-III having a population size of 20,000 to 49,999 persons; Class-IV having a population size of 10,000 to 19,999 persons; Class-V having a population size of 5000 to 9999 persons, and Class-VI having a population size less than 5000 persons.

Table-3: Number of Towns by Size-Class of Barasat Subdivision

Census Year	Number of towns by size						Total number of towns
	I	II	III	IV	V	VI	
1951	0	0	0	1	1	0	2
2011	5	0	3	10	22	0	40

Source: Census of India, District Census Hand Books of 24 and North 24 Parganas

The changing pattern of population distribution in different size-class of towns was the product of natural growth of population, growth of small urban areas and the conversion of lower class towns into higher class. Another important factor is the bulk migration of population towards the big cities. It is expected that the population distribution in the different size-classes would be more skewed in future and will create a regional imbalance of urbanization in the decades to come.

Conclusion

The demographic changes in this area are highly influenced by their education, religion and caste. There is a disparity of population growth and socio-economic development in the study area. Thus keeping in mind a sustainable development of population in the rural agrarian study area, certain improvements can be suggested for the region. We must make a perfect drive to educate the public in the methods of family planning. To control the unchecked population growth, the unanimous decision about never ending illegal migration from Bangladesh should be taken by all leading political parties of India Government. Development of infrastructure based on needs, especially in rural areas and slum areas. To control the haphazard urbanization should prepare land use plan for proper and planned use of land especially in urban area. A proper historical link between the past and the present is necessary to implement any measures required for proper growth and development of the area. It is a good sign that the people belonging to the middle class are gradually becoming population conscious and are taking active interest in the methods devised and recommended for population control.

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