

## **SPATIAL TEMPORAL CHANGE OF POPULATION -A CASE STUDY ON TARAKESWAR TOWN IN HOOGHLY DISTRICT OF WEST BENGAL**

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### **ABSTRACT**

The growth of population in an area is an index of its socio economic development, social awakening and many other characters. The growth of population in any area is determined by three basic factors namely human fertility, mortality and mobility .The difference between human fertility and mortality is called natural increase of population. There are many factors which are responsible for increase of population like demography, social, migration etc. Migration has been a major factor for rapid population growth in urban areas in less developed countries. The .growth rate of urban population is four times than the rate of rural population. Urban centers attract rural population through multiplier effects like hospitals, schools, industrial and commercial zones, security etc. This paper will explore the spatial temporal change of population of Tarakeswar town in Hooghly district of West Bengal.

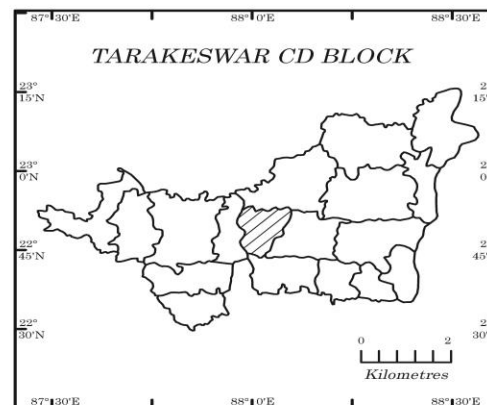
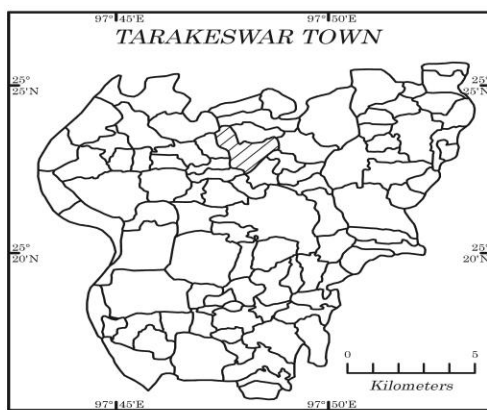
**Keywords:** population, human fertility, demography, Migration

### **Introduction**

At the beginning of 21st century, over 50 percent of the world's population started to live in cities (IMF,2006;World Bank,1980 and 2000;Somone and Abounani eds,2005).The growth rate of urban population is four times than the rate of rural population. This means that approximately65 percent of the world's population will then be living in towns and cities. About 90 percent of the urban growth will occur in developing countries alone (IMF,2006;World Bank,1980 and 2000;Blair,1985).According to the estimates more than 300 million urban poor in developing countries live in slum and squatter settlements, most of them being squalid, unsafe environments that create health and security problems (World Bank,1980 and 2000;Tostensen,Tvedten and Vaa eds,2000).The first and foremost reason of urban growth is increase in urban population. Rapid growth of urban areas is the result of two population growth factors: (1) natural increase of population (2) migration to urban areas. Natural population growth results from excess of births over deaths. Migration is defined as the long term relocation

of an individual, household or group to a new location outside the community of origin. In the recent time the movement of people from rural to urban areas within the country (internal migration) is most significant.

LOCATION MAP OF STUDY AREA



**The Study area:**

The Tarakeswar township area has been selected for the study of spatial and temporal change of population. The town and its adjacent area extend between the parallels of 22°51'52"N and 22°54'20"N latitudes and 87°59'00"E and 88°02'42" E longitudes. The town is located in the Chandannagar subdivision of Hugli district in Burdwan Division of West Bengal. The town obtained the status of a municipality on 6<sup>th</sup> August in 1975. At present the area of the town is 3.88km<sup>2</sup>. This municipal area is divided into 15 wards for administrative purpose. Tarakeswar town is situated at the centre of the Tarakeswar block. This municipality is surrounded by four gram panchayets. To the north of this town lies the Bhanjipur Gram Panchayet, and to the south, east and west are Ramnagar, Baligory and Santoshpur Gram Panchayets respectively.

**Objectives:**

The main objectives of the study are

- (i) To examine the temporal growth of population (absolute and decadal) during the period of 1981 to 2011.
- (ii) To identify the ward wise spatial change of population between 2001 and 2011 in Tarakeswar town.

**Data Base:**

Mainly secondary data regarding demography have been collected from district census hand book of 1981, 1991, 2001 and 2011.

**Methodology:**

The secondary data mainly census data of last four decadal year were tabulated. The attribute data have been processed and calculated by excel software and shown in tabular format. Ward wise change of population for two decadal years 2001 and 2011 have been shown through thematic map using G.I.S. software.

**Temporal change of population in Tarakeswar Town**

In this part the discussion is made upon the growth of population through the entire Tarakeswar town from 1981 to 2011. Ward wise population growth during 1981-2011 has been discussed here. Population growth in Tarakeswar town during this period shows an irregular trend. A typical feature is the overall decrease in decadal population growth rate. In decadal year 1981-1991 the population growth rate in this town was 37.01%. In the following decadal year (1991-2001) the population growth rate became 24.54%. In the last decadal year i.e., in 2001-2011 the population growth rate came down even farther to 9.79%. So it can be assumed that although natural increase of population took place through increase of tourism, decline in mortality and rural urban migrations during this period. Simultaneously decrease of fertility, increase of female literacy, social awareness, out migration to big urban centers, expansion of job opportunity

development of education and thereby up gradation of the standard of living contributed to the decrease decadal population growth rate during this period.

Table 3.1: Absolute and decadal growth rate of population

Year	Population	Absolute growth	Decadal growth
1981	16518	-	-
1991	22632	6114	37.01
2001	28187	5555	24.54
2011	30947	2760	9.79

Data Source: District Census Handbook, 1981 to 2011.

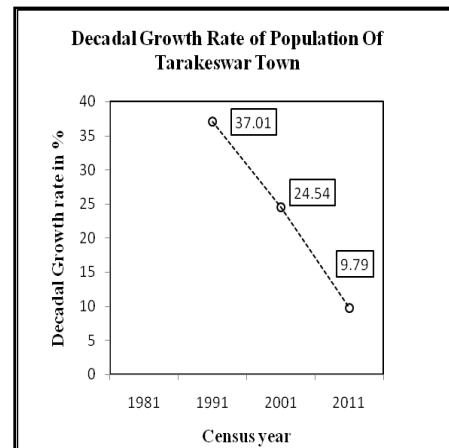
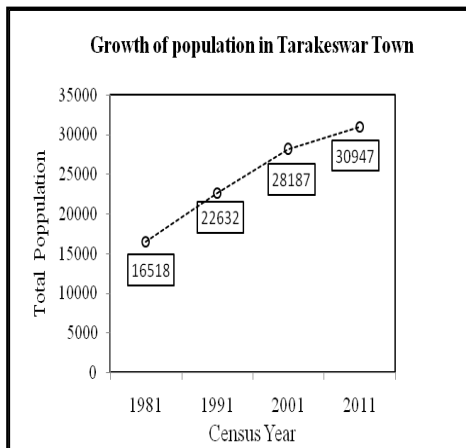


Figure 3.1: Growth of total population

Figure 3.2: Decadal growth of population

**Spatial change of population growth during 1981-1991**

According to census of 1981 the total population of Tarakeswar town was 16,518 comprising of 8,787 males and 7,731 females. In this year population was high in ward No. 1 (1,514), 4 (1,765), 7 (1,877), 9 (220) and 11 (2,315). In 1991 population increased in those wards at a very rapid rate and the numbers reached within the range of 2,400-3,500. The Ward Nos. 1 and 9 observed agro-based economic environment and this economy contributed to such rapid increase in population. Population increased also due to rural urban migration in Ward Nos. 4, 7 and 11. In the Ward Nos. 2,3,6,8 and 10 the growth rates of population remained moderate and in this year population were within the range of 1,100-1500. In 1991 it grew to the range of 1,200-2,000. In those wards population were not increased with very rapid rate up to 1991. Due to impact of overall urbanization population growth rate remained low. In Ward No.5 the population growth rate is comparatively low though this area is highly urbanized.

### **Spatial change of population during 2001-2011**

According to census 2001 the population was 28187 comprising 14976 male and 13211 female. In 2001 about 22632 population were increased than the year 1991. There was highest population was in ward no. 3 and lowest population was in ward no.7. In ward no 6, 7,8,10 and 15 total population were greater than the other wards. The average numbers of population was between 2300-2900 but in those wards population were increased in very fast rate. The average number of population of these wards was 2700-3300. On the other hand population was medium in ward no.2, 1, 11 and 9 and population increased in those wards in a very low rate. Average population was 1500-2300 in 2001 and it became 1700-2500 in 2011. In ward no. 5,13,3, and 12 population were below 1500 and 1700 in 2011. High literacy rate and urbanization are main causes for low growth of population. In other wards like 15, 10 and 11 population growth rate was high due to rural and agro based society.

### **Conclusion:**

From the fore going discussion it is clear that temporal change of population growth occurred during the period 1981-2011. But in a irregular trend. Trend of absolute growth rate of population is positive on the other hand trend of decadal growth rate is negative. Probably control in fertility, increase of female literacy rate, development of living standard, finding for better education, seeking new jobs are main causes for negative decadal growth rate. Immigration is one of the main causes for increasing absolute growth rate. Spatial variation also has been identified regarding population growth in Tarakeswar town. The growth of population is higher in the peripheral wards than the core of the town. The core wards of the study area are very congested. Network of transport routes, markets, shops, hotels, schools, wetlands, shopping malls, bus stand, railway platforms, schools, college, play ground etc are the main feature of urban land use and land cover. So people are constructing houses in the vacant and agricultural land in the peripheral wards and villages due to inadequate space in the core urban area. The result revealed that population as well as households increased in the study area but in an unplanned way. So the residential area should be extended in future following a proper urban planning map.

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