



Scenario of population composition in Purba Medinipur district of West Bengal

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Abstract

In the Purba Medinipur, there lies a demographical spatial variation in the distribution, density, composition, sex-ratio, literacy rate, and the growth of population which has a direct impact on the utilization of resources and the development of the district. The distribution pattern, density, composition, growth rate and migration therefore adds important attributes to the demography of Purba Medinipur and is controlled by physical, cultural, political and socio-economic factors. However, due to rapid growth of population, urbanization, and tourist activities, the district is getting stressed with its carrying capacity. Being inhabited by considerable size of Hindus and Muslims and schedule caste and schedule tribe the district presents a highly diverse socio-cultural landscape. The prime objective of the study is to understand the diversity in population composition and associated demographic characteristics in Purba Medinipur district of West Bengal in spatio-temporal perspective. The relevant data for the study have been collected from secondary sources and the data so obtained have been analyzed and presented using various statistical and cartographic technique. Thus, the paper has an attempt to study the demographical status of the district highlighting its present situation.

Keywords: demographic, population, urbanization, socio-economic factors

Introduction

Population growth is one of the fundamental demographic processes which directly or indirectly influence all other demographic attributes. With the evolution of modern world, the dramatic change of population draws attention to the scholars of several social disciplines. It would seem obvious that the geographical study of population growth could explain to some extent for the overall progress of any region. Almost every country has its own particular rhythm of population growth which due solely to the natural factors of births and deaths. The growth of the human population represents emerging issues and challenges for the present and future generations. Human population growth exhibited important fluctuations during the last 2000 years. Human population exhibited dramatic changes during the 20th century; the world population grew from almost 2 billion people in 1930 up to 6 billion in 2000. In 1960, almost 2 billion people lived in rural areas, while only 1 billion lived in cities^[5]. The growth of population in India from the ancient times up to 1900 was discussed in the scholarly work of Kingsley Davis^[20]. In quantitative term, the number of populations at a particular time and its growth play a significant role in all aspects of any region. Population in Purba Medinipur district has a very diverse characteristics contains diverse race cast customs and tradition accompanied by variable economic conditions. Growth distribution and density of population in the district are marked with variation in nature. Since the creation of the district in 2002 Purba Medinipur is seeing a huge socio economic transformation of population as result imbalances in development are inevitable.

Location of the Study Area

Purba Medinipur District came into existence after bifurcation of erstwhile Midnapur on and from January 1, 2002. This district is situated on the southern side of the State of West Bengal. The total area of the district is 4,151.64 square kilometres. It is situated between 21°38' N to 22°31' N and 87°27' E to 88°12' E. The District is

surrounded by Ghatal Sub-division of Paschim Medinipur District in the north, Bay of Bengal in the south, Paschim Medinipur district in the west and Hoogly-Rupnarayan river in the east (Rupnarayan river separates this district from Howrah). Tamluk, Haldia, Contai and Egra are its 4 Subdivisions. The district comprises of 25 Blocks and 5 Municipalities, namely Panskura, Tamluk, Egra, Contai and Haldia.

Literature Reviews

O'Malley (1994, Reprint) to study the physical as well as cultural profiles of the district. Hunter (1876) also highlighted on some physical and social aspects of this region (undivided Midnapur) in his Statistical Account of Bengal- District of Midnapur. Bagchi *et. al* (1983) highlighted geo-ecological aspects of this region in great detail in Diagnostic Survey of West Bengal. The geological account of Quaternary formation by Goswami (1986) explained the geological formation of the study area. Goswami has described briefly the undifferentiated Quaternary geological formation of this area. Chakrabarti (1985-86) highlighted on Digha-Junput land formations of the study area. Coastal geomorphology, its evolution and ecological aspects of Digha coastal region and its changes have been touched upon by Bagchi and Mukherjee (1982). Misra (1993, 1998) has analyzed some environmental aspects of Digha- Dadanpatrabar coastal areas of the district.

Objectives

The main objectives of the paper are:-

- To study the demographic features *viz* population structure, composition, distribution and population dynamics in Purba Medinipur district with their cause and effect factors over space and time.
- Approximation of population scenario in coming decades.
- To provide suggestions in coping up problems with the increasing population and sustainability in the district.

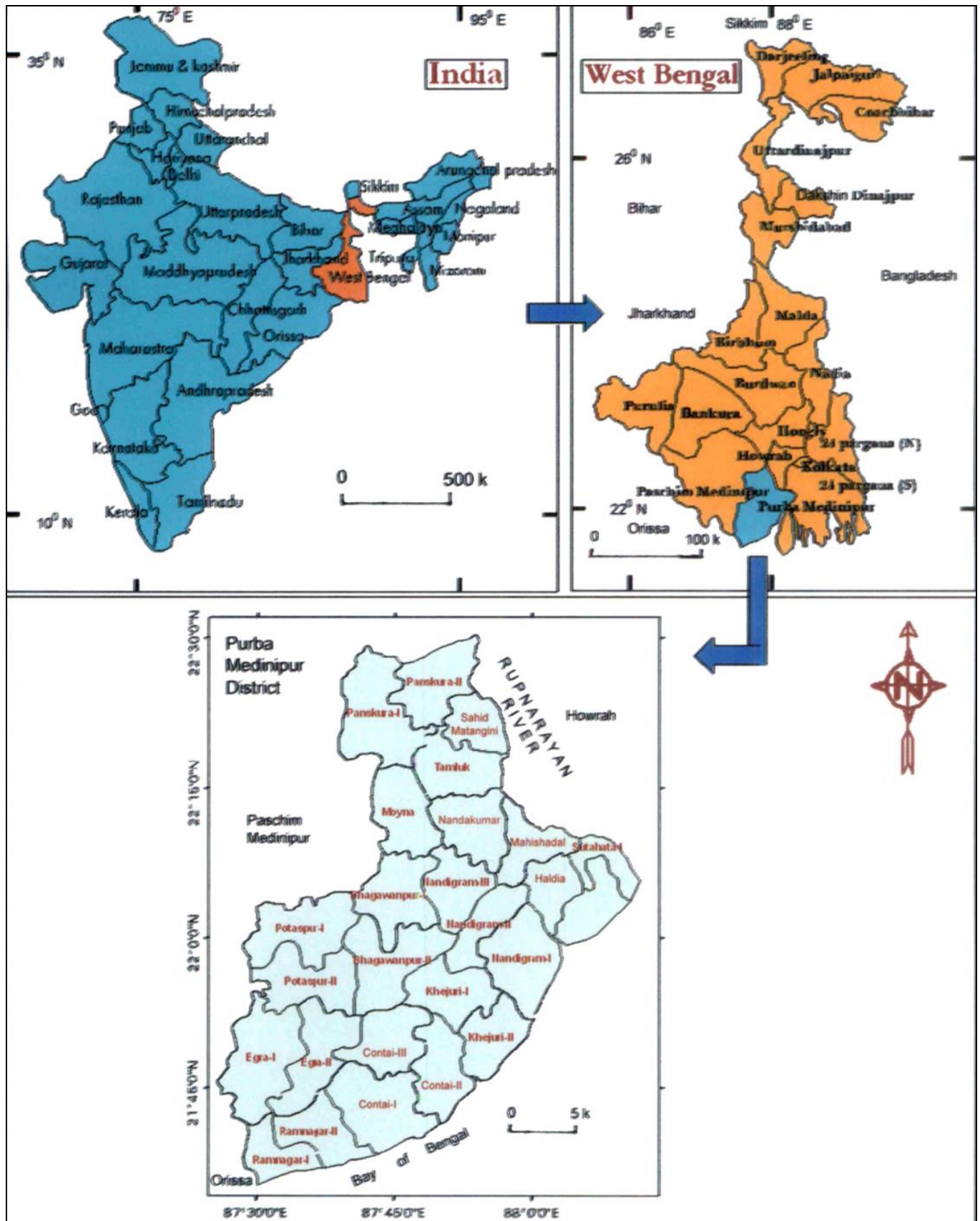


Fig 1: Location Map of the Study Area

Database and Methodology

Secondary sources like District Census Handbook of Purba Medinipur district, West Bengal series 1991 and 2011 as well as District Statistical Hand Book of Purba Medinipur district 2001, 2008, 2011 are used to collect the data and maps and information. Explanation and analysis have been adopted to

discuss the data. Decadal growth rate, rural urban population composition, gender and caste sharing of population have been done with the help of appropriate methodologies and statistical formula. Various cartographic techniques have been applied to make the data presentable.

Result and Discussion

Table 1: Demographic Parameters of the study Area

Population parameter	Year		DecadalGrowth (2001-2011)
	2001	2011	
Total population	4417377	5095875	15.35
Sex Ratio	947	938	-0.95
Child sex Ratio	951	946	-0.5257
Population Density	933	1081	15.86
Total child population(0-6) age	628459	587654	-6.49
Male child(0-6)age	322110	301989	-6.24
Female child(0-6)	306349	285665	-6.75
Total literate population	2806250	3923194	39.80
Literate Male population	1626260	2149073	32.09
Literate female popul	1179390	174121	50.42

Source: Census of India 2001 and 2011

Table -1 depicts the structure and composition of population of Purba Medinipur district of West Bengal. Population structure and composition are the two important indicators of population dynamics studies and the vital variables of population which determined the socio-economic conditions and developmental stages of the society. These are also determined and decide the process and levels of resource utilization. Unbalanced structure and composition of population creates several problems in sustainable societal setup and hindering the running developmental process in time and space. In 2001 the total population of the district was 4417377 persons which increase to 5095875 persons in the decade 2001 to 2011 with the decadal growth of 15.35 percent (Table no-1). It is slightly higher than the decadal population growth of the state (2001-2011) during the same time span.

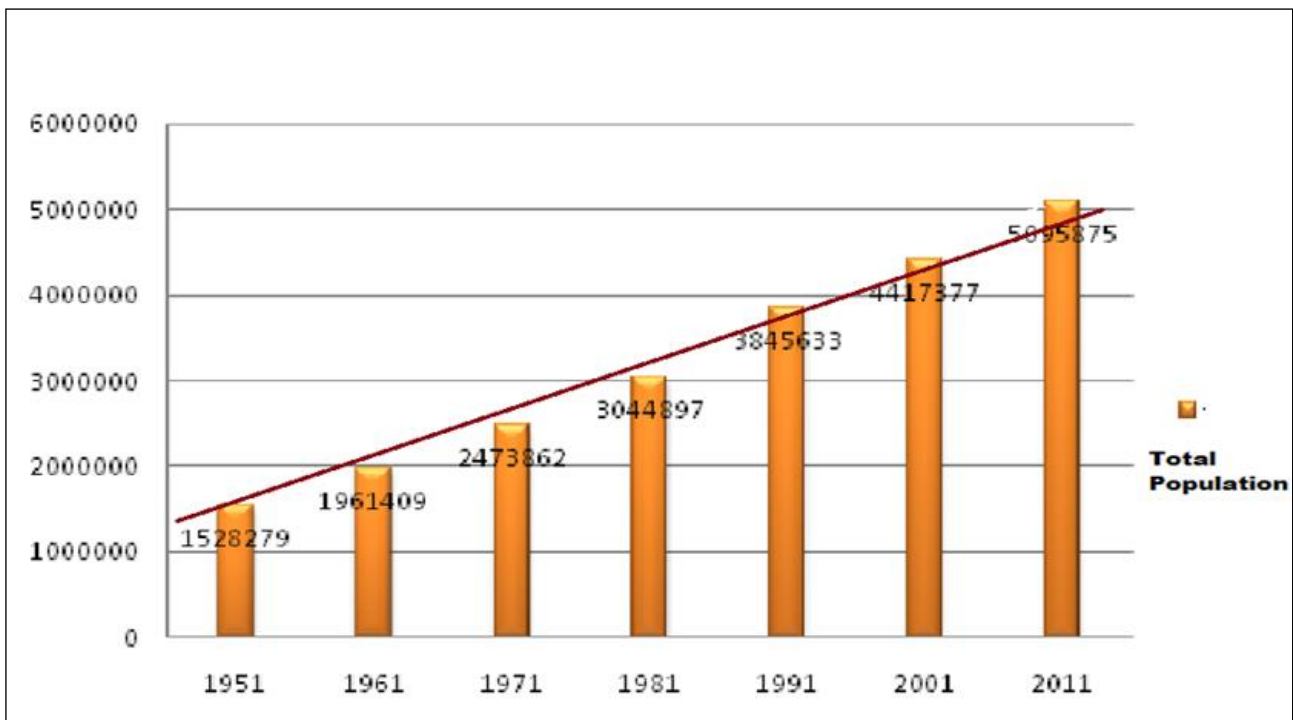


Fig 2: Decadal distribution of Total population in the Study area

Fig 2- it is evident that the total population of the district of Purba Medinipur is about 4417377 compared to 1528279 in 1951 which may be roughly a three times increase in population during this decade. There was a gradual rise in population up to 1971. But after the industrial revolution during the late '70s and early '80s the district experienced a fast growth rate of 2.6 percent per annum after 1971. The density of population too has rose upward by 3 times from 1951 to 2001 (Table-1); being 933 persons per square kilometre in 2001 and 1081 persons per square kilometre in 2011.

According to 2011 census data the Sex ratio of Purba Medinipur district is 938 females per 1000 male population gives a sign of little bit concern. In 2001 the sex ratio was 947 which clearly indicate a fallen of sex ratio by 0.95 percent. The child sex ratio which was 951 females per 1000 male child in the year 2001 showed negative growth of 0.53 percent and reduced to 946 female's children per 1000 male child in 2011.

The district has shown a very good positive change in literacy of the population and the literacy rate of the district has been increased by 39.80 percent during the decade

2001 to 2011 (table-2 and figure-2). Literacy of the district is 88.60% (2011) which is quite better than the state literacy rate 76.26% (2011). According to the census 2011 it is important to mention here that female literacy rate has been increased by 15.43 percent during the decade 2001 to 2011. This is also a positive sign for expectable social empowerment and economic and social development.

Population density is highest in the eastern portion of the district. The Municipal areas of Contai, Tamluk and Haldia and the Blocks Kolaghat, Tamluk and Sahid Matangini have more than 1500 persons per square kilometre. Apart from the Municipal areas all these Blocks have developed small and medium scale industries and cottage industries at household level. Also transportation facilities provide better opportunities for livelihood which in turn has attracted huge population in time.

Fig. 3 shows the change in the density of population from 1991 to 2001. It is seen that the entire district has experienced a positive density change during this decade. The highest density change about more than 53 percent is experienced in Contai Municipality followed by Tamluk Municipality (25.6 percent change). These two urban areas

have emerged as administrative centres in the last ten years. Kolaghat, Moyna and Nandakumar Blocks have experienced greater density change due to the development in agriculture and Haldia Municipality has shown positive change due to the enormous growth of large and medium

sized industries. Density variation is least in Egra I Block (6.85 percent). Perhaps most of the people have migrated to other Blocks or Egra Municipality in search of better opportunity in livelihood pattern.

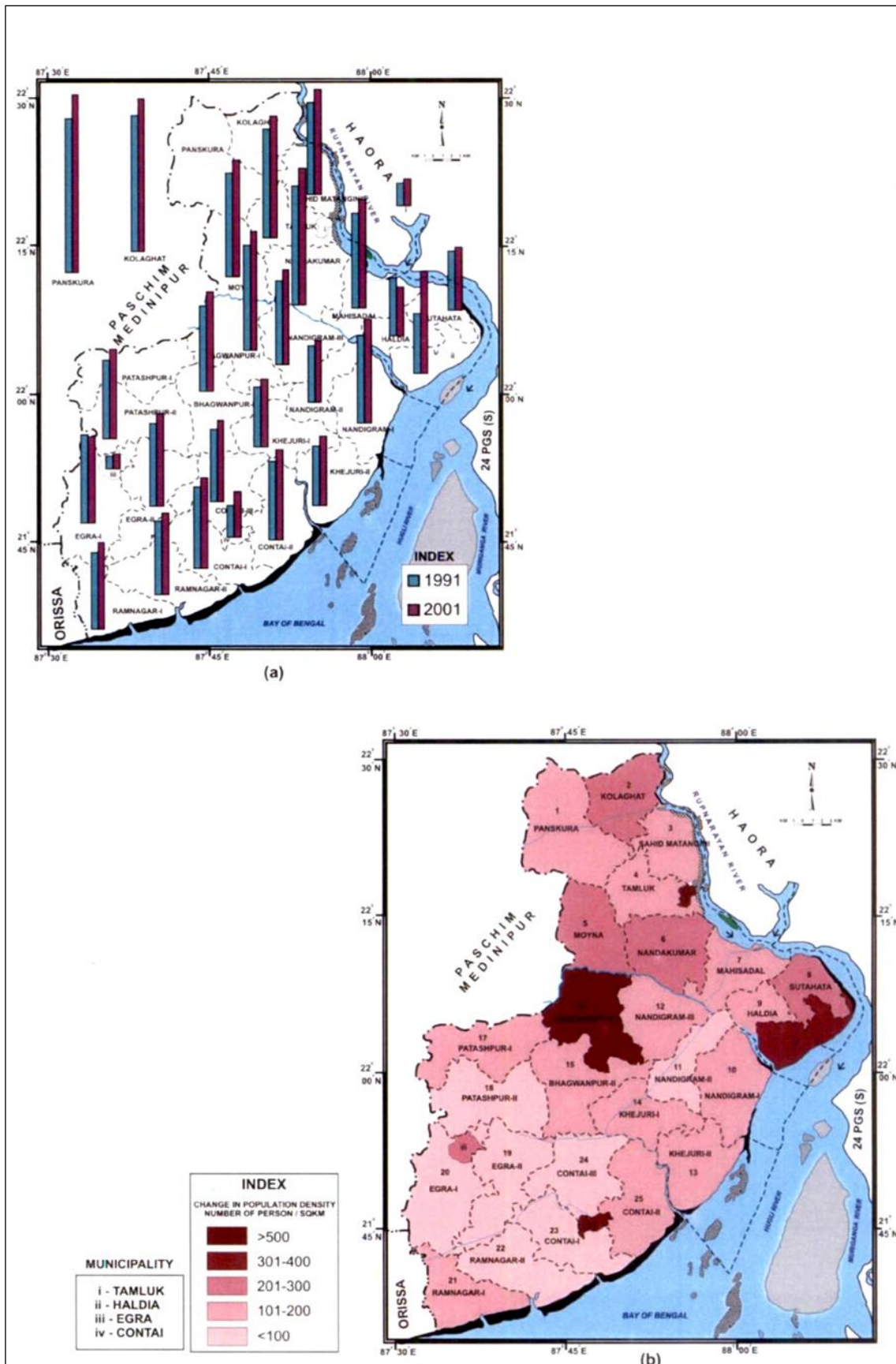


Fig 3: Changing population Density of study area in 1991 and 2011

From Fig.4- it is evident that among the urban centres Haldia has the greatest amount of population followed by Contai and Tamluk. This may be attributed to the pull factors created by the large scale industrialization in and around Haldia. Contai being the subdivisional headquarter and Tamluk - the district headquarter- stimulated the in-

migration of people for administrative purpose. Rural population is highest in Panskura (289851) and lowest in Haldia (81619) Blocks. Large portion of the rural areas of Haldia Block has been converted into Municipal area and so the town shares the greatest urban and the Block - the least rural population.

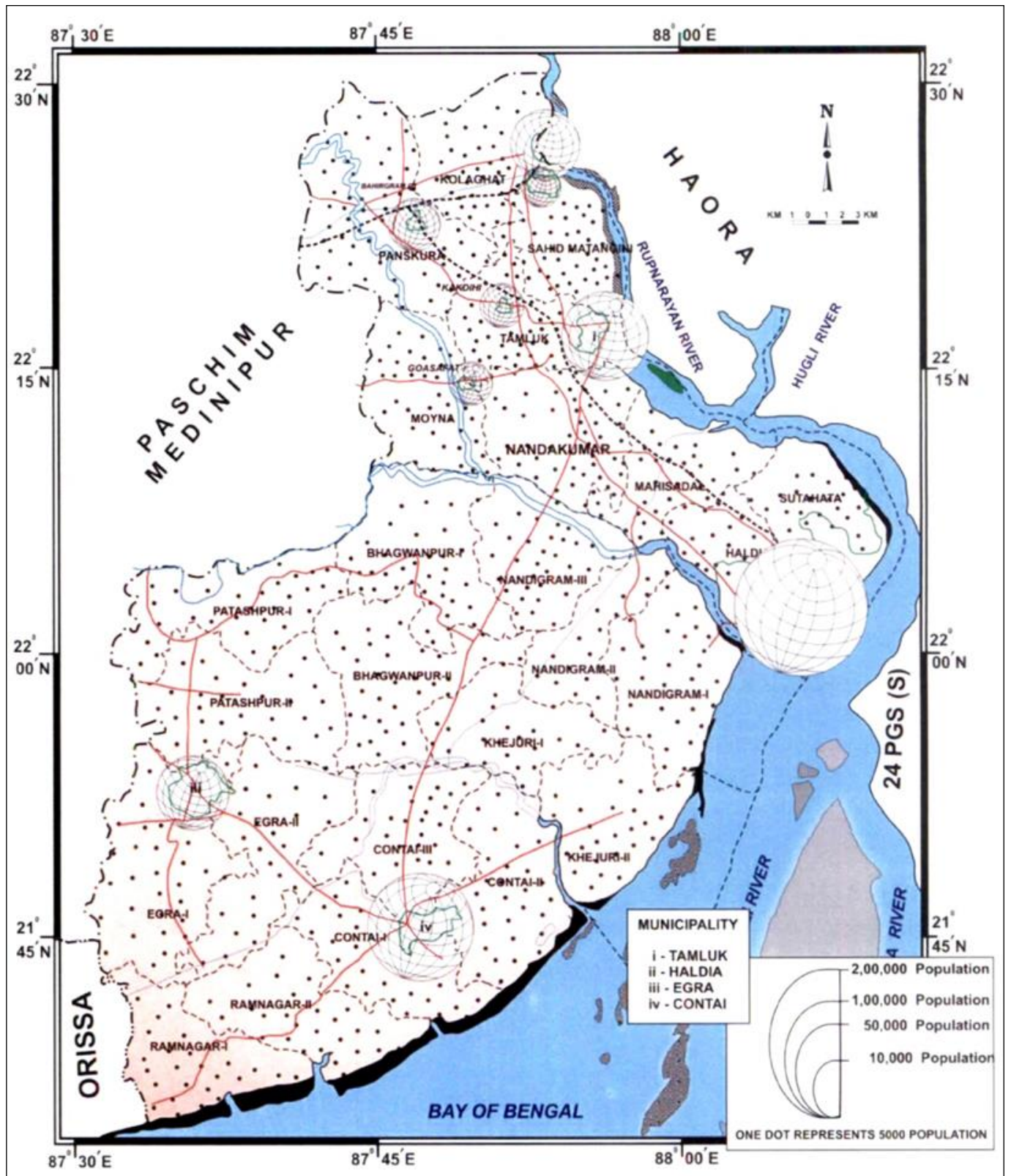


Fig 4: Distribution of Rural and Urban Population 2011

Panskura Block shares the largest population in the district. Excellent facilities of transport and communication and

greater agricultural prospects have made the Block to share the highest number of rural population.

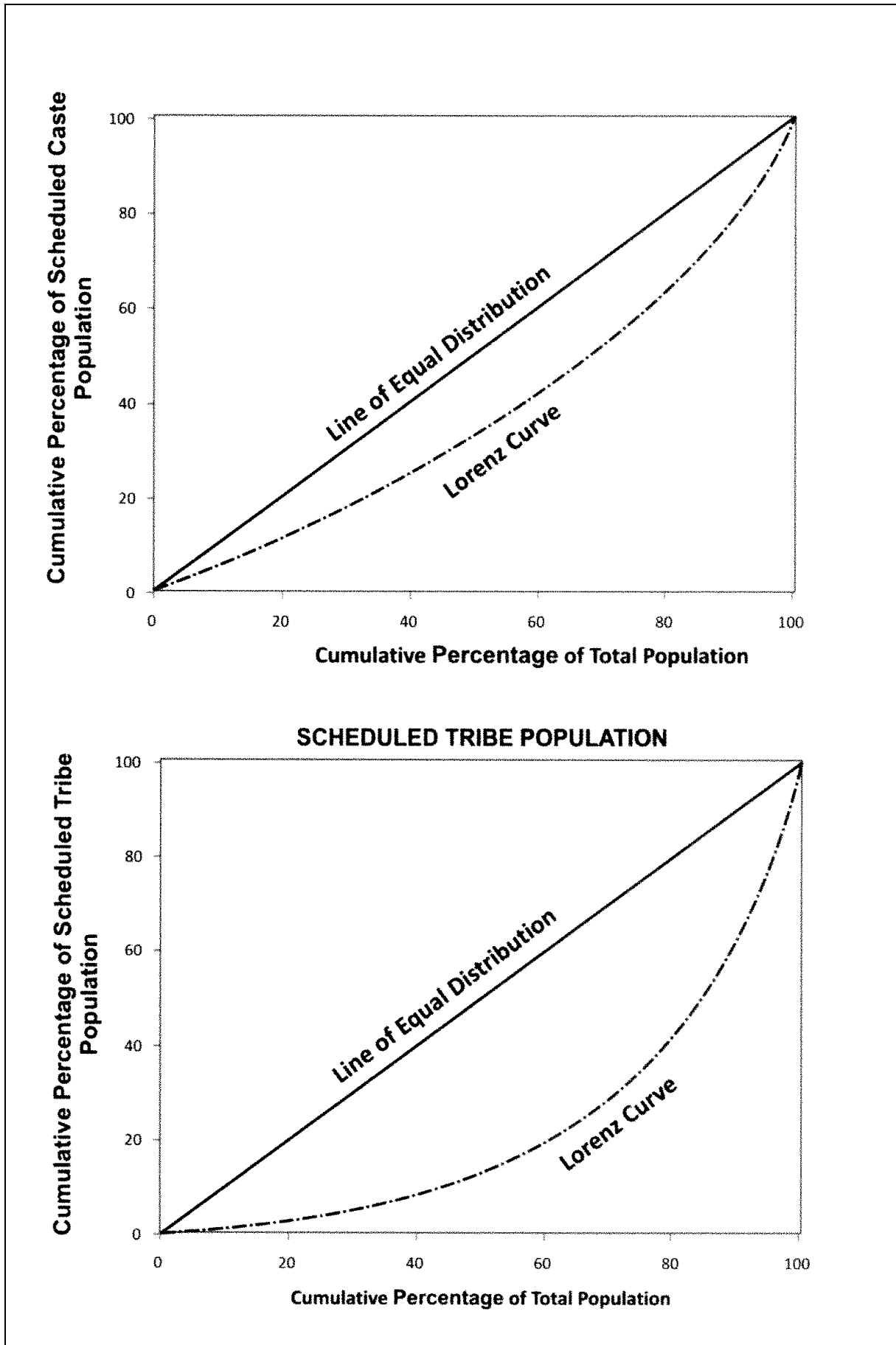


Fig 5: The Lorenz Curve of Scheduled Caste population of Purba Medinipur (Block wise)

District is closer to the line of equal distribution than that of Scheduled Tribe population (Fig. 5). It suggests that there is a greater tendency more towards even distribution in case of Scheduled Caste population than that in case of Scheduled Tribe population. In other words the Scheduled Tribe population of the district exhibits a greater tendency towards concentration than Scheduled Caste population. The extent of concentration of even distribution cannot be measured precisely. This is done with the help of Gini's Co-efficient of Concentration (GCC). The GCC is the ratio of the area between the Lorenz Curve and the line of equal distribution to the area enclosed by the two axes.

Conclusion

The present study is dealt with demographic features and population dynamics of Purba Medinipur district of West Bengal. On the basis of data analysis and findings it can be concluded that the decadal growth rate of the district has been increased a little bit 0.04 percent during the last decade 2001 to 2011. Though in some blocks of the district population growth shows negative population growth rate during the same decade. Retaining almost same population growth rate may be advantageous and encouraging for sustainable development of the district in many fields. This minimum increase of growth rate would help to preserve optimum population resource relationship easily. Urban areas having good accessibility and connectivity in comparison to rural parts of the district are developing rapidly and transferring into destination of trade and commerce, educational hub and centers of health services facilities. These growing centers of higher order services are attracting more population from in and outside the district. Less developed blocks of the district having less accessibility and low connectivity, availability of low social facilities are heavily working as push factors and forcing population to move out from their native place mainly from rural areas and poorly developed small towns. Increasing literacy rate and increasing aspiration towards better life are also forcing younger generation to migrate outwards particularly from rural areas of the district in search of better livelihood options.

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