CHAPTER-4: STATUS OF POPULATION GROWTH

4.1. Analysis of population status of the Haora River basin

4.1.1. Status of population growth of the basin area

Location and the socio-cultural importance are the main accelerators behind the development and growth of any area (Alonso, 1964; Mills et al., 1967; Muth, 1969; Anax et al., 1998). Growth of Tripura as well as Agartala City is mainly started after 1950’s. During that time Tripura was considered as a province of East Bengal. Thus, there were no divisional records of Tripura in district-wise and the total population of the whole province was almost unnoticeable. The population Census records for the Tripura as a state was started from 1950’s and the detailed district-wise record was taken into consideration from 1961 Census year (from the Census history). So it can be said that population of Tripura is showing a noticeable growth particularly after 1950’s and it is particularly because of the immigration of Bangladeshis after the partition of India and Bangladesh (Menon, 1975).

![Graphs showing population growth in Sadar Subdivision](image)

*Fig-4.1 Growth of population in Sadar Subdivision during 1961-2011 (Source: Census)*
Although the Census data recording for the Tripura state in district level was started in 1961 but village level data for each and every blocks were still unavailable due to inaccessibility of the areas. To get a general idea about the population trend of the Haora River basin for the period of 1961-1971, the population of Sadar Subdivision is taken into consideration as the entire Haora River within Indian Territory is flowing through this Subdivision. From the graph (Fig.4.1) it is noticed that the population of the Sadar Subdivision is in a growing trend since 1961, but there is a decline in the growth rate between 1981 and 2001. In case of SC population the growth is sharp excepting in the decade of 1981-91, when there was a rapid decline in the growth rate. The declining of population in 1981-91 was due to the occurrence tribal-non tribal riot (Saha, 2005). In case of schedule caste population, the growth is in declining trend since 1981.

After getting a general idea of population growth of the Sadar Subdivision for 1961-2011, a detailed analysis of population in village level has been prepared particularly for the Haora River basin from 1981 to 2011. The population trend of Haora River basin is also in increasing. But the growth rate is more (>30,000 persons) in the Agartala area and its surroundings (namely Dukli, Pratapgarh part, Jogendranagar etc.). Except those areas, population density is also high in the villages located along the river course (Fig.4.2).

The growth of the Haora River basin is seemed to be Agartala centric, since this is the only city in Tripura (Saha, 2005). From the decadal growth map of the Haora River basin (Fig.4.3) it is clear that in 1981 the first concentration of population was started in
Agartala and Uttor Champamura area, where the then population were more than 15000. But in 1991 three more blocks had come up having population more than 15000. All these blocks are located adjacent to Agartala. In 2011 the numbers of total blocks having more than 15000 populations are counted as 5. The numbers of blocks having population 5000-15000 have been increased from 10 in 1981 to 15 at present (Fig-4.3). The urban economists have paid attention to the role of location, cultural and historical heritage of Agartala in attracting people (Rosen, 1979; Roback, 1982) from both inside and outside Tripura.

Fig-4.3 Decadal growth of population within the basin during 1981-2011(Source-Census)

Fig-4.4 Population density within Haora River basin during 1981-2011(Source Census)
The growth is primarily concentrated in Agartala and its surrounding part and after that it has spreaded eastward along the river (Fig-4.4). The maximum density of population is noticed in Agartala, Jogendranagar and Pratapgarh area where the growth rate is more than 4% per year in the last decade. In the north and south-eastern part which is hilly tract of the basin is still posses very less population density. In few areas of this hilly tract, particularly in the Baramura Part, the rate is also declining during the last two decades.

Form the decadal distribution map of population density it is clear that in 1981 the Majlispur Block, which is also known as old Agartala, was considered as the CBD (Glaeser et al., 2001) of the basin with a population density of more than 1000 persons/km$^2$. But with the passage of time the tendency for employment was diffused (Anas et al., 1998; McMillen, 2001) from such centre to Agartala and its surroundings (Fig-4.5). From the decade of 1991 the major working population were getting concentrated in Agartala, Pratapgarh, Jogendranagar and other surrounding areas.

![Decadal growth of population density within the basin during 1981-2011](Source-Census)

By 1991 there were 8 blocks surrounding Agartala, which had a density of more than 1000 persons/km$^2$ (Fig-4.5). In rest of the blocks within the basin the density was still low. But with the growing agglomeration (Fujita, 1988; Helsley et al., 1990; Glaeser, 1999; Duranton et al., 2001) in Agartala area, the maximum blocks of the basin are experiencing high population density (Fig-4.5).
4.1.2. Status of SC and ST population of the basin area

Status of schedule caste and schedule tribe population is an important indicator of the economic development of any area. Most of the SC and ST population in the study area still belongs to agro-based economy. It is also important to notice that till now they practise shifting cultivation, which has a great impact on producing sediment to the river.

![Image of map showing SC Population distribution](image_url)

**Fig-4.6 Growth of SC populations to total populations within Haora River basin during 1981-2011**

![Image of maps showing decadal growth of SC population](image_url)

**Fig-4.7 Decadal growth of SC population within the basin during 1981-2011(Source-Census)**

Concentration of the SC population is mainly noticed surrounding the Agartala City. More than 30% of the total population of Agartala, Pratapgarh, Dukli and Khayerpur belong to SC category (Fig-4.6). Excepting Agartala and its surrounding areas, SC population is
higher in Purba Barjalai and Bhrigudaspara area, where major brick industries are located (Fig-4.7). Most of the SC population are categorised as marginal workers and thus SC population is mainly concentrated along the industrial sector of the basin.

From the analysis of Census data for the year 1981-2011, it is found that most of the ST population are in decreasing trend. The major concentration of ST population are noticed in the north-eastern and south-eastern part, particularly in the Baramura Part and hilly tracts of the basin area. Growth of tribal population is less in Agartala and its surrounding parts. This indicates that a major portion of tribal population are not willing to participate in the main working force and they are still involved in practicing primitive economic activities i.e. shifting cultivation, animal rearing, hunting etc. (Fig-4.8).

![Fig-4.8 Growth of ST populations to total populations within the basin during 1981-2011](image)

![Fig-4.9 Decadal growth of ST population within the basin during 1981-2011(Source-Census)](image)
From the decadal distribution map (Fig-4.9) of tribal population to total population of the basin, it is evidenced that since 1981 a major portion of tribal population are restricted within a particular stretch of the basin. There are few villages like Dinabandhunagar, Ramchandranagar and Radhamohonpur (Fig-4.9), where sudden changes in the proportion of ST population has been occurred within this 4 decades, this due to intra-village migration of the tribal population for practicing shifting cultivation.

Fig-4.10 Growth of household within the Haora River basin during 1981-2011(Source-Census)

4.2. Growth of households within the basin area

Growth of household in any area is an indicator of developed and settled economy. In the Haora River basin it is found that the growth of household in Agartala, Jogendranagar, Pratapgrh and Dukli areas always remain high (Fig-4.10). Household are still very less in the Baramura part of the basin, but other hilly (tilla) tracts of the basin like Majlispur, Bridhhanagar, Purba Barjalai, Purba Denedranagar and Mandainagar are experiencing growth in household due to the development of industrial sectors (Fig-4.10). The population pressure in individual house is decreasing. It is an indication of economic development, where people are able to enjoy a standard living.

Not only the growth rate of household within the basin has increased but also the number of villages or blocks having more than 2500 household has increased. In 1981 there were only 3 blocks i.e. Agartala, Jogendranagar and Majlispur (Part of old Agartala Town), having more than 2500 households. This number had increased to 5 by 1991 and at present there are 11 blocks or villages having high number of households (Fig-4.11). The
numbers of households have also been increased in the rest of the villages/blocks and the numbers of villages having less than 200 houses have been decreased (Fig-4.11) from 8 (1981) to 4 (2011).

4.3. Economic status of the river basin area

Economic status of any river basin may reflect the type and pattern of degradation of the river (Hirsch, 2012). The sectoral division of the basin on the basis of different economic activities determines the level and type of pollution and sedimentation of the river. For instance, if a sector is primarily depends on agriculture, the river will be affected by more sedimentation and also by organic-chemical pollutants (such as residue of crops, pesticides, fertilisers), whereas if the sector is industrial based, inorganic-chemical pollutants will be high in river water.

In the Haora River basin proportion of main workers are relatively high in all the blocks/villages since 1981. The main workers of the basin consist of agricultural, industrial and other workers. The growth rate of main workers for the four decades is showing a static trend in Agartala and its surrounding areas, but it shows a negative growth in some villages/blocks of the hilly part (Baramura part and also tilla part) of the basin (Fig-4.12). This is mainly because of the adaptation of contractual labour occupation in the tribal community. Although major portion of tribal working forces are still engaged in shifting cultivation, there is tendency among the young group of people to shift their occupation as marginal workers (Fig-4.12).
From the decadal distribution map, the division of labours in different sectors can be clearly understood. The pattern of labour division is changing with decades. Upto 1991 most of the workers of the Haora River basin were basically agriculture based (cultivators and agricultural labours) excepting in Agartala, Pratapgarh, Jogendranagar and Dukli, where majority of the working forces were engaged in tertiary and quaternary activities (e.g. Governmental job, Teaching, Banking, other services, Business etc.). Since 2001 the scenario has been changed. The agricultural workers are mostly concentrated in the north-east, south and south-eastern part of the basin which is located in the hilly terrain and undulating plains (Fig-4.13).
The proportion of other workers is more towards the surrounding areas of the core of Agartala City. In 2011 there are 11 blocks/villages where the proportion of other workers to total workers becomes the highest (Fig-4.13). It is very interesting to note that the labour division of the basin till 1991 does not show any pattern in the distribution of marginal labours, but from 2001 a trend in marginal workers distribution is noticed. Majority of the marginal workers are settling down in north-east and south-eastern hilly tract of the basin (Fig-4.13).

There is a positive trend of growth in the marginal workers within the whole basin, but this growth rate is high in the hilly tracts, which is mainly occupied by the tribal polulation (Fig-4.14). It is already mentioned that there is a new trend among the young tribal population to engage themselves in the industrial sectors located within their territory. Major tribal people are getting absorbed in those industries as local marginal labours. In Agartala and its surrounding parts, the maximum part of marginal workers are occupied by the schedule caste category of workers (Fig-4.14).

![Fig-4.14 Growth of marginal workers within the basin during 1981-2011(Source-Census)](image)

The number of non-workers remain high (>35%) since 1981 (Fig-4.15). It is mainly because of the portion of female population. This category of population, occupying a major part of the total population, are still remained as unworking. Presently this trend is gradually changing and the trend of non-working class population has declined in 2011 (Fig-4.15). A high portion of female population are now working as marginal workers in different sectors within the basin.
Intensification of agriculture is the driving force in the degradation of river system (Onywere et al., 2007). Increasing use of pesticides, fertilisers and manures are leading pollution to the environment. In Haora River basin it is found that the proportion of agricultural workers is showing a declining trend throughout the basin and the rate is sharply declined near Agartala and its surroundings, as major portion of workers are now absorbed in different industrial sectors. Cultivators and agricultural labours are still high (> 35%) in the Baramura and other elevated parts of the Haora River basin (Fig-4.16).
Fig-4.17 Growth of industrial workers within the basin during 1981-2011 (Source: Census)

The proportion of industrial workers to the Total workers of the Haora River basin is showing interesting changes in its decadal distribution. From figure no. 4.17 it is observed that there was a sudden fall in industrial workers during 90’s. This was due to the communal riot held in late 90’s. The rate has again started to increase from 1991. Moreover, there is a sectoral growth of the industrial workers in Agartala and its surrounding areas especially in Pratapgarh, Jogendranagar, Dukli, Khayerpur and Mekhlipara (>60% to total population). Growth of industrial workers are also high in the blocks/villages which are located along the Haora River (Fig-4.17).

This continuous increase of population is leading to tremendous pressure on the environment. A major portion of this population is truly dependent on the Haora River water. Besides this, population rise accelerates the need for unscientific constructions as well as excavation, which is degrading the Haora River health.

4.4. References


