

## **CHAPTER 7**

### **CONCLUSION**

#### **7.1 Introduction**

This has been an indepth study on rural-urban interaction taking place among the villages of Siliguri sub-division with Siliguri Municipal Corporation. The study shows rural-urban interaction has been very prominent in the study area with interactions taking place for economic, agricultural, educational, health, entertainment and administration and organizational purpose. The the study area of Siliguri Municipal Corporation and 4 C.D block of Siliguri sub-division viz. Matigara, Naxalbari, Khoribari and Phansidewa have a total area of 819.61 sq.km.

#### **7.2 Summary**

It was in the year 1867 when J.D. Hooller first used the term 'siligoree'. Siliguri went on to become sub-divisional head quarter under Darjeeling district for the first time in 1907. With the introduction of modern motorized transportation system post First World War in 1919 in Siliguri, movement of people from Siliguri to Darjeeling and back became relatively more convenient and frequent. With time public bus also started running from Siliguri to Naxalbari in the year 1925, commuting people from Siliguri to Naxalbari and back. Gradually the population of Siliguri reached 7000 in 1931 and got recognized as a census town. Siliguri witnessed a huge influx of refugees from East Pakistan during the period of partition and social unrest which led to subsequent increase in the population of Siliguri. It would not be completely wrong to state that Siliguri, in its initial stages developed rather sporadically along with inconsistent growth of population.

Siliguri got the status of a municipality in 1949 after independence. However, it was only after the Chinese invasion in 1962, that the roads in and around Siliguri developed rapidly for strategic purpose. Gradually a large number of military, air force and army base were established in and around Siliguri making this town a very important cotterpin in Indian defence system. With the development of NJP railway station in 1964 on the outskirts of the city, Siliguri emerged as a railway transportation hub in the mainline connecting north-east India with the mainland. The construction of Farakka Barrage in 1974 led to uninterrupted rail and road connectivity between Siliguri and South Bengal making people's movement more convenient resulting in further growth of Siliguri. Post the creation of Bangladesh in 1971,

another wave of refugees entered Siliguri resulting in rapid increase in population. Finally, in 1994, Siliguri got the status of a Municipal Corporation following which Siliguri as well as the entire sub-division went ahead in the path of growth and development. Presently, according to the census report of 2011, the total population of the study area is 1189838 persons consisting of 65417 urban population and 535221 rural population.

Physiographically, the study area is part of outlying hills of the lower Himalayas and a stretch of land along the base known as terai. The elevation of the study area ranges from 48 m to 1299 m above the mean sea level. Teesta, Mahananda, Balasan and Mechi are the major rivers flowing through the study. The annual average rainfall in the study area is above 2000 mm with mean maximum and minimum temperature lying between 13.8° C to 28.6° C. Forests are present in abundance in the study area with a number of reserved and protected one.

Siliguri sub-division is agriculturally diverse with crops like paddy, jute, potato and different seasonal vegetables cultivated in abundance. Besides agriculture, tea plantation is very common in the study area. Tea gardens are important contributors to the local economy as a lot of it depends on the processing of the tea leaves. Throughout the present study area, Siliguri flourished to become the most important urban centre as a result of development in trade and commerce. Located close to Sikkim and the north-eastern states, Darjeeling hills, Bhutan and Nepal, Siliguri went on to become the main distribution hub of industrial and household goods moving to the aforesaid states and countries. Siliguri also gained more prominence owing to development of tourism not just in North Bengal but also in Sikkim and north-east India giving it the title of “gateway to the north east” as it literally acted as the gateway to different tourist spots located in Sikkim, Darjeeling and the forests of North Bengal.

In the present study an attempt has therefore been made to study the growth of rural and urban settlements. The population growth was analyzed from 1991 to 2001 based on the census data. The analysis was done for all the four blocks, i.e. Matigara, Naxalbari, Phansidewa, Kharibari as well as Siliguri Municipal Corporation. It was observed from the analysis that population growth in the study area was very rapid from 1991 to 2011. However, the decadal growth of population was not uniform for all the blocks. Matigara block located closest to Siliguri Municipal Corporation witnessed very high population growth both during 1991- 2001 and 2001 -2011 as a direct impact of rapid population spill out from SMC to its surrounding areas that took place from 1991 onwards. On the other hand, Phansidewa and Kharibari block located farthest from Siliguri Municipal Corporation have recorded relatively less population growth. Siliguri Municipal Corporation during 1991- 2001 more than doubled

it's population due to addition of adjoining area within its boundary but during the next decade it witnessed a very moderate population growth.

The size class classification of rural settlements within the study area was also done for each block. It was observed that the conversion of villages in to census towns in Matigara and Naxalbari block saw a decrease in their total number of villages from 1991 to 2011. However, the same cannot be said for Phansidewa and Kharibari as the total number of villages from 1991 to 2011 remained almost the same. Another interesting fact which requires attention is that the numbers of villages in the lowest four size classes have declined considerably in the study area in 2011 compared to 1991, while an opposite trend was visible for the largest three size classes.

At the village level a lot of variation in decadal population growth was revealed. Therefore, to analyze the growth of population for villages in the study area, decadal population growth of individual villages was computed for 1991-2001 and 2001-2011. While calculating the decadal population growth of villages, there was problem with some villages which existed in one or two of the three census years under consideration. The village level population data reveals that some villages in the study area experienced very high decadal growth (over 1000%). Nonetheless, negative population growth in villages of the study area is not uncommon. Some villages with very less population size witnessed nearly 100% negative population growth probably because of a combination of factors like out migration and natural calamity. Interestingly, there is no significant relation between the distance of any village from Siliguri Municipal Corporation and their decadal population growth.

The study area portrays diverse socio-economic characteristics. In general, the literacy rate of villages decreases with increasing distance from Siliguri Municipal Corporation. The literacy rate for most of the villages has seen improvement in 2011 compared to 1991. Moreover, the villages with very low literacy rate in 1991 witnessed the highest improvement in 2011, with a few exceptions. Similarly, the sex ratio also varies among the villages and there are many villages in the study area where high sex ratio were recorded. Most of the villages with low sex ratio in 1991 witnessed a significant improvement in sex ratio in 2001 and 2011. In terms of distribution of population according to worker's category, an increase in the share of marginal workers in the villages has been observed. Most of the villages reported a very low share of marginal worker in 1991 (Zero in nearly 50 % of villages) but in subsequent years this share increased to about 5 to 15% of the total population in the villages. This increase in the share of marginal workers for most of the villages in the study area has taken place at the cost of main workers. Continued increase of marginal workers at the cost of main workers will

definitely have severe repercussions which will eventually have catastrophic effect on the rural economy of the study area.

In the present study an attempt has also been made to analyze the rural-urban interaction. Chapter 4 has solely been devoted to study and analyze the nature of rural-urban interaction in the study area as it is an integral part of urbanization process and its associated development of the surrounding rural areas. It is very famously said that India lives in her villages and the same can be applied to West Bengal as well with majority of their population residing in rural areas. However, the interaction between the rural and urban areas continues to increase at rapid rate due to mutual benefit of both the communities. Infact, in an increasingly globalized world, it is misleading to view the rural and urban areas as distinct spheres as both are interconnected and depended on one another. As has been strongly advocated, the solution to urban problems lays in rural areas, therefore in this given context this study on rural urban interaction gains greater significance. Economic, social and factors related to infrastructure are some of the factors that govern the nature of rural-urban interaction. The most important factor which controls the volume of rural-urban interaction is the population size. This includes both the population of the urban centre as well as population of the surrounding rural area. In the study area the total population of Siliguri Municipal Corporation in 2011 was 513265 while the population of the four blocks viz, Matigara, Naxalbari, Phansidewa and Kharibari was 676574 persons. Siliguri, being the second most important urban centre of West Bengal after Kolkata depends a lot on rural population of its sub-division for supplies related to food grains, vegetables, fruits and dairy products. On the other hand, people living in rural settlements also depend a lot on Siliguri to fulfill their requirements related to services like education, health, trade and commerce, business etc.

Development of transport and communication facilities plays an important role in governing the degree of rural-urban interaction. Since railway connectivity is very limited with fewer local trains, most of the people in the study area depend on roadways for interaction. The major roads which connect the rural area of Siliguri sub-division with Siliguri Municipal Corporation are Asian Highway 2, National Highway 31, 31A and 55 and State Highway 12. There is access to both public and private buses as well as autos from Siliguri Municipal Corporation to various parts of the study area. The high frequency of bus and auto services allows free movement of people leading to high volume of rural-urban interaction along the major routes connecting important parts of the study area with Siliguri Municipal Corporation. Moreover, Siliguri being the major hub of employment opportunities, health care services, educational institutes, trade and commerce and recreational facilities, people from its

surrounding areas come to Siliguri by availing the cheap modes of transportation facilities available to them.

The number and size of settlements also play a significant role in rural-urban interaction. There is a mutual beneficial relationship between rural and urban settlement in the area. In 2011, there were 353 villages and 14 census towns in Siliguri sub-division. Out of these 353 villages, 313 villages were inhabited and 40 villages were uninhabited. Out of these villages the highest number was in the size-class of 1000-1999. However, it was also found that with the passage of time smaller size-class villages in the study area declined and bigger size-class villages increased in number. This is the result of natural increase in rural population within the study area. The growth of urban population took place at a higher rate within the study area. The total number of villages in the study area has not changed by much but an increase in the number of villages in the higher size-class category also points towards a higher rural-urban interaction in the study area.

The dynamics of rural-urban interaction have also been affected to a large extent by trade and commerce operational in the study area. It is but obvious for rural population to trade with urban population with respect to primary goods like food grains, vegetables, fruits, and dairy products. On the other hand, they depend on the urban centre for fulfilling their requirements related to agricultural inputs, agricultural machineries and for other rural non-farm activities. Increasing incidence of trade and commerce between urban areas and the surrounding rural areas will have a greater influence in shaping the rural-urban interaction. With well developed trade and commerce in the urban centers, employment opportunities will be generated which will further attract the rural population to urban areas thereby increasing the intensity of rural-urban interaction and resulting into increase in the number and frequency of daily commuters to the nearby urban areas.

The rural-urban interaction is not just dependent on the development of trade and commerce in the cities and towns; rather it is also influenced by the level of development of agricultural activities in rural. A highly developed agricultural sector not only bring economic prosperity in the rural area but also lead to increase in the demand of more sophisticated farm inputs and machineries for which they have to depend on the nearby urban centre. A healthy rural economy further results in increasing demand for better healthcare facilities, educational facilities and consumer durable commodities among the rural population which in turn increases their dependency on nearby large urban centre. Moreover, if the rural population is engaged in commercial agriculture, they will have to bring their products to the nearby urban centre to sell their products. However, if the villages practice subsistence type of agriculture,

very little rural-urban interaction is possible as subsistence agriculture is usually associated with confinement of rural population within the village boundary. Availability of transport and communication services along with rather rapid development of Siliguri as the main centre of trade and commerce and allied developmental activities along with agricultural practices in the rural areas throughout the Siliguri sub-division results in robust rural-urban interaction in the study area.

Various socio-economic factors like the level of urbanization, distribution of working population, educational level, industrial development and power development are deciding factors in shaping the rural-urban interaction. In general, a high level of urbanization means more people living in urban areas, which lead to higher demand for primary goods from the surrounding rural settlements. The process of urbanization also results in increase in the construction activities thereby increasing the demand for cheap labour. This demand for labour force is met by supply of labour force from the surrounding rural settlements. Likewise, share of the population in the working age-group is also important here. A higher share of population in the working age-group means more people are in demand of employment. Rural areas fail to provide enough employment opportunities in non-farm sectors which make the local population more attracted towards nearby urban centre to get absorbed in urban informal sector. In Siliguri, there is an increased demand for labour in informal sectors which attract huge number of people from its surrounding rural areas to Siliguri where they work as hawkers, domestic help, construction workers, and daily wage labourers, workers in hotels, restaurants and malls. These workers commute daily for their village to Siliguri. Similarly, the level of education also plays a vital role in the process of rural-urban interaction. It is obvious that an educated person will have access to number of economic opportunities in comparison to an uneducated person. In the study area, the literacy rate of the villages decreases with increasing distance from Siliguri Municipal Corporation which will have its own impact on the access that rural population have to different employment opportunities present in the city. At the same time higher level of industrial development will lead to better rural-urban interaction. Any kind of industry, be it either large scale, small scale or medium enterprises depend on the rural areas for their supply of raw materials. Though the study area doesn't possess any big industrial unit, tourism, food processing, tea and timber industry have traditionally prospered in and around Siliguri and have remained to be major contributors of local economy. Primarily being labour intensive industries, they attract a lot of people from the surrounding rural areas for employment purpose in the study area.

In the fifth chapter an attempt has been made to study the transport network and analyze the land use and land cover change within the study area. It was observed that although, Siliguri sub-division is connected by roadway as well as railway, it is the roadways that are the most popular mode of communication for the rural population in the study area. Although, railway network is present but lack of suburban rail connectivity with Siliguri does not make it a popular mode of transportation for the rural population of Siliguri sub-division to connect with Siliguri. The transport network is most developed in Siliguri Municipal Corporation and its surrounding rural areas and as one moves away from the main urban centre the transport network also became less developed. The transport network analysis done for the study area shows that Siliguri Municipal Corporation and its surrounding areas around Bagdogra, Shivmandir and Matigara covering the east-central part of the study area have the highest network connectivity and as one moves towards the north, west and south-western part of the sub division the transport network connectivity deteriorates considerably. It has also been observed that the road density within the study area isn't consistent and varies. The highest road density was observed around Siliguri Municipal Corporation and its surrounding area and the lowest road density observed along the border areas of the sub-division, Matigara has the highest road density while Kharibari and Phansidewa has the lowest road density among the four blocks. While among the zones, Zone I has the highest road density and Zone III has the lowest road density.

The land use and land cover change in the study area has been analyzed for seven classes which are agricultural land, barren land, built-up area, forest cover, sand bars, tea garden and water bodies. The area under built-up area and tea garden has increased while the area under agricultural land has declined for all the zones as well as the blocks from 1991 to 2020. As far as the rest of the classes were concerned, not much change has been recorded from 1991 to 2020. It is also seen that the built-up area increased as result of rapid urbanization and increase in associated construction activities. The area under tea garden has also gone up considerably due to the conversion of agricultural land into tea garden. This shift from agricultural practices to tea plantation by small farmers was because of the relatively more profitable nature of tea plantation than conventional agricultural practices. It is worth mentioning that land use and land cover change along the main transportation lines in the study area has also undergone a lot of change which is a direct result of agricultural land being converted to built-up area.

The present study would remain incomplete without analyzing the pattern of rural-urban interaction within the study area. To fulfill this objective of studying the pattern of rural-

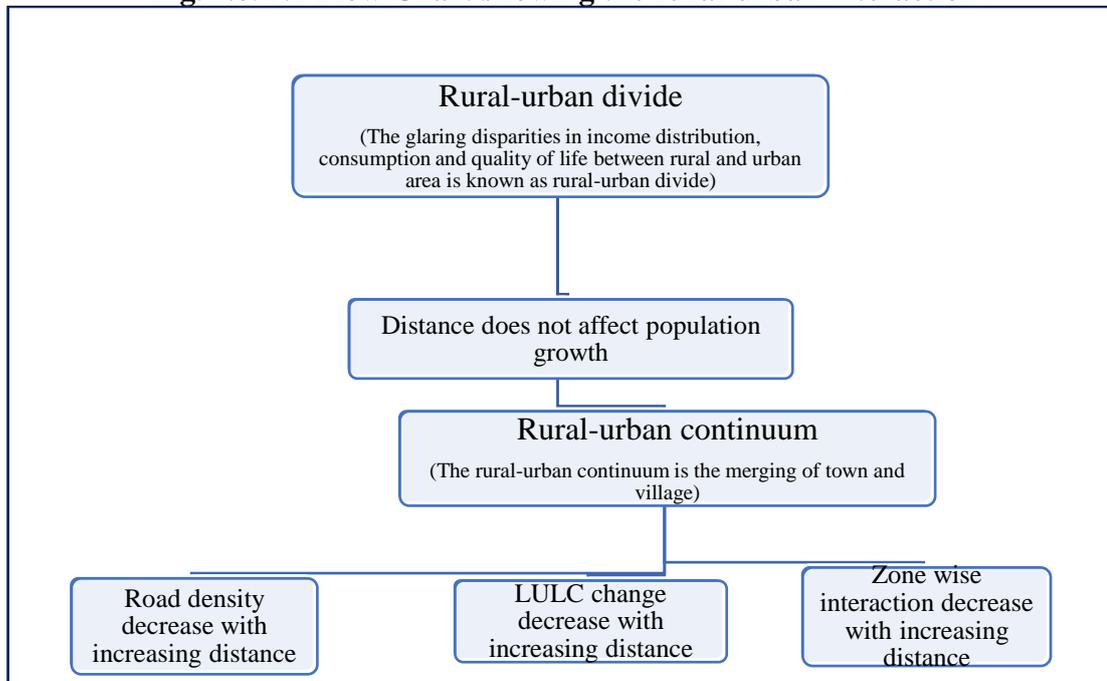
urban interaction within the study area, 55 villages were selected based on their size-class category from Zone I, II and III respectively. Since rural-urban interaction takes place for a variety of reasons so in this study, rural-urban interaction was analyzed for the following purposes viz. economic, agricultural and educational, health, entertainment, administrative and organizational. From each of the 55 selected villages, the households were classified on the basis of frequency of visit to Siliguri Municipal Corporation for each of the above mentioned purposes. The unequal weightage method was used, with the highest weightage given to those households who visit Siliguri Municipal Corporation daily and the lowest weightage to those households who never visit Siliguri Municipal Corporation. This gave a composite index of interaction for each of the 55 villages with respect to different purpose of the rural-urban interaction individually. While analyzing the rural-urban interaction, it was seen that interaction for economic, agricultural and educational purposes were in general higher compared to interaction for health, entertainment and administration and organizational purpose between the villages of the study area with Siliguri Municipal Corporation. However, a dominant trend with respect to all the purposes of rural-urban interaction in the study area is that the frequency and volume of interaction decrease with an increase in distance from Siliguri Municipal Corporation. Infact, while analyzing the relationship with average income of households and the literacy rate of 55 selected villages with their composite index of interaction, no significant relationship was established. Therefore, it can be said that for rural-urban interaction between the villages of the study area with Siliguri Municipal Corporation, distance of a village from Siliguri Municipal Corporation plays the dominant role in determining the level of interaction.

### **7.3 Suggestions**

In this work an in depth analysis of the rural-urban interaction of Siliguri sub-division with Siliguri Municipal Corporation has been done. The study area consist of 4 C.D. blocks viz. Matigara, Naxalbari, Phansidewa and Kharibari of Siliguri sub-division and Siliguri Municipal Corporation with a total area of 819.61 sq. km. In this study, an attempt has been made to not only analyze the level of rural-urban interaction but also to analyze the factors which controls this interaction. Moreover, an in depth analysis of transport network of the study area has also been done because transport system along with distance plays the most important controlling factors in determining the rural-urban interaction. Land use and land cover change in the study area has also been analyzed because these changes has been very rapid in and around Siliguri Municipal Corporation in recent times due to spill out of urban population in

the surrounding rural areas. An analysis has also been done to measure interaction of villages of the study area with Siliguri Municipal Corporation for various purposes like economic, agricultural, education, health, entertainment and administrative and organizational. The flow chart below shows how with the passage of time the concept of rural-urban divide is replaced by rural-urban continuum when interactions between these two fields are high.

**Fig. No. 7.1 Flow Chart showing the rural-urban interaction**



Source: Compiled by the Researcher.

Rural-urban interaction is beneficial for both the urban areas and the surrounding rural areas. It helps in integration of the rural economy with the nearby urban centre. However rural-urban interaction in the study area is not uniform with the presence of a number of villages whose interaction with Siliguri is minimum. Therefore, in this section some suggestions and recommendations has been given to further increase the rural-urban interaction in the study area.

1. The linkages across space such as flows of people, goods, money and information between rural and urban communities should be strengthened. This can be done by encouraging people from the rural areas to visit Siliguri regularly.
2. The linkages between sectors especially between agriculture and manufacturing needs to be strengthened. In the study area tea plantation and pineapple cultivation is very prominent. Therefore efforts must be made to create sectoral linkages with this primary goods with the manufacturing sectors for processing and export.

3. Although, within the study area there is the presence of 14 census towns which have urban by classification but in reality they perform very limited urban functions. Therefore, efforts must be made to improve the governance and local economy in these census towns which will help to improve the rural-urban interaction at the micro level to a new height.
4. Rural-urban interaction has the potential to become a successful policy measure to reduce poverty in rural areas. The gap between the livelihood status of rural and urban areas can be reduced to a great extent with increasing rural-urban interaction.
5. Rural-urban interaction depends a lot on the availability of proper transportation facilities. For people from the villages to interact with urban centre the primary requirement is the availability of all-weather roads connecting the village with the nearby urban centre. In this regard the central government scheme to connect all villages of the country with all-weather roads i.e. PMGSY can play a very vital role to increase the rural-urban interaction in the study area. Special emphasis will have to be given to connect the remote villages in the study area with the main transport lines connected with Siliguri.
6. A strong rural-urban interaction can help the rural population to cope during environmental and economic shocks in the rural areas. During the time of flood, drought or other economic crisis, people from the rural areas can depend on the surrounding urban areas for providing alternative livelihood opportunities.
7. Establishment of small scale industry within the study area will also foster a greater rural-urban interaction. This will not only help to improve the health of the rural economy but will also cater to the needs of unemployed youths in the rural area.

All these measures will help to increase the rural-urban interaction in the study area. This will finally lead a harmonious development of both Siliguri Municipal Corporation and the rural areas of Siliguri sub-division in the future.