

## **CHAPTER III**

### **DEMOGRAPHIC AND ECONOMIC STRUCTURE**

#### **3.1 Introduction**

Demography, in its wider perspective, connotes population studies which deal with the levels and changes of population distribution, its composition and size as well as with the causes and consequences of its level and changes (Srinivasan, 1998). It therefore, is a systematic analysis of human population with emphasis on the description and explanation of population distribution, structure, growth patterns and processes. Trewartha is of the opinion that numbers, densities and qualities of population provide the essential background to geography. According to him, any neglect to the study of population will seriously hamper the study in geographical science as population being the pivotal element, all other elements are oriented around it (Hassan, 2005).

Population size and economic development are intimately associated as the consequences of population growth increasing faster than the means of subsistence has a strong impact on social and economic thoughts. All the indicators of development in the developing economies are directly or indirectly related to the size and structure of its population and changes (Mehta, 1996). For understanding the interaction of the level of living of the inhabitants with the level of urban amenities in an urban area, the knowledge of different components of population is necessary. The demographic and economic data constitute the hub of the planning processes which helps in preparing plans for the development of a town with regard to future estimation of demand and supply, employment, poverty, housing, education, health etc (Mehta, 1996). The urban population of Kurseong town and their characteristics in the following section are useful information for sustainable urban planning in the process of providing appropriate urban service infrastructure.

#### **3.2 Distribution of urban population**

In the words of Hauser (1959), without the knowledge of spatial distribution and arrangement of population in an urban area, it is difficult to provide community facilities for economic development in the long run regional planning. Distribution of population refers to the exact pattern of spacing of individual units over the earth's surface (Hassan, 2005). The rate of urban population growth in Kurseong town is observed with regard to time and space. The town covers an area of 7.85 km<sup>2</sup>. (2011) accounting for 5.11% of the total urban area of the district. The town recorded the total population of 42446 in 2011 which comprise of 14.53% of the total urban population of the hills of Darjiling district and 5.83% of the total

urban population of the district as a whole. The population of the town is unevenly distributed in 20 municipal wards. A significant relation exists between the population and the area of the ward because of its potentiality to accommodate either larger or lesser share of the town's population.

**Table 3.1 Ward wise area and population of Kurseong Municipality, 2011**

Ward	Area in km <sup>2</sup>	Total population (2011)	Ward	Area in km <sup>2</sup>	Total population (2011)
1	1.54	1344	11	0.06	1115
2	0.78	1935	12	0.01	1663
3	0.26	2466	13	0.28	1850
4	0.32	4233	14	0.59	2240
5	0.17	2000	15	0.05	927
6	0.22	1619	16	0.09	1704
7	0.30	2310	17	0.28	3059
8	0.13	2162	18	0.15	2268
9	0.43	2906	19	0.74	2520
10	0.55	2126	20	0.90	1999

Source: Kurseong Municipality Office

**Table 3.2 Ward wise categories on the basis of area and population, Kurseong Municipality, 2011**

Area in km <sup>2</sup>	Category	Wards	Population	Category	Wards
< 0.30	Very small	3, 5, 6, 8, 11, 12, 13, 15, 16, 17, 18	< 1500	Very low	1, 11, 15
0.30 – 0.59	Small	4, 7, 9, 10	1500- 2120	Low	2, 5, 6, 12, 13, 16, 20
0.59 - 0.88	Moderate	2, 14, 19	2120-2740	Moderate	3, 7, 8, 10, 14, 18, 19
0.88 - 1.17	Large	20	2740-3360	High	9, 17
> 1.17	Very large	1	> 3360	Very high	4

Source: Computed by the researcher

Table 3.1 shows that Ward 1 covers the largest area (1.54 km<sup>2</sup>) whereas Ward 12, the lowest (0.01 km<sup>2</sup>). Areas under reserved forest and government departments in the former and forming a small part of the CBD with commercial activities in the latter case is attributed to their respective size. 75% of the total wards are small and very small in area ranging from 0.30 to 0.59 and less than 0.30 km<sup>2</sup> respectively. Most of these smaller wards are either centrally located in the most congested core of the town or are in their close proximity. Wards 1 and 20 fall under very large and large category which are located in the peripheral area of the town – Ward 1 in the northeast and Ward 20 in the southwest. The area of the wards is not always proportional to its population in Kurseong Municipality. 50% of the total wards record population higher than the town average (2122). Wards 4, 9 and 17 with very

high and high population, fall under small and very small category with regard to their area. These wards are located away from the town centre.

### 3.3 Trend of urban population

Population growth means change in population size of an area over a certain period of time expressed in the form of rate of growth per annum (Hassan, 2005). The growth of population in any area is an index of its socio-economic development, historical and cultural setting and political beliefs (Chandna, 2011). It is necessary to know, in quantitative terms, the number of people living in a town at a particular time and the rate at which the population of a town has been growing over time for future guidance. The analysis of past demographic change is important for providing any future presumptions (Baxter, and Williams, 1978).

At the time of its inception in 1879 Kurseong Municipality had a total population of 2836 (Rai, 1979). Since then it has experienced a positive growth of population, though at a slow pace in some of the decades such as 1941, 1961, 1981 and 2011. There was 1105% increase in the total population of Kurseong Municipality from 1891 to 2011. Considering the population size, it was a class VI town in 1901 and became a class V town within a decade. With further increase in its population size the town attained the status of class IV town in 1951 and finally the status of class III town in 1991 which continues till date. According to 2011 census the total population of the study area is 42,446.

In all the decades from 1891 – 2011 the growth of population in the town as well as in the district hill-urban and district urban have been positive. During 1891-1901 and 1901-1911 Kurseong town recorded the growth rate of 26.89 percent and 24.73 percent respectively. This was due to the development of uninterrupted communication in the hills through the

**Table 3.3 Growth of population (1891-2011)**

Year	Population			Population growth in percentage		
	Kurseong (m)	District hill-urban	District urban	Kurseong (m)	District hill-urban	District urban
1891	3,522	17,667	17,667	-	-	-
1901	4,469	21,393	21,393	26.89	21.09	21.09
1911	5,574	24,579	24,579	24.73	14.89	14.89
1921	6,445	28,703	28,703	15.63	16.78	16.78
1931	7,451	37,412	43,479	15.61	30.34	51.48
1941	8,495	47,677	58,164	14.01	27.44	33.77
1951	11,719	62,001	94,481	37.95	30.04	62.44
1961	13,410	79,166	1,44,637	14.43	27.69	53.09
1971	16,425	82,728	1,80,212	22.48	4.50	24.60
1981	18,008	1,19,067	2,82,153	9.64	43.93	56.57
1991	26,758	1,62,343	3,96,060	48.59	36.35	40.37
2001	40,019	2,57,176	5,20,877	49.56	58.42	31.51
2011	42,446	2,92,064	7,27,963	6.06	13.57	39.76

Source: Census of India

**Table 3.4 Ward wise percentage variation in population growth and share of population to total population, Kurseong Municipality (2001 – 2011)**

Wards	Population		Growth in percentage*	% to Total Population*	
	2001	2011	2001 – 2011	2001	2011
1	1756	1344	-23.46	4.39	3.16
2	2235	1935	-13.42	5.58	4.56
3	1236	2466	99.51	3.09	5.81
4	4043	4233	4.699	10.10	9.97
5	2059	2000	-2.87	5.15	4.71
6	1328	1619	21.91	3.32	3.81
7	2917	2310	-20.81	7.29	5.44
8	2112	2162	2.37	5.28	5.09
9	2698	2906	7.71	6.74	6.85
10	1996	2126	6.51	4.99	5.01
11	1018	1115	9.53	2.54	2.63
12	1226	1663	35.64	3.06	3.92
13	2244	1850	-17.56	5.61	4.36
14	2323	2240	-3.57	5.80	5.28
15	1136	927	-18.397	2.84	2.18
16	1580	1704	7.85	3.95	4.01
17	2753	3059	11.12	6.88	7.21
18	1988	2268	14.08	4.97	5.34
19	1610	2520	56.52	4.02	5.94
20	1761	1999	13.52	4.40	4.71

Source: Census of India

\* Computed by the researcher

laying of Cart Road and the railway line which facilitated quicker transport of varied goods in bulk as well as the people. The population growth was almost stationary during 1911 – 1921 to 1931 – 1941. The low population growth in Darjeeling hills caused by influenza epidemics, natural catastrophes and the decreased in-migration from the surrounding areas during 1911-1941 (Das and Bhuimali, 2011) left a significant impact on the town's population. The town experienced a higher growth rate than the district hill-urban and district urban during 1891-1901, 1901-1911 and 1981-1991. The highest (49.56%) and the lowest growth (6.06%) rate of the town were during 1991-2001 and 2001-11 respectively. Distinct acceleration in urbanization process of Kurseong Municipality is evident from the fact that during 1981 – 1991, the growth rate of Kurseong Municipality was highest (48.59%) among the hill urban centres of the district (Darjeeling-26.84%, Kalimpong-34.44%). The town again recorded the highest growth rate of 49.56% during 1991 – 2001 (Darjeeling: 46.72%, Kalimpong: 10.73% and Mirik: 30.18%) among hill urban centres. The growth of population in the town shows that the town recorded nearly 122% growth rate during 1981 – 2001. This high growth rate is attributed to both natural increase as well as migration from the surrounding areas and neighbouring countries which are attributed to the increase in the number of good English medium schools, development of urban facilities, extension of health

care facilities and the promotion of tourism industry. However, the population growth of the town fell down immensely in 2001 – 2011 (6.06%) and this is attributed to the factors such as the preferability of having less number of children, emigration of youths in search of better employment opportunities and settlements of senior citizens in and around Siliguri for easy access to better health care facilities after their retirement as is evident from the field observation.

During 2001 – 2011, thirteen wards have recorded positive growth of population and negative growth of population are noticed in as many as seven wards. The growth of population was extremely high (99.51%) in Ward 3 and excessively low in Ward 1 (-23%) and Ward 7 (-21%). A remarkable population growth, above 55% is observed in Wards 3 and 19 which together constitute 156% of the total overall growth of the town. The factors attributed to the positive growth of population in different wards are natural growth and immigration. The reason for low growth in Ward 7 is due to steep and difficult terrain, unsuitable for human settlement. The reason for the negative growth of population in some wards is due to the reshuffling and further subdivision of some of these wards post 1998.

**Table 3.5 Distribution of wards in different categories of population growth (2001-2011)**

Growth in percent	Category	Wards	Number of wards	Wards (%)
< -3.40	Very low	1, 2, 7, 13, 14, 15	6	30
-3.40 – 16.60	Low	4, 5, 8, 9, 10, 11, 16,17, 18, 20	10	50
16.60 – 36.60	Moderate	6, 12	2	10
36.60 – 56.60	High	19	1	5
> 56.60	Very high	3	1	5

Source: Computed by the researcher

In 2001 the share of population to the total population of the town was highest in Ward 4 (10.10 %) and lowest in Ward 11 (2.54 %). In 2011 Ward 4 (9.97 %) has maintained its position whereas share of least population has shifted to Ward 15 (2.18 %). The town has witnessed very fluctuating trend with regard to natural increase in population and percentage share to total natural increase. The lowest natural growth rate (-56.06%) is observed in 2008 – 2009 and this is attributed to the political unrest in the hills spearheaded by GJMM for a separate state of Gorkhaland which was at its peak. The normalcy soon returned to the hills in the succeeding year when the natural growth rate was highest (137.93%).

### **3.3.1 Future population growth**

The approximation of the size and characteristics of the future population is incorporated in all development plans, be it a social, economic or cultural (Srinivasan, 1998).

**Table 3.6 Number of births and deaths, Kurseong Municipality (2004-2013)**

Year	No. of births	No. of deaths	Natural increase in population*	Increase in percent*	% to Total natural increase*
2001	314	198	116		5.26
2002	370	207	163	40.52	7.39
2003	597	213	384	135.58	17.41
2004	390	199	191	-50.26	8.66
2005	365	195	170	-10.99	7.71
2006	365	264	101	-40.59	4.58
2007	387	241	146	44.55	6.62
2008	289	223	66	-54.79	2.99
2009	230	201	29	-56.06	1.31
2010	273	204	69	137.93	3.13
2011	295	224	71	2.90	3.22
2012	305	234	71	0.00	3.22
2013	339	234	105	47.89	4.76
2014	402	223	179	70.48	8.11
2015	423	194	229	27.93	10.38
2016	326	210	116	-49.34	5.26

Source: Census of India  
\* Computed by the researcher

**Table 3.7 Population projection of Kurseong Municipality**

Year	Actual population	Linear growth	Geometric progression	Exponential growth	Mean estimate
2001	40019	-	-	-	-
2011	42446	-	-	-	-
2021		45020.18	45020.09	45019.84	45020.04
2031		47750.47	47750.28	47749.75	47750.17

Source: Computed by the researcher

The necessity always exists for the town planners about the information of future population so that accordingly the transport facilities, housing and other urban facilities could be generated to cope up with the ever increasing population. To make the projection more reliable and error free as far as possible, methods of linear growth, geometric progression and exponential growth have been applied for estimating the town's future population. As the initial data used as the base to make the projections has to be error free as far as possible, the year 2001 has been taken as the base year for calculation since very high urban growth rate (49.56%) took place in Kurseong Municipality during 1991-2001. Considering the geometric progression, linear and exponential growth the future population of Kurseong Municipality has been estimated for 2021 and 2031.

### 3.4 Density of population

The morphological as well as the functional aspects of an urban settlement is greatly shaped by the processes generated by urban density as it is an expression of the ratio between population and land and is the most important element of population (Sharma, 1985). The

number of people proportionate to the amount of land is of fundamental cocer in population study as man and land are the definitive constituents in the life of human society (Koshal and Tiwari, 1996). Population density is a synthesis of all geo-economic conditions and it is an ongoing process which with its dynamic nature determines the level of concentration and the resultant crowding and dissemination in spatio-temporal perspective. The density of an area increases proportionately whenever there is an increase in its population over a period of time with its area remaining unchanged. Similar situation has been witnessed by Kurseong Municipality too. The population density of the town at present is 5407 persons per km<sup>2</sup> (2011) spread over an area of 7.85 km<sup>2</sup>. A scenario of a small congested hill town supporting population more than its carrying capacity is clearly depicted from the aforementioned figure. According to 2011 census the density of population of the town is 5407 persons per km<sup>2</sup> which is higher than the district's urban (4743) and district hill urban average (2838).

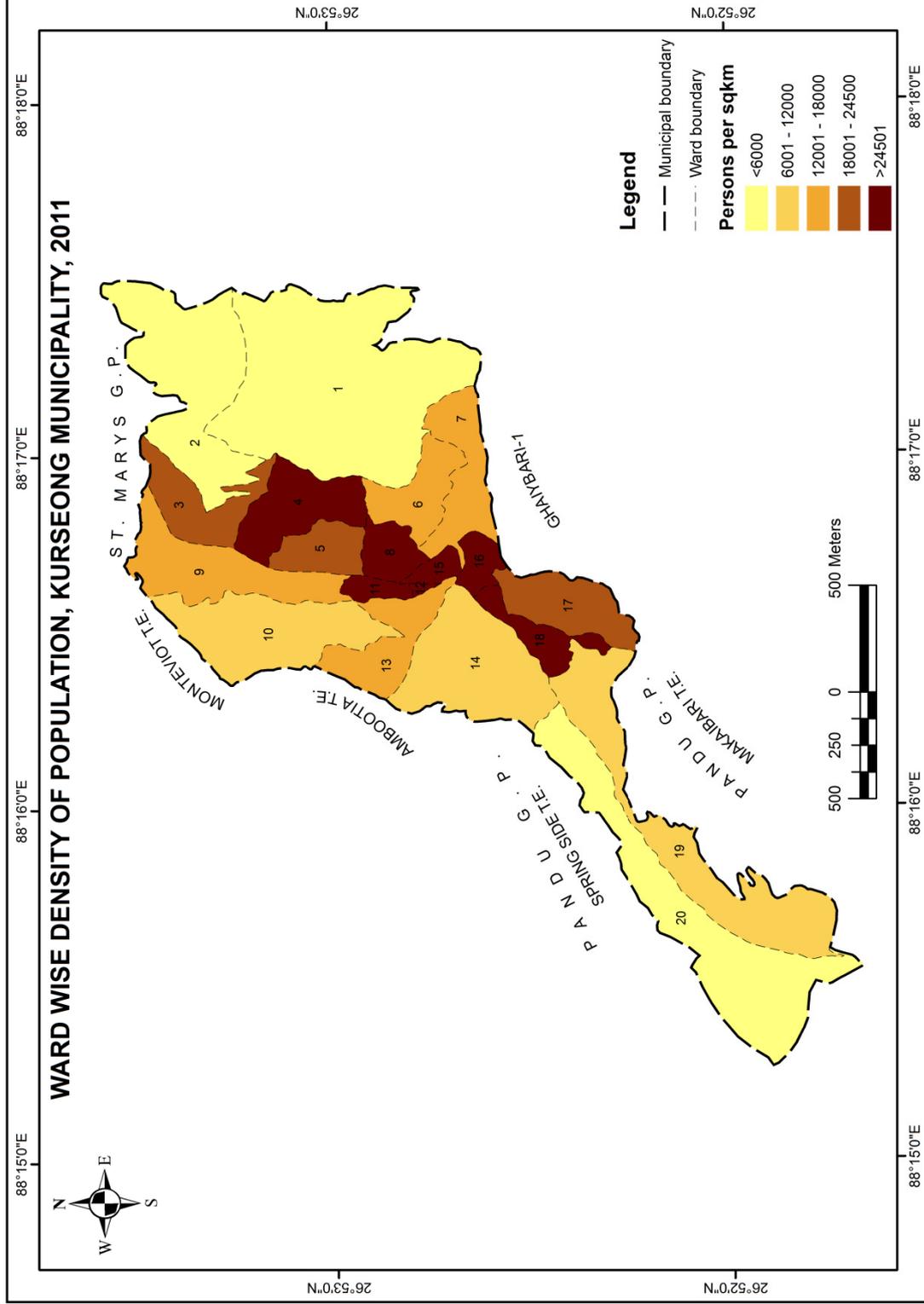
**Table 3.8 Density of population, Kurseong Municipality (1901 – 2011)**

Census year	Population density (persons/km <sup>2</sup> )	Difference in density (persons/km <sup>2</sup> )
1901	1042	-
1911	1299	257
1921	1502	203
1931	1920	418
1941	2189	269
1951	3020	831
1961	2655	-365
1971	3252	597
1981	3566	314
1991	5299	1733
2001	7925	2626
2011	5407	-2518

Source: Census of India

#### 3.4.1 Ward wise density of population

Table 3.9 reveals that in 2011 Wards 12 and 1 have the highest (1,66,300 persons/km<sup>2</sup>) and the lowest population density (1,344 persons/km<sup>2</sup>). Wards 11, 15 and 16 record a population density of over 18000. 50% of the wards record density ranging between 6,000 and 18,000 persons per km<sup>2</sup> and 30% of the wards has density below 6000. The decrease in the number of wards in the higher density category may be attributed to the increase in ward area. The wards with high density are centrally located whereas the wards located in the periphery have low population density. Figure 3.7 reveals that the population density of many wards of the town exceeds the maximum level as laid down by URDPFI guidelines (7500 persons /km<sup>2</sup>).



**Figure 3.1 Ward wise density of population, Kurseong Municipality, 2011** (Source: Census of India)

**Table 3.9 Ward wise population density, Kurseong Municipality, 2011**

Wards	Density (persons/ km <sup>2</sup> )*	Wards	Density (persons/ km <sup>2</sup> )*
1	873	11	18583
2	2481	12	166300
3	9485	13	6607
4	13228	14	3797
5	11765	15	18540
6	7359	16	18933
7	7700	17	10925
8	16631	18	15120
9	6758	19	3405
10	3865	20	2221

Source: Census of India

\* Computed by the researcher

**Table 3.10 Spatial variation in population density, Kurseong Municipality, 2011**

Population density (Persons/km <sup>2</sup> )	Category	2011	% to Total wards
< 6,000	Low	1, 2, 10, 14, 19, 20	30
6,000-12,000	Moderate	3, 5, 6, 7, 9, 13, 17	35
12,000-18,000	Moderately high	4, 8, 18	15
18,000-24,500	High	11, 15, 16	15
> 24,000	Very high	12	5

Source: Computed by the researcher

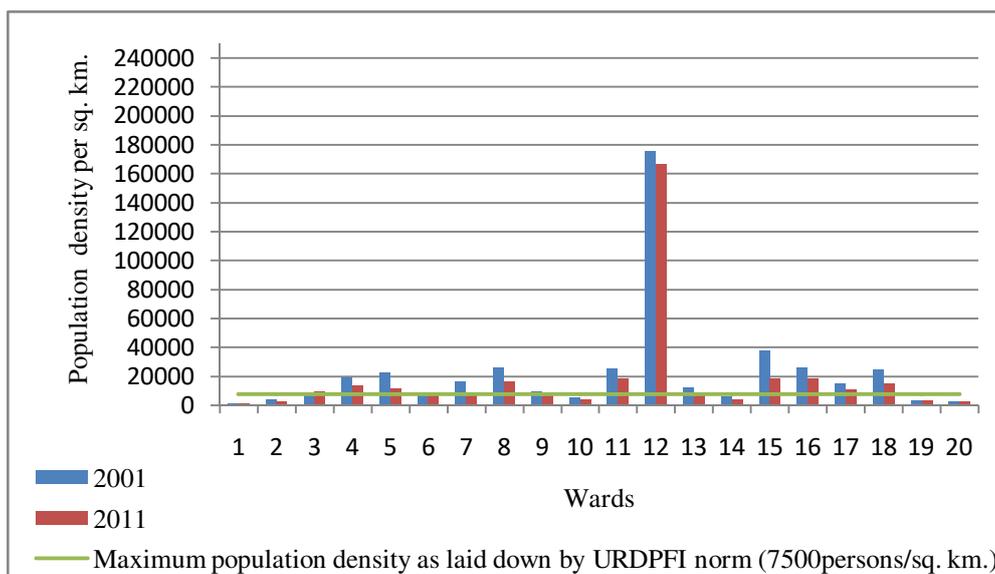
Collin Clark (1951) along with other scientists has successfully produced evidences in support of his fundamental law of decline of population density with the increase of distance from the city centre in the former stage and differential rate of decline in the later stage. Clark's model of declining density patterns with increasing distance from the city core have proved to be a good fit not only for the western cities but for the non-western cities as well (Singh, 1985). According to Berry (1963), the land near the centre is more expensive. Since land availability and extensive use increase with distance from the city centre, population densities also decline with the distance.

### 3.4.2 Measure of Population Concentration

As stated by Rogerson and Plane (2012), the spatial concentration of population has been of great interest of study for the demographers, population geographers and regional scientists. For ensuring equitable distribution of services in each ward, the information with regard to the number of persons involved in movement for achieving a balanced distribution of population in different wards of a town is of vital importance for the planners. To examine the changes in population concentration, an index formulated by Hoover in 1941 is the most widely accepted and used method in determining the concentration or deconcentration tendencies of an area's evolving population distribution till date. The Concentration Index (CI) is an important tool for quantifying the distribution of population of a point at a given time. It measures how concentrated or deconcentrated a population is by measuring what percentage of that population would have to move in order to redistribute the population evenly. The index ranges from a low of 0 indicating no concentration and even distribution to a high of 100 indicating higher degree of concentration. The value of the index can be interpreted as a percentage of the total population that would need to be redistributed across wards to achieve equal densities of population in all wards. The index is calculated algebraically as follows:

$$CI = \sum_{i=1}^n (p_i - a_i)/2$$

where,  $p_i$  represents the ward population divided by the town population and  $a_i$  represents the ward area divided by the town area.

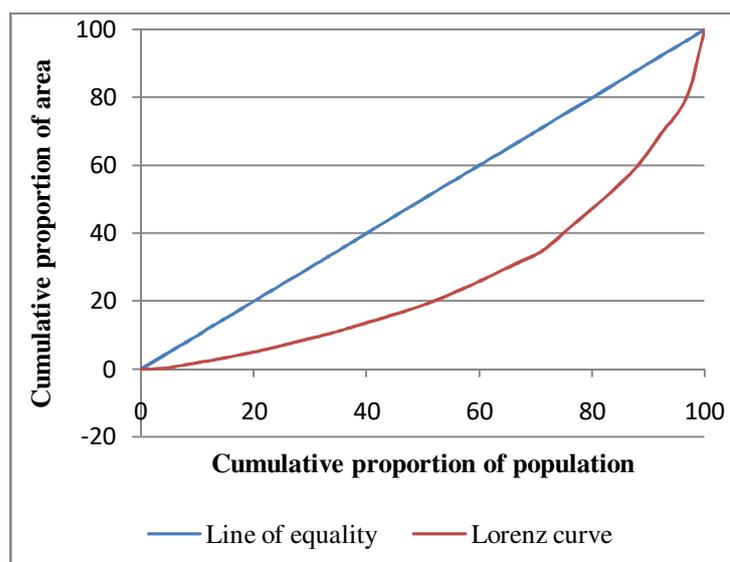


**Figure 3.2 Density of population per km<sup>2</sup> Kurseong Municipality, 2001 and 2011** (Source: Census of India)

**Table 3.11 Index of Concentration and Gini Concentration Ratio,  
Kurseong Municipality, 2011**

Sl. No.	Wards ranked by density	Population (P <sub>i</sub> )	Area (A <sub>i</sub> )	Density (km <sup>2</sup> )	Proportion		p <sub>i</sub> -a <sub>i</sub>	Cumulative Proportion		P <sub>i</sub> (A <sub>i</sub> +1)	A <sub>i</sub> (P <sub>i</sub> +1)
					(p <sub>i</sub> )	(a <sub>i</sub> )		P <sub>i</sub>	A <sub>i</sub>		
1	1	1344	1.54	873	3.17	19.62	-16.45	100	100	8038.22	9683.36
2	20	1999	0.9	2221	4.71	11.47	-6.76	96.83	80.38	6673.50	7405.14
3	2	1935	0.78	2481	4.56	9.94	-5.38	92.12	68.92	5433.56	6034.76
4	19	2520	0.74	3405	5.94	9.43	-3.49	87.57	58.98	4339.23	4814.52
5	14	2240	0.59	3797	5.28	7.52	-2.24	81.63	49.55	3431.51	3783.51
6	10	2126	0.55	3865	5.01	7.01	-2.00	<b>76.35</b>	<b>42.04</b>	2674.72	2999.11
7	13	1850	0.28	6607	4.36	3.57	0.79	71.34	35.03	2244.79	2346.57
8	9	2906	0.43	6758	6.85	5.48	1.37	66.98	31.46	1740.73	1892.23
9	6	1619	0.22	7359	3.81	2.80	1.01	60.14	25.99	1394.27	1463.69
10	7	2310	0.3	7700	5.44	3.82	1.62	56.32	23.18	1090.59	1179.66
11	3	2466	0.26	9485	5.81	3.31	2.50	<b>50.88</b>	<b>19.36</b>	816.69	872.72
12	17	3059	0.28	10925	7.21	3.57	3.64	45.07	16.05	562.67	607.76
13	5	2000	0.17	11764	4.71	2.17	2.55	37.86	12.48	390.70	413.88
14	4	4233	0.32	13228	9.97	4.08	5.90	33.15	10.32	206.94	239.18
15	18	2268	0.15	15120	5.34	1.91	3.43	<b>23.18</b>	<b>6.24</b>	100.40	111.34
16	8	2162	0.13	16631	5.09	1.66	3.44	17.84	4.33	47.72	55.19
17	15	927	0.05	18540	2.18	0.64	1.55	12.74	2.68	25.974	28.25
18	11	1115	0.06	18583	2.63	0.76	1.86	10.56	2.04	13.45	16.17
19	16	1704	0.09	18933	4.01	1.15	2.87	7.93	1.28	1.01	4.99
20	12	1663	0.01	166300	3.92	0.13	3.79	3.92	0.13	0	0
		<b>42446</b>	<b>7.85</b>		<b>100.00</b>	<b>100.00</b>	<b>72.64</b>			<b>39226.68</b>	<b>43952.03</b>
<b>Difference : 4725.35</b>											
<b>Gini concentration rate : 0.472535</b>											

Source: Computed by the researcher



**Figure 3.3 Lorenz Curve showing population concentration in Kurseong Municipality, 2011** (Source: Computed by the researcher)

The Index of Concentration (CI) of population has been computed by calculating percentages of population of wards against the percentages of the area of the wards. This has been done after arranging the wards in the ascending order in terms of density and calculating the percentages of population ( $p_i$ ) and area ( $a_i$ ) of each ward. Geometrically, CI is the deviation of the concentration curve from the line of equal distribution in a Lorenz Curve, hence CI is the proportion of inequality in the distribution of population in relation to the area. The index takes a negative value when the curve lies above the line of equality, indicating disproportionate concentration and a positive value when it lies below the line of equality (Research Division, Population Services International, 2007). An index of concentration equal to zero would indicate that each ward of Kurseong Municipality contained a proportion of the town's total population equal to its proportion of the municipality's total land area. Conversely, an index of concentration equal to 100 would indicate that the entire population of Kurseong Municipality was contained in one ward only.

In 2011 Kurseong Municipality had a concentration index of 36.32%. Therefore, in order to get a uniform population distribution in different wards of the town and to produce a perfect correspondence between area and population size, 36.32% of the town's population required an inter-ward movement and have to be redistributed in all the wards. The overall concentration found in the curve may also be measured in terms of the ratio of the area between the Lorenz curve and the diagonal line, and the total area of the triangle formed by the two axes and the diagonal line which is Gini's concentration ratio (Lepcha, 2015). Kurseong Municipality had a Gini's concentration ratio of 0.47 which denotes that 47% of

the area under the diagonal line lies above the Lorenz curve. This indicates a fairly high degree of segregation or unequal population distribution. The inequality in the distribution of population in Kurseong Municipality is also exemplified by the fact that 6.24% of its area supports nearly a quarter of its population (23.18%), 19.36% of its area holds half of its population (50.88%) and 42.04% its area supports more than  $\frac{3}{4}$ <sup>th</sup> of its population (76.35%) (Table 3.11).

### 3.5 Sex ratio

Sex ratio, a vital part of demographic studies particularly in urban areas has a strong bearing on the socio-economic aspects of community life as it influences the size and division of the labour force, the employment and consumption patterns and at the same time is closely related to the functional character of the town. A balanced sex ratio is an indicator of a healthy society as pointed out by Reimer (Prasad, 1985) but a disparity in the numerical strength of male and female population always exists in urban areas due to sex selectivity in migration, sex differentials in mortality rate, status of women, nature of census enumeration of sexes etc. Kurseong town though registering high sex ratio faces these problems owing to the ruggedness of terrain and limited availability of suitable site for human settlements. According to 2011 census, the sex ratio stands at 981 for Kurseong Municipality as a whole. This is a welcoming improvement from the 2001 census, which had recorded a sex ratio of 961. The town has a lower sex ratio than the district hill urban average (1003) but higher than the district urban average (966).

**Table 3.12 Sex ratio, Kurseong Municipality (1879-2011)**

Year	Sex ratio	Year	Sex ratio	Year	Sex ratio
1879	609	1921	968	1971	887
1881	526	1931	856	1981	915
1891	640	1941	885	1991	913
1901	848	1951	835	2001	961
1911	783	1961	862	2011	981

Source: Census of India

The proportion of females has fluctuated between a minimum of 526 and a maximum of 981 per 1000 males. The trend, however, is towards a more balanced sex ratio. Adverse sex ratio in the initial years including the time of the establishment of the municipality is attributed to the construction works - the laying down of the railway line of the Darjeeling Himalayan Railway from Siliguri to Darjeeling - which engaged a maximum number of

males. Barring a few decades, the sex ratio of Kurseong town shows an increasing trend from 1879 to 2011, a striking feature throughout the whole census history. The reason for the increasing trend is attributed to the increase in the number of literates. The share of literates to total population in the town increased from 53.33% in 1961 to 93.73% in 2011 and especially the female literacy increased from 42.17% in 1961 to 91.92% in 2011. The value of coefficient of correlation between sex ratio as dependent variable and total literacy, male literacy and female literacy as independent variables in different wards of the town for 2011 is 0.689, 0.657 and 0.617 respectively. This reveals that sex ratio and three respective variables mentioned are positively correlated at 99% level of significance. Total, male and female literacy, therefore has a strong positive influence on sex ratio in the study area as a literate society significantly affects the marriage, child birth and other social and economic relations positively.

**Table 3.13 Relationship between sex ratio and other variables, Kurseong Municipality, 2011**

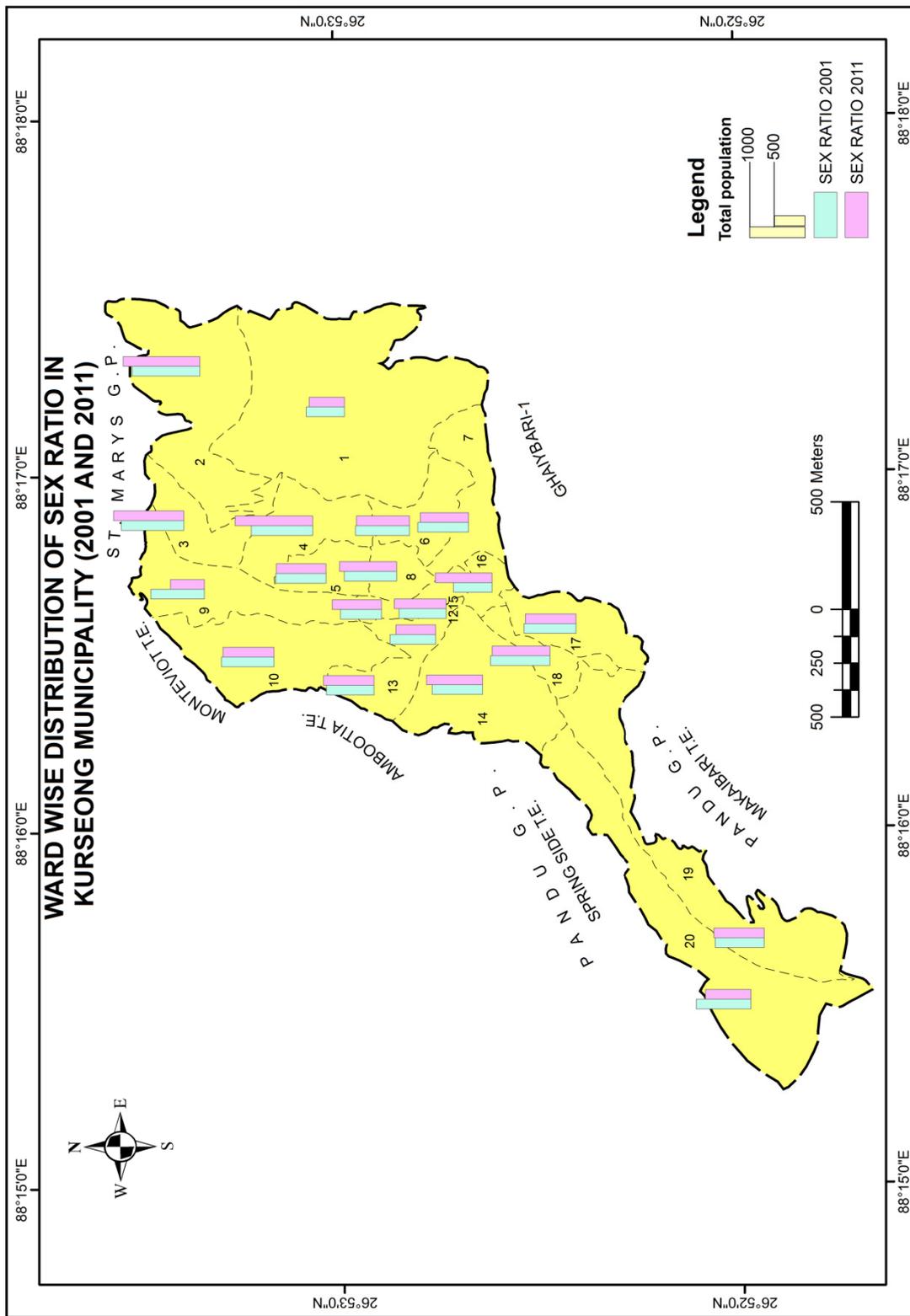
	Sex ratio	Total literacy	Male literacy	Female literacy
Sex ratio	1	0.689**	0.657**	0.617**
Total literacy	0.689**	1	0.828**	0.913**
Male literacy	0.657**	0.828**	1	0.535*
Female literacy	0.617**	0.913**	0.535**	1

Source: Computed by the researcher  
\*\* Correlation is significant at the 0.01 level

**Table 3.14 Ward wise distribution of sex ratio in Kurseong Municipality (2001 and 2011)**

2001				2011				2001 – 2011			
Ward no	Sex ratio	Ward no	Decadal change	Ward no	Decadal change						
1	703	11	758	1	649	11	909	1	-54	11	151
2	1253	12	838	2	1416	12	729	2	163	12	-109
3	1153	13	876	3	1296	13	931	3	143	13	55
4	1152	14	928	4	1445	14	1036	4	293	14	108
5	942	15	868	5	932	15	952	5	-10	15	84
6	997	16	714	6	979	16	1043	6	-18	16	329
7	938	17	957	7	889	17	935	7	-49	17	-22
8	966	18	1097	8	1053	18	1066	8	87	18	-31
9	990	19	901	9	626	19	928	9	-364	19	27
10	967	20	1001	10	940	20	832	10	-27	20	-169

Source: Census of India



**Figure 3.4** Ward wise distribution of sex ratio in Kurseong Municipality, 2001 and 2011 (Source: Census of India)

The distribution pattern of sex ratio at the ward level reveals more pronounced regional variations. Out of a total of twenty wards, seven wards display sex ratio higher than the town average (981).

### 3.5.1 Spatial pattern of sex ratio (2011)

The spatial variations of sex ratio in Kurseong town reveal five types of areas (Chandna, 2011):

1. Areas of very high sex ratio (>1000): The wards where females out-number males are 2, 3, 4, 8, 14, 16 and 18.
2. Areas of high sex ratio (950 – 1000): The wards which show trend towards more balanced sex ratio include Wards 6 and 15.
3. Areas of moderate sex ratio (900 – 950): The wards which are close to national average (940) include Wards 5, 10, 11, 13, 17 and 19.
4. Areas of low sex ratio (850 – 900): Ward 7 falls in this category.
5. Areas of very low sex ratio (< 850): The wards with acute paucity of females are 1, 9, 12 and 20.

Although some wards such as 1, 7, 9, 12 and 20 do not show a direct relation between sex ratio and the literacy rate but majority of the wards clearly shows that higher the literacy rate higher is the sex ratio.

**Table 3.15 Identification of wards on the basis of sex ratio, Kurseong Municipality**

Sex ratio	Category	2001	% to total wards	2011	% to total wards
		Wards		No. of wards	
< 850	Very low	1, 11, 12, 16	20	1, 9, 12, 20	20
850 – 900	Low	13, 15	10	7	5
900 – 950	Moderate	5, 7, 14, 19	20	5, 10, 11, 13, 17, 19	30
950 – 1000	High	6, 8, 9, 10, 17, 20	30	6, 15	10
> 1000	Very high	2, 3, 4, 18	20	2, 3, 4, 8, 14, 16, 18	35

Source: Computed by the researcher

### 3.6 Scheduled caste and scheduled tribe population

The Scheduled Caste and Scheduled Tribe are two historically disadvantaged groups of Indian society often known as deprived classes recognized in the Constitution of India. The Scheduled Castes, the term first coined by the Simon Commission in 1935 is a product of the social stratification of the age-old Hindu caste system (Shamshad and Khan, 2014). Another constituent of the population, the tribal people recognized by the constitution as the

**Table 3.16 Scheduled Caste and Scheduled Tribe population and their growth in Kurseong Municipality, District hill-urban and District urban (1951-2011)**

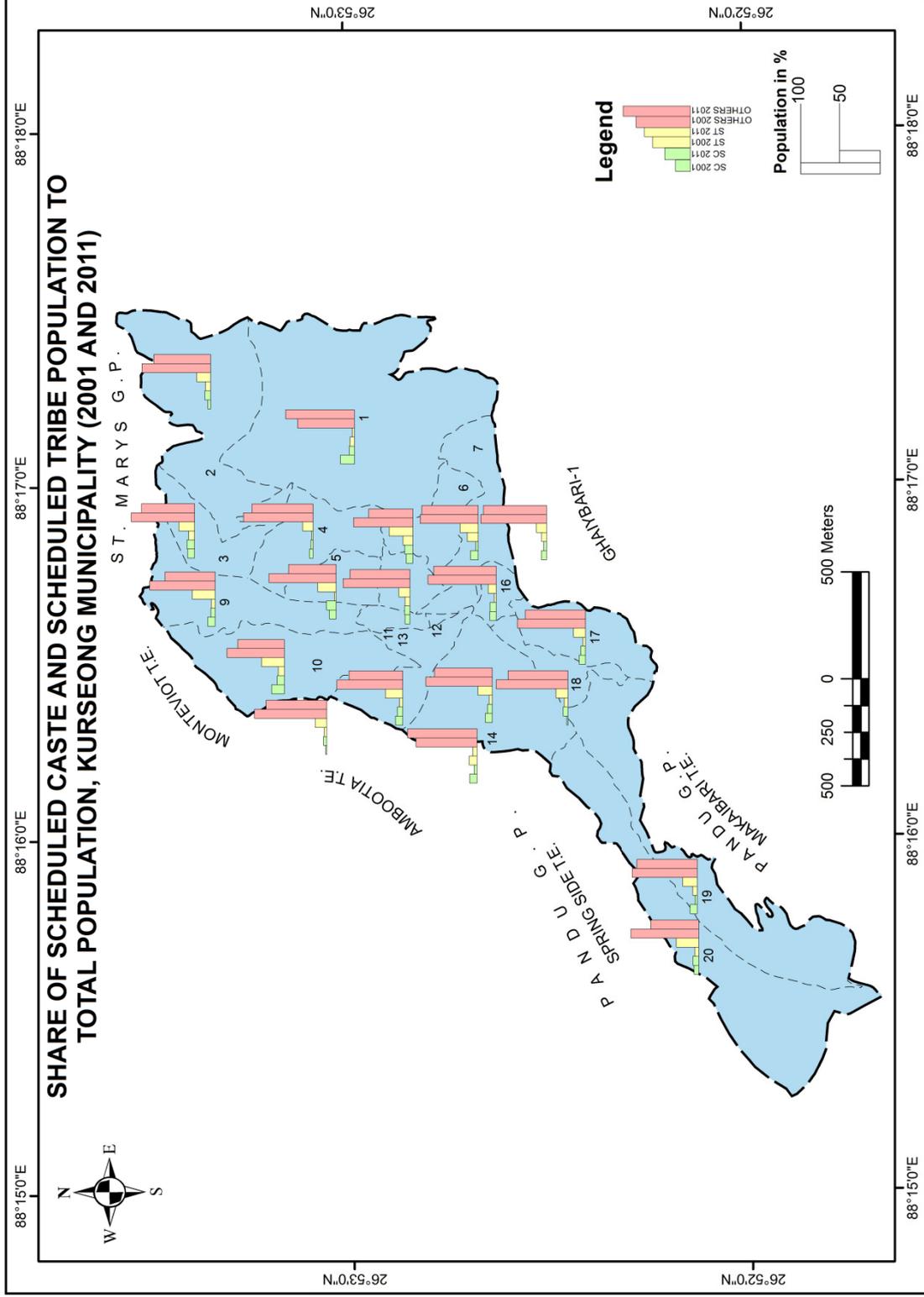
	Year	SC Pop.	Tot. Pop	% to Tot. Pop.	Growth in %	ST Pop.	% to Tot. Pop.	Growth in %
Kurseong Municipality	1951	-	11719	-	-	-	-	-
	1961	1758	13410	13.11	-	895	6.67	-
	1971	1740	16425	10.59	-1.02	822	5	-8.16
	1981	2240	18008	12.44	28.74	1359	7.55	65.33
	1991	3111	26758	11.63	38.88	1932	7.22	42.16
	2001	3320	40019	8.3	6.72	2304	5.76	19.25
	2011	2731	42446	6.43	-17.74	8125	19.14	252.65
District hill – urban	1951	583	62001	0.94	-	2764	4.46	-
	1961	10182	79166	12.86	1646.48	10851	13.71	292.58
	1971	10539	82728	12.74	3.51	11251	13.6	3.69
	1981	14672	119067	12.32	39.22	14182	11.91	26.05
	1991	21031	162343	12.95	43.34	18642	11.48	31.45
	2001	18122	257176	7.05	-13.83	21,633	8.41	16.04
	2011	23441	292064	8.03	29.35	69010	23.63	219
District urban	1951	3167	94481	3.35	-	2997	3.17	-
	1961	15917	144637	11	402.59	11212	7.75	274.10
	1971	14818	180212	8.22	-6.9	11417	6.34	1.83
	1981	54176	282153	19.2	265.61	91639	32.48	702.65
	1991	45889	396060	11.59	-15.3	20435	5.16	-77.77
	2001	51459	520877	9.88	12.14	25289	4.86	23.75
	2011	92453	727963	12.87	79.66	78320	10.91	209.699

Source: Census of India

**Table 3.17 Ward wise growth of Scheduled Caste and Scheduled Tribe population and their share to total population, Kurseong Municipality (2011 and 2011)**

Ward no.	2001					2011					*Growth in % (2001 – 2011)	
	SC Pop	Tot. Pop	% of SC to Tot. Pop	ST Pop	% of ST to Tot. Pop	SC Pop	Tot. Pop	% of SC to Tot. Pop	ST Pop	% of ST to Tot. Pop	SC	ST
1	316	1756	18.00	101	5.75	85	1344	6.32	33	2.46	-73.10	-67.33
2	80	2235	3.58	150	6.71	143	1935	7.39	350	18.09	78.75	133.33
3	112	1236	9.06	94	7.61	246	2466	9.98	506	20.52	119.64	438.30
4	240	4043	5.94	77	1.90	172	4233	4.06	628	14.84	-28.33	715.58
5	181	2059	8.79	48	2.33	247	2000	12.35	477	23.85	36.46	893.75
6	118	1328	8.89	174	13.10	174	1619	10.75	503	31.07	47.46	189.08
7	288	2917	9.87	415	14.23	70	2310	3.03	544	23.55	-75.69	31.08
8	132	2112	6.25	136	6.44	153	2162	7.08	311	14.38	15.91	128.68
9	257	2698	9.53	127	4.71	153	2906	5.26	859	29.56	-40.47	576.38
10	330	1996	16.53	155	7.7	193	2126	9.08	633	29.77	-41.52	308.39
11	12	1018	1.18	33	3.24	49	1115	4.39	167	14.98	308.33	406.06
12	117	1226	9.54	125	10.20	64	1663	3.85	90	5.41	-45.30	-28
13	214	2244	9.54	96	4.28	127	1850	6.86	420	22.70	-40.65	337.5
14	211	2323	9.08	91	3.92	135	2240	6.03	415	18.53	-36.02	356.04
15	79	1136	6.95	74	6.51	34	927	3.67	127	13.70	-56.96	71.62
16	128	1580	8.1	39	2.47	134	1704	7.86	177	10.39	4.69	353.85
17	219	2753	7.95	90	3.27	189	3059	6.18	475	15.53	-13.70	427.78
18	29	1988	1.46	96	4.83	139	2268	6.13	353	15.56	379.31	267.71
19	148	1610	9.19	93	5.78	70	2520	2.78	473	18.77	-52.70	408.60
20	109	1761	6.19	90	5.11	154	1999	7.7	584	29.21	41.28	548.89

Source: Census of India



**Figure 3.5 Share of Scheduled Caste and Scheduled Tribe population to total population, Kurseong Municipality (2001 and 2011)**  
 (Source: Census of India)

weaker and underprivileged sections of the society are still the most socially and economically disadvantaged, educationally marginalized and excluded groups in our country. The communities belonging to schedule caste mostly found in Kurseong Municipality include Damai, Kami, Sarki, Lohar, Dhobi and Mehtar/Harijan and those belonging to schedule tribe include Bhutia, Sherpa, Tibetan, Yolmo, Lepcha and the new entry to the list include Tamang and Limbu (Subba).

According to 2011 census the share of Scheduled Caste population of the town is 6.43%, lower than the district's hill-urban (8.03%) and district urban average (12.87%) whereas the share of Scheduled Tribe population is 19.14% which is lower than the district hill-urban average (23.63%) but higher than the district urban average (10.91%). The decade wise growth of SC population of the town shows a fluctuating trend whereas that of ST population, a sharply increasing trend. During 2001-2011, the growth of ST population was very high (252.65%). This growth is due to addition of certain sections of the population such as Tamang and Limbu (Subba) in Scheduled Tribe list in the Constitution of India after 2001. In 2001 the share of SC population was lowest in Ward 11 (1.18%) and highest in Ward 1 (17.99%) whereas that of ST population was least in Ward 4 (1.90%) and highest in Ward 7 (14.23%). In 2011 the lowest share of SC and ST population shifted to Wards 19 (2.78%) and 1 (2.46%) and that of highest to Wards 5 (12.35%) and 10 (29.77%) respectively.

### **3.7 Literacy**

In the words of Dube & Mishra, the level of education is the best elucidation and perceptive indicator of the level of socio-economic development, overall development in a region as well as future progress of a society because of its dual functions as cause and effect of modernization (Koshal and Tiwari, 1996). According to Wilson and Wood (1982), education promotes skills and perspectives beneficial to positive economic and social change and meets the fundamental needs of each individual and thus is vital to development (Dave, 1991). It is argued that since children of early age groups do not have potential to attain literacy in the correct sense, they should be excluded from the population while computing literacy levels (Hassan, 2005). In India, from 1991 onwards, population in the age group 0-6 years is excluded while calculating the literacy rate. Therefore all children aged 6 years or less are treated as illiterate even if the child is going to school. Kurseong town with a complex population provides varying degrees of concentration of literate population. The proportion of literacy varies from one part of the town to another. The percentage of literates to total population in Kurseong town was the highest in the district in 1981. The literacy rate

**Table 3.18 Gender wise literacy rate, Kurseong Municipality, District hill-urban and District urban (1951-2011)**

	Year	Population			Literates			Share of literates (in %)			Growth in % (2001-2011)
		Total	Male	Female	Total	Male	Female	Total	Male	Female	
Kurseong Municipality	1951	11719	-	-	5211	-	-	44.47	-	-	-
	1961	13410	7202	6208	7151	4533	2618	53.33	62.94	42.17	37.23
	1971	16425	8705	7720	9603	5728	3875	58.47	65.80	50.19	34.29
	1981	18008	9403	8605	12790	7243	5547	71.02	77.03	64.46	33.19
	1991	24117	12,673	11444	20209	11220	8989	83.80	88.53	78.55	58.01
	2001	37021	18,877	18,144	33166	17,681	15,485	89.59	93.66	85.35	64.11
	2011	38839	19493	19346	36405	18623	17782	93.73	95.54	91.92	9.77
District hill – urban	1951	62001	-	-	26591	-	-	42.89	-	-	-
	1961	79166	43888	35278	39933	26549	13384	50.44	60.49	37.94	50.17
	1971	82728	44369	38359	47380	28298	19082	57.27	63.78	49.75	18.65
	1981	119067	63249	55818	77654	45345	32309	65.22	71.69	57.88	63.90
	1991	144867	75179	69688	116566	64798	51768	80.46	86.19	74.29	50.11
	2001	198763	102791	95972	175574	95510	80064	88.33	92.92	83.42	50.62
	2011	270902	134905	135997	245988	127523	118465	90.80	94.53	87.11	40.11
District urban	1951	94481	-	-	41361	-	-	43.78	-	-	-
	1961	144637	83539	61098	74808	49462	25346	51.72	59.21	41.48	80.87
	1971	1,80,212	100508	79704	102066	62501	39565	56.64	62.19	49.64	36.44
	1981	282153	154221	127932	177234	105099	72135	62.81	68.15	56.39	73.65
	1991	348610	188001	160609	267332	153782	114005	76.69	81.80	70.98	50.84
	2001	468922	247485	221437	390815	216937	173878	83.34	87.66	78.52	46.19
	2011	661567	335890	325677	578761	306891	271870	87.48	91.37	83.48	48.09

Source: Census of India

**Table 3.19 Ward wise literacy rate, Kurseong Municipality, 2011**

Wards	Literacy rate (2011)			Total literacy rate		Growth in % (2001-2011)
	Total	Male	Female	2001	2011	
						-17.18
1	91.95	94.49	87.95	86.48	91.95	-15.2
2	95.93	97.74	94.71	96.01	95.93	129.7
3	97.29	98.62	96.29	88.18	97.29	0.2
4	95.98	96.98	95.28	96.33	95.98	-0.67
5	94.89	97.22	92.38	92.9	94.89	38.3
6	92.41	96.34	88.45	85.01	92.41	-11.52
7	91.41	94.35	88.12	82.86	91.41	5.15
8	95.33	97.12	93.62	93.62	95.33	3.45
9	92.01	92.15	91.79	90.49	92.01	15.67
10	88.98	92.36	85.38	84.72	88.98	14.63
11	92.1	93.36	90.73	86.07	92.1	35.19
12	91.05	91.83	90.03	86.19	91.05	-13.13
13	92.1	93.84	90.28	86.95	92.1	11.1
14	94.58	97.83	91.49	81.68	94.58	-17.18
15	92.07	91.65	92.53	93.04	92.07	-17.96
16	96.18	96.77	95.61	90.54	96.18	21.89
17	94.99	96.79	93.02	90.65	94.99	17.18
18	97.18	97.67	96.73	95.33	97.18	2.99
19	92.14	95.77	88.26	89.72	92.14	55.03
20	91.06	95.65	85.66	86.85	91.06	15.78
Total	93.73	95.54	91.92	89.59	93.73	9.77

Source: Computed by the researcher

**Table 3.20 Ward wise categories of literacy rate, Kurseong Municipality, 2011**

Literacy rate	Wards	Total number of wards	% to total wards
< 91	10	1	5
91 – 93	1,6, 7, 9, 11, 12, 13, 15, 19, 20	10	50
93 – 95	5, 14, 17	3	15
95 – 97	2, 4, 8, 16	4	20
> 97	3, 18	2	10

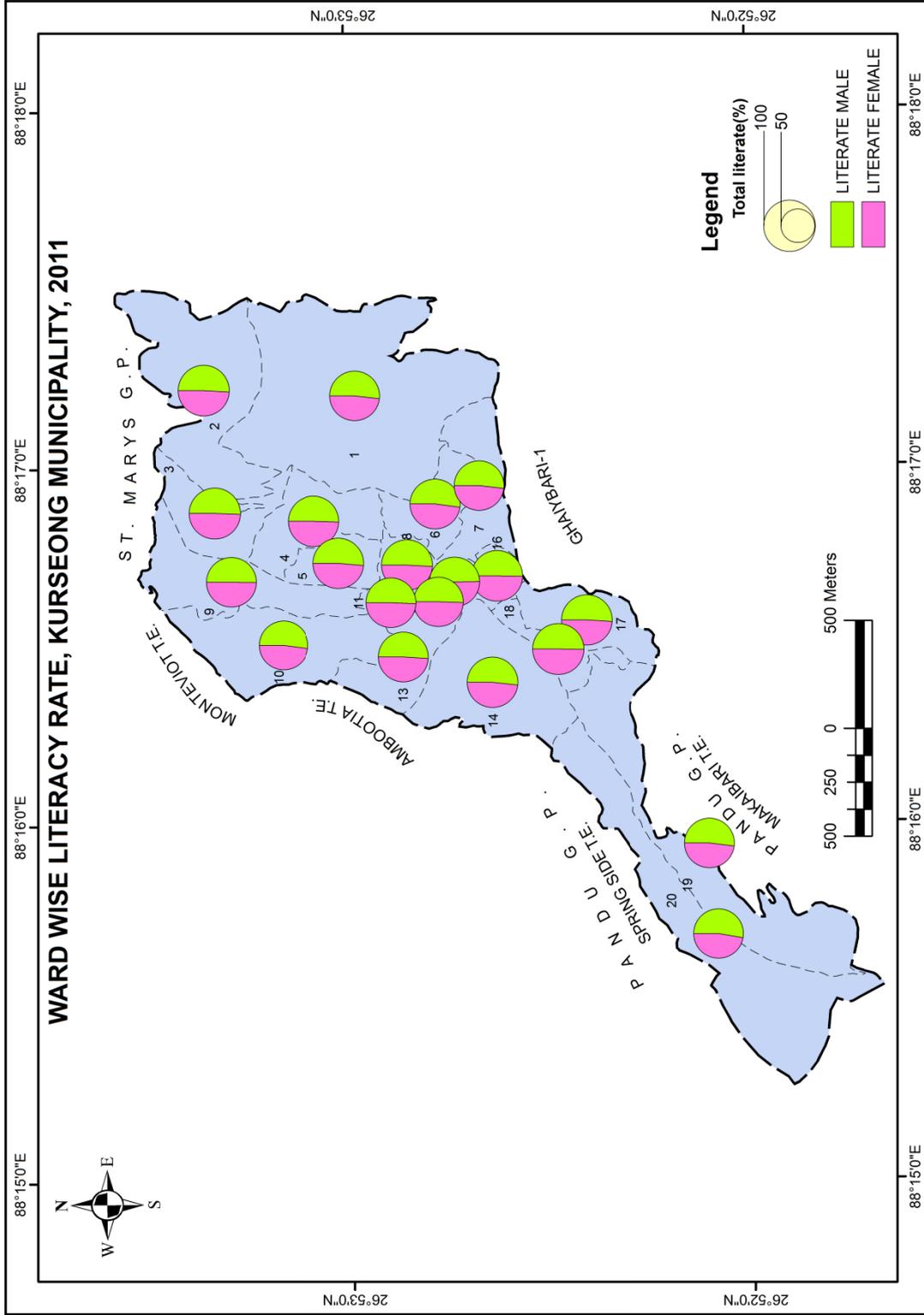
Source: Computed by the researcher

of the town in 2011 was 93.73%, higher than the district (71.23%) and the state average (76.26%). In absolute terms the share of literates has been increasing after independence. The percentage has more than doubled from 44.47% in 1951 to 93.73% in 2011. In 2011 the share of literates to total population for Kurseong town was more than the district hill-urban average (90.80 %) and district urban average (87.48%). The reasons for the steady growth of literates in the town are due to an increase in the number of educational institutions over the decades and also the educational policy of the government for free education, scholarships and free mid-day meal programme in the schools. Although an increase in the number of literates of town can be noticed during the last six decades, the decade wise growth has remained below 40% except in 1991 and 2001 when the decadal increase was 58.00% and 64.11% respectively.

### 3.7.1 Spatial pattern of literacy rate

The regional disparity in the level of literacy is clearly discernible within the town. Among the wards the literacy rates range from a minimum of 88.98 % in Ward 10 to a maximum of 97.29% in Ward 3 in 2011 whereas in the previous decade the ward with the highest literacy rate (96.33%) was 4 and the ward with lowest literacy rate (81.68%) was 14. Ward wise studies of literates show that during 2001-2011, maximum increase (129.70%) is in Ward 3 which is much higher than the town average (9.77%). Altogether nine wards have more literacy rate than the town average. On the other hand nineteen wards have higher literacy rate than the district hill urban average (90.80%) and all the wards have higher literacy rate than the district urban average (87.48%).

On the basis of total literacy rate, wards have been categorized into five groups. 50% of the total wards in Kurseong Municipality record literacy rate ranging from 91% to 93% and 45% of the total wards have literacy rate (> 94%), higher than Kerala, the leading state in India with a literacy rate of 93.91%, which is a proud achievement and an important factor for the development of Kurseong town. Kurseong Municipality has 95.54% male literacy rate, higher than district hill urban (94.53%) and district urban average (91.37%). Ward 3



**Figure 3.6 Ward wise literacy rate of Kurseong Municipality, 2011** (Source: Census of India)

(98.62%) occupies the first place whereas Ward 15 (91.65%) occupies the last position in male literacy rate. Twelve wards have higher male literacy rate than the town average and the district hill urban average whereas five wards have higher male literacy rate than the district urban average.

### 3.7.2 Spatial pattern of male-female literacy differential

Though there has been a significant improvement in literacy rate of the town during the past decades, there still exists a difference between literacy rate among males and females. The

**Table 3.21 Ward wise Male-Female Literacy Differential Index, Kurseong Municipality (2001 and 2011)**

Wards	2001				2011			
	Male Lit. rate	Female Lit. rate	Total Lit. Rate	MFDI*	Male Lit. rate	Female Lit. rate	Total Lit. Rate	MFDI*
1	91.19	79.76	86.48	0.13	94.49	87.95	91.95	0.071
2	98.04	94.42	96.02	0.04	97.74	94.71	95.93	0.032
3	94.13	83.00	88.18	0.13	98.62	96.29	97.29	0.024
4	98.26	94.65	96.33	0.04	96.98	95.28	95.98	0.018
5	96.49	89.06	92.90	0.08	97.22	92.38	94.89	0.051
6	90.71	79.26	85.01	0.13	96.34	88.45	92.41	0.085
7	86.83	78.55	82.86	0.10	94.35	88.12	91.41	0.068
8	97.12	90.05	93.62	0.08	97.12	93.62	95.33	0.037
9	96.54	84.38	90.49	0.13	92.15	91.79	92.01	0.004
10	89.77	79.49	84.72	0.12	92.36	85.38	88.98	0.078
11	89.35	81.69	86.07	0.09	93.36	90.73	92.1	0.029
12	89.86	81.84	86.19	0.09	91.83	90.03	91.05	0.020
13	90.97	82.40	86.95	0.10	93.84	90.28	92.1	0.039
14	88.65	74.26	81.68	0.18	97.83	91.49	94.58	0.067
15	95.09	90.72	93.04	0.05	91.65	92.53	92.07	-0.010
16	93.25	86.93	90.54	0.07	96.77	95.61	96.18	0.012
17	93.32	87.79	90.65	0.06	96.79	93.02	94.99	0.040
18	98.07	92.85	95.33	0.05	97.67	96.73	97.18	0.010
19	96.66	81.81	89.72	0.17	95.77	88.26	92.14	0.082
20	96.31	77.30	86.85	0.22	95.65	85.66	91.06	0.110
Total	93.66	85.35	89.59	0.09	95.54	91.92	93.73	0.071

Source: Census of India  
\*Computed by the researcher

**Table 3.22 Spatial variation of Male-Female Literacy Differential Index, Kurseong Municipality, 2011**

MFDI	Wards	Total number of wards	% to total wards
< 0.01	9, 15, 18	3	15
0.01 – 0.03	3, 4, 11, 12, 16,	5	25
0.03 – 0.05	2, 8, 13, 17	4	20
0.05 – 0.07	5, 7, 14	3	15
> 0.07	1, 6, 10, 19, 20	5	25

Source: Computed by the researcher

male literacy increased from 62.94% in 1961 to 95.54% in 2011 and the female literacy increased from 42.17% in 1961 to 91.92% in 2011. The female literacy is found to be lower than the male literacy in all the decades. Differential index has been applied for analyzing the disparity pattern of literacy rate of Kurseong Municipality which is as follows:

Differential Index:  $MFDI = (MLR - FLR) / TLR$

Where, MFDI=Male-female differential index.

MLR=Male literacy rate.

FLR= Female literacy rate

TLR= Total literacy rate

After using this technique, the result is divided into five categories, which are presented in Table 3.22.

The male-female literacy differential index varies from a minimum value of -0.010 in Ward 15 to a maximum value of 0.110 in Ward 20. Forty percent of the total wards in Kurseong Municipality record a differential index of less than 0.03 and thirty five percent have differential index ranging from 0.03 to 0.07 whereas twenty five percent of the total wards have a differential index of more than 0.07. The wards with low male-female literacy differential index show female literacy more than 90% whereas most of the wards with comparatively higher male-female literacy differential index show female literacy less than 90%. From the Table 3.21 it is evident that the value of male-female literacy differential index has decreased from 2001 to 2011 in all the wards which is a sign of significant improvement of Kurseong town in terms of male-female literacy gap.

### **3.8 Occupational structure**

The occupational structure of a region reflects the state of economy and the level of economic transformation. It is an important expression of demographic dynamics in an urban area. Conversely, for the initiation of the process of population concentration in a particular place, the specialization of economic activity is imperative to the process of urbanisation (Parveen, 2006). The occupation of human resources in various sectors of economy determines the level of economic development. The studies of changing occupational structure have a direct bearing on the development of economy (Barclay, 1966). The prosperity of an urban community directly depends on the size of its working population (Dave, 1991). According to 2011 census the total work participation rate of Kurseong Municipality is 23.24% of which male and female workers accounted for 32.39% and 13.91%

of the total workers respectively. The work participation rate of the town is lower than the district hill urban average (32.58%) and district urban average (35.05%). Wide differences exist among the two sexes in the town in 2011, with male and female participation rates of 32.39% and 13.91% respectively. The male-female differential in the work participation rate of the town is lower (18.48%) than the district hill-urban average (26.17%) and the district urban average (35.62%). The lower female work participation rate in Kurseong town is due to lack of opportunities and compulsion of staying at home to look after the family.

Spatial variations are observed within the study area with regard to the work participation rate. In 2011 the wards showing comparatively higher work participation rate (30% - 41%) than other wards include Wards 5, 7, 11, 13 and 15. It is interesting to note that these wards also show comparatively higher male work participation rate (44% - 61%) than other wards. The rest of the wards record the total and male work participation rate of less than 30% and 44% respectively. The wards with highest female work participation rate is Ward 8 (20.29%) followed by Ward 5 (20.10%) and Ward 20 (20.04%).

**Table 3.23 Work participation rate, Kurseong Municipality, District hill-urban and District urban (1961-2011)**

	Year	Population			Workers			*Work participation rate			Change in % (2001-2011)
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Kurseong Municipality	1961	13410	7202	6208	3948	3317	631	29.44	46.06	10.16	-
	1971	16425	8705	7720	4126	3459	667	25.12	39.74	8.64	4.51
	1981	18008	9403	8605	4744	3876	868	26.34	41.22	10.09	14.98
	1991	26758	13989	12769	6536	5242	1294	24.43	37.47	10.13	37.77
	2001	40019	20410	19609	10069	7477	2592	25.16	36.63	13.22	54.05
	2011	42446	21423	21023	9863	6938	2925	23.24	32.39	13.91	-2.05
District hill-urban	1961	79166	43888	35278	26396	21601	4795	33.34	49.22	13.59	-
	1971	82728	44369	38359	22961	19178	3783	27.75	43.22	9.86	-13.01
	1981	1,19,067	63249	55818	32517	27147	5370	27.31	42.92	9.62	41.62
	1991	1,62,343	84,010	78333	40274	32530	7744	24.81	38.72	9.89	23.86
	2001	214651	1,10,999	1,03,652	63831	48525	15306	29.74	43.72	14.77	58.49
	2011	2,92,064	145803	146261	95169	66613	28556	32.58	45.69	19.52	49.10
District urban	1961	144637	83539	61098	50122	44554	5568	34.65	53.33	9.11	-
	1971	180212	100508	79704	53115	48129	4986	29.47	47.89	6.26	5.97
	1981	282153	154221	127912	83453	74752	8701	29.58	48.47	6.80	57.12
	1991	396060	2,11,999	184061	116988	100946	16042	29.54	47.62	8.72	40.18
	2001	520432	2,74,011	2,46,421	166203	136234	29969	31.94	49.72	12.16	42.07
	2011	727963	370294	357669	255148	194579	60569	35.05	52.55	16.93	53.52

Source: Census of India  
\*Computed by the researcher

### 3.8.1 Occupational composition

The census classifies workers into the following four broad categories: i) Cultivators, ii) Agricultural Labourers, iii) Household Industry Workers and iv) Other Workers. The study

area, being an urban settlement has a large proportion of its population engaged in tertiary activities. The other workers solely constitute 96.93% of the total workers of which 68.29% and 28.64% comprise of male and female other workers respectively. The workers engaged in primary occupation constitute less than 1% of the total workers of which cultivators and agricultural labourers constitute 0.25% and 0.49% of the total workers respectively. The household industry offers employment to only 2.33 % of the total work force. In other words, the tertiary activities are the most important source of employment in the region. Very low proportion of workers engaged in cultivation and agriculture reflects the true urban character of the region. The female participation rate is lower than the males in all activities except cultivation. 0.73% of the total female work force is classed as household industry workers which are slightly lower than the males (1.60%). A significant gender gap is noticed even in other workers category.

**Table 3.24 Ward wise work participation rate, Kurseong Municipality, 2011**

Wards	Total	Male	Female	Gender gap in participation rate	Wards	Total	Male	Female	Gender gap in participation rate
1	20.46	25.03	13.42	11.61	11	36.68	53.60	18.08	35.52
2	25.43	40.95	14.46	26.49	12	16.36	19.13	12.55	6.58
3	13.02	20.58	7.18	13.4	13	30.32	44.47	15.13	29.34
4	16.89	27.33	9.67	17.66	14	28.08	37.73	18.77	18.96
5	32.7	44.44	20.10	24.34	15	40.45	60.84	19.03	41.81
6	23.29	31.42	14.98	16.44	16	19.54	30.58	8.97	21.61
7	33.51	51.19	13.62	37.57	17	25.20	34.22	15.56	18.66
8	28.63	37.42	20.29	17.13	18	20.68	31.15	10.85	20.3
9	16.10	18.02	13.05	4.97	19	10.95	12.93	8.82	4.11
10	25.35	33.49	16.70	16.79	20	26.71	32.26	20.04	12.22

Source: Census of India

**Table 3.25 Industrial categories of workers, Kurseong Municipality, 2011**

Industrial category	Number of workers	% to T. workers	male workers	% to T. male workers	female workers	% to T. female workers
Cultivators	25	0.25	11	0.11	14	0.14
Agricultural labourers	48	0.49	34	0.34	14	0.14
Household industry workers	230	2.33	158	1.60	72	0.73
Other workers	9560	96.93	6735	68.29	2825	28.64
Total workers	9863	100	6938	70.34	2925	29.66

Source: Census of India

#### *Agricultural and Non-agricultural occupation*

Only 0.74% of the total workers in the study area is engaged in primary occupations which is lower than the district urban (2.26%) and district hill-urban average (3.41%). Of primary

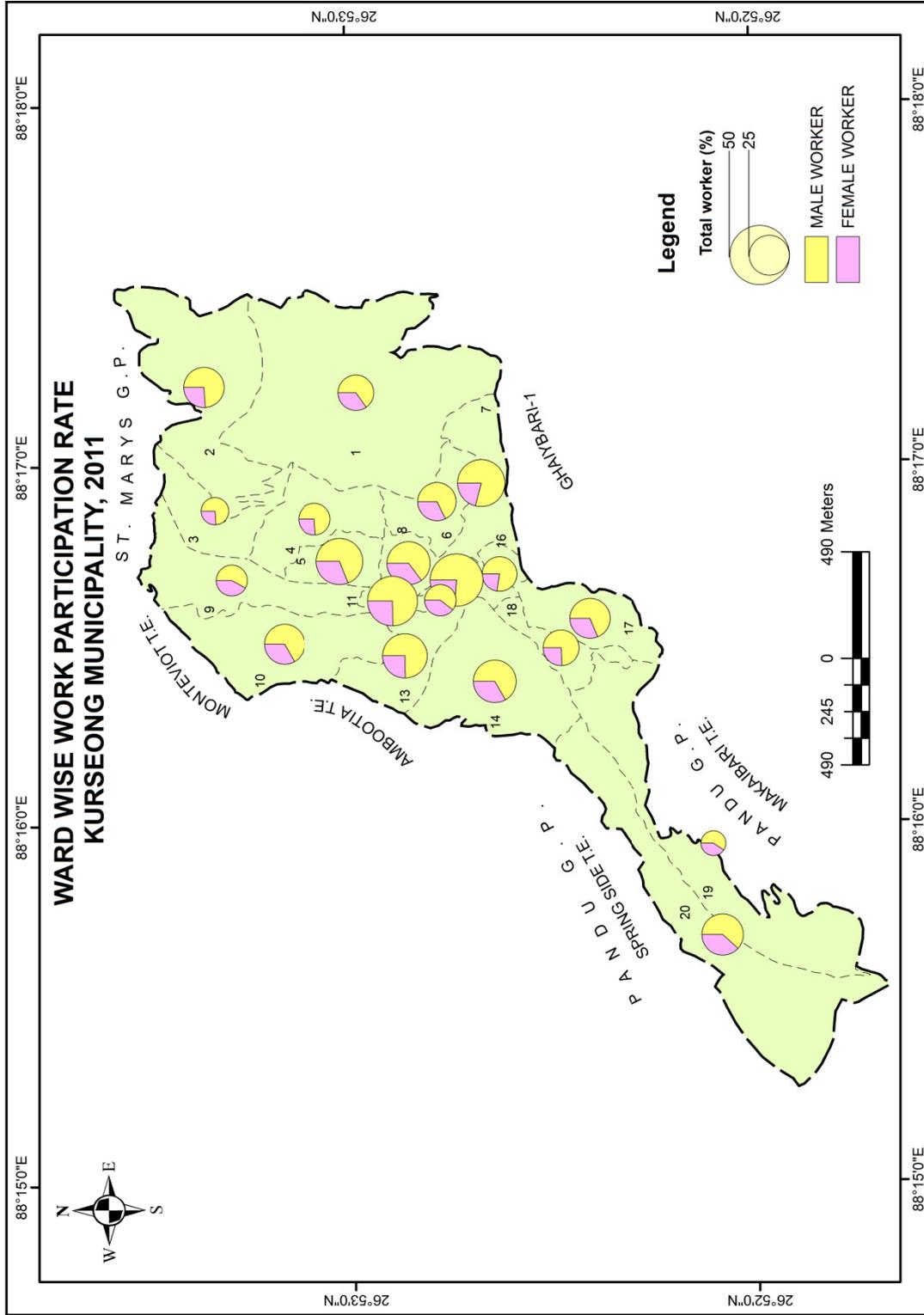


Figure 3.7 Ward wise work participation rate of Kurseong Municipality, 2011 (Source: Census of India)

occupations, agricultural labourers show slightly higher proportion (0.49%) as compared to the cultivators (0.25%). This proportion is lower than the district urban (1.28%) and district hill-urban average (2.09%). With regard to non-agricultural occupation the proportion of workers engaged in household industry comprises 2.33% of the total work force which is higher than the district hill-urban (1.91%) and slightly lower than the district urban (2.41%) average. The highest proportion of workers is found in other services (96.93%) like trade and commerce, government offices, private educational institutions etc which are interestingly higher than the district urban (95.33%) and hill-urban average (94.68%).

### *3.8.2 Trends in Workforce*

Kurseong Municipality shows a very fluctuating trend with regard to its total work participation rate from 1961 to 2011. The highest (29.44%) work participation rate of the town is recorded in 1961. In 2011 the total work participation rate of the town was 23.24%, the lowest of all the decades which is also lower than the district hill-urban (32.58%) and district urban average (35.05%). However, it is interesting to note that the male work participation rate in the town decreased from 46.06% in 1961 to 32.39% in 2011 whereas the female work force participation rate increased from 10.16% in 1961 to 13.91% in 2011. Though the region is progressively advancing towards socio-economic development, Kurseong Municipality is lagging behind regarding the participation in gainful economic activities. The town with limited secondary and considerable tertiary activities offers employment to the people belonging to a specific group. In addition, in the absence of wider choices for employment opportunities a large number of youths have already left for metropolitan cities of India and abroad to seek for employment. The field survey reveals that 19% of the surveyed households have their children working in other places like New Delhi, Mumbai, Kolkata, Bengaluru, Hyderabad, Lucknow, Shillong, Guwahati, Gangtok, Varanasi etc and also in countries like Nepal, Singapore, U.A.E., Qatar, Kuwait, Afghanistan etc.

### **3.9 Migration**

Along with fertility and mortality, migration is an important demographic variable responsible for bringing about population redistribution of an area. It holds a prominent place in a geographical analysis of population change in an area (Chandna, 2011). Together with natural increase, it determines the size, distribution and growth of population along with its composition and characteristics. Migration is a major factor in urbanization and social change as well as in economic development and manpower planning (Das and Bhumali, 2011). Urban areas are often looked upon as repositories of greater opportunities, better

**Table 3.26 Number of in-migrants, Kurseong Municipality (1971 - 2011)**

Year	No. of births	No. of deaths	Natural increase*	Total population	Annual total population + Natural increase*	Total in-migrants *
1971	209	145	64	16425	-	
1972	65	164	-99		16326	
1973	32	121	-89		16237	
1974	152	173	-21		16216	
1975	107	85	22		16238	
1976	174	162	12		16250	
1977	141	97	44		16294	
1978	136	65	71		16365	
1979	159	55	104		16469	
1980	41	85	-44		16425	
1981	145	154	-9	18008	16416	1592*
1982	396	131	265		18273	
1983	175	153	22		18295	
1984	233	148	85		18380	
1985	291	151	140		18520	
1986	234	140	94		18614	
1987	300	144	156		18770	
1988	464	157	307		19077	
1989	471	147	324		19401	
1990	528	151	377		19778	
1991	530	159	371	26758	20149	6609*
1992	569	174	395		27153	
1993	643	185	458		27611	
1994	721	176	545		28156	
1995	694	169	525		28681	
1996	570	165	405		29086	
1997	458	168	290		29376	
1998	489	194	295		29671	
1999	440	159	281		29952	
2000	363	148	215		30167	
2001	311	178	133	40019	30300	9719*
2002	361	201	160		40179	
2003	602	205	397		40576	
2004	390	199	191		40767	
2005	365	195	170		40937	
2006	365	264	101		41038	
2007	387	241	146		41184	
2008	289	223	66		41250	
2009	230	201	29		41279	
2010	273	204	69		41348	
2011	295	224	71	42446	41419	1027*

Source: Kurseong Municipality

\*Computed by the researcher

services and better lifestyles attracting more migrants. The situation holds the same for Kurseong town. The distinguishing characteristic of migration is that its directions and volume are entirely the resultants of human actions and reactions to situations. The census of

India defines migrant as a person who has moved from one politically defined area to another similar area, either a village or a town, provided the movement is not of temporary nature on account of casual leave, visits, tours etc.

Immigration for various reasons has been the largest single factor in the growth of population in the district of Darjeeling. Emigration, on the other hand, has been relatively negligible and more often temporary in nature (Das and Bhumali, 2011). There was a steady influx of labourers from Nepal for employment in the tea gardens of Darjeeling from around 1856 which has been a major factor for population increase in the district. Along with the tea industry the district was also known for the production of oranges, cardamom, gingers, vegetables, potato and timber and milk as well. All these factors in concomitance with the development of trade and commerce and white collar jobs in the past as well as in recent years encouraged large scale immigration in Darjeeling district. At present tourism has emerged as the most viable and lucrative industry.

In order to explore the volume of in-migration to Kurseong town from other areas, rigorous data collection on number of births and number of deaths of Kurseong Municipality was carried out in 2015 from the Municipality Office. From the data on number of births and number of deaths for each year from 1971 to 2011, the natural increase was computed by subtracting the number of deaths from the number of births. A cumulative increase of population was then calculated for each decade i.e. 1971-1981, 1981-1991, 1991-2001 and 2001-2011, taking the total population of each census year into consideration in the beginning of each decade. Finally, the total number of in-migrants was calculated by subtracting the cumulative increase of total population of the final year of each decade from the present census total population of the respective decade. The measurement of migration in Kurseong town is complex as it purely, is a socio-economic phenomenon which is an outcome of complex mechanism involving social, economic, political, institutional, psychological and other determinants (Gautam, 2005). Kurseong town witnessed rapid increase in population due to in-migration from the surrounding rural areas. To test this hypothesis, the natural increase and the number of in-migrants have been calculated from the data on number of births and deaths collected from the municipality office. The Table 3.27 exhibits that the number of in-migrants comprised a significant percentage of total population of Kurseong town during 1981 – 1991 (24.70%) and during 1991 – 2001 (24.28%) when the decadal growth of the town was very high i.e. 48.59% during 1981 – 1991 and 49.56% during 1991 – 2001. Therefore, the very first hypothesis of the study undertaken is proved by the fact that

the decades recording very high population growth rate also records high percentage of in-migrants in Kurseong Municipality.

**Table 3.27 Decade wise number of in-migrants, Kurseong Municipality**

Year	Total in-migrants*	Total population	Population growth in % *	% of in-migrants to total population *
1971 – 1981	1592	18008	9.64	8.84
1981 – 1991	6609	26758	48.59	24.70
1991 – 2001	9719	40019	49.56	24.28
2001 – 2011	1027	42446	6.06	2.41

Source: Kurseong Municipality

\* Computed by the researcher

Data collected on migration from an intensive field survey reveals that in Kurseong town, the number of in-migrants account for 37.42% of the total households surveyed out of which 20.15% have migrated to Kurseong Municipality for employment, 9.24% for children's education, 2.27% for employment and children's education, 1.21% for employment and to own a house and 4.55 % for various other reasons such as retirement, transfer of job, business and ethnic clashes in the north-eastern parts of India. Most of the people have migrated from the surrounding rural areas such as Balason T. E, Sukhia pokhri, Margaret's Hope T. E., Latpanchor, Sittong, Shelpu, Mahaldiram T. E., Mamring, Takdah, Jinglam T.E., Sonada, Tung, Dilaram, Jungpana T. E., Sivitar T. E., Malootar T. E., Selim Hills, Mahanadi T. E., Ghayabari T. E., Tindharia, Majua, Chaitepani, Chimney, Barbung, Coffeebari T. E., Singel T. E., Giddha Pahar, Ambotia T. E., Makaibari T. E., Karbia T. E., Rohini, Pankhabari and Longview T. E. Some have also migrated from places like Darjeeling, Mirik, Siliguri, Bagdogra, Birpara, Malbazar, Jaigaon, Kalimpong, Jalpaiguri, Coch Bihar, Malda and also from the states of Bihar, Punjab, Uttar Pradesh and Karnataka as is evident from the field survey.

A wide range of factors have contributed to the ever-increasing in-migrants to this small town. In general, the main factors provoking migration in Kurseong town have been recognized as push and pull factors which have been operating simultaneously though with varying magnitude. Push factors include unemployment and underemployment, lack of access to basic amenities, low wage and income, absence of regular gainful employment, poor education and medical facilities, lack of infrastructure, poor accessibility and fragility of the hilly region and lack of income generating opportunities in rural areas. The unskilled youths are forced into low paid jobs in the informal sector in villages owing to lack of opportunities for skill development. On the other hand, pull factors include probabilities for

better income and working conditions, employment opportunities in trade and commerce, increasing demand for labour in varied tertiary activities, better education, healthcare, sanitation and infrastructure in terms of roads, electricity, communication, markets and financial services, improved means of transport and communications, desire for attaining better lifestyle and a growing craze for urban life. Both skilled-educated persons and those with basic education and skills get opportunities to explore better livelihood options in the urban areas in the organized and informal sector respectively. Kurseong being a sub-divisional headquarter possesses various government offices employing a large number of people. The renowned English medium schools established during the British period and recent ones established in the last 25 years or so in the town attract students not only from different parts of India but also from other countries. The opening up of these schools in the private sector has helped in absorbing many people of the town thus generating employment opportunities. Kurseong is well connected by roads to different parts of the district. In addition, it is a DHR headquarter and is well connected to Siliguri and Darjeeling towns by Darjeeling Himalayan Railway. The town enjoys a moderate and suitable climate suffering neither from severe winter like that of Darjeeling nor scorching heat like that of the plains. All these factors operate together to attract immigrants to this hill town from the surrounding rural areas.

### **3.10 Conclusion**

Kurseong town comprises of 14.53% and 5.83% of the total population of Darjiling District hill-urban and Darjiling district urban respectively. The population of the town is unevenly distributed in 20 municipal wards and is not always proportional to the ward area. The town attained its present status of class III town in 1991 which continues till date from its earlier status of class VI in 1901, V in 1911 and IV in 1951. According to 2011 census, the population density of Kurseong town is 5407 persons/km<sup>2</sup> which is higher than the district hill urban (2838 persons/km<sup>2</sup>) and district urban average (4743 persons/km<sup>2</sup>). A scenario of a small congested hill town holding population more than it can sustain, is clearly depicted from the said figure. The maximum increase in density of Kurseong Municipality was recorded during 1981 – 2001. This was a result of the restoration of peace in the region after the first Gorkhaland agitation in 1986 which led to the in-migration of people from the surrounding region for better economic prospects and better life style. The disparity in the density distribution is also noticed in different wards of the town. The wards with high density are centrally located which are highly congested with high commercial activities whereas the wards located in the periphery with larger area have low population density.

Kurseong town has recorded an improving sex ratio of 961 in 2001 to 981 per 1000 males in 2011 which is higher than the district urban average (966). In 2011 Kurseong town accounted for 6.43% and 19.14% of the share of scheduled caste and scheduled tribe population of the town respectively. The very high growth rate of ST population (252.65%) during 2001-2011 is due to inclusion of certain sections of the population such as Tamang and Limbu (Subba) in Scheduled Tribe list in the Constitution of India.

The literacy rate has more than doubled from 44.47% in 1951 to 93.73% in 2011. Though there has been a significant improvement in literacy rate of the town during the past decades, there still exists a difference between literacy rate among males and females. The total work participation rate of Kurseong town in 2011 is 23.24%, lower than the district hill urban (32.58%) and district urban average (35.05%). Wide differences exist in the participation rates among the two sexes in the town. The other workers solely constitute 96.93% of the total workers. Very low proportion (0.74%) of workers engaged in cultivation and agriculture reflects the true urban character of the study area. In Kurseong town the number of migrants comprised a significant percentage of total population of town during 1981 – 1991 (24.70%) and during 1991 – 2001(24.28%) when the decadal growth of the town was very high i.e. 48.59% during 1981-1991 and 49.56% during 1991-2001. This very fact clearly proves the first hypothesis of the study undertaken i.e. the rapid growth has taken place in Kurseong Municipality due to migration from the surrounding rural areas. The growth rate of population of 122% during 1981-2001 is attributed to both natural increase as well as immigration from the surrounding areas. The main factors provoking migration are push and pull factors which have been operating simultaneously though with varying magnitude.

The study of a town with respect to its various components of population, past and present helps in understanding the underlying and unobservable processes. A comprehensive assessment of demographic and economic structure of a town and its impact on the resource potentiality is very essential for social and economic profiling of the town as well as in an effective town planning. The analysis of different demographic attributes is strongly associated with the quality of life or the level of development in an urban area and its land use pattern since it creates demands for urban services and basic amenities, thus affecting the socio-economic conditions, environment as well as urban facilities of an area.

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