

## CHAPTER – III

# POPULATION CHARACTERISTICS OF JALPAIGURI TOWN

### INTRODUCTION

Demography means 'scientific study of human populations, family with respect to their size, their structure and their development (U.N.1958). Demography has its focus on measurement of the rate and trend of various population characteristics such as growth of population, density and distribution of population composition etc. So, population is the focus to the study of urbanization of an area. Various demographic attributes to Jalpaiguri town are summarized in this study.

### 3.1 DISTRIBUTION OF POPULATION

Jalpaiguri district was established by British rulers on the 1<sup>st</sup> of January, 1869, with its headquarters at the present Jalpaiguri town. Large number of people from various sphere of activities settled in the town. After independence, large influx of refugee population put tremendous pressure on the urban fabric of the town. According 2001 Census, Jalpaiguri Municipality with an area of 12.975 km<sup>2</sup> has population of 1,00,348, which includes 50.45% (50629) males and 49.55% (49719) female population. At present, Jalpaiguri municipality shares 0.208% of the total area, and 16.11% of the total urban population of the district. The remaining 83.3% of urban population of the district shared by other towns.

#### 3.1.1 Size Of Wards In Terms Of Area

According to 1991 census, the total area and total population of the town were 10.08 km<sup>2</sup> and 68732 persons respectively. During the last 10 years there is an increase in area (2.895 km<sup>2</sup>) and population in the town. So, it can be said that the total area and population is increasing day by day. The town has 25 Municipality wards and the size and area of the wards are very irregular. Ward no 2 covers the largest area (1.9138 km<sup>2</sup>) and is situated in the northeastern corner of the town, where as ward no 7 covers the smallest area (0.1523 km<sup>2</sup>). This ward is situated near C.B.D.

Among 25 wards, 52% is shared by small category (below 0.4 km<sup>2</sup>) and 16% is shared by large category (above 0.8 km<sup>2</sup>). So, most of the wards of the municipality have a smaller area than the average (0.519 km<sup>2</sup>). The larger wards are found in the north and northeastern part of the municipality encircling the smaller wards, located in the central and southwestern parts of the town.

### 3.1.2 The size of Wards In Terms Of Population

Variations in the distribution of population among the wards are also noticed (Fig. 3.1). The highest population (6775 persons) is recorded in ward no 2 and the lowest (2478 persons) population is recorded in ward no 18. Population potentialities can be measured by the distribution of population among the wards. On the basis of population size the wards can be classified into different categories as follows in Table 3.1.

**Table 3.1 DISTRIBUTIONS OF WARDS ACCORDING TO POPULATION SIZE IN JALPAIGURI TOWN**

Population Size	Category	Percentage of Total Population	Number of wards	Percentage of Wards
<2940	Very Low	7.85	3	12
2940 - 4010	Low	36.65	11	44
4010 - 5080	Moderate	37.03	7	28
>5080	High	18.47	4	16
		100.00	25	100

Source- Census 2001

Table 3.1 reveals that 12% of the wards of the town has a very low population (below 2940) because their areas are relatively small. And most of the wards (44%) accommodate low population (between 2940 to 4010). A large number of populations (above 5080) are noticed only in four (4) wards, which shared 16% of the total wards, and are much bigger in area than other wards of the town. It is also found that these wards are situated at the northeastern and southeastern periphery of the town. As the price of land and rent of houses is lower than C.B.D, a large number of low to medium income group people settled here. The highest percentage (37.03%) of the total population is found in the wards, situated in and around C.B.D. Despite of their smaller area, several urban facilities attract people to reside here.

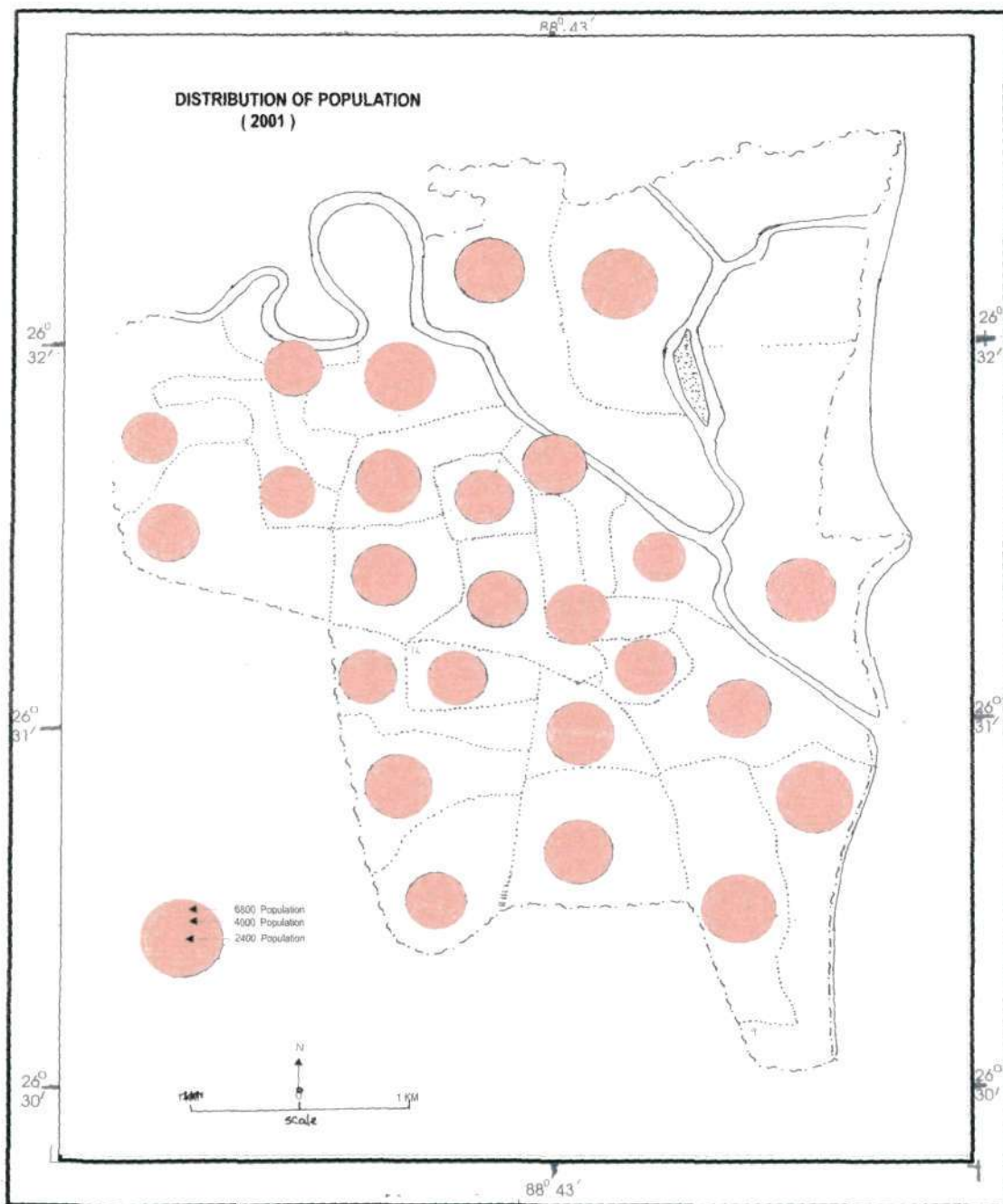


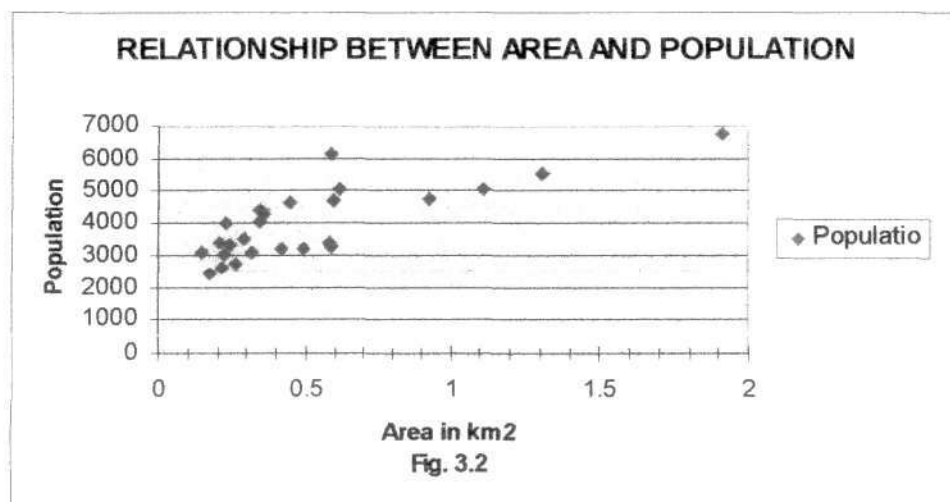
Fig - 3.1

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Fig. 3.2 shows a scattered diagram, which is giving an idea of the relationship between population and area of each ward of the municipality. Wards, those having area below the average (<than  $0.5 \text{ km}^2$ ) are characterized by moderate population (up to 5000 persons). The diagram also shows that an increase of population above 5000 persons in each ward also tends to cause an increase in the area that in from  $0.6 \text{ km}^2$  to  $3 \text{ km}^2$ .



## 3.2 COMPOSITION OF POPULATION

The classification of population according to sex is an important aspect of population structure. Many economic & social relationships are closely related to the balance or disparity between numbers of males & females. In Jalpaiguri town the total number of males and females are 50608 and 49697 respectively (Census 2001). Where as in 1991 35020 males and 33712 females share total population. So, it can be said that, there is an increase in males (+44.51%) and females (+47.42%) respectively. Fig. 3.3 shows the male-female composition of population since 1961 to 2001.

## COMPOSITION OF POPULATION (1961 – 2001)

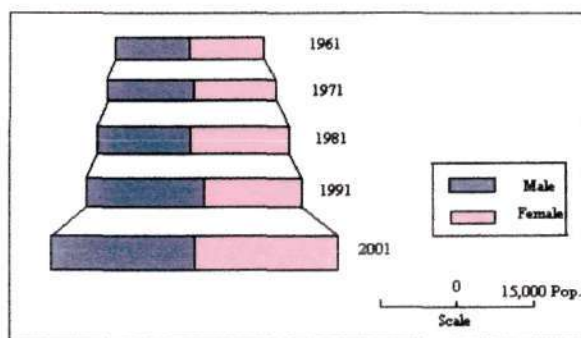


Fig-3.3

### 3.2.1 Sex Ratio

Sex –Ratio is an important component to determine the level of human resource of the municipality and it is an important component to determine the level of participation in different economic activities. The ratio of two sexes in a population is normally expressed as the number of females per 1000 of males. The ratio of females per 1000 males was 981, which was higher than district (u) average (941) as a whole in 2001. The increasing trend in female sex ratio indicates that more men with their females like to reside in the town, because Jalpaiguri is a district headquarters, which has more service opportunities. A continuous increase of female ratio has also been noticed in different decades in the town due to flow of refugees and female workers from the neighboring areas and Bangladesh. On the basis of sex ratio the wards can be categorized as follows in Table 3.2

**Table 3.2** DISTRIBUTIONS OF WARDS ACCORDING TO SEX RATIO (2001)

Sex Ratio (Females / 1000 Males)	Category	No of Wards	Percentage of Wards
<900	Very Low	1	4
900 - 950	Low	3	12
950 - 1000	Moderate	13	52
1000 - 1050	High	6	24
>1050	Very High	2	8
		25	100%

Census 2001

Table 3.2 & Fig 3.4 reveals that the majority of the wards (52%) are shared by moderate category (950-1000 females / 1000 males). Sex-ratio is high (1000-1050 females / 1000 males) in Ananda Para, Natun Para, Panda Para, Ukil Para, Newtown Para and others places near C.B.D, which occupy 24% wards of the town. This is mainly due to the development of

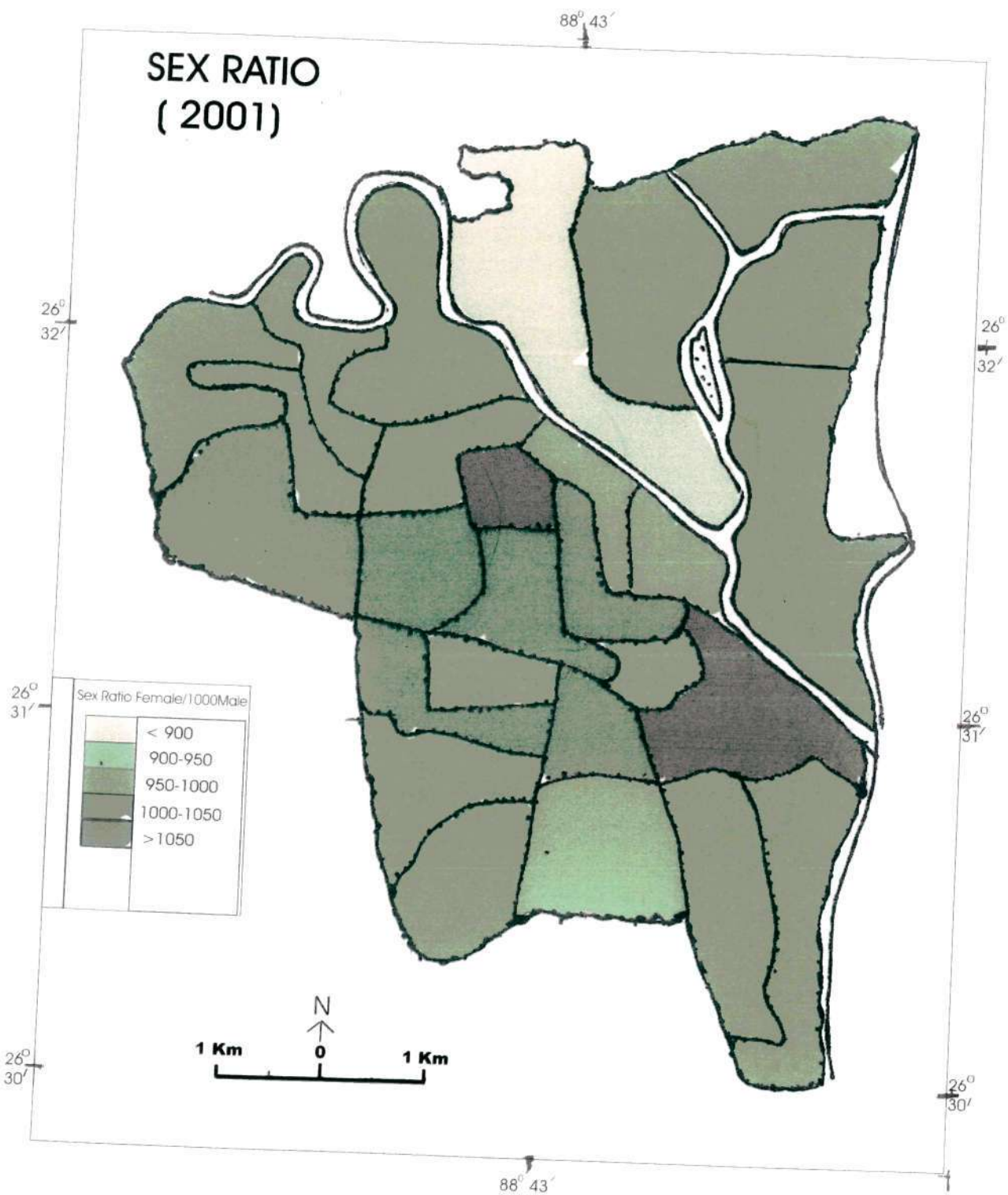


Fig -3.4

residential areas in these places. Marriage is one of the important factors for the increase of female percentage in residential areas. About 8% of the words show very high sex-ratio (above 1050 females/1000 males). This is due to the concentration of female working population specially in girls schools such as Jalpaiguri Govt. Girls' High school, Central Girls' High school, Sishuniketan etc. Sex ratio is very low (<than 900) is ward no 1, situated at the left bank of river Karala. As it is an old portion of the town existence of arable land, remoteness, and non-availability of urban facilities become responsible for the concentration of male agricultural labourers.

### 3.2.2 Scheduled Caste And Scheduled Tribe Population

The term scheduled caste, appeared for the first time in the government of India,(Act. 1935). The British Government issued the scheduled caste order in 1936 classifying certain castes, races and tribes as scheduled caste, as categorized by Hulton, the Census commissioner of India in 1931.

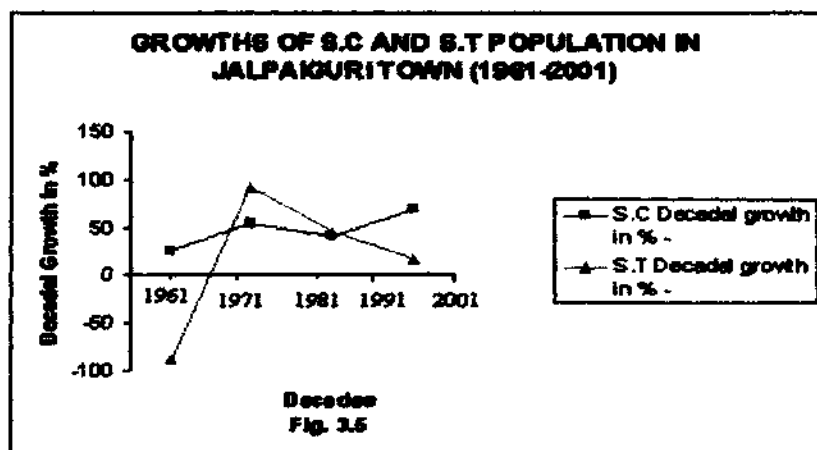
According to 2001 census, the scheduled caste (20190) and scheduled tribe population (975) shared 20.12% and 0.97% of total population respectively, which accounted about 21.09% of the total population of the town. A high rate of increase in both scheduled caste and scheduled tribe population were noticed during 1971-81 and 1981-91. The decade-wise growths of scheduled castes and scheduled tribes are shown in Table 3.3.

**Table 3.3 SCHEDULED CASTES AND SCHEDULED TRIBES AND THEIR DECADAL GROWTH IN JALPAIGURI TOWN**

Year	Schedule Caste			Scheduled Tribe		
	Population	% of Total Population	Decadal growth in %	Population	% of Total Population	Decadal growth in %
1961	4347	8.90	-	2448	5.00	-
1971	5479	9.90	+26.0	295	0.50	-87.90
1981	8440	13.70	+54.0	567	0.92	+92.20
1991	11925	17.35	+41.29	828	1.20	+46.03
2001	20190	20.10	+69.31	975	1.00	+17.75

A negative growth for schedule tribes (-87.90%) was noticed during 1961-71 due to the destruction of their dwellings by the devastating flood in 1968 and a large migration from urban

to rural areas. Again, an increase of scheduled castes and scheduled tribes population in the town during 1971-81 and 1981-91 were due to migration from rural areas for search of jobs.



Variation in the distribution of scheduled caste and scheduled tribe population among the wards are also noticed. The highest scheduled castes population (2446 persons) is recorded in ward no 9, and the lowest (52 persons) is recorded in ward no 18, which are shared by 12.11% and 0.20% of the total scheduled caste population of the town.

The highest scheduled tribes population (303 persons) is found in ward no 10 and lowest (2 persons) is found in ward no 14 and 17. Thus, 31.08% and 0.21% of the total S.T. population of the town shares these. On the basis of concentration of S.C & S.T population, the wards can be categorized as follows. (Table 3.4 & 3.5)

**Table 3.4 INDEX OF CONCENTRATION OF SCHEDULED CASTE POPULATION (2001)**

Index of Concentration of S.C	Category	Percentage Of wards
<0.5	Very Low	20
0.5 - 1.0	Low	40
1.0 - 1.5	Medium	24
1.5 - 2.0	High	12
>2.0	Very High	4

It is found from Table 3.4 that about 40% of the wards have a low concentration of scheduled caste population, which is observed in the central part and the right bank of river Karala. High concentration of S.C. population is found at the left bank of river Karala and the Southeastern fringe of the town, which is shared by 12% of the wards. Now a very high concentration is found in ward no 12, which occupied a part of Pnada Para, Jayanti Para, Tiemol Road etc.

measure the inequality in their distribution. The deviation of the curves (representing S.C & S.T population) from the line of equal distributions indicates lesser concentration of scheduled caste and scheduled tribe population in relation to the total population. It can be said that the degree of concentration of S.C and S.T have a similarity with the index of concentration S.C & S.T, because both are low. Fig. 3.6 shows the degree of concentration of S.C & S.T are shared by 35% and 29% of the total population in 2001.

### 3.4 DENSITY OF POPULATION

In 1981, the Municipality had a population density of 6125 persons per km<sup>2</sup>, 1991 it was 6818 persons per km<sup>2</sup>, and in 2001 it has increased to 7730 persons / km<sup>2</sup> as a whole. Before independence the early settlers of the town resided on the riverbank area. After the independence, the density of urban population has been increasing in an unabated manner. The increasing trend of population density can be visualized from Table – 3.6

Table: 3.6 Decadal Change Of Population Density Of Jalpaiguri Town & Jalpaiguri District (U)

Year	Density Of Population/km <sup>2</sup>		Decadal Change	
	Jalpaiguri (M)	District (U)	Jalpaiguri (M)	District (U)
1901	963	1020	-	-
1911	1137	1167	174	147
1921	1440	1464	303	302
1931	1881	1881	441	412
1941	2754	2755	873	874
1951	4093	2488	1339	-263
1961	4835	2103	742	-385
1971	5472	2822	637	+719
1981	6125	2334	653	-488
1991	6818	450	693	-1884
2001	7730	547	912	+97

Fig.-3.7 indicates the decadal change of population density of population from 1901 to 2001. The decadal change of population density was quite similar to the district (u) up to 1941.

From 1951 to onward in Jalpaiguri town population density is found positive due to immigration from neighbouring area. But in 1951 and 1961 density of the district is found negative. This is because most of the urban centres increased in size by joining with sub-urban areas.

#### 3.4.1 Ward Wise Population Density And Population Pressure

Ward wise density distribution of Jalpaiguri Town in 2001 is found conspicuous as is shown in figure 3.8. The density of population ranges between 3540 persons/km<sup>2</sup> to 20,564 persons/km<sup>2</sup>.

Table :- 3.7 Ward wise Distribution Of Density In Jalpaiguri (2001)

Density Per km <sup>2</sup>	Category	Percentage Of wards
1672 - 5984	Low	24

**Table 3.5** INDEX OF CONCENTRATION OF SCHEDULED TRIBE POPULATION (2001)

Index of Concentration of S.T	Category	Percentage Of wards
<0.4	Very low	52.17
0.4 - 0.8	Low	21.74
0.8 - 1.2	Medium	4.35
1.2 - 1.6	High	4.35
>1.6	Very High	17.39

The Index of concentration of scheduled tribe population (Fig. 3.7) shows that major portion of the wards (52.17%) have a very low concentration. scheduled tribe population is not found in the main commercial area of the town (Ward no 6, 18). An abnormal situation is also found that both Scheduled Caste & Scheduled Tribe people are concentrated at the same words. As Scheduled Tribe populations mainly are from low-income group so, they occupy the area where house rent and price of land are comparatively low

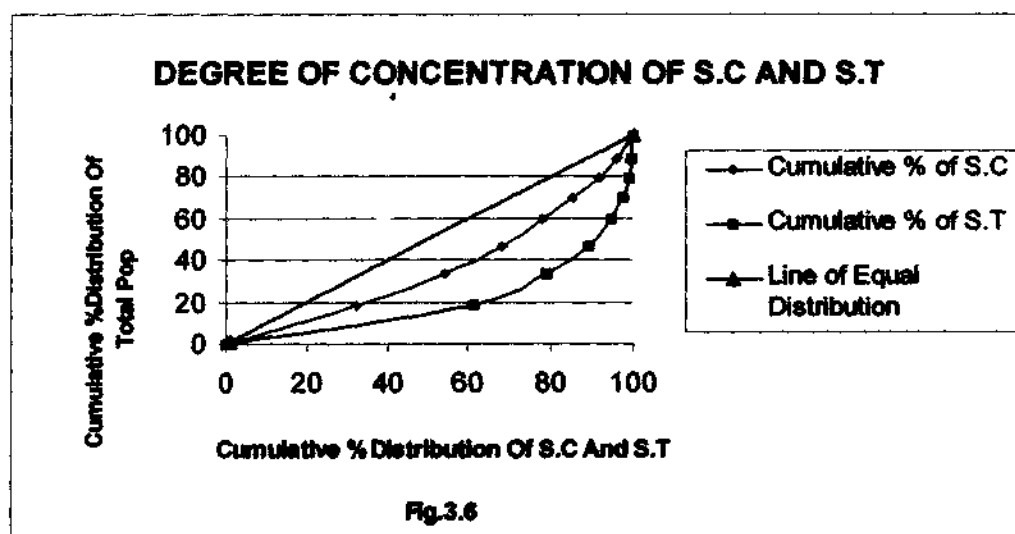


Fig. 3.6 represents the Degree Of Concentration of both scheduled caste and scheduled tribe population of Jalpaiguri in 2001. Lorenz curves for S.C & S.T are used to measure the inequality in their distribution. The deviation of the curves (representing S.C & S.T population) from the line of equal distributions indicates lesser concentration of scheduled caste and scheduled tribe population in relation to the total population. It can be said that the degree of

concentration of S.C and S.T have a similarity with the index of concentration S.C & S.T, because both are low. It also shows that the degree of concentration of S.C & S.T are shared by 35% and 29% of the total population in 2001.

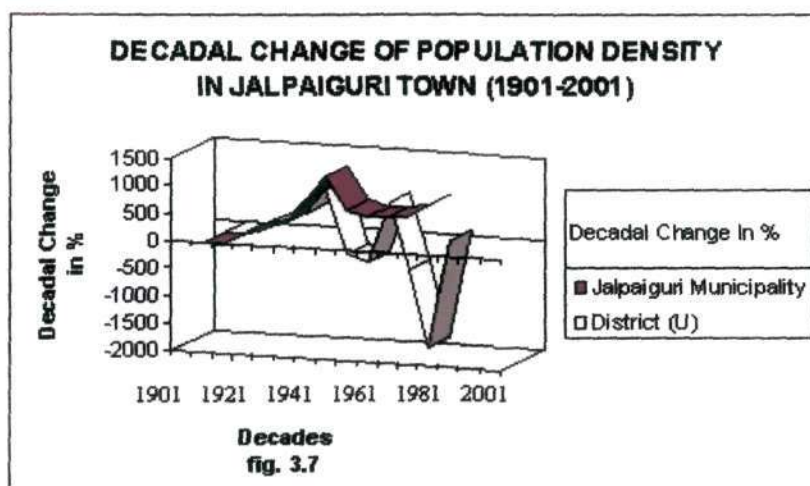
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**Table: 3.6** DECADAL CHANGE OF POPULATION DENSITY OF JALPAIGURI TOWN & JALPAIGURI DISTRICT (U)

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### 3.3.1 Ward Wise Density Population

Ward wise density distribution of Jalpaiguri town in 2001 is found conspicuous as is shown in fig 3.8. The density of population ranges between 3540 persons/km<sup>2</sup> to 20,564 persons/km<sup>2</sup>.

**Table 3.7** WARD WISE DISTRIBUTION OF DENSITY IN JALPAIGURI (2001)

Density Per km <sup>2</sup>	Category	Percentage Of wards
1672 - 5984	Low	24
5984 - 10296	Moderate	20
10296 - 14608	High	44
14608 - 18920	Very High	12

It is found from table 3.7 that, the majority of the wards (44%) is shared by high density of population (10296-14608 persons/km<sup>2</sup>). By comparing table 3.7 and Fig 3.8, it is clear that density is high in the wards, situated in the central part are basically residential in nature, such as Natun Para, Ananda Para, Mohanta Para, Mahuripara Ukil para, Circular Lane etc. Slums near Dinbazar (C.B.D), Jayantee Para, Subhash Unnayan Pally are also recorded high density of population. Concentration of poor slum people are also responsible for high density near C.B.D, adjacent area of D.B.C Road, Kadamtala Patgola and along with the railway track. Density is high in residential colonies like Panda Para, Ashok Nagar, Mashkalaibari, Pabitra Para etc. Very high density of population in the slums situated in Badambasti, Tinpara, Bhatia Building,

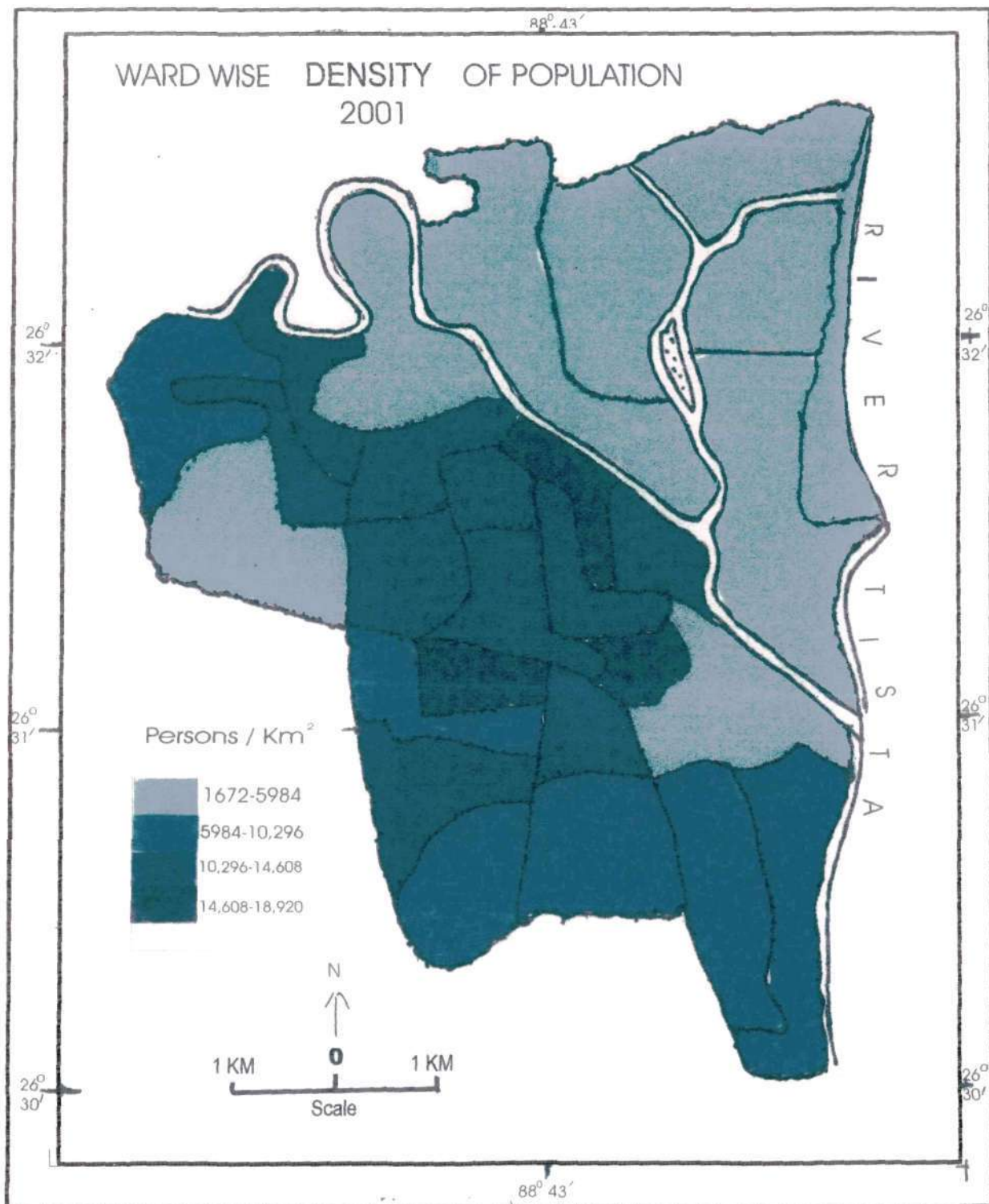
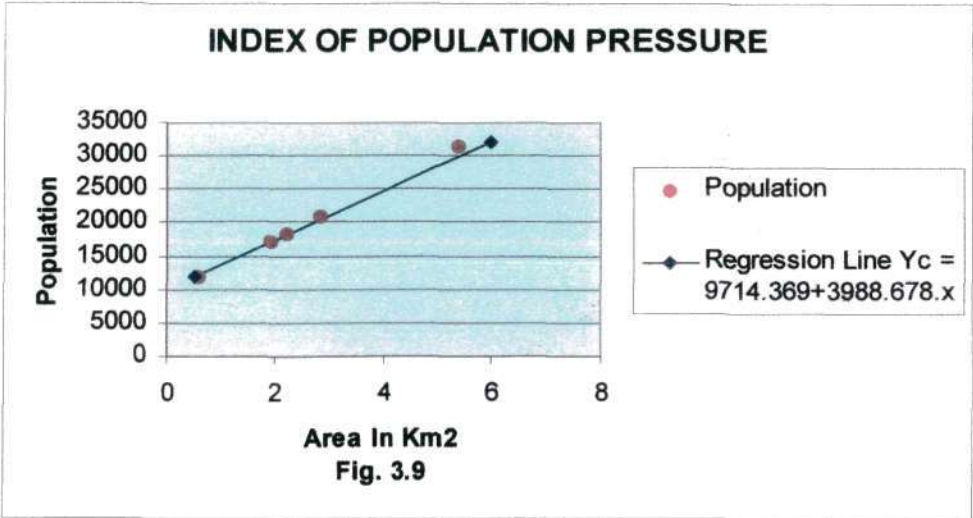


Fig - 3.8

Station Road, Chunilal Road of ward no 4, 7 and 16. Field survey reveals that concentration of rich Marwary businessmen is also responsible for high to very high density of population in ward no 4 & 5. The wards situated at the northern and eastern parts of the municipality, comprising much bigger area than other wards are characterized by low density (1672-5954 persons/km<sup>2</sup>), which is shared by only 24% of the total words.

### 3.4 POPULATION PRESSURE

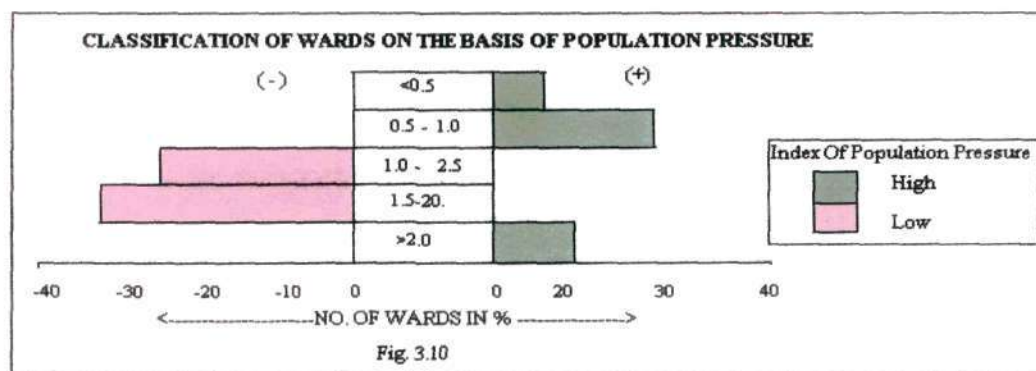
The location of administrative headquarters in the town along with all other infrastructural, socio-cultural facilities such as the lines of transportation, educational, medical, banking and other institutions are responsible for the continuous pressure to the town. The Index of population pressure is shown by regression equation which is represented as  $Y_c = 9714.369 + 3988.678.X$  (Fig 3.9). The slope of the regression line 'b' which is also known as regression co-efficient, shows the estimated average change in population with respect to per km<sup>2</sup> area. As an increase in the size of the wards (independent variable) tends to cause an increase in the rate of population (dependent variable), the correlation is said to be positive.



**Table 3.8** DISTRIBUTION OF WARDS ON THE BASIS OF POPULATION PRESSURE

Index Of Population Pressure	Category	Percentage of Wards	Expected Population-Observed Population [E-O]	
			(+ ) Percentage of Wards (-)	
<0.5	Very low	4	4	-
0.5 - 1.0	Low	28	28	-
1.0 - 1.5	Moderate	32	-	32
1.5 - 2.0	High	12	12	-
Total	Very High	100	44	56

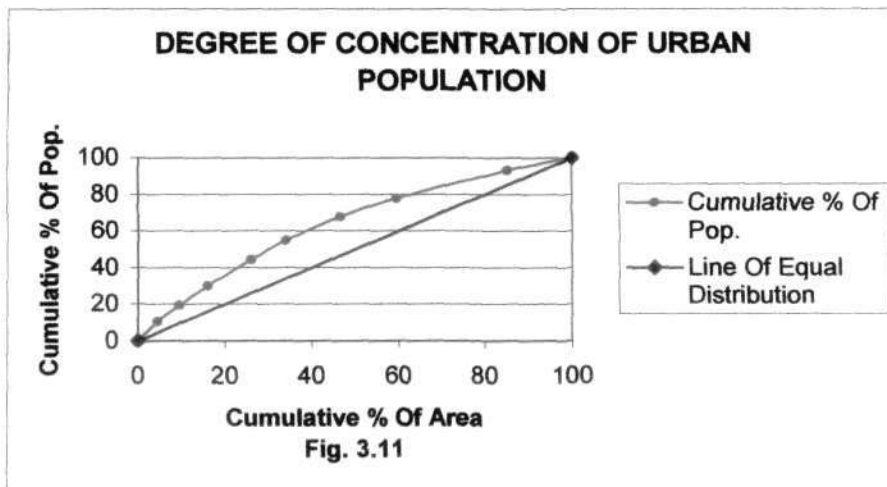
Index of population pressure indicates that wards situated at the peripheral region are characterized by low to very low pressure due to remoteness and non-availability of urban facilities. The observed pressure of population is more than expected pressure of population, which is found in the southern part of the municipality. Migration from both outside and from the C.B.D is common in this part. Observed pressure high (1.5-2.0) than expected pressure of population in the central part and mainly in the residential zones, which is shared by 32% of the total wards. About 12% wards is recorded very high pressure (>0.2) and this situation is found in the slum areas scatteredly situated among the residential zones.



By comparing the expected (E) and observed population (O) it can be said that about 44% of the wards shows positive pressure (Fig 3.10). It indicates that observed population of these wards are less than expected population. As these wards are much bigger in size, so a considerable percentage of people can be accommodated here. An exceptional situation is also developed, due to the recent trend of multistoried residential flat system in densely populated wards.

Pressure below the normal situation is recorded in the wards situated in the central and southern part, as these are already over crowded residential areas.

The ‘Degree of Concentration’ of population of Jalpaiguri in 2001 deals with the cumulative percentage distribution of two attributes (both population and area) at different points (Fig. 3.11). The deviation of the curve showing ‘Degree of Concentration’ from the line of equal distribution indicates higher concentration (63.75%) of population in relation to the total area.



### 3.5 GROWTH OF POPULATION

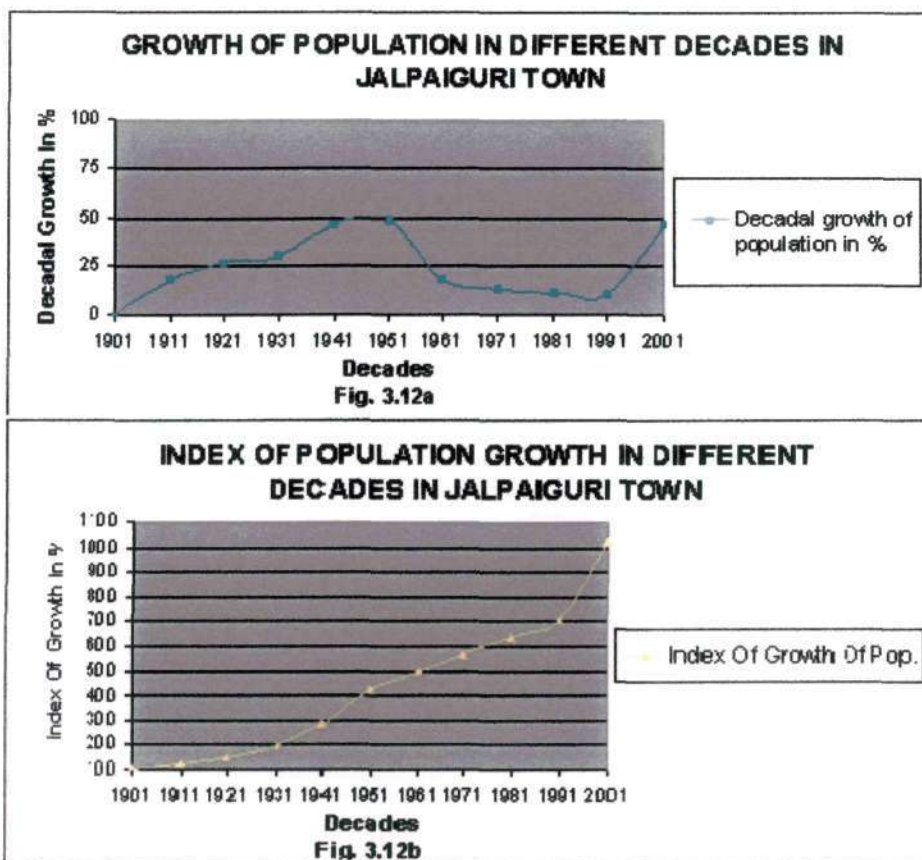
Growth of population has a great impact not only on its demographic character, but also in its socio-economic structure. It would also have a serious impact on the quality of life and environment. The term growth of population is often used in increasing or decreasing the number of inhabitants in a certain period due to natural increase and net migration. This is expressed as a percentage of the base population.

Jalpaiguri town had population of 9,708 in 1901 and 68,732 in 1991 and 1,00,348 in 2001. So, the population of the town has been increased by 7 times during the last 90 years and 10 times during the last 100 years. A study of absolute population and growth rates of population in percentage in the town can be made from Table 3.9

**Table: 3.9** GROWTH OF POPULATION IN DIFFERENT DECADES IN JALPAIGURI TOWN

Population			Decadal growth of population in %		Index of Population growth in %	
Year	Jalpaiguri (M)	Jalpaiguri District (U)	Jalpaiguri (M)	Jalpaiguri District (U)	Jalpaiguri (M)	Jalpaiguri District (U)
1901	9708	10289	-	-	100	100
1911	11469	11765	18.1	14.3	118	114
1921	14520	14813	26.6	25.9	149	144
1931	18962	18962	30.6	28.0	195	184
1941	27766	27776	46.4	46.4	286	270
1951	41259	66145	48.6	138.2	425	643
1961	48738	123814	18.1	87.2	502	1203
1971	55159	168080	13.2	35.7	568	1633
1981	61743	311221	11.9	85.2	635	3024
1991	68732	2800543	11.32	799.85	707	27218
2001	100348	3401173	45.998	21.47	1033	38230

It is found from Table 3.9 that the decadal growths of population both in Jalpaiguri and district (U) have been positive. During 1911-1921, due to incidence of epidemic, famine and crop failure in India growth rate declined. But the scenario of Jalpaiguri town as well as the district was quite different. This is because the continuous emigration of rural people in search of food and job to the district town. As a whole both for the town and district the population growth rates decreased after 1951. People were not attracted to live in Jalpaiguri because of the low rate of development and lack of infrastructural facilities of the town. By this time Siliguri developed rapidly and attract more people. The population growth of Jalpaiguri town was very sluggish in compare to other urban centers of the district. But a continuous immigration took place during the communal disturbance in 1964 and liberation war in 1971 in Bangladesh. Again there was a sudden rise in growth rate (45.99%) during 2001. (Fig. 3.12 a & b) Field survey reveals that immigration from Bangladesh, Nepal, Bhutan, Assam and Bihar are still taking place. Two very large colonies were developed for the immigrants from Bangladesh namely, Mashkalaibari, Arabindra Nagar, Panda Para, Ashok Nagar etc.



In 1991, there were 19 wards in Municipality and they were located in an irregular manner. By analyzing the ward wise growth rate of municipality in 1991 onward it can be said that the people of backward classes who resided in the central places, sold their occupancy to businessmen and moved to the north eastern part of the town. During 80's vested lands of this part have been distributed among a large numbers of people, which also help to increase the growth rate.

Growth rate is low in C.B.D because commercial and residential-cum-commercial land use is more prominent here. Growth rate is high in slums situated in Paresh Mitra Colony, Mujibgar Colony (ward on 25), Paresh Mitra Nagar (ward no. 8) etc. Development in communication network and trade facilities attracted more poor people from rural area to settle in slums. Thus migration together with fertility and mortality become a fundamental element determining population growth and population structure in Jalpaiguri town.

### 3.6 LITERACY

Literacy rate plays an important role in determining the human resources of the people of any country. It also indicates the nature of infrastructural development of the states in general and the socio-economic conditions of the people. Literacy rate in India is widely varied due to availability of educational institution and economic condition of the people. The degree of urbanization creates social pressure, which educates the people and encourages in self-improvement.

According to 2001 Census, 79.90% (80,148) of the total population is literates, of which 52.71% (42246) is shared by male and 47.29% (37902) is shared by female population. The percentage of literates of the municipality (79.90%) is higher than the percentage of the district (54.04%). The decade wise rates of literates in percentage are given in Table 3.1

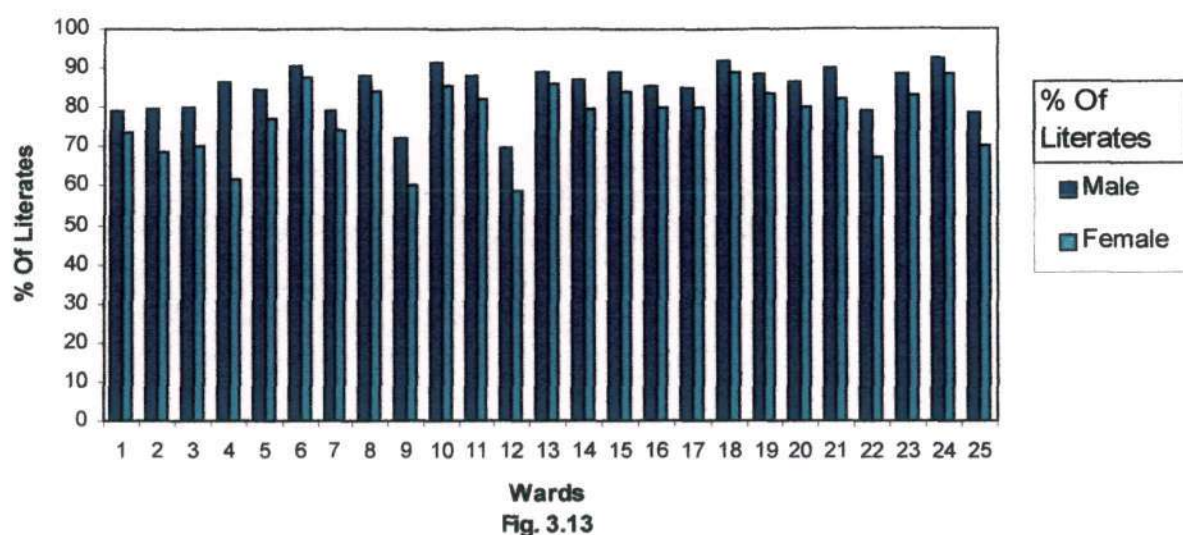
**Table: 3.10** GROWTH OF LITERATES IN JALPAIGURI TOWN

Year	Literates In Percentage			Decadal Growth In %		
	Total	Male	Female	Total	Male	Female
1961	58.8	63.6	52.6	-	-	-
1971	61.2	64.1	57.9	+17.8	+11.9	+27.2
1981	67.9	72.5	62.9	+24.1	+18.9	+31.4
1991	71.08	54.29	45.71	+16.47	+13.58	+20.10
2001	79.90	52.71	47.29	+64.05	+59.28	+69.73

Source – Census 2001

The percentage of literates in every decade has been increased. But a low percentage of growth rate of total literates (16.47%) is found during 1981-1991. Growths of male (+13.58%) and female (+20.10%) literates are also recorded identical in the same decade. Again, a high percentage of growth rate of total literates (+64.15%), male (+59.26%) and female (+69.73%) are found during 1991-2001. A surprising feature of the data presented in the Table (3.10) is that, the progress of female literacy rate is higher than male literacy rate. Analyzing the ward wise distribution of literacy it is found that ward no 18 records the highest literates (90.56%), where as ward no 12 shows the lowest (63.90%) rate. Fig. 3.13 shows the ward wise distribution of male, female and total literates. The highest male literate found in new Circular Road, Deshbandhu Para and the other parts of ward no 24, where 92.48% of the male population is literate. And 69.56% of female population of ward no 12 (panda Para, Congress Nagar etc.) is literate which shows the lowest rate among the wards.

### WARDWISE DISTRIBUTION OF LITERATES 2001



The actual literacy rate of municipality is higher (87.43%) than the actual literacy rate of the district (63.62%). As Jalpaiguri is a district headquarters as well as a urban centre, so the actual male literacy rate of the town (91.34%) become higher than the district (73.64%). And the female actual literacy rate (83.44%) also shows a higher percentage than the district (52.90%).

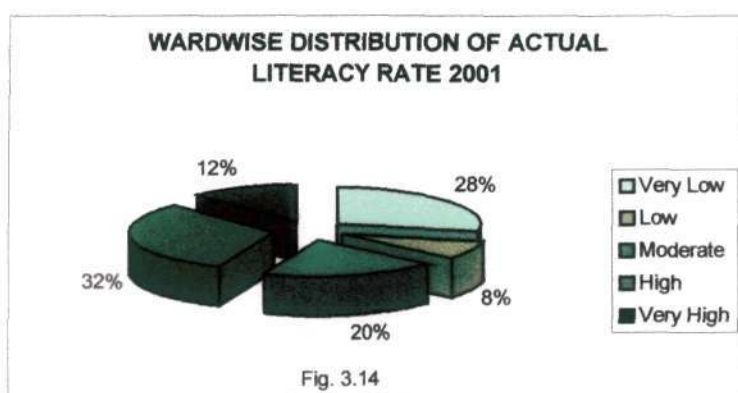
To find out the ward wise distribution of actual literacy rate, the number of 0 to 6 age group population are subtracted from the total number of population of each ward. On the basis of actual literacy rate the wards can be categorized as follows.

**Table 3.11** DISTRIBUTION OF WARDS ACCORDING TO ACTUAL LITERACY RATE (2001)

Actual Literacy Rate In Percentage	Category	No of Wards	Percentage
<83.40	Very Low	7	28
83.40 - 87.40	Low	2	8
87.40 - 91.40	Moderate	5	20
91.40 - 95.40	High	8	32
>95.40	Very High	3	12

Source – census 2001

It is found from table 3.11 that the majority of wards (32%) are in high literacy group (91.40-95.40%). Among the wards the lowest percentage (8%) is shared by low category (83.40-87.40%). By comparing table 3.11 and Fig. 3.14 it is clear that the actual literacy rate is high to very high in the wards, situated in the central and southern parts of the town. These zones are basically residential in character. Actual literacy rate is low to very low in and around Dinbazar, which is the C.B.D of the town and the old part of the town, which is situated at the left bank of river Karala. This is because most of the males of this area are labourers and belong from low-income group families. The illiterate persons are either slum dwellers or migrated labourers.



**Table – 3.12** INDEX OF CONCENTRATION OF LITERATES

Index Of Concentration	Category	No of Wards	Percentage of wards
<0.90	Very Low	3	12
0.90 - 1.00	Low	6	24
1.00 - 1.10	Moderate	12	48
1.10 - 1.20	High	4	16

Source: Census 2001

Table 3.12 shows that about 16% wards is shared by high concentration group, but 12% ward is shared by very low concentration group, which is found in ward no 4, 9, 12. Fig. 3.15 shows that the Index of concentration of literates is high to very high in the central part of the municipality. Most of the boys and girls schools such as Fanindradev Institution, Government Girls High School, Central Girls, Sanaullaha Boys etc. are situated in these densely populated area and many private Bengali and English medium schools are also located here. All these schools are situated within the walking distance, and may be attained by rickshaw services.

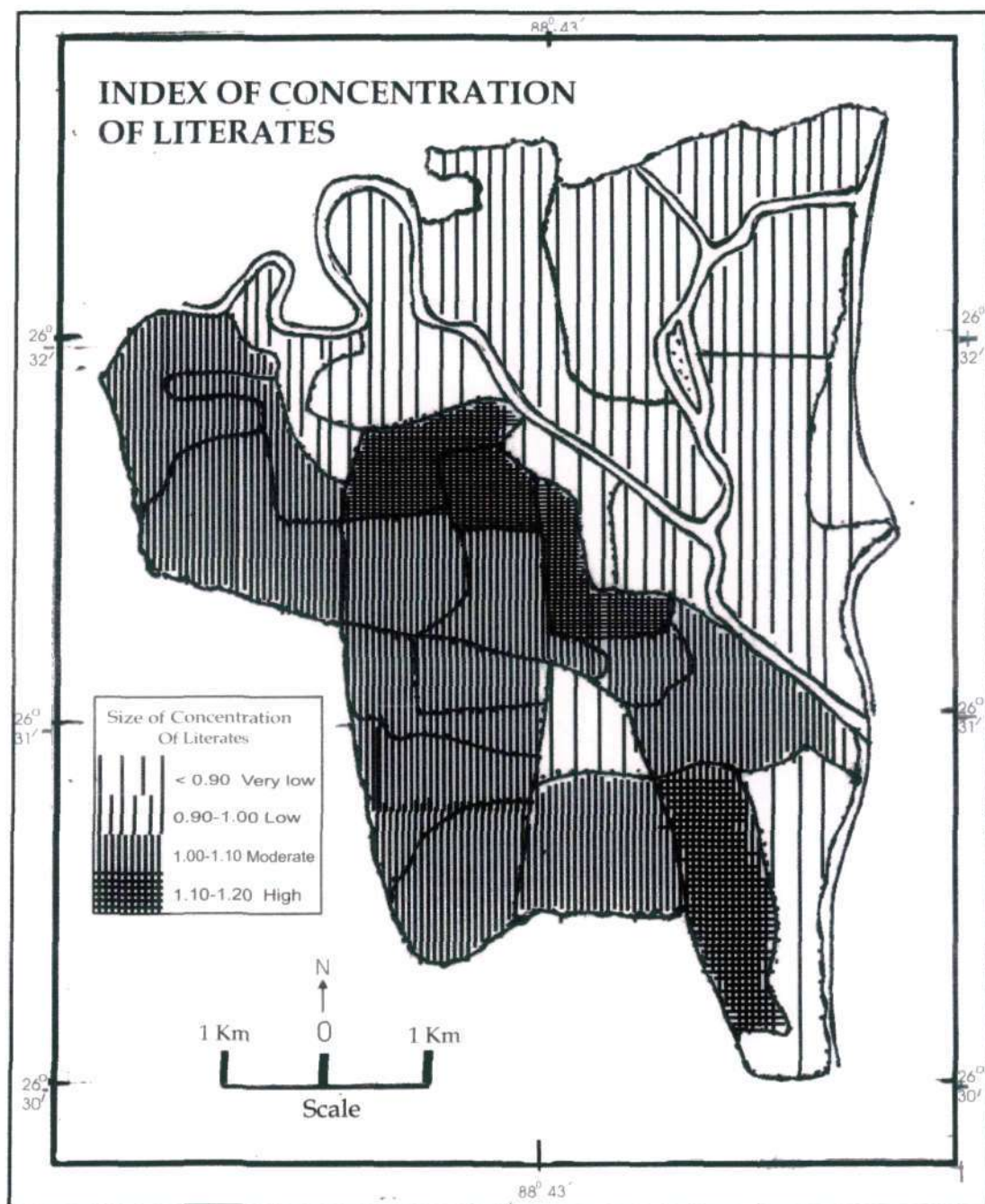


Fig - 3.15

This factor helps to increase the rate of concentration of literates. Index of concentration of literates is low in Dinbazar, M.G. Road area (under ward no 4), which is known as the C.B.D of the town. Slums those are situated near C.B.D are occupied by poor people. In poor families, a child is considered as a source of additional income, so the children are put to work at an early age, which reduce the rate of concentration of literates. A slum, occupied by the Muslim people is found in Plkhana region (ward no 9), where females are mostly illiterate. The enrolment rate of school children is low and the rate of school dropout is high. Most of the adult-labourers and small businessmen are also illiterates.

### **3.7 RELIGIOUS STRUCTURE**

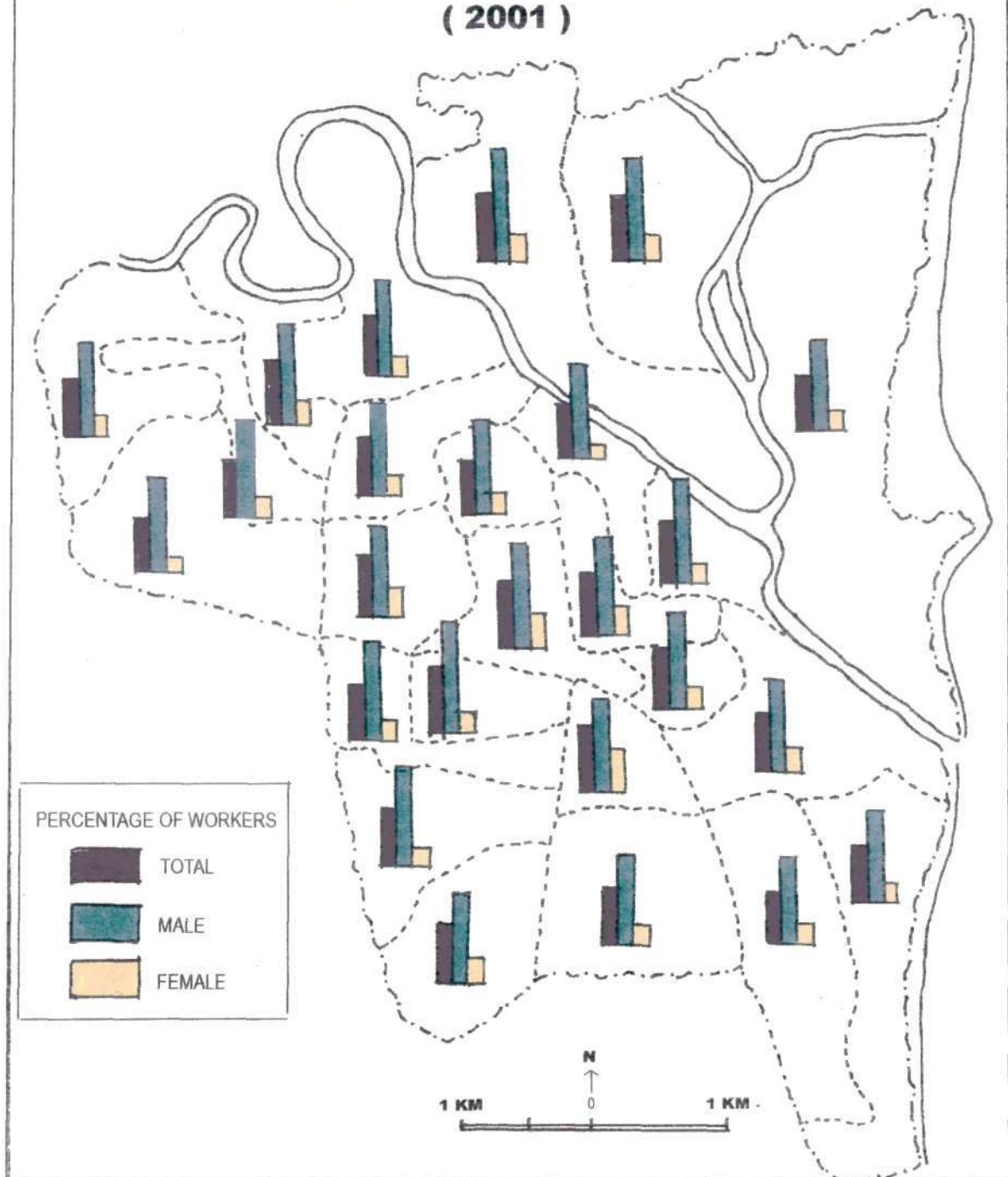
India shows multiplicity of religious faiths. India has witnessed the successive penetration by other religious people say Islam, Christianity etc. People of different religions live together in Jalpaiguri town. In 1981, the percentage of Hindus was 96.4 against 96.7 in 1971. Muslims shared 2.7% of total population. This increase during 1971-81 was due to migration from Bangladesh. The growth of Hindus during 1981-1991 was 22.55%. Hindus are account for 87% of the total population of the town. They are distributed in almost all parts of the town, except a few pockets. During field survey it is found that the major residential areas like Ananda Para, Ukil Para, Natun para, PandaPara, Arabindra Nagar etc. are dominated by the Hindus. The Muslims are small compared to Hindus, and they are concentrated near Puratan Masjid (ward no 15) Kamar Para (ward no 6), Muslim Basti in Pilkhana (ward no 9) etc. area in the town. The Christians are found in Race Course Para, BhanuNagar (ward no 10), Hakim Para (ward no 3) area. It is also found that the numbers of Muslims are increasing day by day due to the continuous immigration from Bangladesh.

### **3.8 FAMILY SIZE AND OCCUPATIONAL STRUCTURE**

#### **3.8.1 Family Size**

Field survey reveals that out of 200 surveyed families 38% families are small (<5 members / family), 52% families are large (5-10 members / Family) and 10% are very large (>10 members / Family). Very large families are observed in the slum areas of the town. Large families are concentrate in the colonies developed by the immigrant from Bangladesh in Panda Para, Mashkalaibari area and immigrants from Rajasthan and Bihar in the C.B.D area of the town.

# COMPOSITION OF WORKERS ( 2001 )



**Fig 3.16**

### 3.8.2 Occupational Structure

Occupational structure of any country helps in assessing the growth and modernization of their economy. Occupation reveals the nature of economic progress of a country. It depends upon the degree of economic development and sophistication of a country (Ghosh 1985). The total population of a country may be divided into two categories: – the working and the non-working population. The working populations are those who are normally employed including temporarily unemployed population. The non-working population or inactive population is composed of children, retired persons, house wives, and those living on rents, pensions etc. The proportion of a population that is economically active is an important factor, which affects the entire stream of production. Table 3.13 shows the trend of work force participation rate in Jalpaiguri town from 1981 to 2001

**Table 3.13** WORK FORCE PARTICIPATION RATE

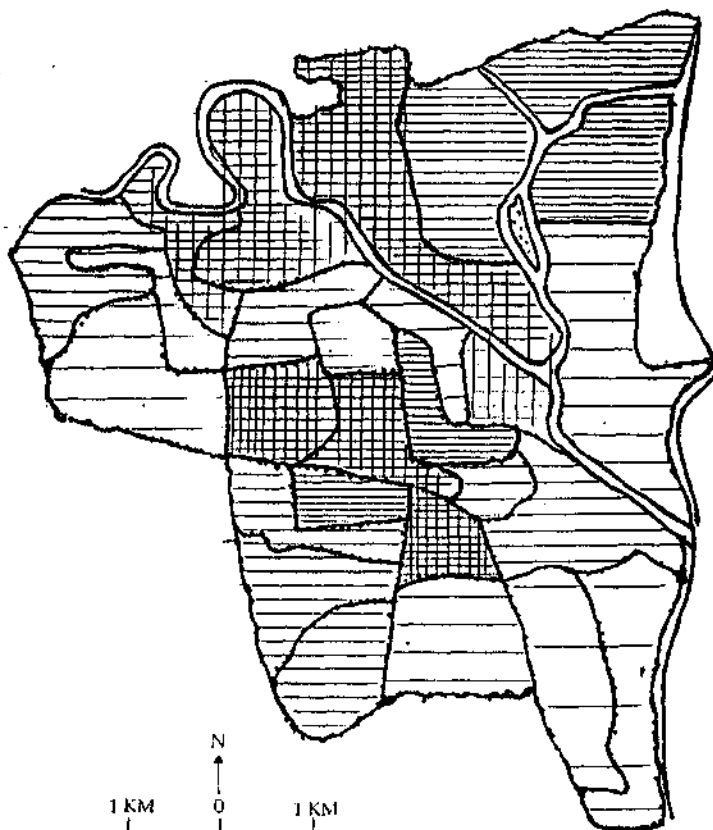
Years	Workers In Percentage (%)
1981	29.28
1991	29.80
2001	33.20

The work force participation rate has increased from 29.28% in 1961 to 33.20% in 2001 in the town. So, it is found that, workers share about 33.20% of the total population of the town and non-workers share rest 66.80 %. It is also found that, male & female workers share about 53.32% and 12.52% of the total male and female population respectively. Fig.3.16 shows the ward wise composition of male, female and total workers of the town. The highest male worker (61.0%) is found in ward no1 and lowest (45.05 %) is found in ward no 10. The highest female workers (24.16%) and lowest (8.65%) are found in ward no 12, and ward no 20 respectively.

**Table- 3.14** NUMBERS OF WARDS IN DIFFERENT CATEGORIES OF WORKERS IN JALPAIGURI TOWN (2001)

Index Of concentration	Category	Percentage of wards
<0.90	Very Low	8
0.90-0.95	Low	20
0.95-1.00	Moderate	32
1.00-1.05	High	12
>1.05	Very High	28

# INDEX OF CONCENTRATION OF WORKERS ( 2001 )



## Size of Index Of Concentration Of Workers

	< 0.90	Very Low
	0.90- 0.95	Low
	0.95-1.00	Moderate
	1.00-1.05	High
	> 1.05	Very High

Fig - 3.17

Table 3.14 shows that about 28% wards is shared by very high concentration group but only 8% wards is shared by very low concentration group. The highest percentage of wards (32%) is shared by moderate category. Fig.3.17 shows that, the Index of concentration of workers is high to very high in and around the main commercial area like Dinbazar, Kadamtala, Beguntary and in areas like Netaji Para, Raikat Para, Walkerganj where labourers and marginal workers are dominant. Concentration of workers is also high in slums like Indira Colony, Dinbazar Badambasti, Boilkhana Basti, Harijan Basti, etc. Index of concentration of workers is moderate in the residential zones situated around C.B.D. At the southeastern corner of the town, concentration of workers is very low, due to remoteness and absence of commercial activities.

The term 'occupational structure' refers to division of working population in different occupations such as:- Primary, Secondary, and Tertiary Sectors. No doubt, it is a dynamic factor. Table 3.15 is showing the percentage of working population involve in different economic activities in Jalpaiguri Town in 2001

**Table 3.15** ECONOMIC ACTIVITIES OF JALPAIGURI TOWN IN 2001

Types Of Economic Activities	Percentage Of the Total Working Population	
Primary Activities		
Cultivators	0.39	} 0.59
Agricultural Labourers	0.2	
Secondary Activities & Tertiary Activities		
Household Industries	1.77	} 94.51
Other workers	92.74	
Marginal Workers		4.90
Total		100.00

Source census 2001

According to 2001 census, 0.39% & 0.2% of the total workers are shared by cultivators and agricultural labourers respectively, which is occupied by 0.59% of the total workers. It is also found that 1.77% of the total workers are engaged in household industries like Cane Industry, Bidi buinding etc. There are a small numbers of marginal workers (4.90%) which includes housewives, students, labourers etc. The highest percentage (92.74%) of workers is found in other services, which includes several types of government and private services, business etc.

### 3.8.2.i Earning Members And Occupational Structure

Considering the earning members of each family, it can be said that 38% of the families have one (1) earning member, 46% families have 2 or 3 earning members and 16% families have more than 4 earning members (Table 3.16)

**Table: -3.16** EARNING MEMBERS OF THE FAMILY

Earning Members in no.	Families in Percentage
<2	38
2-4	46
>4	16

Source: - Field Survey

It is found during field survey that ward has the highest number of families with one earning member in each family and they are mostly engaged in service both private or public. Families having 2 or 3 earning members is dominant in the residential areas around C.B.D. Among these earning members a major portion is engaged in business. More than 4 earning members in a family is common among the slum families. They are mostly work as labourers in both formal and informal sectors of the town.

**Table: -3.17** OCCUPATIONAL STRUCTURE

Types Of Occupation	Earning Persons in Percentage
Formal Sector	
Government Service	25
Private Service	27
Business	41
Informal Sector	
Skilled labourers	2
Unskilled labourers	5
<b>TOTAL</b>	<b>100</b>

Source:- Field Survey

It is evident from Table 3.17, that 52% of the earned people is engaged in service both government / semi-government (25%) and private (27%). Families of service holders are maximum (> than 75%) in wards like 7, 8, 17, 18 & 19. The service holders are concentrate in these wards to enjoy easy accessibility of their work places, which are scattered around C.B.D and mid-eastern part of the town, and also due to the existence of government housing complex

for service holders in ward no 8. In C.B.D. area (ward no 4, 5, 6) the percentage of businessmen is high (>50%).

### **3.8.2.ii *Changes In Occupation***

High growth of labour force due to falling death rate and growing birth rate was a hindrance to changes in occupational structure. It is found that in 1961, the cultivators occupied only 2.06% of the total workers, where as a decreasing trend is found in 1991 (1.5%) and in 2001 (0.4%). But there was an increase in agricultural labourers from 1961 (0.58%) to 1991 (1.64%). This is due to the migration of people from Bangladesh. Again the percentage of agricultural labourers (0.2%) decreased in 2001. It is also found that the percentage of workers in mining and quarrying activities is also decreased [from 4.13% in 1961 to 0.09 % in 1991].

By comparing the occupational structure it can be said that in 1991 7.74% of the total workers are engaged in primary activities where as in 2001 it has been decreased to 0.59%. But there was an increase in secondary and tertiary activities from 1991 (91.82%) to 2001 (94.51%). As the nerve center of economic activities of the district, Jalpaiguri town provides a center for tertiary activities which feature the fastest growing segments or modern economics today.

## **3.9 SLUM POPULATION**

Most of the Indian cities today have slums or slum-like conditions. There is hardly any city in India without slum component (Tewari, H.R., 1999). In this study a slum household is considered as a household located in a slum settlement in which people live below poverty level.

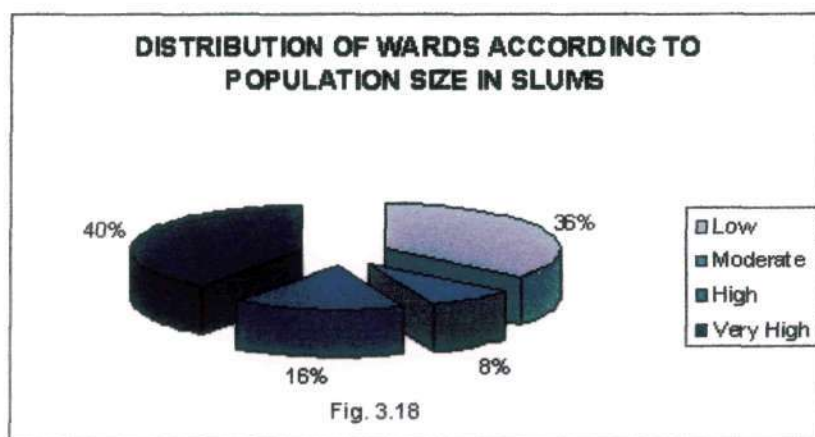
### **3.9.1 Distribution of Slum Population**

According to municipal report (2001), 30 slum pockets comprising 7474 slums population are situated scatteredly among the wards. The highest slum population (4339 persons) is recorded in ward no 2, and the lowest (487 persons) is recorded in ward no 6. The average slum population of the town is 1380 persons. On the basis of population size the wards can be classified as follows.

**Table3.18** DISTRIBUTION OF WARDS ACCORDING TO SLUM POPULATION SIZE IN JALPAIGURI TOWN

Population size	Category	No of wards	% of wards
<1100	Low	9	36
1100-1200	Moderate	2	8
1200-1300	High	4	16
>1300	Very High	10	40
		25	100

Source: - On the Basis of Municipal data



Majority of the ward (40%) is shared by very high slum population (>1300 persons). These wards are situated in central business district and at the peripheral region of the town, such as Indira Colony, Bhatakhana, Walkerganj, Bihari Basti, Paresh Mitra Colony etc. About 36% of the wards of the town has low slum population (<1100 persons), those consists of Subhash Unnayan Pally, Dharapatti etc.

### 3.9.2 Family Size

Field survey reveals that out of 100 families only 4% is shared by very small category (<than 4 members) family size is small (2 adults/ 3 children) in those which is shared by 32% of the total slum family. Out of 100families 20% belongs to very large family-category. Large families are mostly joint families having 8 to 13 members.

**Table-3.19****FAMILY SIZE IN SLUM AREA**

Family Size (no. Of Members)	Category	No. Of Families	Percentage Of Families
<4	Very Small	4	4
4-6	Small	32	32
6-8	Medium	28	28
8-10	Large	20	20
>10	Very Large	16	16

Source:- Field Survey

**3.9.3 Composition of Slum Population**

In Jalpaiguri town, the total number of males and females on the slums are 3678 and 3796 persons respectively. Males are dominant in Gorumara Basti and females are dominant in Bhatakhana area about 59% (405 out of 681 persons) or the total slum population is shared by adults, and 41%(276 out of 681 persons) is shared by children. The number of adults increases with the increase of the numbers of family members.

**3.9.4 Caste And Religious Structure Of The Slum Population**

Field survey reveals that the Schedule Caste (341 persons) and General Caste (338 persons) shared 50% and 49.71% of the total slum population of the town. Only 0.29% is shared by Scheduled Tribe population, which is found only in Parashmani Nagar (ward 8).

**Table- 3.20****CASTE STRUCTURE OF SLUM POPULATION**

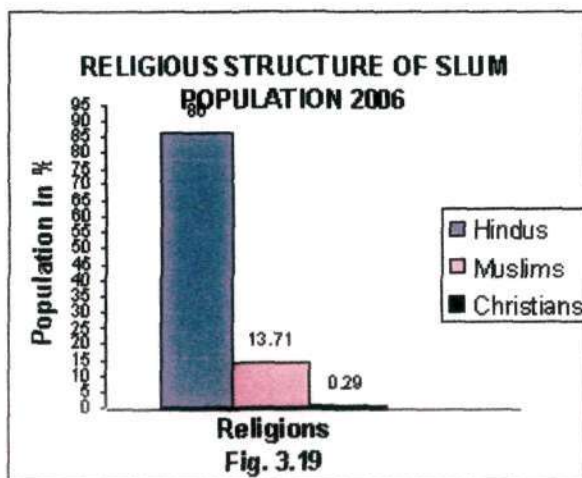
Caste Category	No	Percentage
General	338	49.71
Scheduled Caste	341	50.00
Scheduled Tribe	2	0.29
Total Population	681	100.00

Source:- Field Survey

Out of 100 families the highest S.C. population (24 persons) is found in Pan Para, Seshbati Lane, Panda Para etc (ward no. 15), and the lowest (2 persons) is found in ClubRoad, Nayabasti area (ward no. 8), which is shared by 75% and 25% of the total population of these wards respectively. The highest general population (35 persons) in slum area is found in Santi Para, Arabindra Nagar, Paresh Mitra Colony (ward no 25). The lowest general population (3 person)

is found in Raikat Para, Walkar ganj area (ward no 2), which is shared by 70% and 16% of the total population of these wards respectively.

In the present study it is found that the percentage of Hindus (86%) are far higher than other religion in the slums, which is followed by Muslims 13.71% (94 out of 681 persons). The Christians share the lowest percentage (0.29%) Muslims are dominant in Pilkhana, Muslim Basti (ward no. 9), Kamar Para (ward no 6) etc, and Christians are found in Parasmani Nagar (ward no. 10). Fig. 3.19 shows the religious structure of slums.



### 3.9.5 Literacy

It is found during the field survey that 33% (226 persons) of the total surveyed slum population is literate and 67% (455 persons) is illiterate. This is because, many parents cannot afford to send their children to school. The percentage of female literates (48%) is lower than male literates (52%) in the slums of Jalpaiguri town.

### 3.9.6 Occupational Structure of Slum Population

According to field survey 225 persons out of 681 surveyed population are engaged in earning bread for their families, which contributed only 33% of the total slum population. The majority of slum population (50%) is engaged in informal sector of occupation. Some of them are unskilled labourers work as rickshaw pullar, household labourers, maidservants etc. Some skilled labourers are engaged in carpentry, plumbing, electrical works etc. Slum people are also engaged in small business like pan shop, tea stall, grocery shops, fish and vegetable selling etc. Vendors like phoochkawala, Ice cream seller are also contributed to the business activities of

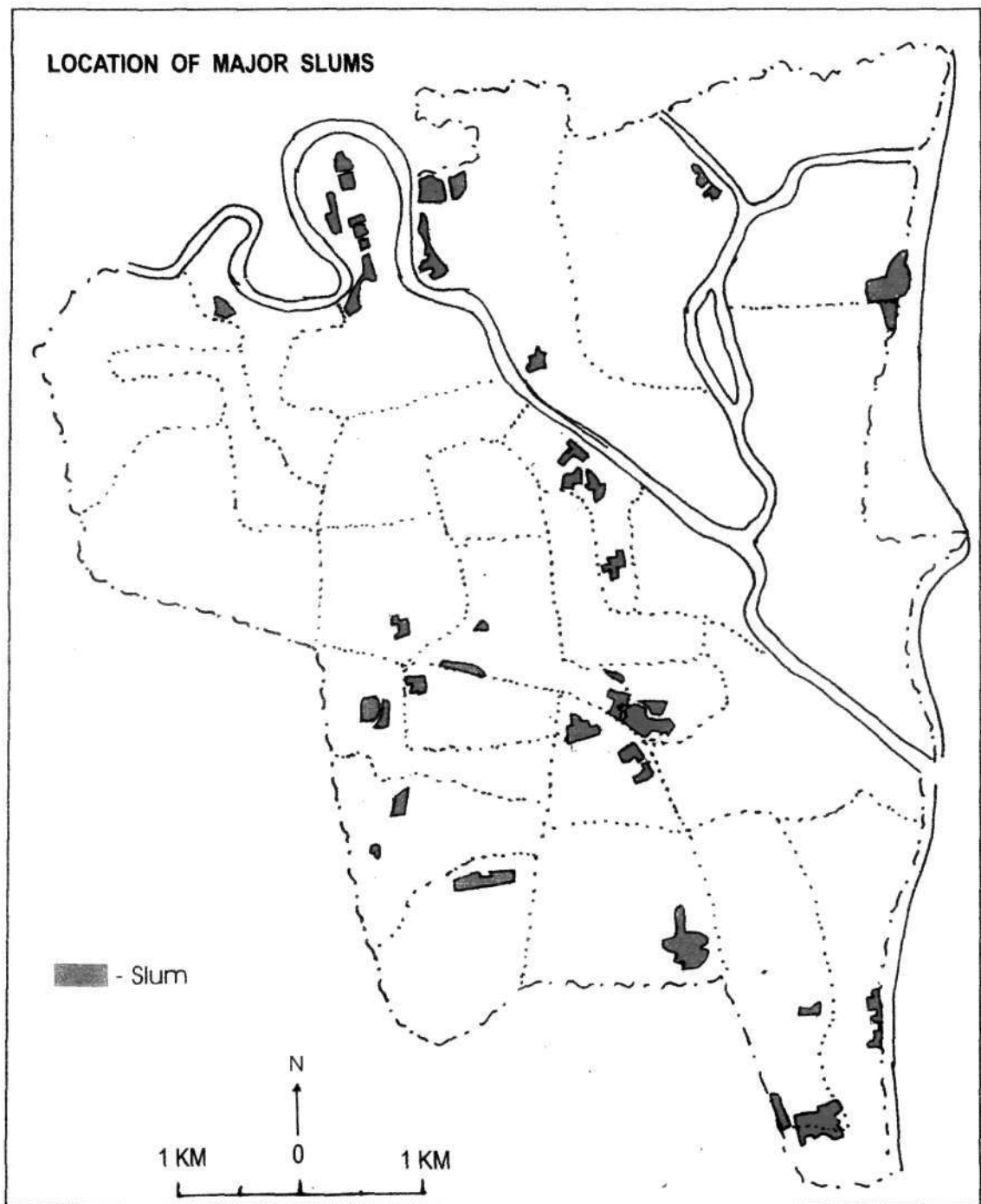


Fig - 3.20

slum people. It is also found that the majority of slum dwellers are found to be engaged in occupations, which are different from their parental occupations. The slum dwellers are considered as the weaker section of the society. Fig.3.20 shows the distribution of major slums in the town.

## CONCLUSION

The overall study reveal that, the population of the town is increasing day by day, which is responsible for the continuous pressure of population to the urban fabric of the municipality. The composition of population shows that the female sex ratio is increasing in the town, which is higher than district average. It indicates that most of the people live in the town with their families. Because Jalpaiguri is a district headquarters, which has more service opportunities. A continuous increase of female ratio has been noticed in different decades in the town due to flow of refugees and female workers from the neighboring areas and Bangladesh. During 1760's, Raja Jayanta Deva shifted his capital and established 'Rajbari,' which is situated in present ward no 1. As the Raikat kings were belong from scheduled caste community, so the early settlers mainly the scheduled caste population resided in this part and on the natural levee of either Tista or Karala. But after independence, with the expansion of the town, some of scheduled caste people also shifted to the main town and now a very high concentration is found at the peripheral wards of the town. Scheduled tribe population is not found in the main commercial and residential area of the town. The density of population is increasing positively due to continuous immigration from outside the town. High density of population is found in residential area located in the central part. After independence large influx of refugee population colonized in less suitable areas such as Panda Para. Arabindra Nagar etc, where at present density is also high. Very high density is found around C.B.D and specially in slum pockets of the town. Nearness to C.B.D and easy communication system have resulted the concentration of job seeking people around C.B.D. High pressure situation were developed by displaced persons and immigrants in the fringe area of Jalpaiguri Town. Growth rate is low in C.B.D because a significant percentage of residential houses have been transformed to shops or offices.

The wards situated in the central part are densely populated besides having smaller area because, these are mainly residential wards, and the socio-economic condition of the people is high so, they are well aware of the necessity of education. And economically they are more capable of imparting education to their children. But in slums poor economic condition of the people drive them out of the school. So, school drop out rate become high.

This change involves a transfer of working force from primary to secondary and tertiary activities. In fact the majority of the labourforce is involved in both formal and informal market transactions in retail outlets. This labourforce is often involved individually or with family as paddlers, vendors, street hawkers, shoemakers or tailors with many other activities. It can be said that reduction in primary work force indicate economic development of the town. From the over all discussion it can be said that, the high growth rate of population creates immense pressure on existing land, water and other resources. They affect the living standard of the people due to non-availability of essential services and commodities.