

CHAPTER - I

DEMOGRAPHY

Introduction :

Demography that studies population, has its focus on measure the rates and trends of various population characteristics such as distribution, growth, density, composition etc. In fact, there is practical value in measuring population growth to be able to plan for satisfying man's needs throughout life like food, clothing, shelter and many other necessities. The development of the towns and population growth are intimately related and homologous in nature. The enormous growth in population within a comparatively short span of time has brought in its wake, several interesting demographic aspects which have greatly moulded the structural form and cultural life of the city (Singh, 1972). Any comprehensive geographical analysis of a region should take into account the differential growth of population. According to Trewartha, number, densities, distributions and qualities of the population provide the essential background for all geography (Trewartha, 1972).

(Demographic movement is at the heart of the forces which influence the change in time and space content). Population is the central element around which all other elements revolve.) It is from population only that other elements derive geographical significance.

Thus, the study of population is the single most important approach to geography and one in which the regional concept has its broadest application (Ghosh, 1985).

1.1 AREA AND POPULATION DISTRIBUTION :

Spatial distribution and arrangement of population are significant for the development of a town. Distribution of population refers to the way of people are spaced over the surface of the earth (Ghosh, 1985). In fact, the distributional pattern of population is an eloquent expression of the synthesis of all geographical phenomena operating in the area (Singh, 1985).

The wards in each town have been classified for both area and population on the basis of their mean (\bar{X}) and standard deviation (sd); where,

Below ($\bar{X} - 1sd$) = very low,

($\bar{X} - 1sd$) to \bar{X} = low,

\bar{X} to ($\bar{X} + 1sd$) = moderate,

($\bar{X} + 1sd$) to ($\bar{X} + 2sd$) = high,

Above ($\bar{X} + 2sd$) = very high

SILIGURI

Siliguri town with an area of 15.54 km² has 1,54,378 population (Census, 1981). This area and population of the town share about 26% of the total urban area and 55% of the total urban population of the district of Darjeeling respectively. The remaining 45% of urban population are shared by other six towns of the district. The population of the town is distributed in 19 municipal wards (Appendix - 1A).

Area and Population in Wards : The size of wards are very important because it is highly related with population. Comparing the size of the wards, it is revealed that the Ward-I covers largest area (3.48 km²) because a large portion of it is occupied by railway territory whereas Ward-IV covers only 0.26 km². So there is wide difference in sizes between the largest and smallest wards. From the categorisation of the wards on the basis of area it is clear that most of the wards (13 out of 19) are small (below 0.82 km²) and are located around the centre of the town. The area of wards are becoming larger towards the north, west and south-east. Moreover, all the wards are irregular in shape and most of them extend outward from the centre except one or two.

Like area, the population also is highest (24,216 persons) in Ward-I and lowest (3,780 persons) in Ward-IV (Appendix-1A). So, the sizes of Ward in terms of population differ like that of area.

Table - 1.1A : Number of wards in different categories of population size in Siliguri Town.

Population	Category	Wards	No. of wards
below 8125	low	III,IV,V,VIII,IX,X XI,XII,XIII,XV,XVIII, XIX	12
8125-12908	moderate	II,VI,VII,XIV,XVII	5
12908-17691	high	XVI	1
above 17691	very high	I	1

The classification of the wards on the basis of population (Table 1.1A) reveals that population in majority of the wards (12 out of 19 wards) are below the average population (8125) of the wards and it is high (above 12900) in two wards. From Fig.2a the location, area and population of wards can be identified and it shows that the wards lying mainly at the centre are smaller in size as well as in population than those on the periphery of the town.

JALPAIGURI

Jalpaiguri town with an area of 10.1 km² has population of 61,743 (Census, 1981). The area and population of the town are respectively 7% of the total urban area and 19.8% of the total urban population of the district (Census, 1981). The remaining 80.2% urban population of the district are shared by other 11 towns.

Area and Population in Wards : The town has 19 municipality wards and the sizes of the wards in both area and population are very irregular (Appendix-1B). Ward-II covers the largest area (1.38 km²) whereas each of the wards XI, XIII and XIV cover the smallest area (0.13 km²). On the basis of the sizes, the wards can be classified for comparative studies.

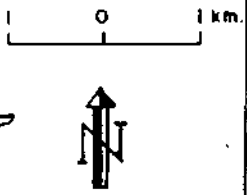
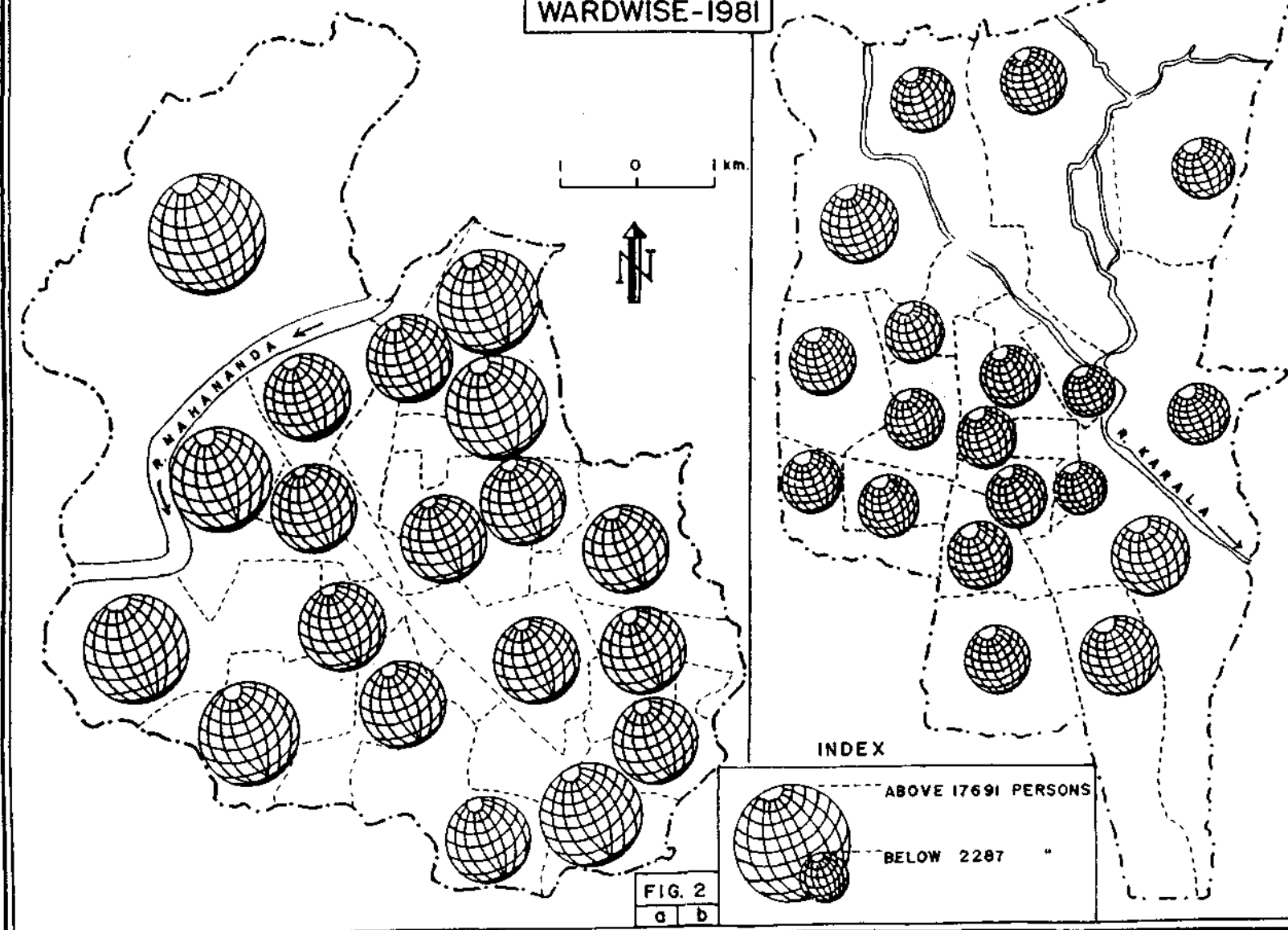
Among 19 wards, 10 are small (below 0.56 km²) and 3 are large in area (above 0.90 km²). So, most of the wards of the town have lesser area than the average (0.53 km²). The larger wards are

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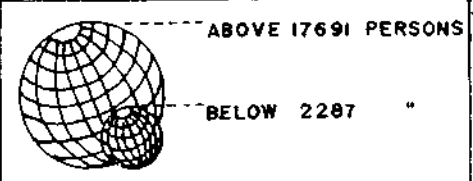


FIG. 2
a b

found in the north and east encircling the smaller wards, located in the central and south-western parts of the town. Again, variations in population among wards are also noticed (Fig.2b). The maximum population (5,127 persons) is recorded in Ward-V and the minimum (1956 persons) is found in Ward-XIII (Appendix-1B). On the basis of population the wards can also be classified (Table 1.1B) for measuring the population potentialities.

Table 1.1B: Number of wards in different categories of population size in Jalpaiguri Town.

Population	Category	Wards	No. of wards
below 2287	very low	XI, XIII	2
2287-3249	low	III,IV,VI,VIII,IX, X,XVII,XIV,XVI	9
3249-4211	moderate	I,II,VII,XV,XVIII	5
above 4211	high	V,XII,XIX	3

Table 1.1B reveals that majority of wards (11 out of 19) are in low group (below 3250) and only 3 in high (above 4211) category of population. The wards XI and XIII have very small population (below 2287). From the field observations it is observed that the small population in these wards is due to existence of wholesale and retail markets and these wards are located in and around CBD. The large populated wards are located on the north western and south eastern parts of the town.

1.2 COMPOSITION OF POPULATION

1.2.1 Sex-Ratio

Under demographic studies sex composition in a city deserves special attention as it has bearing on socio-economic aspect of city life. The cities of India have a higher proportion of male population, and Siliguri or Jalpaiguri is no exception to it. Sex ratio does not influence marriage, birth and death rates only, but many economic and social relationships are also closely related to the balanced or disparity between males and females (Singh, 1985).

SILIGURI

The town has 68,304 females against 86,079 males (Census, 1981) i.e., 793 females per 1000 males. The corresponding ratio in the district urban as a whole is 829. So, Siliguri has the lower ratio than district urban average as well as Bardhaman (885) and Kharagpur (876) which are towns of similar class in West Bengal.

Due to paucity of accommodation and high cost of commodities, livelihood in the town is costly, so a certain class of people use to keep their family away from the town. This tradition of lower number females than males has been observed since its inception.

JALPAIGURI

In Jalpaiguri town total number of males and females are 32,149 and 29,483 respectively (Census, 1981). The ratio of

females per 1000 males was 917 which is higher than district(U) average (865) as a whole. It indicates that most of the people live in the town with their families because Jalpaiguri being the seat of the Divisional Commissioner's office has more potentialities of service opportunities. A continuous increase of female ratio has been noticed in different decades in the town due to flow of refugees from the neighbouring districts and Bangladesh (Formation of Bangladesh in 1972).

1.2.2 Scheduled Castes and Scheduled Tribes :

Two fundamental and primary strata within the Hindu society are the ritually higher castes, and the untouchables, officially are called scheduled castes (Bhardwaj, 1975). These minority groups of people in urban areas are very often found to settle in most underdeveloped localities. Owing to their low income and poor standard of living, they prefer to reside in old blighted residential areas where livelihood is less costly.

SILIGURI

The total population in the town includes 10,165 scheduled castes and 512 scheduled tribes (Census, 1981). Their percentages are 6.5 and 0.3 respectively of the total populations of the town and less than the district average. Decade-wise variations in percentages for the last three decades are given in the Table 1.2A.

Table 1.2A Scheduled castes and Scheduled tribes and their growth in Siliguri town.

Year	Scheduled Caste			Scheduled Tribe		
	Popula- tion	% to total population	Growth in %	Popula- tion	% to total population	Growth in %
1961	5,785	8.7	-	361	0.5	-
1971	4,279	4.4	-25.4	166	0.2	-54.0
1981	10,165	6.5	+137.5	512	0.3	+208.4

Recently, number of backward population have been increasing in galloping rate, as they settle in slum areas for getting more facilities in livelihood and selection of odd jobs. To avail these facilities they are coming to the town from rural areas; more in number and settle in different parts of the town. Field survey suggests that most of the scheduled castes are 'Rajbanshi' who have concentrated in the wards away from CBD. Higher land-value as well as economic insolvency and infiltration of higher caste people with better economic capability have pushed away the Scheduled caste people in the fringe area from their original places.

JALPAIGURI

The Scheduled castes (13.7%) and Scheduled tribes (0.9%) are 14.6% of the total population in Jalpaiguri town whereas the district urban has 21 percent as a whole (Census, 1981). The decade-wise growth of Scheduled castes and Scheduled tribes can be shown in the Table No. 1.2B.

Table 1.2B Scheduled castes and Scheduled tribes and their decadal growth in Jalpaiguri town.

Year	Scheduled Caste			Scheduled Tribe		
	Popula- tion	% to total population	Growth in %	Popula- tion	% to total population	Growth in %
1961	4347	8.9	-	2448	5.0	-
1971	5479	9.9	+26.0	295	0.5	-87.9
1981	8440	13.7	+54.0	567	0.9	+92.2

A moderate growth for Scheduled castes and a negative growth for Scheduled tribes were noticed during 1961-'71. The main reason for maximum negative growth (-87.9) for Scheduled tribes in 1971 was the destruction of their houses and moveable properties by the devastating flood in 1968 and migration from urban to rural areas. Again, a high rate of increase in both Scheduled castes and tribes were noticed during 1971-'81. These increases were due to migration from Bangladesh in 1972 and influx from nearest villages in search of odd jobs.

1.2.3 Religion

The religion is one of the aspects of study in urban centre because it directly effects an agglomeration of people in a particular area of the town. As a result, standard of living, culture and development depend on the people of different religion. At the time of field investigations, development of different pockets of localities inhabited by people of different religion were observed in both the towns. In a pocket people of the same religion use to

prefer to live for better understanding, cooperation and security.

SILIGURI

The town is situated near the borders of two States and countries, Nepal and Bhutan. So, people of different religions have assembled here in search of jobs and other purposes. The people here are mostly Hindus (94.6%) but many people of other religions are also living side by side. Their percentages in both 1971 and 1981 are shown in Table 1.3A.

Table 1.3A Religion structure and growth of population in different religions in Siliguri town.

Religions	1971		1981		Growth in % (1971-81)
	Popula- tion	% to total population	Popula- tion	% to total po- pulation	
1. Buddhists	361	0.4	743	0.5	+105.8
2. Christians	233	0.3	750	0.5	+221.9
3. Hindus	93144	95.6	145981	94.6	+ 56.7
4. Muslims	3231	3.3	6114	4.0	+ 89.2
5. Sikhs	441	0.4	672	0.4	+ 52.4

Buddhist have migrated from Sikkim, Nepal and Hill areas of Darjeeling district in different times, specially at the time of transfer of citizenship in 1950 between India and Nepal. Muslims migrated mainly from Bangladesh and Bihar. Some Christians those are the descendent of British have been living in the town. A large number of Marwaris, Sikhs and Jains are staying here for job and other business. In brief, Siliguri is a good example of cosmopolitan town in North Bengal.

From the table 1.3A it is visualised that the growth rates of Hindus were not so high during 1971-81 as compared with the Muslims. Buddhist and Christians became double during 1971-81. In case of Christians many tribal people joined in this religion for getting better facilities and job security.

JALPAIGURI

Jalpaiguri is also a cosmopolitan town where people of different religions live together. In 1981 percentages of Hindus were 96.4 as against 96.7 in 1971. An increase of more than 11 percent were noticed during 1971-81 (Table 1.3B).

Table 1.3B Religion structure and growth of population in different religions in Jalpaiguri town.

Religions	1971		1981		Growth in % (1971-81)
	Popula- tion	% to total population	Popula- tion	% to total population	
1. Buddhists	175	0.3	239	0.4	+ 36.6
2. Christians	70	0.1	203	0.3	+190.0
3. Hindus	53338	96.7	59531	96.4	+ 11.6
4. Jains	87	0.2	88	8.2	+ 1.1
5. Muslims	1502	2.7	1679	2.7	+ 11.8

Muslims share 2.7% of total population. The percentage increase for Muslims during 1971-81 was almost equal to that of Hindus. The percentages of other religions viz., Buddhists, Christians, Jains are very small compared to Hindus and Muslims. But a tremendous increase

for Christians during 1971-81 occurred in Jalpaiguri.

1.2.4 Literacy

Among the different qualities of population, literacy perhaps is the most important. A low degree of literacy is an obstacle to economic growth. The most basic minimum measurement of educational status is the degree of literacy. But it is very difficult to measure the degree of literacy in accurate terms (Ghosh, 1985).

SILIGURI

In Siliguri, the total number of literates in 1981 were 95,935 person i.e., 62.1% of the total population. The literacy rates in different decades and their growths are shown in Table 1.4A.

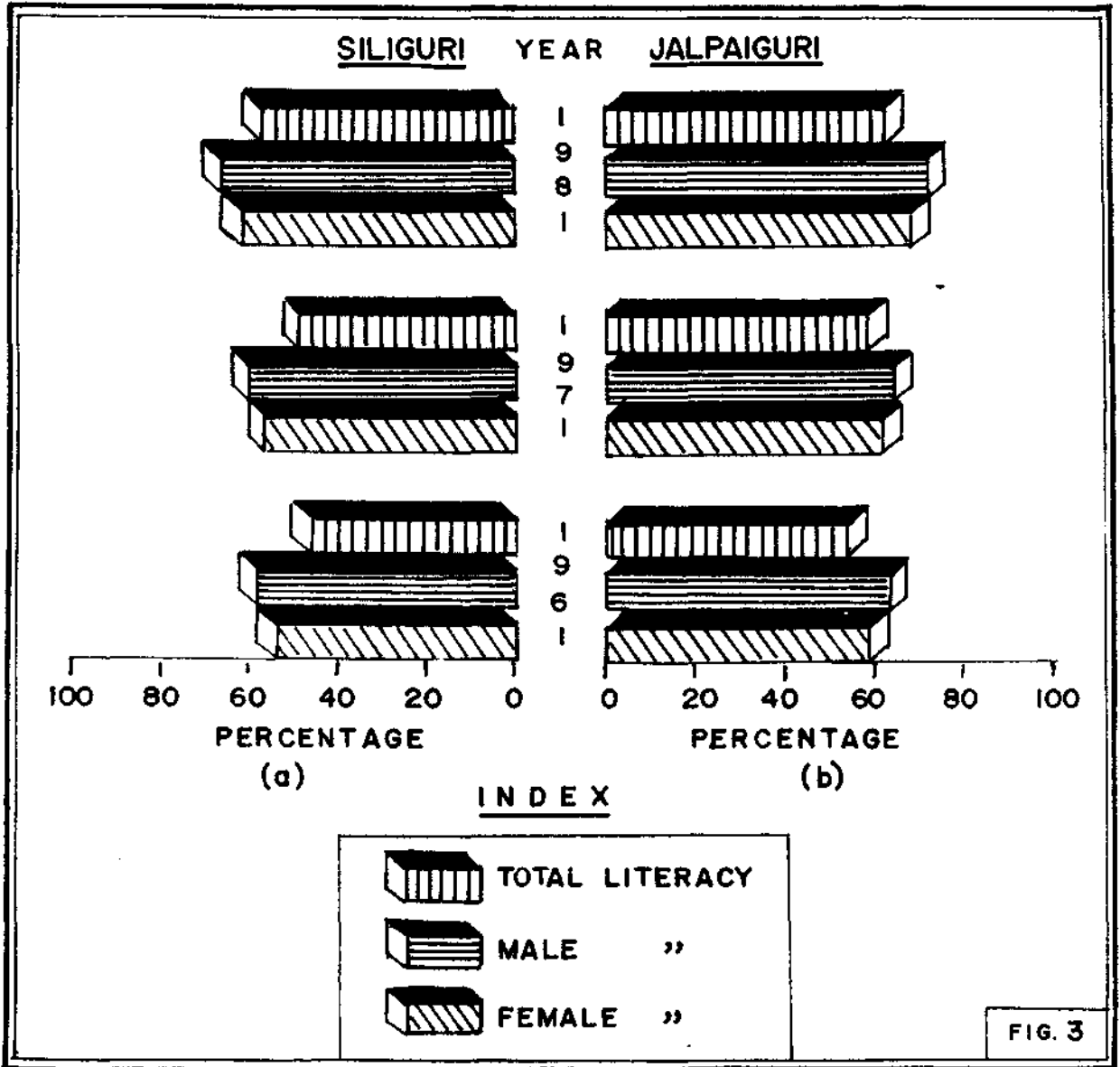
Table 1.4A Literacy and its growth in Siliguri town.

Year	Literacy in %			Growth in %		
	Total	Males	Females	Total	Males	Females
1961	53.0	57.8	46.3	-	-	-
1971	56.1	60.9	49.5	+56.8	+49.3	+71.2
1981	62.1	66.6	56.9	+76.0	+67.6	+90.1

Table 1.4A shows that the average rate of literacy for males and females increased during the last three decades (Fig.3a). The rate of male literacy is higher in the district urban (68.1%) than in

LITERACY RATE

DECADEWISE



the town while the female literacy rates in both town and district urban as a whole are almost at par (56%). The growth rates of female literacy in Siliguri were significantly high during 1961-71 and 1971-81.

Studying the percentages of literacy (wardwise) it is found that 7 wards have high percentages of literacy and one of these records 85 percent (Appendix-3A). The wards (I-IV & XVI) located in the western part of the town have very low percentage of literacy where there is high concentration of people hailing from different states and countries. Many of these people find lack of schools of their own medium in this part of the town. The peculiarity in Ward XIV is that the low percentages of literacy which is the outcome of high concentration of scheduled caste and scheduled tribe people who engage their children in different activities at their boyhood and do not provide education.

JALPAIGURI

The total number of literates in the town are 41947 of which 23354 are males and 18593 are females (Census, 1981). The percentage of literacy in the town is 67.9 to the total population whereas the district urban has 59.2 percent. In the town, 72.2 percent males and 62.9% females are literates. The rates of literacy in percentages (decade-wise) are given in Table 1.4B.

Table 1.4B Literacy and its growth in Jalpaiguri town.

Year	Literacy in %.			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

The percentages of literates in every decade had increased for both males and females (Fig.3b). Comparison of literacy growth rates in Jalpaiguri town with Jalpaiguri district (urban) reveals that the percentage increase in each decade for both males and females were higher in the district urban (72.1% during 1961-71 and 102.2% during 1971-81) than Jalpaiguri town. A low percentage growth rates of literacy were observed in the last two decades in the town in all categories.

Analysing the wardwise distribution of literacy it is found that Ward XIII records the highest literates (82%) whereas Ward III shows the lowest (48.8%) rate (Appendix-3B). Among 19 wards, 9 have below average literacy rates (67.9%) due to high concentration of backward class people. The grouping of wards on the basis of percentage shows that out of 19 wards only 3 are in the low group (below 60%) whereas 9 are in the high group (above 70 percent). The literacy rate is high in the north western part of the town and moderate in the south-east. Again the southern part of River Karala has higher literacy than the northern and the ward X records

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lowest (39%) female literacy among the wards (Appendix-3B). Males are less educated (55%) in ward III where most of the males are labourers and farmers.

1.3 DENSITY OF POPULATION

The distribution of arithmetic density of population can also be explained by analysing the density pattern. Population density is a useful abstraction, assisting in the analysis of diversity of man's distribution in space (Clark, 1977).

SILIGURI

The density of population in the town is 9934 persons per km² (Table 1.5A₁) which is more than double of the district (urban) average (Census, 1981). In comparison with other Class I towns of West Bengal viz., Kharagpur (7395 persons per km²) and Bardhaman (4582 persons per km²), Siliguri has higher population density. The change of population density in Siliguri town in different decades can be revealed from Table 1.5A₁.

Table 1.5A₁ Decadal changes of population density in Siliguri town and Darjeeling Dist.(U).

Year	Density per km ²		Decadal changes	
	Siliguri(M)	Darjeeling Dist.(U)	Siliguri(M)	Darjeeling Dist.(U)
1931	390	1091	-	-
1941	674	1459	284	368
1951	2090	2370	1416	911
1961	4213	3628	2123	1258
1971	6273	4501	2060	893
1981	9934	4681	3661	160

The density of population had been increasing in Siliguri town as well as in Darjeeling district (Urban) since 1931. It is observed from the table that the density of population was higher in the district urban than Siliguri town upto 1951 after which a tremendous high growth rate of density was noticed in the town compared with district urban average. Decadal changes were higher in each decade in Siliguri town except in 1941 (Fig.4). But rate of change was not uniform. It increased in each decade in the town except in 1971 where as it had been declined in the district since 1971. In case of Siliguri town, about 5 times change was recorded in 1951 as compared to 1941. This is due to influx of immigrants from East Pakistan after partition of the country. Further, noticeable increase took place during 1971-81 due to immigration from Bangladesh (erstwhile East Pakistan).

Wardwise Population density and Population pressure :

The wardwise population density in Siliguri shows inequality. The highest density (22,505 persons per km²) is found in Ward-VII and the lowest (5920 persons per km²) in ward-XVIII (Appendix-1A). The density in other wards can be compared from Table 1.5A₂.

Table 1.5A₂ Number of wards in different categories of density in Siliguri town.

Density of Pop. per km ²	Category	Number of wards	
		1971	1981
below 5000	very low	4	-
5000-10,000	low	11	7
10,000-15,000	moderate	3	9
15,000-20,000	high	1	2
above 20,000	very high	-	1

DENSITY OF POPULATION
DECADAL CHANGES

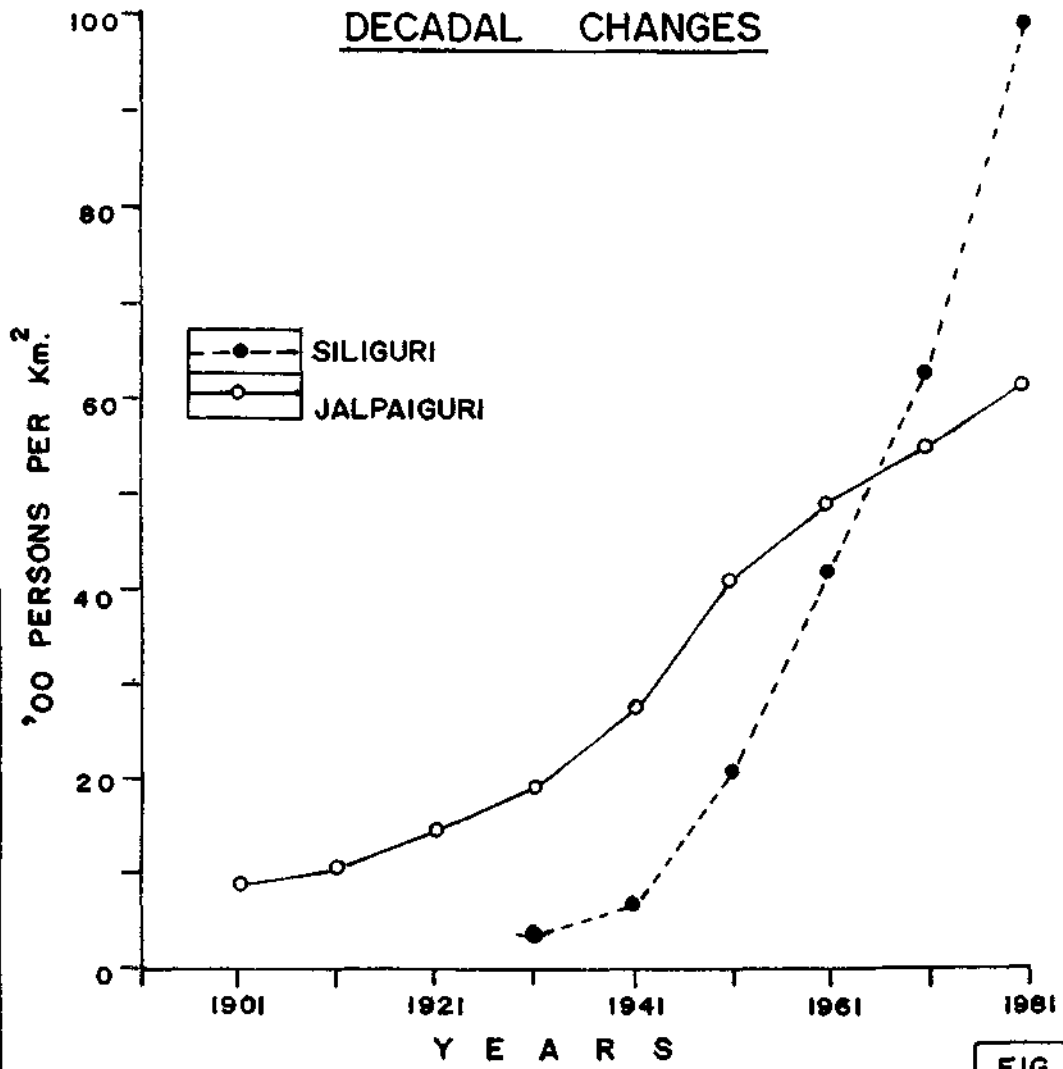


FIG. 4

Majority of the wards (12 out of 19) have moderate to high density of population. But in 1971 the picture was quite different when out of 19 wards, 18 had moderate to low density of population (Table 1.5A₂). From Fig.5A it is clear that the wards lying in the south-eastern part of the town have moderate density. These are peripheral wards and surrounded by the wards having low density.

The trend of population density can be visualised from Fig.6A. It indicates that the density of population is increasing from the centre of the town towards north-east as well as to south-west whereas decreasing towards north. Low density at the central place is due to concentration of commercial and administrative activities. Here most of the residential houses are being transferred to either commercial or administrative use. The highest density of population in Ward VII is due to availability of various types of facilities for residential use. The density is moderate in the south-eastern part as it is far away from the central place. The low density in the north is due to poor connectivity with city centre and inadequate urban facilities.

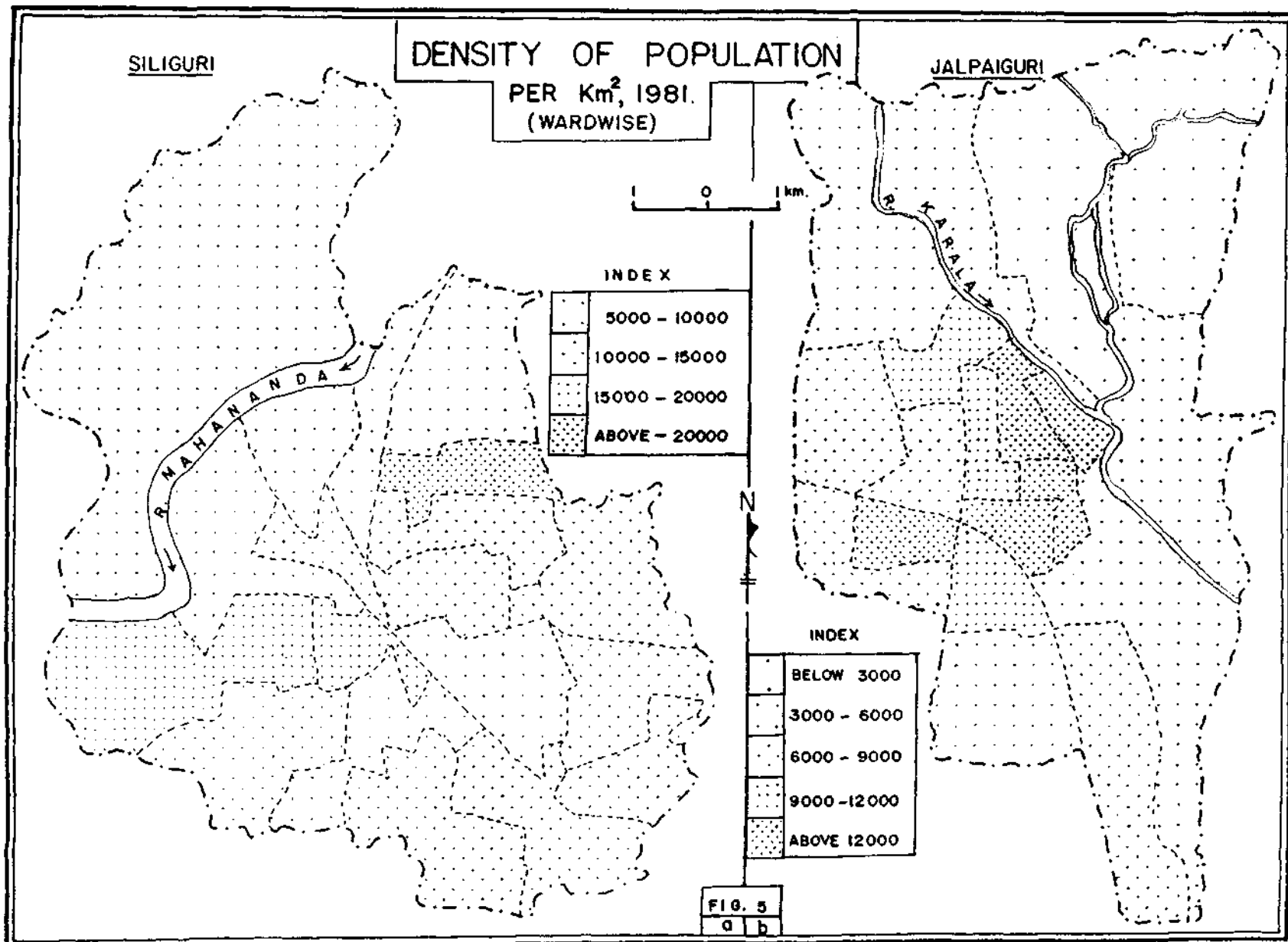
To find out the co-efficient of population pressure (1971-81) in each ward, the calculation has been done (Appendix-2A) with the help of the following formula -

$$P = \frac{d_1}{D} \quad \text{where,}$$

P = co-efficient of population pressure,

d_1 = change of density in each ward(i) during
1971-81,

D = change of density in the town during 1971-81.



SILIGURI

TREND OF POPULATION DENSITY

JALPAIGURI

1981

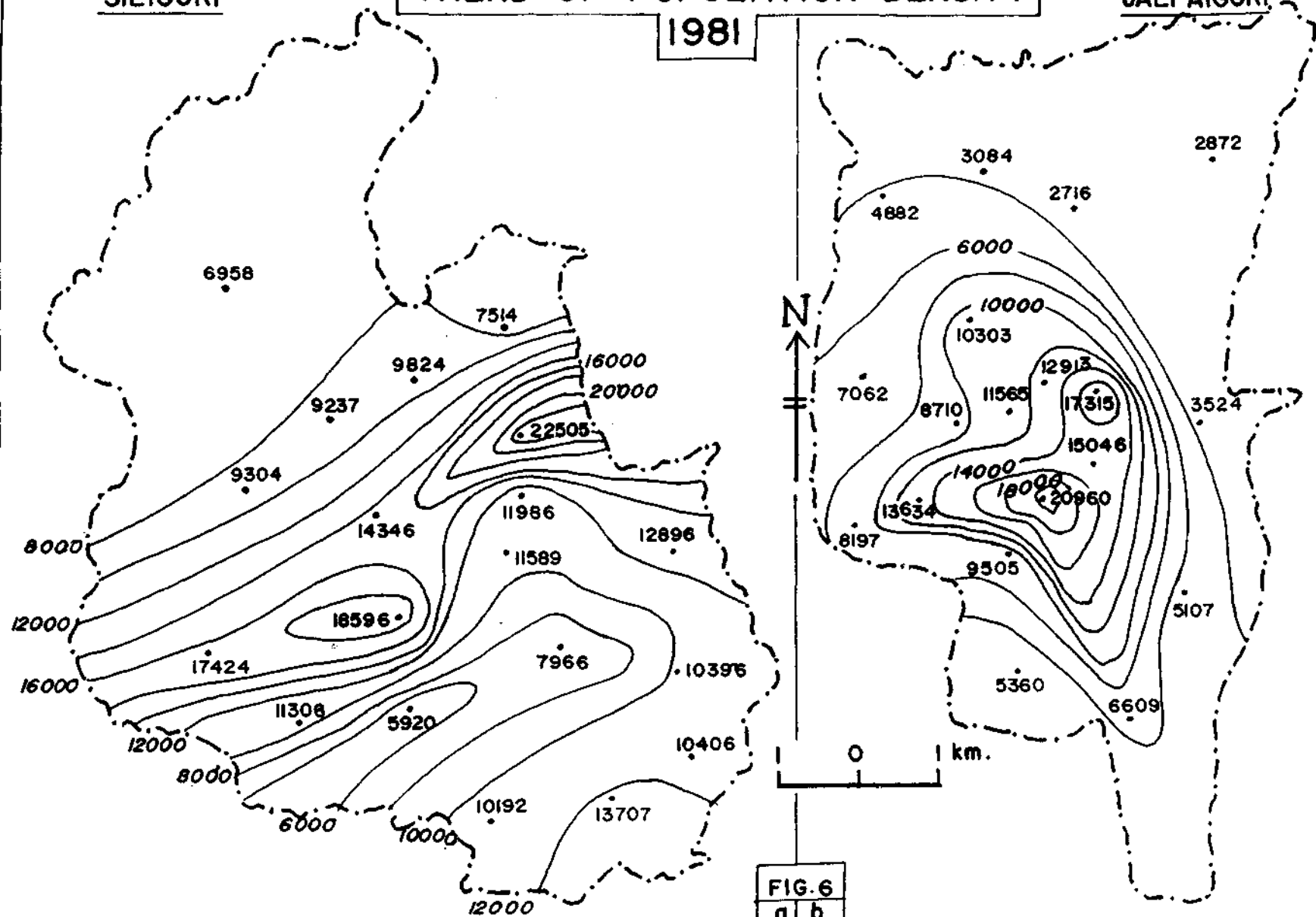


FIG. 6

a b

The population pressure in wards has been grouped in Table 1.5A₃.

Table 1.5A₃ Number of wards in different categories of population pressure in Siliguri town (1981).

Co-efficient of population pressure	Category	Wards	No. of wards
below 0.5	very low	XVIII, XI, VIII, IX, III	5
0.5-1.0	low	II, IV, V, VI, X, XII, XIII, XIX	8
1.0-1.5	moderate	I, VII, XVII	3
1.5-2.0	high	XIV, XVI	2
above 2.0	very high	XV	1

The high population pressure in the Wards XIV and XVI can be attributed to rapid expansion of the urban fringe and setting up of a few small scale industries on easy available vacant lands. The pressure of population in those areas in 1971 was low owing to non-availability of urban amenities because of their peripheral location. But in the case of Ward XV, maximum change has taken place as a result of growth of slums. Moreover, the high population pressure in the C.B.D. is due to eagerness of a large number of people to reside close to commercial centre. To cope up with the said pressure most of the buildings are vertically expanded.

JALPAIGURI

The population density in Jalpaiguri town is 6125 per km² which is triple of that of district's urban (Census, 1981). In

comparison to Kochbihar (8129 persons per km²), a similar Class II town, Jalpaiguri has the lower population density per km². Studying the pattern of density of population in different decades in the town, it can be visualised that the changes are low (Table 1.5B₁).

Table 1.5B₁ Decadal changes of population density in Jalpaiguri town and Jalpaiguri Dist. (U)

Year	Density of population/km ²		Decadal changes	
	Jal(M)	Dist.(U)	Jal(M)	Dist.(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

The decadal changes of population density in Jalpaiguri town were low as well as almost at par with district (urban) upto 1941. But in 1951, in Jalpaiguri town there was a tremendous increase of population density (Fig.4) due to influx of immigrants from neighbouring countries especially from Bangladesh. Later, the rate of changes have been declining.

Wardwise Population density and Population pressure

The density of population is maximum (20,969 persons per km²) in Ward XIV and minimum (2,716) in Ward II (Appendix-1B). The

lowest population density in Ward II can be attributed to fallow nature of a large area in the Rajbari and carrying on of agricultural activity on a considerable part of the ward. The wards of the town can be classified into a number of classes on the basis of density of population (Table 1.5B₂).

Table 1.5B₂ Number of wards in different categories of density in Jalpaiguri town.

Density of population per km ²	Category	Number of Wards	
		1971	1981
below 3000	very low	4	2
3000-6000	low	5	5
6000-9000	moderate	3	4
9000-12,000	high	2	3
above 12,000	very high	5	5

There was a little change in number of wards on different categories of density in 1971 and 1981. Number of wards having moderate and high density of population have increased and those having low density have decreased during the same period. In the town, the wards having population density more than average (9113 persons per km²) are found in the CBD where as the density is very low towards north-east (Fig.5B). In fact, wards located in the eastern side of River Karala have low density as this part of the town was developed earlier (i.e., before British administration) during the king of "Raikot." But the western part of River Karala ^{have} attracted more people to settle here after the start of functioning the

municipal office in Ward XII. Moreover, nearness to CBD and easy communication system have resulted in high density in this part. The Fig.6B reveals that the trend of density is decreasing too much in the northern periphery where as two pockets of high density have grown up in the centre. In the east of the central part a sharp difference of density (from 3000 to 17,000 per km²) is noticed in a very short distance but the trend is gradually decreasing in the west.

From the study of the co-efficient of population pressure it is found that out of 19 wards 6 have negative pressure of population. The maximum population pressure (6.9%) is noticed in Ward XIV. Whereas maximum decrease (-3.32%) is recorded in Ward XIII (Appendix-2B). None of the wards had identical co-efficient of population pressure except Ward XII which is going to be an identical (.95%). Most of the wards (13 out of 19) have co-efficient of population pressure below 1. The categorisation of wards on the basis of co-efficient of population pressure and consideration of the positive as well as negative values has shown in Table 1.5B₃.

Table 1.5B₃ Number of wards in different categories of population pressure in Jalpaiguri town (1981).

Co-efficient of population pressure	Category	Distribution of wards		No. of wards	
		(+)	(-)	(+)	(-)
below 0.5	very low	I,III	II,XI,XVII	2	3
0.5-1.0	low	V,XVIII, XII,XVI	IX	4	1
1.0-1.5	moderate	IV,VI,VIII	X	3	1
1.5-2.0	high	VII	-	1	0
above 2.0	very high	XIV,XV,XIX	XIII	3	1

From the Table 1.5B₃ it is visualised that a considerable percentage of people can be accommodated in the wards showing low pressure of population. At least 6 wards having negative co-efficient can accommodate more people from other wards. Pressure of population has increased above average in 7 wards that are considered as over crowded and need for depopulation to remaining wards. The pressure of population in the central part has decreased due to importance of trade and commerce. But around the CBD specially in the south and west, the pressure of population has increased many folds compared with the town as a whole. Northern part shows a considerable increase due to new settlements and more people have occupied the places which were vacant in 1971.

1.4 GROWTH OF POPULATION

Changes in population are more normal than stable states, so it is no surprise that observers attempt to isolate those elements which combine to produce output measures of population (Baxter and Williams, I, 1978). A population is constantly in a state of influx. During this process the size of population varies and develops potentialities for unlimited growth (Raskumar, 1986). The dynamics of population growth of area over a certain length of time is the sum of the net migration in the region during the period under consideration (Singh, 1985).

SILIGURI

Siliguri town, a tiny settlement of 6,067 persons in 1931 (the year of its emergence), has become a concrete example of

population explosion. In 1981, the total population of the town was 1,54,378 persons. It means during the last 50 years the population of the town has become 25 times. The growth is far more in comparison to that of any urban centre of the district and the district urban population as a whole. The urban population growth in the district and siliguri (M) during 1931-81 are shown in Table 1.6A₁. The decadal growth of population in the town as well as in the district have been positive in all decades and the town has higher growth rate than in the district and this can be revealed from Table 1.6A₁.

Table 1.6A₁ Growth of population in different decades in Siliguri town.

Year	Population		Growth of population in %		Index of population growth in %	
	Sili(M)	Dist(U)	Sili(M)	Darjeeling Dt(U)	Sili(M)	Darjeeling Dt(U)
1931	6067	43479	-	-	100	100
1941	10487	58164	72.8	33.8	173	133
1951	32480	94481	209.7	62.4	535	217
1961	65471	144637	101.6	53.1	1079	332
1971	97484	186121	48.9	24.6	1607	414
1981	154378	282153	58.4	56.6	2544	648

The maximum growth rate in the town was recorded during 1941-51 (effect of immigration due to formation of India and Pakistan). Subsequently, the growth rate in the town declined and became minimum during 1961-71 (Fig.7). The growth rates in the district

GROWTH OF POPULATION

● SILIGURI
 ○ JALPAIGURI

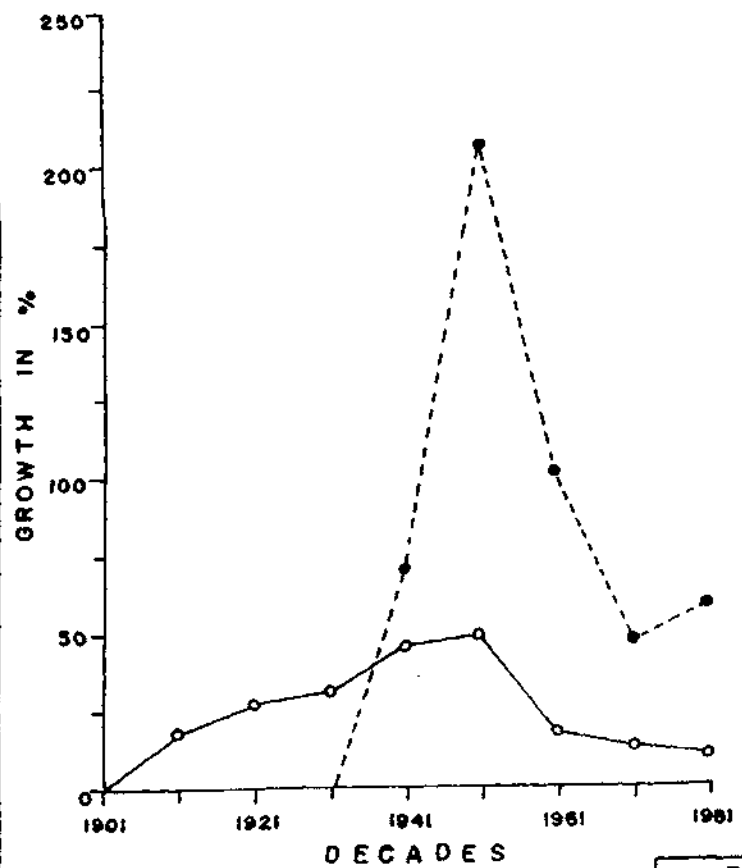


FIG. 7

INDEX OF POPULATION GROWTH

● SILIGURI
 ○ JALPAIGURI

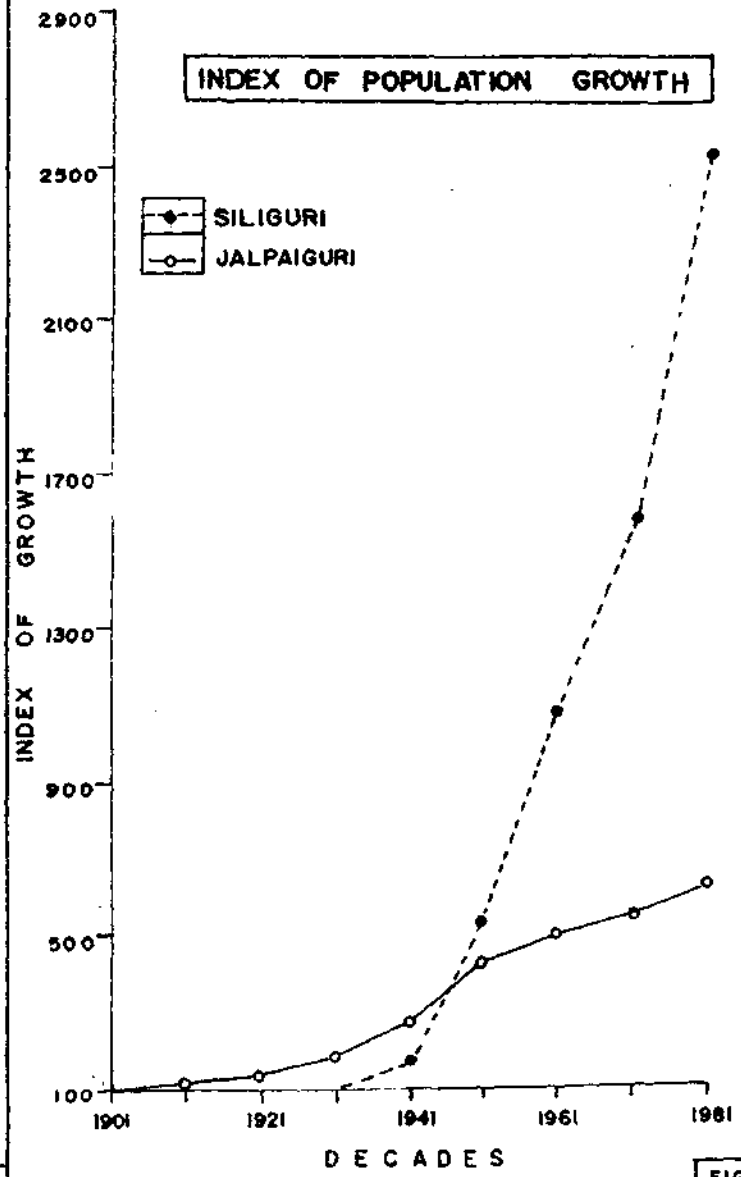


FIG. 8

show almost the identical picture though the decadal percentages are lower than Siliguri after 1951. The growth rates in Siliguri was very high even than some of highly developed towns in West Bengal. Compared with the growth of Barddhaman and Kharagpur (similar class towns), in case of Siliguri some what different pictures are found. Barddhaman had constant positive growth due to development of agricultural industry. Whereas Kharagpur developed as railway colony had lower growth rate during the same period compared to Siliguri town.

From the Table 1.6A₁ it is revealed that the index of population growth in Siliguri town was not so high during the first two decades. But it became double and triple (of the amount of 1951) in 1961 and 1971 respectively (Fig.8). There was a mammoth increase during 1971-81 in comparison with previous decades in the town as well as in the district growth rates (56.6%).

It is fact that the effect of growth rate is also reflected in the different wards in the town. For that purpose wards are grouped into 5 classes (Table 1.6A₂) on the basis of percentages.

Table 1.6A₂ Distribution of Wards in different categories of population growth in Siliguri (1971-1981).

Growth in percentage	Category	No. of wards
below 25	very low	7
25-50	low	4
50-75	moderate	4
75-100	high	2
above 100	very high	2

In Ward-I, the growth of population is enormously high (150%) and it is low (13%) in Ward-VIII. Moreover, the population has increased significantly in as many as 4 wards in comparison with the overall growth (average growth 58 percent) in Siliguri town (Appendix-2A). The population growth in the wards is mainly for immigration. Emergence of new areas in the town have been occupied largely by the people who immigrated from hills and neighbouring states like Sikkim, Bihar and also from Bangladesh (neighbouring country). A significant percentage of population from Nepal and Bhutan have settled specially in Ward I where they found high concentration of their own community. Again, a number of new colonies have grown up in Wards I, XV and XVI. In Ward VI, most of the immigrants came from Punjab and in Ward XIV majority of the immigrants hailed from Bangladesh. But in Ward XVII there are many Housing Estates where vertical expansions have taken place to provide accommodation for more families. On the contrary, low population growth rate is found in south-eastern part of the town where the paucity as well as high value of land are common. Here, lack of vacant lands has limited the construction of new houses. Besides, narrow roads and lanes restrict construction of multistoried buildings as per municipal rules.

Data for births and deaths have been collected from municipality for the determination of natural growth rate of population in the town and the Table 1.6A₃ shows the growth rate for 6 years.

Table 1.6A₃ Number of Births and Deaths in Siliguri Town (1981-86).

Year	Births	Deaths	Natural increase (birth-death)	
			Population	%
1981	4705	733	3972	2.6
1982	4882	924	3958	2.6
1983	3045	658	2387	1.6
1984	3887	765	3122	2.0
1985	4783	818	3965	2.6
1986	6088	1009	5079	3.3

(Source: Municipality Office, Siliguri)

From the Table 1.6A₃ it is revealed that the rate of natural growth of population (nearly 3%) during the last 6 years was very low compared with the rate of actual growth (58.36% in 1981). So high growth rate of population in the town is a result of influx of population from outside. If the data is correct then natural growth rate cannot keep pace with the actual and the growth of population by natural increase is far below the actual growth.

JALPAIGURI

Jalpaiguri town had population of 9708 in 1901. But its population is 61743 persons (Census, 1981). So in a span of 80 years the population of the town has increased 6 times whereas urban population in the district as a whole was 30 times. Decadal population growth during 1901-81 is shown in Table 1.6B₁.

Table 1.6B₁ Growth of population in different decades in Jalpaiguri town.

Year	Population		Growth of population in %		Index of population growth in %	
	Jal(M)	Jal Dist(U)	Jal(M)	Jal Dist(U)	Jal(M)	Jal Dist(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

The Table 1.6B₁ shows that the decadal growth of population both in Jalpaiguri and district (U) have been positive. This growth was higher in case of Jalpaiguri town than the district upto 1941. After that, the population growth of the district exceeded the town's. The growth rate in the town increased gradually from the time of its emergence and was maximum during 1941-51 (Table 1.6B₁). This indicates that just after the Independence, immigration took place from East Pakistan (present Bangladesh) to the district as well as town. After 1951 the growth rate has been gradually decreasing and became minimum in 1981 (Fig.7).

As a whole both for the town and district (U) the population growth rates decreased after 1951. Comparing the growth rates in Kochbehar (a class II town), a neighbour town, Jalpaiguri town had

higher rate upto 1941. But after that the town had lower growth rate than that of Kochbehar. It indicates the low rate of development and lack of infrastructure of Jalpaiguri town where people are not attracted to live. Index of population growth (Table 1.6B₁) also shows that it was almost parallel upto 1941 for Jalpaiguri District (Urban) as well as the town. Later, the district urban exceeded the Jalpaiguri town and this trend has been continuing making a wide gap between them. Moreover, index of population growth in Jalpaiguri town has been increasing gradually in every decade (Fig.8). But in case of the district (U) there is no parity in the growth and it increased at a galloping rate in every decade since 1951 except 1971.

Analysing the growth rate of population in different wards the concentration of population can be revealed. The maximum population growth (+54%) is found in Ward I whereas maximum depopulation (-12.4%) is noticed in Ward-XIII (Appendix-2B). Recently, in Ward-I vested lands have been distributed among a large number of people which cause an increase of population in this ward. The wards can be grouped into 5 categories on the basis of growth rates (Table 1.6B₂).

Table 1.6B₂ Distribution of wards in different categories of population growth in Jalpaiguri (1971-1981).

Growth in %	Category	No. of wards	
		(+)	(-)
below 5	very low	1	3
5 - 10	low	2	2
10 - 15	moderate	4	1
15 - 20	high	0	0
above 20	very high	6	0

Table 1.6B₂ shows that out of 19 wards 13 have positive and remaining 6 have negative growth. Again, among the positive groups 6 have very high positive growth, whereas among the negative groups 3 have very low negative growth and overall 9 wards have below the average growth rate.

Some causes of negative growth in certain wards are :

1. The backward and weak classes who might once resided in the central places, sold their occupancy (to traders or business men) and moved to outskirts.
2. A significant percentage of residential houses have been transferred to shops or office purposes and the people who resided there have moved to other places.
3. The area under trade and commerce had been increased during 1971-81, simultaneously the area under residential houses were decreased causing depopulation.

Very high growth in Ward-I is due to colonisation of migrated people from outside or inside. In Ward-XIX, very high growth is due to construction of houses by the government or semi-government organisations. In recent years very high growth in Wards XIV and XV is due to construction of new houses by the local people who have moved from central place to nearest area for convenience in trading and business. Moderate growth rate is observed in a belt lying diagonally north-west to south-east as well as parallel to the River Karala except the CBD. This belt is sandwiched by the very high growth belts from both north-east and south-west. Low growth

rate is found in the two extreme points i.e., north-east and south due to remotness and non-availability of urban facilities. Very low growth both positive and negative is noticed in the south-west corner due to low lying nature of the land which cause stagnation of water in rainy season every year. Negative growth is also found in CBD due to congestion and old construction of houses.

To determine the natural growth rate of population the birth and death rates have been considered for 6 years in Table 1.6B₃.

Table 1.6B₃ Number of births and deaths in Jalpaiguri town (1981-86).

Year	Births	Deaths	Natural increase (birth-death)	
			Population	%
1981	3348	1418	1930	3.1
1982	2647	1331	1316	2.1
1983	3783	1424	2359	3.8
1984	2634	1377	1257	2.0
1985	2789	1178	1611	2.6
1986	3467	1470	1997	3.2

(Source: Municipality Office, Jalpaiguri)

From the Table 1.6B₃ it is revealed that the natural growth of population is 2-3 percent in each year. This rate was low compared with the rate of actual growth rate (11.9%) in the town in 1981. So, it is fact that immigration rate is more than the natural growth in the town. Unfortunately, it is difficult to get immigration data in each year from the appropriate authority.

1.5 MIGRATION

Migration has its relative role in the growth of population. The study of migration to city is an essential aspect of planning. The concept of migration along with natural increase has great significance in population changes. The demographic dynamics of the towns particularly during the post-Independence period is not only reflected in the phenomenal high rate of its population increase, but also in migration of its inhabitants to some extent (Singh, 1985).

The distinguishing characteristic of migration is that its direction and volume are entirely the results of human actions and reactions to situations. Hence, it is not easy to arrive at universally acceptable definitions and methods of measurement (Ramkumar, 1986). The causes of migration are described as due to "Push and Pull factors." Some of the important push-pull factors of Siliguri and Jalpaiguri are :-

(1) Push factors :- (a) unemployment and under-employment in the rural areas (b) low wage and salary of agricultural workers (c) desire for better urban life (d) high man-land ratio in the neighbouring areas.

(2) Pull factors :- (a) better economic prospects, better living way of life in the town (b) better working conditions and better employment opportunities in trade and commerce (c) increasing demand for labour and skill in tertiary activities (d) better transport and communication facilities between rural areas and the towns.

In estimating the future population of the city special stress of immigration has to be thoroughly evaluated. Unfortunately, the latest census of migration of the towns under study is not available. As such quantitative measurement of migration in these towns is really very difficult.

SILIGURI

No other town of North Bengal has such a faster rate of growth than Siliguri town. This growth rate of the town is unprecedented for any other town of West Bengal. The growth of Siliguri makes a case study for itself. It is true that, partly, this growth has been due to the influx of refugees. But its growth during the last few decades was the result of its own activities, which gained primary momentum from its extremely advantageous location as the principal gateway to traffic bound for either north and south or east and west. Such nodality is not enjoyed by any other town of the region (Mukhopadhyay, 1977). In 1901, the total population of the then village of Siliguri was 784 only, most of whom were 'Rajbanshis' (Schedule caste). Question arises what have shaped to huge population of to-day of the town? The adjacent tea gardens, forests and the commercial activity acted in boosting the migration into Siliguri town. After 1962, with promulgation of the National Emergency, Military Cantonment was developed in and around Siliguri. Besides, political disturbances of Assam and Bangladesh led to immigration into the town.

From the household survey done by the author, a Table 1.7A can be arranged :-

Table 1.7A Migration from different places in Siliguri Town.

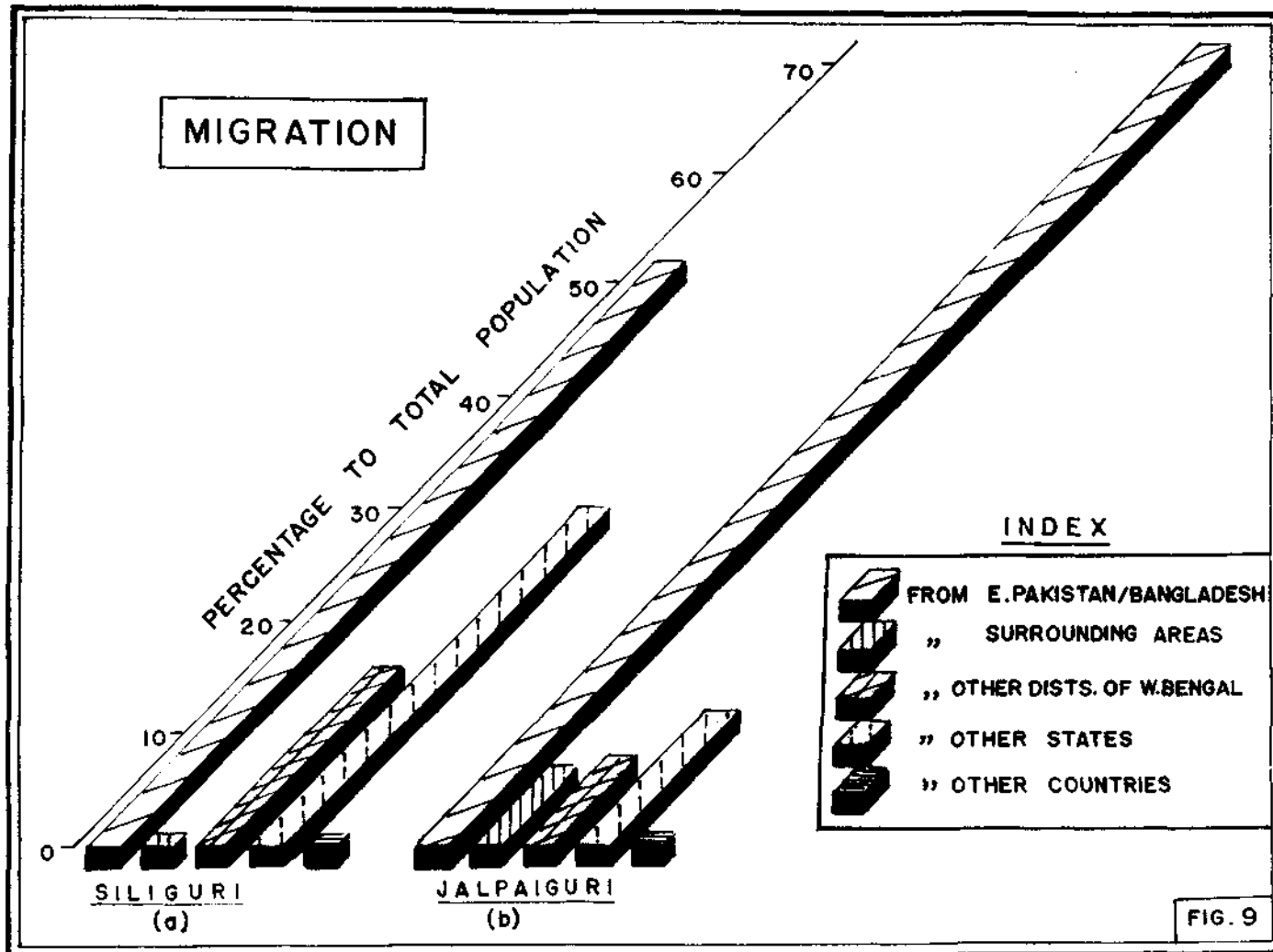
Original birth place	Migration in percentage
1. Bangladesh (East Pakistan)	52
2. Siliguri surroundings	1
3. Other districts of W.B.	16
4. Other states	30
5. Other countries	1

Source:- Field work (1989)

More than half of the total population of the town had migrated from the then East Pakistan (Fig.9a) and almost all of them have settled in the eastern part of the town. After Independence (1947) people also came from other districts of West Bengal, who settled in the southern part and majority of people hailing from other states settled in the western part of the town. About 27% of the total population of the town have been dwelling here for one generation and they are confined mainly in the central part. Whereas more than 60% of the total population, residing for 10-42 years have spread in the east, north-east and western part. People living for less than 10 years (12 percent of the total population) are found settling in the peripheral zones.

JALPAIGURI

Jalpaiguri's population growth is very much dependent on its increasing prosperity due to growth of tea industries in this



region. In fact, the whole history of the growth of population in the tract which is also known as Western Duars is nothing but history of immigration to the various tea estates located in this tract. Since 1873 when the first tea garden was laid down and in 1874-75 when first tea was grown, streams of immigration flowed in the district in search of jobs and livelihood.

Thus after the formation of the district (1869) the town became the administrative headquarters and it attracted people from the undivided Bengal (Western Duars District and Jalpaiguri Sub-division of Rangpur district). For official works the clerks and for legal advice the advocates, came with their families to the town followed by doctors and teachers to provide medical assistance and teaching respectively. So from the very beginning, a continuous flow of migration to the town took place which was accentuated after the partition of Bengal in 1947. The household survey report (Table 1.7B) shows the nature of migration.

Table 1.7B Percentage of migration from different places in Jalpaiguri town.

Original birth-place	Migration in percentage
1. Bangladesh (East Pakistan)	72
2. Jalpaiguri and surrounding	7
3. Other districts of W.B.	8
4. Other states	12
5. Other countries	1

Source :- Field Work (1989)

So, 72% people came from the then East Pakistan and have settled more in number in the western half of the town and those who came from other states have mostly settled in the heart of the town as well as in business area. People from other countries, though their percentage is very negligible (Fig.9b), are found in the southern part of the town. But the men living in the town for one generation are concentrated in the north-eastern part. Again, 42% of the total population residing in the town for 2-3 generations are mostly confined in the central part, whereas 50% have been residing particularly in the northern and southern part since Independence.

1.6 OCCUPATION STRUCTURE

Work is considered the activity that is performed in the occupational role. The occupation determines the individual's relationships with other individuals in the same and other occupations (Hall, 1975). 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).

Occupational structure is the unitary relationship pattern of the three occupational components, primary, secondary and tertiary working population of an area, which constitute the core of the economic system. Among all of the social attributes of a given individual or group, occupation is of paramount importance. It is particularly significant for the population analysis, since

to a considerable extent, the nature of work determines the surroundings, both physical and cultural (Smith, 1948).

SILIGURI

Total workers :

Total workers in Siliguri town is 48911 (male 45574, female 3337) or 31.4% of the total population where as in the district (urban) it is 29.9% (Census, 1981). Again, the percentage of male workers is 52.9 and that of females is 4.9 of the total males and females in the town respectively (Table 1.8A₁).

Table 1.8A₁ Percentage of Total workers to total population and its decadal growth in Siliguri town.

Year	workers			Growth of workers		
	Total	Male	Female	Total	Male	Female
1961	36.3	57.9	3.0	-	-	-
1971	30.9	51.6	2.9	27.1	26.1	55.6
1981	31.7	52.9	4.9	62.2	57.4	177.4

Table 1.8A₁ visualises that the percentage of total workers to total population in Siliguri town reduced by 6 percent in 1971. But it increased in 1981 due to increase of job opportunity in the town in respect of trade and commerce. It is interesting to note that the percentages of female workers have been increasing continuously due to more number of female participation in different activities as compared to previous decades. The percentages of male workers decreased from 1961 to '71 whereas a small increase was noticed in 1981 (Fig.10a).

WORKERS IN DIFFERENT DECADES

INDEX

■	TOTAL WORKERS
□	MALE
●	FEMALE

SILIGURI

JALPAIGURI

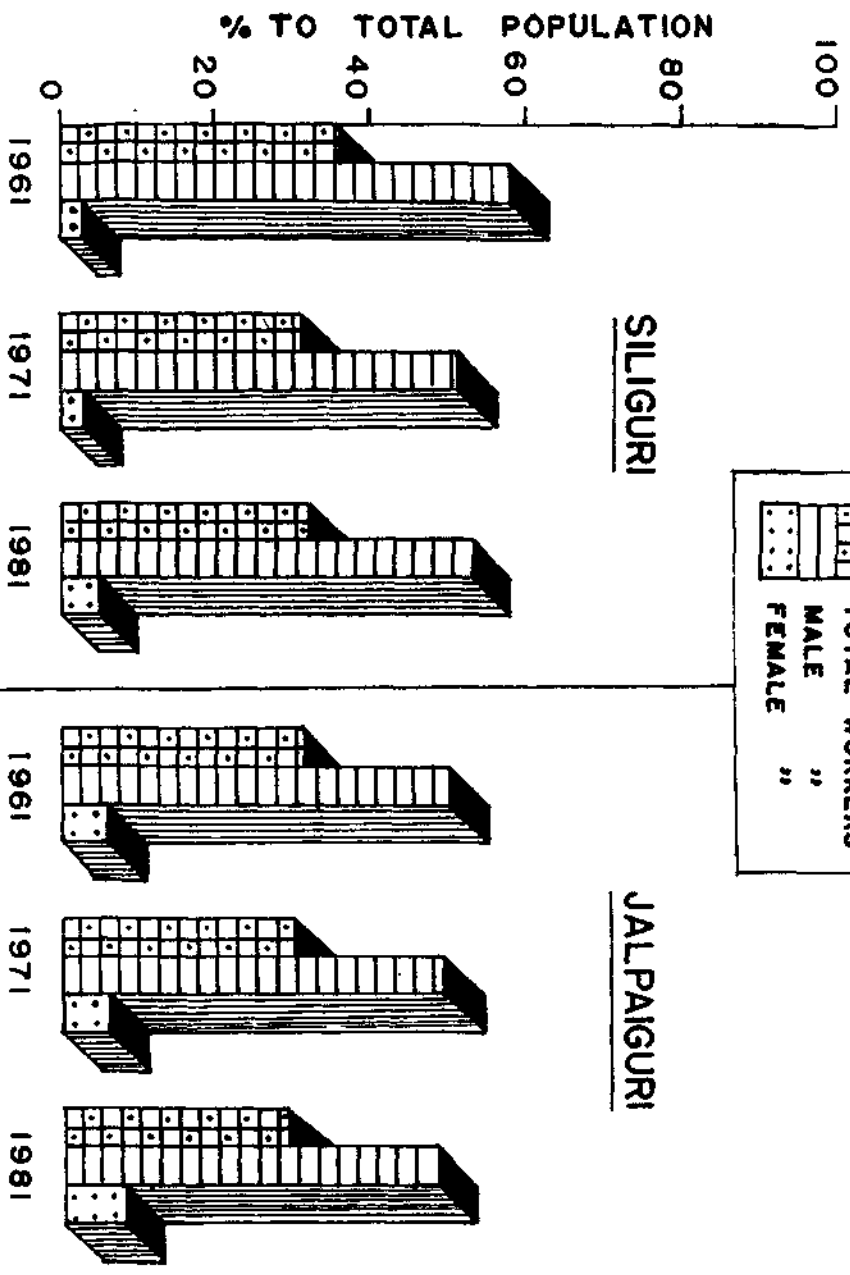


FIG. 10
q d p

The growth of total workers during 1961-71 was considerably low both for males and females. It means the population growth cannot keep pace with total workers. While the growth of female workers was tremendous (177%) during 1971-81. The percentages in all these categories in Siliguri town are much higher than those of district urban as a whole. The comparison between the growth of total population (58%) and total workers (62%) during 1971-81 reveals that the latter is slightly higher than the former. An increase in total workers in 1981 might be due to rapid expansion of different activities.

The wards have varied percentages of total workers, of which 8 have higher than the town average (31.4%). To identify the concentration of total workers in different wards, the percentages of total workers are classified and it can be noticed that only 6 wards (located in and around CBD) are in the category of high group (35 or more) of total workers (Appendix-4A). On the other hand, percentages of workers in 9 wards (situated in the eastern parts of the town) are lower than the average. This is due to fact that these wards are totally residential in character and number of dependents are more in a family.

The percentage of female workers in this town is very low (4.7%). It is clear that only 5 wards have more than 6 percent of female workers and the remainings have below 6%. The wards around CBD have less number of female workers because less number of families are living in this area.

Workers in Different Activities :

The workers of different activities are grouped into three categories and the percentages of workers in these categories are given in Table 1.8A₂.

Table 1.8A₂ Percentages of workers and their growth in different activities in Siliguri town.

Year	Workers in %			Growth of workers in %		
	Agl.acti- vities	House- hold indus- try etc.	Others	Agl.acti- vities	House- hold indus- try etc.	Others
1961	0.5	2.0	97.5	-	-	-
1971	1.8	3.7	94.5	+354.7	+127.4	+24.2
1981	0.5	1.3	98.2	- 50.2	- 44.1	+72.8

It is obvious that the percentages of workers in agricultural activities in the town is extremely low compared with that of workers in other activities. The percentage of workers in household industries are also very low due to lack of resources for industries and less incentives. A small percentage of workers, however, are engaged in Tea and Timber industries. The high percentage of workers (98%) in other activities reveal the importance of town in tertiary activities. In the decade (1961-71) along with influx of population the occupational pattern in the town changed. Most of the immigrants then worked as agricultural labours or as labourers in small scale industries. Besides, many of them became employed in odd jobs leading to high growth rate of 'other services'. Subsequently,

owing to lack of resources and arable land decline in percentages of agricultural activity as well as household industry was observed. On the contrary, percentage of workers categorised as other workers increased in small amount. Data for individual occupation are not available for 1981. But the data of 1971 can be considered for finding out the trend of growth and importance of these activities (Fig.11a). For this purpose, the percentages of workers in different categories for 1961 and 1971 are compared in the Table 1.8A₃.

Table 1.8A₃ Percentage of Total workers in different occupations in Siliguri town.

Occupations	% to total workers	
	1961	1971
1. Ag. activities	0.5	1.7
2. Livestock & Mining	1.0	1.3
3. Household Industries	2.0	3.7
4. Other than household industries	18.2	11.7
5. Construction	3.9	3.1
6. Trade & Commerce	26.2	28.1
7. Transport	20.4	23.8
8. Other Services	27.8	26.6

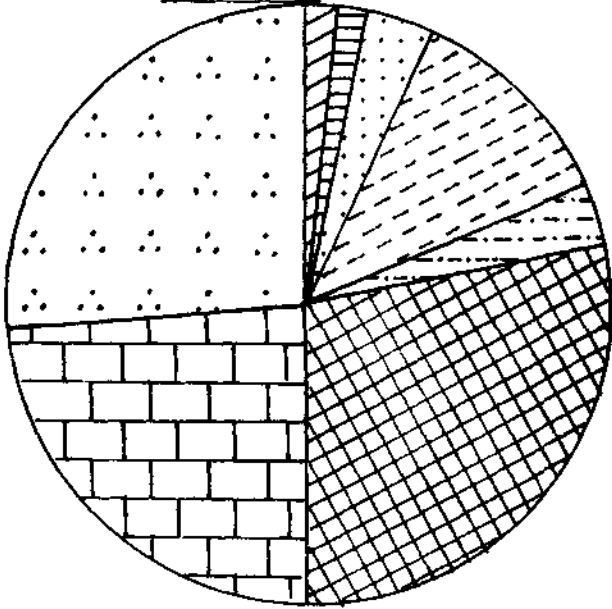
Analysing the percentages of workers in different activities in both 1961 and 1971 it can be visualised that the highest percentage (27.8) was shared by other services in 1961 whereas in 1971, trade and commerce recorded the highest (28.1%). In 1971, the share by the other services was 26.6 percent. So, it is seen that the percentage of workers in trade and commerce increased in 1971 where as that of other services decreased.

OCCUPATION PATTERN

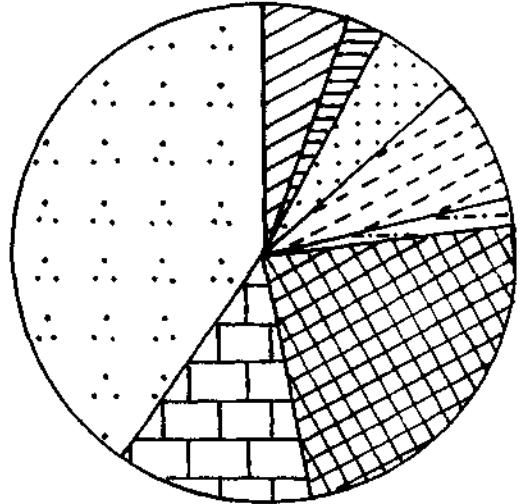
(1971)

SILIGURI

JALPAIGURI



(a)



(b)

INDEX



AGRICULTURE



LIVESTOCK



HOUSEHOLD INDUSTRY



OTHER THAN H. INDUSTRY



CONSTRUCTION



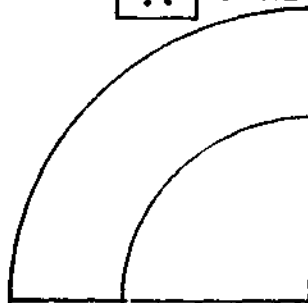
TRADE & COMMERCE



TRANSPORT



OTHER SERVICES
30154 WORKERS



16565 "

FIG. II

If it is taken for granted that the same trend of 1961-71 was maintained in 1971-81, the percentages of workers in trade and commerce would have definitely increased significantly. Whereas percentages of workers in other services decreased further. It means, importance of trade and commerce surpassed all other services. The percentages of workers in transport are continuously increasing like trade and commerce. From the analysis, it is found that the major occupation of the people in the town are trade and commerce, other services and transport. In 1961 and 1971, a considerable percentage of population were engaged in manufacturing industries. But due to different problems e.g., lack of investable funds, skilled labourers and maintenance, the percentages in this head decreased.

Occupational Patterns in the Wards

To identify the wards for concentration of activities, the percentages of workers in different occupations had been calculated and shown in Appendix-4A. From the Appendix-4A it is found that only 3 out of 19 wards have about 3% of total workers engaged in Household industries. From the investigation it is observed that three wards (II, XIV and XVI) have some small scale industries in which a considerable number of persons are engaged. The percentages of workers in other services vary from 96.99 in different wards. Female participation in these activities are below 1.5% of the total female workers in the town. In all the wards, except ward-XVI, participation of the females in these activities are below 1.5%. From the field investigation it is noticed that a large number of female workers

(above 5%) in ward-XVI are engaged in construction work as labourers.

JALPAIGURI

Total workers :

In Jalpaiguri town the total workers are 18,074, of which 15,697 persons are males and 2377 are females (Census, 1981). The percentages of total workers in the district (urban) and the town are 28.0 and 29.3 respectively. Again, the percentages of male and female workers in the town are 48.7 and 8.0 respectively. The percentages of total workers in different decades and their growth are shown in Table 1.8B₁.

Table 1.8B₁ Percentages of workers to total population and its decadal growth in Jalpaiguri town.

Year	Workers			Growth of workers		
	Total	Males	Females	Total	Males	Females
1961	31.3	50.9	5.7	-	-	-
1971	30.0	49.4	5.7	8.5	7.9	15.6
1981	29.3	48.7	8.0	9.1	3.5	69.5

The Table 1.8B₁ reveals that though the number of total workers increased in successive decades but their percentages, ^{to total population} declined in different decades. The growth of female workers increased in 1971-81 significantly. Now-a-days, due to hard economic condition the

females' participation, in different activities are more than before (Fig.10b).

To study the nature of total workers in different wards, the percentage of total workers to total population have been shown in Appendix-4B. Among 19 wards 10 have workers less than the town average (29.3%). The number of wards having workers of 30-35% is 8. So all the wards except IX (located in CBD) have not more than 35% of their population as workers. Participation of female workers in the town is 8% to the total females. Most of the wards (13 out of 19) have less female workers than the town average (8%). The maximum female workers (15.2%) are found in ward VIII. The wards having low percentage of female workers are dominated by agriculture. The wards, where the percentages of female workers are more than average, are located in centre-place of the town.

Workers in Different Categories

The percentages of workers in different categories have been given in Table 1.8B₂ for finding out the trend of growth in different activities.

Table 1.8B₂ Percentages of workers and their growth in different activities in Jaipauri town.

Year	Workers in %.			Growth of workers in %		
	Agl.acti- vities	House- hold Indus- try etc.	Others	Agl.acti- vities	House- hold Indus- try etc.	Others
1961	2.6	1.8	95.6	-	-	-
1971	5.5	5.7	88.4	+126.6	+242.1	+ 3.6
1981	3.2	1.2	95.6	- 36.5	- 77.3	+18.5

The Table 1.8B₂ reveals the percentages of workers in agricultural activities changed in different decades. In the town, a very few persons are engaged in agricultural activities which is practised in the periphery zone. The percentage of household workers in different decades also changed due to various factors which played an important role in development. The percentage of other workers was high in each decade. As the development of the town has been based on administrative work, so a large number of people are engaged in different offices and organisations in successive decades. But the percentage growth of workers in this activity (3.6%) in 1971 could not keep pace with population growth (13%). It can be noted that there was a high increase in percentage of workers in both household industries and agriculture in 1971.

Studying the different occupation pattern in Jalpaiguri town in 1971 it is found that more than 40% of total workers were engaged in other services. The next high percentage is in trade and commerce in which about 24% of total workers were engaged. Transport is also an important occupation in the town (Fig.11b). About 12.4 and 8.5% of total workers in 1971 and 1961 respectively were engaged in transport. This high percentage increase in transport in 1971 reveals the growing importance in this activity compared to the other tertiary activities. Increases were also noticed in 1971 as compared with 1961 in some other activities like agriculture and household industries. Whereas overall percentage decreased in livestock and mining, manufacturing and construction during 1961-71.

Table 1.8B₃ Percentage of workers in different occupations in Jalpaiguri town.

Occupations	% to total workers	
	1961	1971
1. Agricultural activities	2.6	5.5
2. Livestock & mining	4.2	2.3
3. Household industry	1.8	5.7
4. Other than household industry	10.6	8.1
5. Construction	4.3	1.6
6. Trade & Commerce	22.7	23.9
7. Transport	8.8	12.4
8. Other services	45.0	40.5
Total-	100.0	100.0

Analysing the trend of percentages in both 1961 and 1971 it is concluded that the other services are loosing ground but trade & commerce and transport are getting more importance in 1981 compared to other activities in the town.

Occupational Pattern in the Wards

To identify the nature and character of the wards in connection with different activities the percentages of workers on different occupation have been studied wardwise. The agricultural activities is recorded highest (23.8%) in Ward-III (Appendix-4B). Out of 19 wards 5 have more than the average agricultural workers (3.2%). Four (Wards I, II, III, IV) of these are located in north-eastern part and the 5th one (Ward XVIII) lies in the extreme south. The condition of household industries is poorer than the agricultural activities.

The average workers in this category is only 1.2 percent. Only 2 wards (XIV & XVII) have more than 3% household workers. Some smithies, potteries, bakeries etc. are found in these wards.

As it is a service and trade town, the workers' participation in these activities are naturally significant. Out of 19 wards 13 have more than the average percentage (95.6). The highest percentage (99.9) is recorded in Ward X which is purely a market area (Dinbazar Municipal market). Actually wards-IX,X,XIII are in the CBD as well as the core region of the town where commerce has flourished. But in Ward-XV a market has been built up adjacent to the Rly. station. On the other hand, Wards VII,XII & XIX are the service dominated areas.

Conclusion :

Of the two towns under study Siliguri is subdivisional headquarters where as Jalpaiguri is Divisional Commissioner's headquarters as well as district headquarters. So administratively Jalpaiguri is more important than Siliguri. Though Siliguri is a subdivisional town but its area and population (15.5 km², 1,54,378) are higher than Jalpaiguri (10.1 km², 61,743). In the beginning of this century and at the emerging of Siliguri town (1931) the population of Jalpaiguri (emerged in 1885) was higher than Siliguri. The trend of growth rates in the last few decades were of geometrical progression for Siliguri and of arithmetical progression for Jalpaiguri upto 1951. In the '40s higher growth rate in both the

towns was due to high influx of population from erstwhile, East Pakistan, as neighbouring districts of West Bengal and other states in India. After '60s the influx of population was higher in Siliguri for various reasons than Jalpaiguri which had already lost its repute as a commercial and transport centre. In consequence, higher rate of growth was observed in Siliguri compared with Jalpaiguri. The growth of population and other demographic characters have almost no significant positive development in Jalpaiguri during the last few decades (Saha et., al., 1989). Among the settlers the percentage of backward population is comparatively higher in Jalpaiguri (14.6%) than Siliguri (6.8%). In general, characteristics of both the towns are cosmopolitan in nature.

The area and population of the wards in Siliguri are much larger than Jalpaiguri even a ward having population higher than 24,000 is observed in Siliguri. On the other hand most of the wards in Jalpaiguri possess below 3,000 population. As a result, the density of population in the wards of Siliguri are higher than that in Jalpaiguri. The general tendency of population density in Jalpaiguri is lowering than the expected during the last few decades and an inverse situation is noticed in Siliguri. Pressure of population enormously increased in Siliguri than Jalpaiguri. By comparing the sex ratio in both the towns it is observed that females are less in number in Siliguri than Jalpaiguri. The literacy percentage for males and females are almost similar in both the towns but its growth rate is higher in Siliguri than in Jalpaiguri. It is also

observed that both the towns show higher growth rate of literacy in case of females. ✓

Percentage of total workers in both the towns is almost same and its growth rates during the last few decades were not at all high compared with that of population growth. A significant percentage of workers in primary activities are observed in Jalpaiguri but it is negligible in Siliguri town. But more than 95 percent of total workers are engaged in other services, whereas the percentage of household and other industries are about 1 percent in both towns. The workers' growth rates of all these activities during the last few decades were not at all satisfactory. Moreover, some negative growth were observed in case of households and other industries. It is interesting to note that females' participation in different activities are encouraging and their growth rates are higher than males. The rising spree of population growth claims more scope of livelihood in the towns but for which various social evils and crimes are sure to increase in these strategically important towns of the region. To increase the percentage of workers it is essential to create more job opportunities by developing industries (Saha, 1989).