

**LEVELS
OF
LITERACY AND SOCIO-ECONOMIC
DEVELOPMENT
IN
NALBARI DISTRICT, ASSAM**

**DISSERTATION
SUBMITTED FOR THE
PARTIAL FULFILMENT OF THE REQUIREMENT
FOR THE DEGREE OF
MASTER OF PHILOSOPHY**

BY

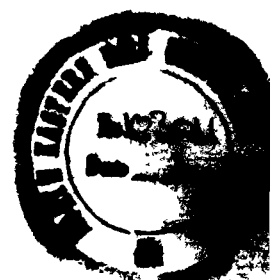
Mon Bahadur Chettri

Supervisor : Dr. B. S. BUTOLA



**DEPARTMENT OF GEOGRAPHY
SCHOOL OF ENVIRONMENT SCIENCES
NORTH EASTERN HILL UNIVERSITY**

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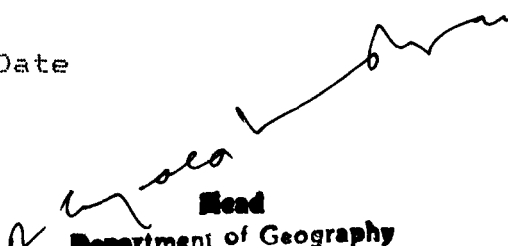
Department of _____


Dr. B.S. Butola
Reader, Dept. of Geography

CERTIFICATE

This is to certify that the dissertation entitled **Levels of Literacy and Socio-Economic Development in Nalbari District, Assam**, submitted by Shri Mon Bahadur Chettri, for the Degree of Master of Philosophy in Geography, to Department of Geography, North-Eastern Hill University, is a bonafide study to the best of my knowledge and belief. The researcher has given due acknowledgments to the study cited in the dissertation. The study may now be placed before the examiners for evaluation.

Date


Head
Department of Geography
North Eastern Hill University
Shillong.


(Dr B.S. Butola)
Supervisor

DEDICATED TO MY PARENTS

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Shillong
Dated


Mon Bahadur Chettri

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CHAPTER I

INTRODUCTION

Development is a complex and multi-dimensional phenomenon. At any given point of time it is determined by the politico-historical, socio-cultural as well as natural factors of a region. It has been a common experience throughout the history, that the aspects of environment, its resource base, accessibility, climate and bio-diversity have direct bearing on the development of a region, which in its turn has influenced the socio-cultural aspects of the people inhabiting that particular region. The Brahmaputra Valley in general and district Nalbari in particular also corroborates with these experiences. Among all other aspects of the socio-cultural environment education and literacy have occupied specific place in the secular development in the modern times.

Literacy is a very useful attribute for measuring the level of socio-economic progress of a society. Its attainments are essential to gear up backward society towards an enlightened one characterised by broad outlook and modern ideas. Further, progress of literacy holds the key in bringing about change in the intangible human qualities in order to speed up the pace of socio-economic transformation of a society. Its relevance is more so in a district like Nalbari which is socio-economically backward.

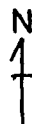
Choice of the Study

District Nalbari is one of the recently carved out districts of Assam. Previously, it formed only a sub-division of district Kamrup. Nalbari is a socially and economically backward district of the State. It is located on the northern bank of the river Brahmaputra with its headquarters at Nalbari, at a distance of about 60 kms. from Guwahati. District Nalbari accounts approximately 2257 sq km. of area. It is bounded by Bhutan in the north, district Borpheta in the west and district Kamrup in the east and south. In the year 1971 there were seven blocks within the district. There were 803 inhabited and 21 uninhabited villages during the same year. The district has a smooth level surface with an average elevation slightly exceeding 50 metres from the Mean Sea Level in the most parts. The area is dotted with large number of swamps and a few scattered hillocks. The height of the hillocks and hilly terrain, specially in the northern part bordering Bhutan vary between 150-200 metres from mean sea level.

The total population of the district was estimated to be 6,80,404 in 1971 and it reached upto 10,16,370 in the year 1991. The increase in population is not only by natural causes but it is also due to the immigration of people mostly from Bangladesh. Urbanization too, is very low with only two towns of

LOCATION MAP OF THE STUDY AREA

NORTH EAST INDIA



INDIA

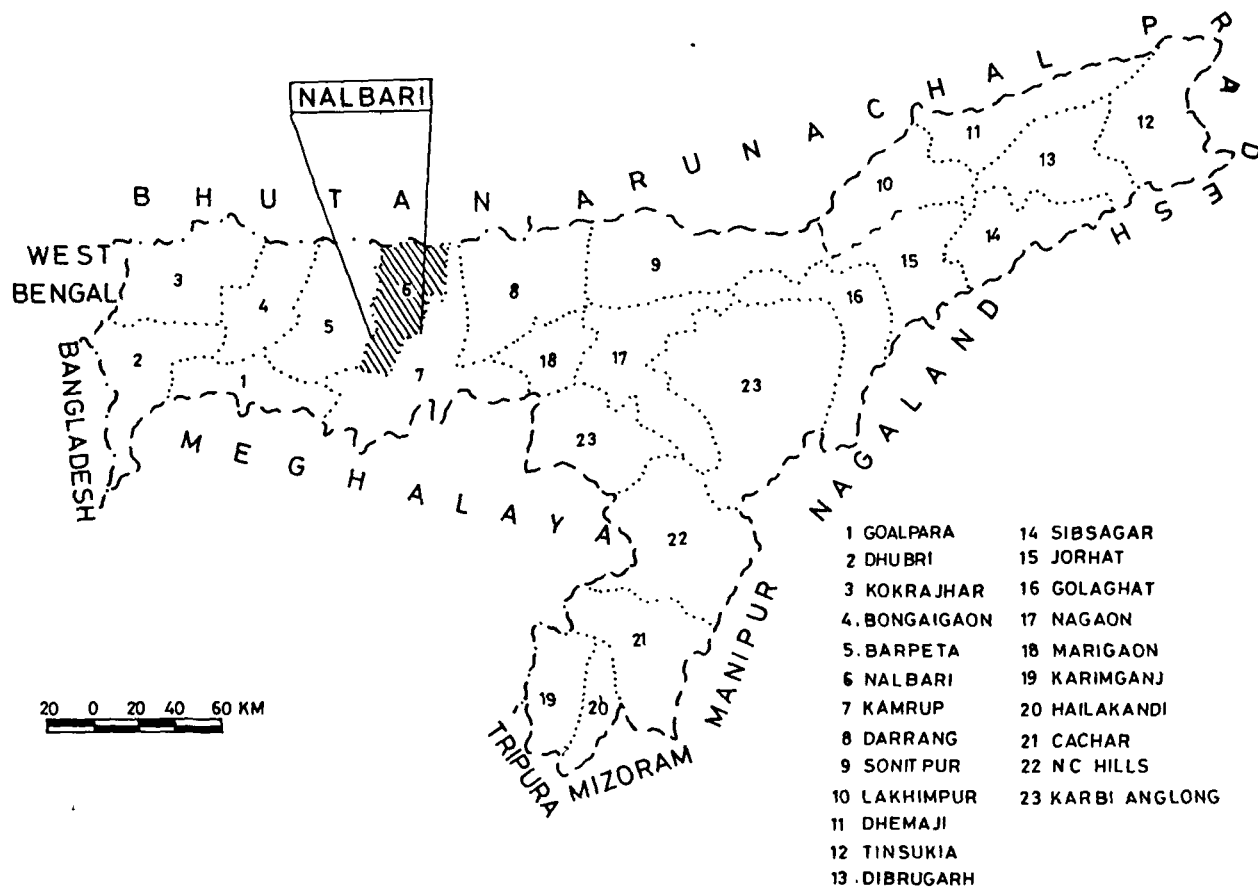
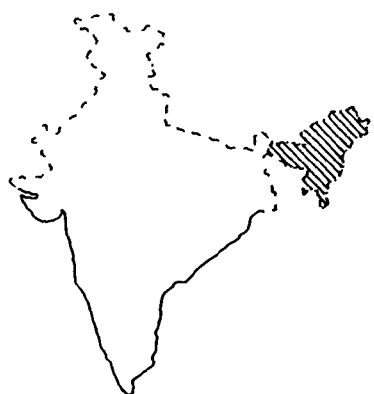


fig: 1.1

DISTRICT NALBARI

LOCATION OF BLOCKS

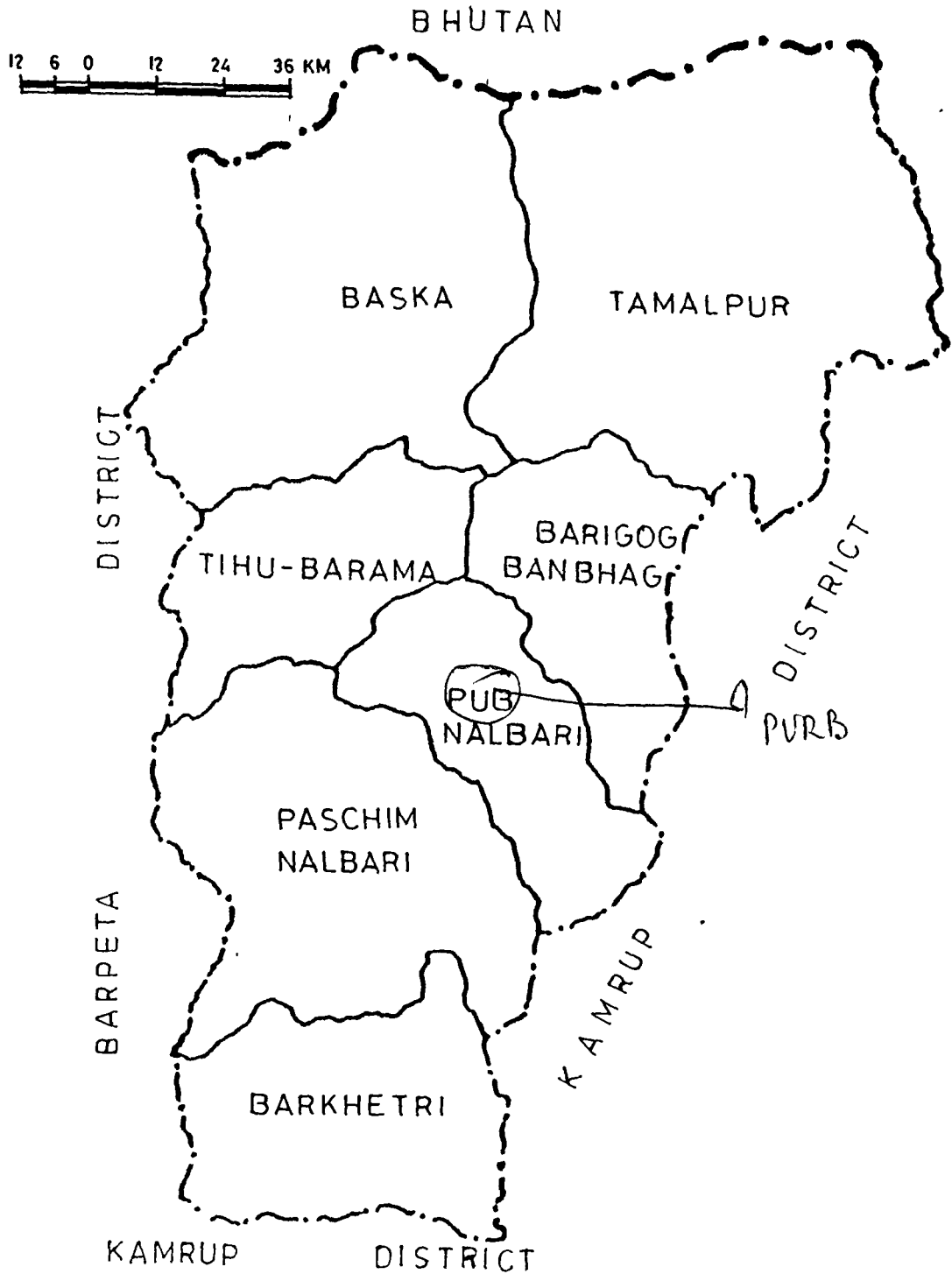


fig: 12

Nalbari and Lohit. Thus, the share of the rural population is as high as the 90 per cent of the total population of the district. It has a high density of population with 450 persons per square kilometre. This is much higher than the state as well as the national average. The scheduled tribe population accounted for 17.61 per cent with Bodos as the single most dominant amongst the tribal population. The scheduled caste population accounted for 8.70 per cent of the total population. Lamelpur block with 75,717 persons had the highest concentration of scheduled caste population.

History of Educational Infrastructure in the District

Education is supposed to be the inner eye of human being. It is only through education that human beings can penetrate beyond the appearance of each and every phenomena. Literacy is an important factor for acquiring education. The number of literates in the district were 4,03,162 thus accounting around of 45.50 per cent of the total population as literates in the year 1991. Government Schools and colleges are the main institutions for imparting education in the district. The number of Primary and Junior Basic Schools were 1,376 followed by 318 Middle Schools, 174 High and Higher Secondary Schools, Government aided colleges 6, Commerce college 1 and Sanskrit colleges 10. The distribution of education institutions reveals that there forms a pyramid with broad base and narrow summit, but

conspicuous absence of a medical, engineering and vocational colleges made the education exclusively formal. As far as District Nalbari is concerned, the students enrolled in the above mentioned institutions during the same year were 1,52,714, 49,448, 63,079, 9,540, 715 and 110 respectively. The number of teachers in these institutions during the same period in the respective schools and colleges were 3,083, 2267, 2917, 211, 15 and 6. Thus the teacher pupil ratio works out to be 1:49, 1:22, 1:28, 1:41, 1:20. It was mentioned in the earlier that there are only two towns in this district i.e. Nalbari and Lihu. They have a population of 19,183 and 4,272 respectively. The rural-urban difference is more explicit in case of literacy as these have higher literacy in the district with 81.68 and 75.95 per cent respectively. On the whole, the district Nalbari can be considered as educationally backward. There are many reasons for this. Important of all being its subordinate position within the former district Kamrup. Nalbari was only a sub-division of district Kamrup before it was recognised a full district. During these days most of the development activities were concentrated in the around Guwahati. It is only after its formation as a district that most of the developmental activities have started coming up here. Thus, it being a relatively new district it is likely to take a little more time before these institutions can contribute in the proper development of the district. The Government, especially

its education department has a much greater role to play in the development of education in the district by giving priority to primary and adult education. The two offices of the District Elementary Education Officers and the Block Elementary Education Officers in the seven blocks have even greater role to play as far as the betterment of education in the district is concerned. It is mainly with this view in mind the study of relationships between literacy and economic development has been focused in this study with the following as its main objects.

Objectives

The following broad objectives are placed before the research:

- (i) To know the spatial pattern of distribution of literates in the district (by taking data at the block and household levels).
- (ii) To understand the inter-relationship between literacy and economic development in the district.
- (iii) To analyse the impact of literacy on individuals and society in improving their quality of life.

Hypotheses

Education as an agent of bringing all round change has been greatly influenced by the historical, socio-economic and environmental factors in district-Nalbari. Here too education is both a cause as well as

consequence of the social dynamism. Such an intricate and complex relationship between literacy and overall development has occupied the minds of the scholars for a long time but most often the studies were handicapped by overdetermining subjective biased on the part of the scholar. In this study an attempt has been made to minimize the subjective involvement and carry a more rational analysis with the help of the following Hypotheses:

- (1) Education and literacy in the district is mainly concentrated in and around the Urban Centres. Areas endowed with Urban Centres or situated nearer to these are likely to show higher percentage of literates than those situated far from it.
- (2) In areas marked by induced development, higher literacy will show negative correlation with aspects of socio-economic development.

Data Base and Methodology

It is evident from the Objectives and the Hypotheses stated above that the study will require a large amount of facts and information for making it an objective study. For this purpose the following two data sources were used in this study

(1) Secondary Data Used:

- (a) Population Tables - Census of India - 1991 - for work forces and literacy.
- (b) District Statistical Handbook - 1991 - for animal resources and health services.
- (c) N.F.C. - Rural Primary Census Abstract for Scheduled Caste and Scheduled Tribe and village wise information.

(2) Primary Data Source:

- (a) Household questionnaire prepared by the researcher was used in all the 31 households for collecting information. It included information pertaining to bio-data, assets, educational levels, location, bank loan, secondary source of income, amenities available, etc.

Methodology

Data collected from the above sources was processed by using the following methods:

1. STATISTICAL METHOD

- (a) Selection of sample households was done on the basis of stratified random sampling. In all, 31 households were selected taking at least 2 households from each block. Adequate care was also taken to give representation for every community, caste, and religious groups found in the district.
- (b) Use of percentage, mean, standard deviation and correlation have been done to find out the relationship between literacy, education and socio-economic development at the block and household levels.

11 CARTOGRAPHIC METHOD

Data collected from different sources need to be presented in such a way that it becomes self-explanatory. Use of maps and diagrams as a part of cartographic techniques are common among the geographer. In this dissertation too use of graphs, bar diagrams for showing climatic data, choropleth maps, for showing population, work force and literacy distribution, and location maps etc. have been done for showing accessibility.

Organisation of Material

Education is both a cause as well as consequence of economic development. But, at certain stages of social development some communities and regions experience some what different relationship between the two. The study of such communities acquire specific significance. In the First chapter the problem of education and economic development has been discussed. Apart from this the relevance of this study in relation to District Nalbari of Assam, the Objective, Hypothesis and Data base methodology has been discussed in this chapter.

The Second chapter discusses the Geographical setting of the area, its physical and social attributes and their role in influencing literacy and economic development in the District.

The relationship between Educational development particularly literacy and economic development is multidimensional. It involves both qualitative and quantitative aspects of development. Therefore, selection of appropriate indicator, procuring data and its processing has great significance. Chapter three attempts to take up the *methodological approach of the study*. The data thus procured and processed needs to be analysed. In the fourth Chapter the analysis of the data has been done. The final Chapter will summarise the main conclusions.

CHAPTER II

PERSONALITY OF THE STUDY AREA

Introduction

Development is a complex and multi-dimensional phenomenon. At any given point of time it is determined by the politico-historical, socio-cultural as well as natural factors of a region. It has been a common experience through out the history that the aspects of environment, its resource base, accessibility, climate and bio-diversity etc. have direct bearing on the development of the region which in its turn has influenced the socio-cultural aspects of the people inhabiting that particular region. The Brahmaputra Valley in general and district Nalbari in particular also corroborates with these experiences. In this chapter some of the aspect of natural as well as socio-cultural personality of district Nalbari have been discussed to know :

- (a) Relief as it constitutes an important factor in influencing the economy and spatial interaction.
- (b) Climate as the over determining factor in economic development particularly agriculture and also the way it influences the economic life and resource base of an area particularly water, land, forest and animal resources.

- (c) Drainage as a means of transportation and as well as an obstacle in spatial interaction.
- (d) Soil for its significant role in Agriculture.
- (e) Social composition for varying responses to education and literacy.
- (f) Economic structure for assessing the relative strength of various sector in the economy.
- (g) Crop combination for measuring the economic uses of land resources etc.

A. PHYSICAL ENVIRONMENT

Relief

District Nalbari is located in the northern bank of river Brahmaputra. Its headquarter Nalbari is at a distance of about 60 km. from the State Capital Dispur (Guwahati). It is also clear from Fig. 2.1 that it extends from 91° 00' E and 91° 15' E longitude and 26° 10' N and 27° 25' N latitude, covering an area of 2757 Sq. Km. The district is bounded by Blitar in the North, district Barpeta in the West and district Kamrup in the East and

South. In the year 1991 there were seven development blocks in the district. There were in all 824 villages in the district out of which 303 were inhabited and 521 were uninhabited villages.

The district has a smooth level surface with an average elevation slightly exceeding 50 metres from the MSL in its most parts. The surface is mainly made up of alluvial deposited by the river Brahmaputra and its tributaries. Although, it is a part of the Brahmaputra plain yet, there are minor variation within. The area is dotted with large number of **Beels** (swamps) and a few scattered hillocks. The height of these hillocks vary from 150-200 from the MSL. Most of these hillocks and hilly terrain are found in the northern parts of the district bordering Khasi. It is mainly due the extension of the lower Himalayan ranges.

Soil

It was mentioned in the previous section of this Chapter that this district forms only a small proportion of the mighty Brahmaputra river valley plain. Thus, the soils of the district share most of the characteristic with the soils of Brahmaputra valley i.e. these are mostly alluvial both in their texture and

1. Nalbari District at a Glance (1992), Deputy Director, Economics and Statistics, p. 1.

quality. Here too both types of alluvial soils are found. They are the **khadar** (newer alluvium) of sandy, light-coloured composition, and **Bhangar** i.e. the older alluvium of more clayey composition. They represent the recent alluvium deposits brought by the river Brahmaputra and its tributaries. It is also shown over the map (Fig. 3.7) that the new alluvial soils are confined to the low lying tracts of the flood plains of the river in which new silts are deposited almost every year. These soils are sandy loams or silt loams having less acidic character and rich in organic contents thus, suitable for the cultivation of rice, jute, pulses, mustard, potato and other vegetables; these soils are also enriched with adequate availability of phosphate, potash and exchangeable calcium.

The older alluvial soils are found at relatively elevated tracts which are free from floods. These soils are more acidic in nature. These soils lack in availability of phosphate with low or medium potash content. These soils are favourable for the cultivation of rice, sugarcane, fruits and vegetables but not conducive for the cultivation of pulses and oilseeds particularly mustard. But, with the introduction of tea plantation the old alluvial tracts have been brought under tea cultivation on a larger scale. There are three

S. Singh, P. L. (1971) : p. 33.

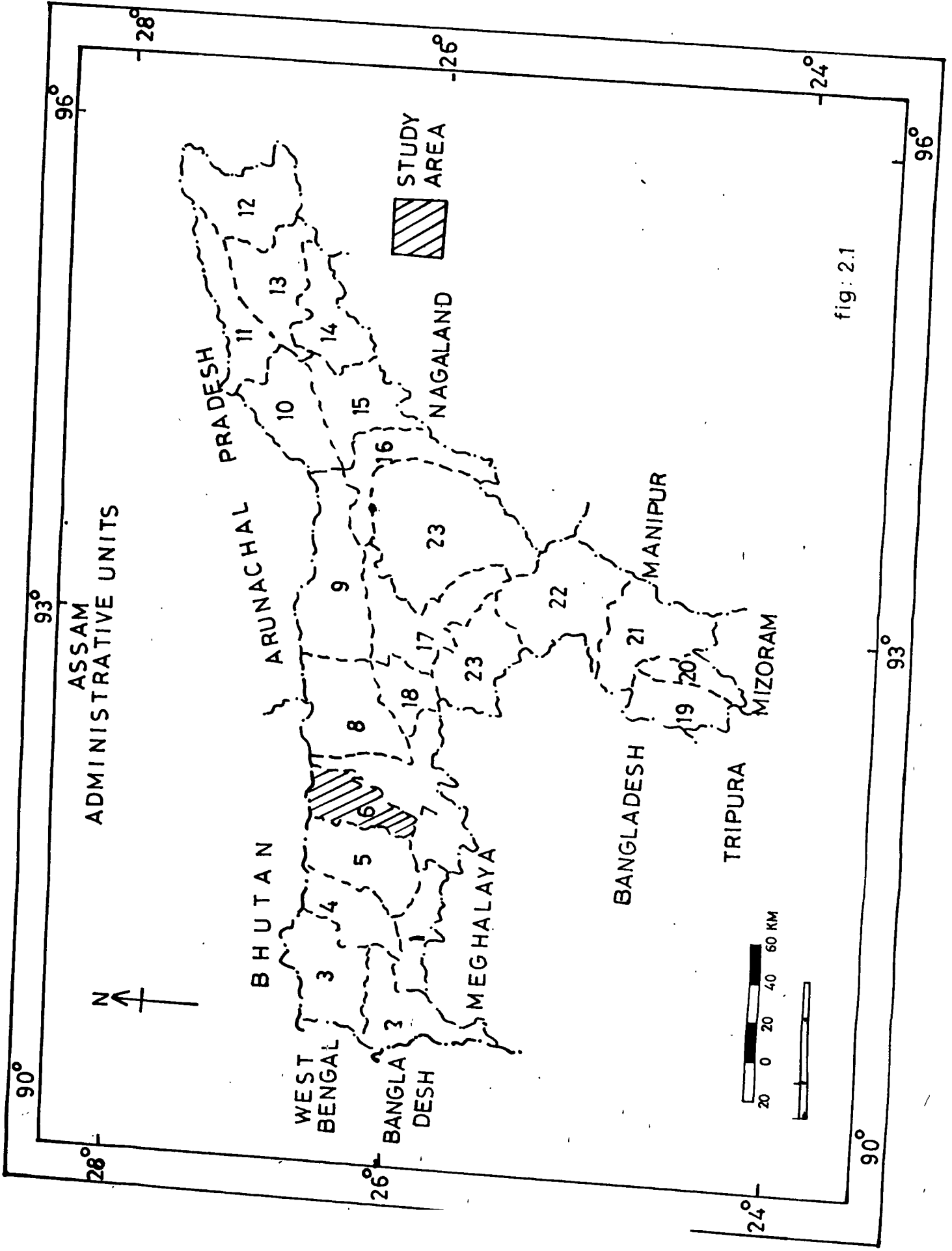
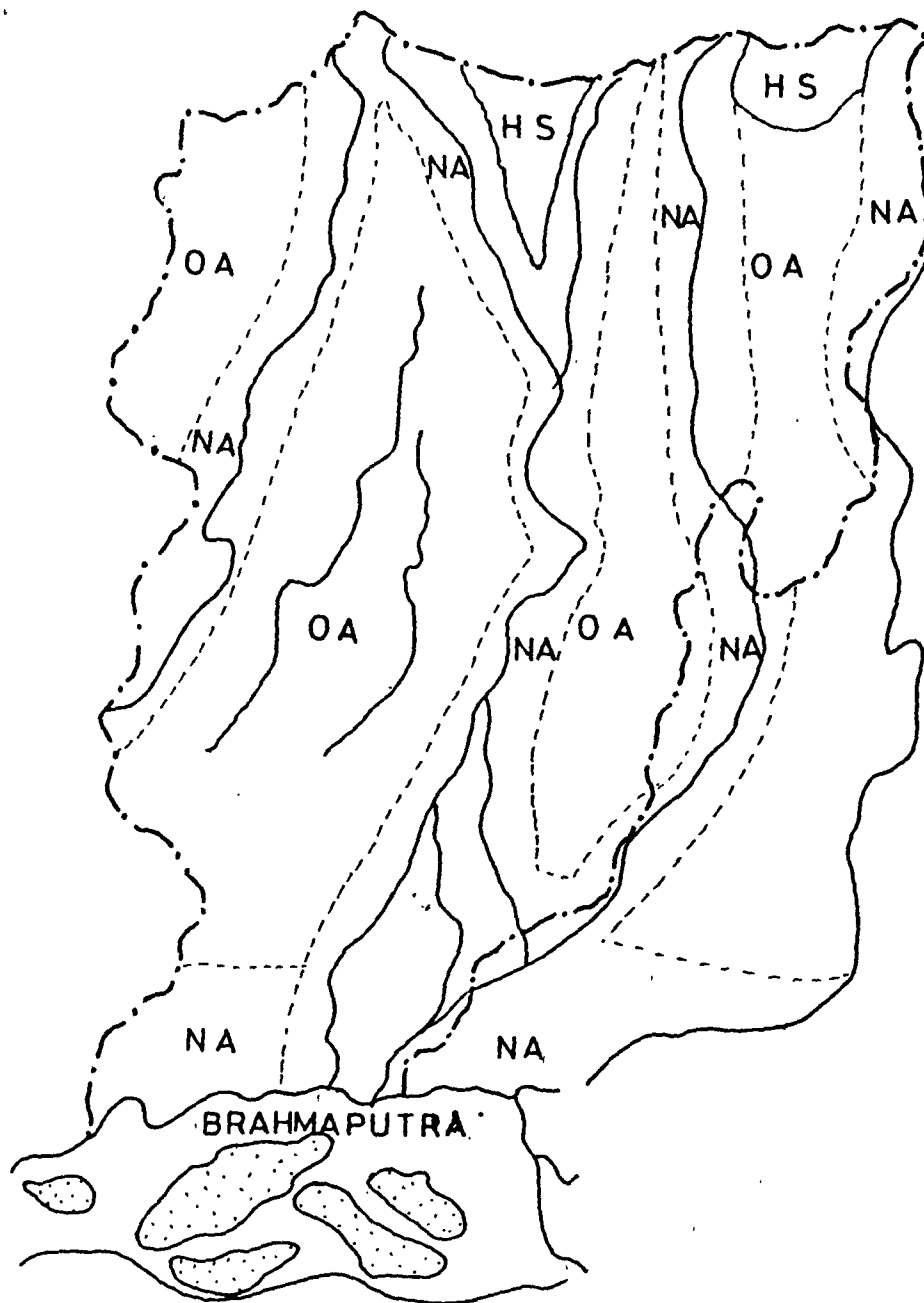


fig: 2.1

SOIL MAP
DISTRICT NALBARI



Scale - 8cm = 12 km

NA - NEW ALLUVIAL SOIL
OA - OLD ALLUVIAL SOIL
HS - HILL SOIL

fig: 2.2

tea estate in District Nalbari covering an area of approximately 1673 hectare of land.

Climate

It is well understood that climate is one of the principal ecological factors affecting the character and possibilities of agricultural land-use apart from creating the natural resource base of a region. The climate of Assam is characterized by extreme humidity in most part of the year with heavy summer rainfall and occasional drought during the winter months. The average maximum and minimum temperature in the lower Assam is 30°C and 19°C respectively with average annual humidity level nearly 92 per cent. The total annual rainfall of the district is estimated to be 1764.1 mm⁴ in 1992 as seen in table 2.1. The rainfall in the district can be considered meagre as compared to the mean rainfall for the State which is 2091.3. It is largely due to its location within the rain shadow area of the Meghalaya Plateau. The temporal distribution of rainfall shown over the diagram shows that around 90 percent of the total rainfall is confined to the rainy season from the month of May to October, whereas, December, January and February are mostly free from rain. As a result of this

3. Nalbari District at a Glance (1992), Deputy Director, Economics and Statistics, p. 3.

4. Nalbari District at a Glance (1992), Deputy Director, Economics and Statistics, p. 3.

temporal variation in the distribution of rain, two distinct cropping season are practiced here :

(a) Kharif season consider well from May to October:

Summer month

(b) Rabi, in the winter season from November to

February.

Table 2.1

Monthly Rainfall (1991 and 1992), Nalbari Centre,
Nalbari

(in mm)

Months	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
1991													
Rain- fall	5.0	20.7	15.3	54.2	43.0	124.0	157.5	276.3	163.3	193.5	12.0	11.2	1134.8
1992													
Rain- fall	5.2	37.0	56.2	52.0	417.5	433.4	377.5	253.0	210.2	70.0	17.0	4.0	1967.1



Table 2.2

Monthly Maximum and Minimum Temperature (in Centigrade),
Nalbari, 1992

Months	J	F	M	A	M	J	J	A	S	O	N	D
Maximum Temp. ^{°C}	26.6	26.2	36.8	39.4	34.4	35.8	33.8	35.1	34.8	32.8	30.5	26.4
Minimum Temp. ^{°C}	5.9	8.9	11.9	16.2	20.2	22.4	22.9	23.7	21.0	17.1	12.2	8.1

Source : District Agricultural Officer, Nalbari.

On the basis of temperature and rainfall rainfall and wind speed data, it was observed that in the district along with the other parts of Assam, the distribution of crops are as follows:

- (a) Rice (Wet season)
- (b) Rice (dry)
- (c) Dry crop (Wet season)
- (d) Dry crop (dry)

The rice crop in Assam has a great bearing on the culture and life of Assam except in the year.

The present crop yield starts by the middle of March and continues till the end of October. The rice crop in the region when it is not affected by the pest and diseases. The rice crop is known as **Bordoichila**. It is

RAINFALL AND TEMPERATURE NALBARI DISTRICT 1992

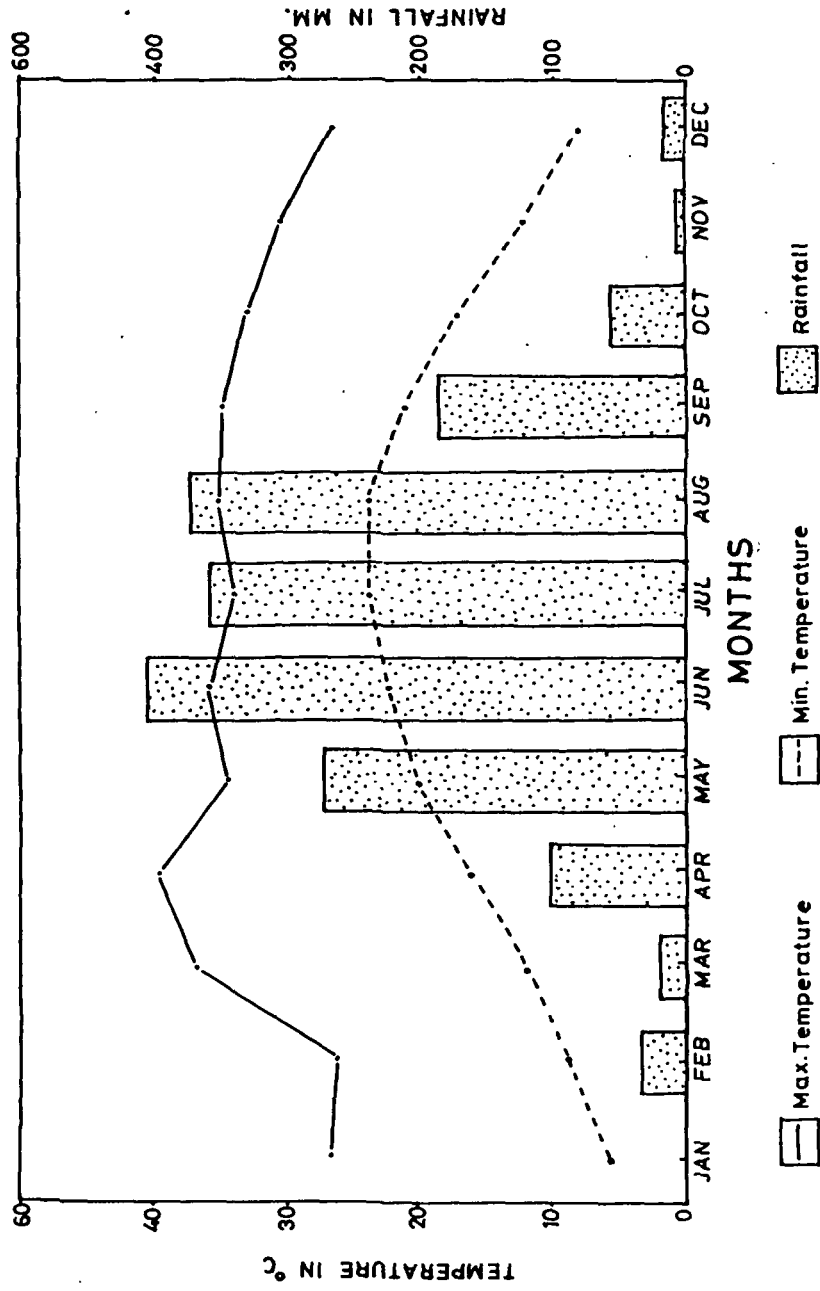


fig: 2.3

phenomenon of strong wind with occasional thunder-shower gradually subside in the later part of April.

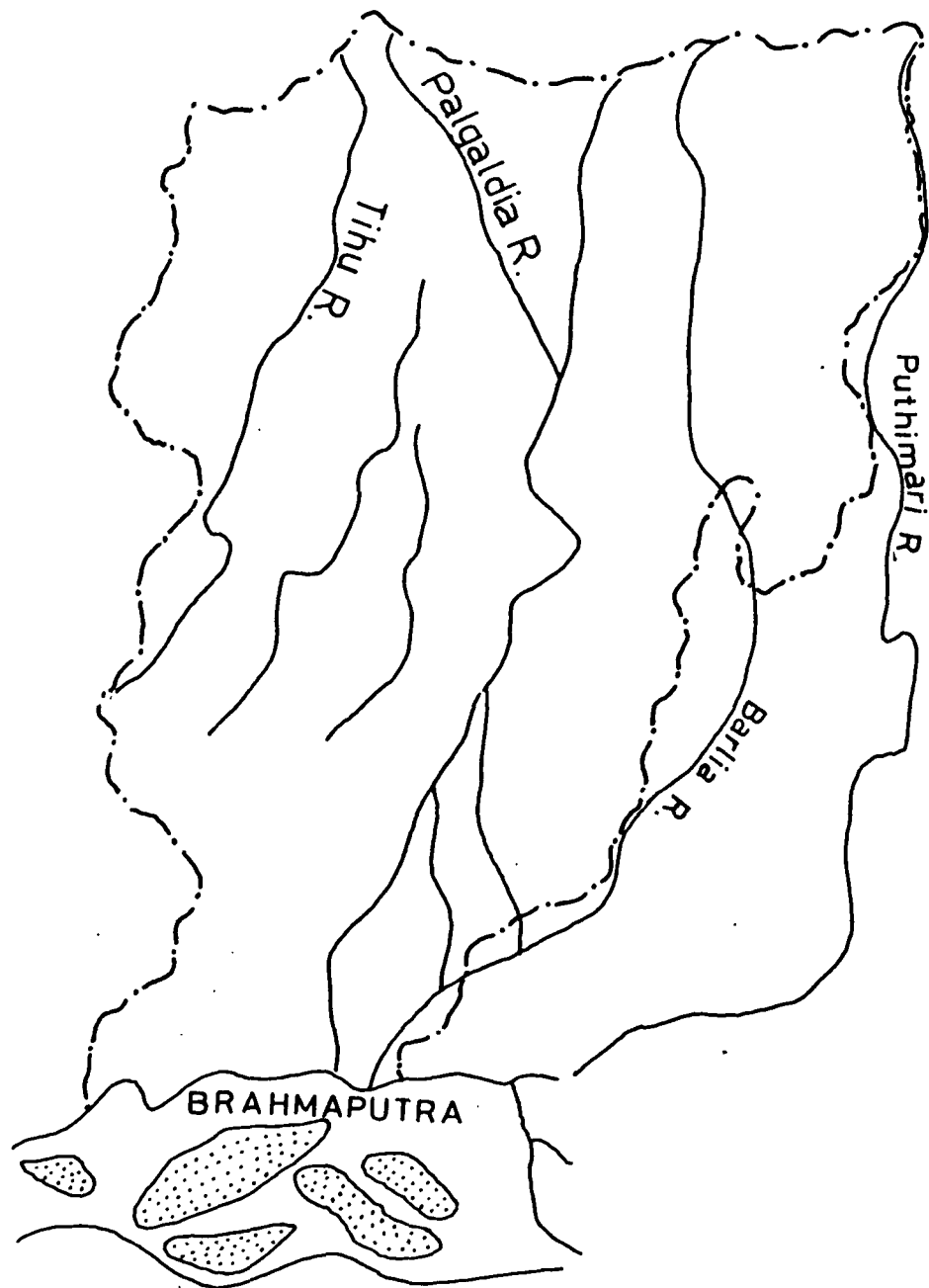
The South-West Monsoon breaks by the middle of June and is characterized by cloudy weather, high humidity, heavy rainfall and high temperature. The heavy rainfall keeps the summer temperature comparatively low during the rainy season. This season is the most important from the point of view agricultural activities in the State as well as in district Nalbari, when the staple crop (summer rice) **Ahu** is sown. During this season every household is directly or indirectly engaged in the agricultural activities. But the season is not free from important environmental hazards. Frequent floods and inundation of low lying areas not only damaged the crops but it also disturbs the spatial interaction linkages. The village roads, bridges, and paths get washed out in the floods as a result inter and intra settlement interaction get considerably hampered. Communication from village to village and village to town gets cut off in those months. This difficulty is greatly realised by the school going children. Moreover, due to very heavy rains and frequent floods large tracts of agriculture land and crops also get damaged every year which in turn weakens the economic position of house hold and that ultimately leads to significant drop in the number of school going children every year.

By the middle of September, South-West Monsoon starts weakening and is followed by fair weather with the occurrence of morning fog from the middle of November. The intensity of rainfall decreases and mild rainfall in this period is beneficial to the sowing of rabi crops like wheat, oil-seeds, potato, tomato etc.

Winter season starts from the middle of November and continues upto February. The main characteristics of this season are the absence of rainfall, cool weather with low temperature around 10°C with morning fog and dew. The rainless days of this season helps the harvesting of winter rice but hinders the growth of rabi crops. Occasionally, heavy rainfall during November-December months can damage the standing Sahi paddy in the field. Since, the agricultural economy of the State is exclusively dependent on the monsoon rain, its erratic behaviour has also induced uncertainty in the economy and life of the people of the State as well as the district. Winter rain is far more erratic in the district. Therefore, for successful cultivation of winter crops, viz. wheat, oil-seeds, potato, tomato, brinjal etc. irrigation is highly essential in this region both for regulating the economy and life on more assured basis.

DRAINAGE SYSTEM

DISTRICT NALBARI



Scale - 8 cm = 12 km.

fig: 2.4

Drainage

Drainage is one of the important physical factors which influences the environment and its development. A good drainage system i. e. which is able to maintain its supply through out the year along with adequate volume and depth can be used for water transport, generation of hydro electric power, developing irrigation facilities, for industrial development and drinking purposes. In the district Nalbari, a large number of tributaries of the river Brahmaputra are present. It is evident from the Map and (Fig. 2.4) showing drainage system of the district that most of the rivers are small tributaries used mainly for fishing and irrigation and only a few of them are used for local transportation. According to the plan of irrigation department of district Nalbari, an area of about 13,547 hectares was proposed to be brought under minor and medium irrigation schemes during the period 1992-93⁵. The three main streams flowing across the district are Pagladia, Tihu and Bualdia. These streams flow from the North to South and join the mighty Brahmaputra making holy confluences of great religious significance to the Hindus.

5. Irrigation Department, Nalbari Sub-division, Nalbari.

Vegetation

The State of Assam is considered rich in terms of its forest resources. It possesses a large number of species of plants. In Nalbari town, dense bamboo forests, **sal**, **Sesame**, **Simul** and **beak** are found. Bamboo is mostly used for fencing, basket weaving, house construction and making articles of daily use. The other variety of trees are mainly used for house construction and furniture. Apart from these number of fruit trees like banana, jack-fruit, papaya, mangoes and litchi are also found in abundance. A large quantity of these trees, plants and other forest products are exported within the country and abroad. The **Bodo** tribe inhabiting the northern part of the district, derives a significant proportion of their livelihood from these rich forest cover of the district.

B. SOCIAL AND DEMOGRAPHIC COMPOSITION

(1) Distribution and Density of Population

The total population of District Halbari was estimated to be 6,80,503 in 1971 and it reached up to 10,16,790 in the year 1991. Thus it has recorded a phenomenal growth rate of 49.27 per cent in two decades. The increase in population is not only by natural causes but it is also due to the immigration of Bangladeshi Muslims. Such high population growth rate and relatively slow growth of economy is proving detrimental to the overall development of the district as well as the state. Of these the share of rural population was as high as 97.6 per cent of the total population. Considering the ratio between area and population of the district it can be called a high population density area with 450 persons per sq. km. This is much higher than the average density both at the state and national levels. Moreover, the spatial pattern of population growth and distribution shown over the map and table (2.3) also reveal that with the exception of the northern hilly and rugged areas the concentration of population is high in other parts of the district. The map also shows that the concentration of population decreases from East to West with Lamapur block accounting the highest population of 1,97,272 persons followed by Dub-Nalbari 1,69,472, Balia 1,67,001,

followed by Purbasthali (1,67,064), Barpeta (1,27,074), Goalpara (1,21,092), Barak (1,06,100), Lakhimpur (1,02,472), Jorhat (1,02,453) and Assam (1,01,586) towns. In all, an overwhelmingly large number of population was in the rural areas of the entire townships. In the rural areas, about 70% to 80% of the total population. These towns are Nalbari and Lakhimpur with 1,13,000 and 1,02,472 population respectively.

Table 2.3

Growth and Distribution of Population in Nalbari District

NAME OF BLOCK	AREA IN sq. km (1971)	POPULATION IN 1971	POPULATION IN 1991	DIFFERENCE IN 20 YEARS	% OF INCREASE
PURB-NALBARI	179.33	2,105	1,98,615	96,510	51.16
FASCHIM NALBARI	216.00	1,22,717	1,22,527	-190	-0.15
BARIGOG- BANBHAG	161.26	58,528	85,658	27,130	31.67
TANHALPUR (187 VILLAGES)	464.63	1,18,342	1,92,272	73,930	38.45
BARSA	296.65	1,04,937	1,67,061	62,124	35.98
TILHU- BARAKA	243.55	34,585	1,25,350	41,265	32.78
BARHETRI	224.73	91,999	1,34,407	57,509	27.16
TOTAL DISTRICT	1983.26	6,65,117	10,16,390	3,51,273	34.56

Source: District Census Handbook, Nalbari, 1991, Part I, Population, District.

(2) Rural and Urban Population

Out of a total population of 10,16,390, only 25,475 live in urban areas. These urban areas are in the form of two towns namely Nalbari and Jhu. The number of uninhabited villages are 305 and un-inhabited villages are 70 in the district. There are only two blocks having un-inhabited villages. Basla block has only one uninhabited village namely Dehguni. The rest 70 uninhabited villages fall in the Barhetri block which lies in the southern most part of the district. An important reason behind such a high number of un-inhabited villages is its adjacent location to the river Brahmaputra which is often flooded and inundated by it. The distribution of villages in the seven development blocks are as follows :

Basla	(124)	
Tamalpur	(113)	
Barigoq	Banbhag	(100)
Jhu-Barame	(80)	
East Inn Nalbari	(65)	
Pub Nalbari	(24)	
and Barhetri development block	(124)	

Urbanization is very low in the district and the phenomena is of very recent past particularly after the formation of Nalbari district. The degree of urbanization in a region does provide a fair measure of its social and economic progress.

(3) Scheduled Caste and Scheduled Tribe :

District Nalbari has quite a significant proportion of scheduled tribe population. It is 17.67

per cent of the total population of the district. **Bodos** are the single most dominant amongst the tribal population of the district. The tribal population of the district was around 1,79,641 in the year 1991 with 90,117 male and 89,528 female. As far as the scheduled caste population is concerned there were 39,194 scheduled caste population in the district during the same year. Out of these 46,108 were male and 41,028 were female. Then the ratio of scheduled caste was only 8.78 per cent of the total population. But the situation shows significant variation for the disaggregated data at the block level. Timalpur block with 25,213 had the highest concentration of scheduled caste population. Next to Timalpur Block is Tihu Barama block having the highest scheduled caste population with 16,990. This is followed by Paschim Nalbari with 12,076, Puh-Nalbari block with 10,767, Baska block with 9,925, Barbheta block with 5,476, and Barilog-Banbhog with 3,506. Regarding scheduled tribe population in the district, Uaska block has the highest number with 74,157. It is followed by Timalpur with 57,011, Tihu-Barama with 31,070, Barilog-Banbhog with 3,124, Barbheta with 4,971, Puh-Nalbari with 3,710 and Paschim Nalbari with only 401. The only two towns of the district, Nalbari and Tihu had a scheduled caste population of 2,486 and

949 respectively and a scheduled tribe population of 117
and 73 respectively .

It is evident from table 2.4 that scheduled caste and scheduled tribe population are showing concentration in different blocks. The blocks showing higher concentration of scheduled tribe population have less scheduled caste population and vice versa. It can be attributed to the fact that scheduled caste have always been associated with and remained part and parcel of overall population while scheduled tribes have always experienced exclusion from the rest of the population groups.

Table 2.4

Population of the Development Blocks and Scheduled Tribe and Scheduled Caste : 1991

DEVELOPMENT BLOCKS AND TOWNS	TOTAL POPULATION	SCHEDULED CASTE	SCHEDULED TRIBE	PERCENTAGE OF SCHEDULED CASTE	PERCENTAGE OF SCHEDULED TRIBE
TIHU-BARRAMA	1,21,558	16,990	31,190	1.47	3.0
BASIA	1,67,061	9,225	74,157	0.7	7.2
FASCHIM-NALBARI	1,22,527	12,276	401	1.2	0.03
FUB-NALBARI	1,69,432	10,763	3,601	1.0	0.35
BASHELIKI	1,52,407	6,426	4,251	0.6	0.48
TAMALPURI	1,90,272	25,211	57,013	2.4	5.6
BAKIDJIB-PAHILAB	25,656	2,566	3,124	0.5	0.79
TOWNS REGION TIHU TOWN	4,292	749	73	0.07	-
NALSARI TOWN	19,183	2,486	117	0.24	0.01
TOTAL-DISTRICT	10,16,390	89,194	1,79,641	8.7	17.67

Source : Economic and Social Statistics Dept., Guwahati.

(iv) Religious Composition and Linguistic Distribution of Population

Due to non-availability of latest data on religious composition and linguistic distribution of population for the district, the following information has been taken from Table 2.5 of the Census Report. It is clear that the

the district with 5,87,590 i.e. approximately 81.7% per cent of the total population followed by the Muslim accounting with 1,05,640 population, i.e., 15.10 per cent. Apart from these there are also around 5,408 Christians in the district. It is evident from these figures that the Christian missionaries have not made much of their presence here, to follow the Christians are the Buddhist, Sikhs and others who constitute a very insignificant number of 86, 30 and 610 persons respectively.

Table 2.5
Increase in Population According to Religion,
Nalbari District

RELIGION	POPULATION		RATE OF INCREASE PERCENT
	1961	1971	
HINDU	3,76,938	5,87,590	56.18
MUSLIM	41,080	1,05,640	157.16
CHRISTIAN	1,238	5,408	66.97
SIKH	5	30	500.00
BUDDHIST	87	5,86	516.09
OTHERS		6,10	
TOTAL IN DISTRICT	4,20,649	6,79,814	60.37

Source: District Statistical Handbook, Nalbari, 1992.

Language

Linguistically district Nalbari of Assam shares the large linguistic family with other districts. But owing to its location at the confluences of Bhutan in the North, Bengali in the South and Nepali in the West has contributed in influencing the linguistic composition of the district. From the table 2.6 it is evident that the Assamese speaking population constitute the highest proportion with a total number of 5,27,001 speakers which is approximately 75.3 per cent. The Bengali speaking population comes next with 48, 108 persons (6.87 per cent). Hindi speaking population is over 12,055 i.e 1.72 per cent. Apart from these there are some speakers of other important Indian languages. These include 1,753 Oriya, 42 Punjabi, 5 Malayalam, 2 Marathi, 6 Sindhi, 7 Tamil, 3 Telugu and Urdu each, Gujarati 6 and others 1,10,013. Thus it is seen that almost all the important languages of the country have their representation in the district. It shows the level of cultural, social and economic interaction of the district with other parts of the country.

Table 2.6

No. of Persons Speaking the Languages Included in the Eight Schedule of the Indian Constitution 1971, Nalbari

SIL. NO.	CLASS	MALE	FEMALE	TOTAL
1.	ASSAMESE	2,23,109	2,53,490	5,27,011
2.	BENGALI	25,193	22,915	48,108
3.	GUJARATI	4	2	6
4.	HINDI	7,726	4,329	12,055
5.	MALAYALAM	5	-	5
6.	MARATHI	2	-	2
7.	ORISSA	943	810	1,753
8.	PUNJABI	10	12	22
9.	SINDHI	2	4	6
10.	TAMIL	7	-	7
11.	TELEGU	3	-	3
12.	URDU	1	-	1
13.	OTHERS	56,452	54,361	1,10,813
	TOTAL	2,81,091	3,35,923	6,99,814

Source : District Statistical Handbook, Nalbari, 1992.

(5) Literacy

Education is supposed to be the inner eye of human being. It is only through education that human beings can penetrate beyond the appearance of each and every phenomena. Literacy is an important factor for acquiring education. The number of literate in the

district were 1,37,217 thus accounting for literacy 27.79 per cent of the total population in the year 1993. Schools and colleges are the main institution for imparting education in the district. The number of Primary and Junior Basic schools were 1,176 followed by 110 Middle school, High and Higher Secondary schools 174, Government aided college 6, Commerce college 1 and Sanskrit college 1. The distribution of educational institutions reveals that these form a pyramid but conspicuous absence of a medical, engineering and vocational colleges make the education exclusive formal as far as District Nalbari is concerned. The students enrolled in the above mentioned institutions during the same year were 1,51,234, 49,448, 83,179, 9,540, 715 and 120 respectively. The number of teachers in these institutions during the same period in the respective schools and colleges were 1,003, 2267, 2917, 331, 15 and 6. It was mentioned in the earlier section that there are only two towns in the district of Nalbari. The rural urban difference is more explicit in case of literacy as these have higher literacy in the district with 31.68 and 75.95 per cent in Nalbari and Tihu towns respectively. In the whole, the district Nalbari can be considered as educationally backward one. There are many reasons for this important of all being its subordinate position within the former undivided district Kamrup. Nalbari was only a sub-division of district Kamrup. During those days most of the developmental activities

were concentrated in and around Howrah. It is only after its formation as a district that most of the developmental activities have started coming up here. Thus, it being a relatively new district it is likely to take a little more time before these institutions can contribute fully and significantly in the proper educational development of the district. The government especially its education department has a much greater role to play in the development of education in the district by giving priority to primary and adult education. The two officers of the District Elementary Education Officer and the Block Elementary Education Officer in the seven blocks have even greater role to play as far as the betterment of education in the district is concerned.

ECONOMIC ENVIRONMENT

Development in its first and last instance is economic. Without a sound and cordial economic environment no real development is possible. Economic activity is the foundation in which all other development are based. Some of the important attributes of the economic environment are :

Workers

Workers constitute the basic ingredient of economic environment. Workers form the backbone of the economy of any area. Thus, the sectoral distribution of workers acquires specific significance in economic development analysis. Traditional societies have predominance of workforce engaged in primary sector while modern industrial societies have high percentage of workers in secondary manufacturing sectors.

A glance at the table 2.7 shows that the numbers of main workers was highest in the Jamalpur block with 60,781 workers, Baska block with 50,491 workers, and Pub-Nalhari (37,507), Barhelni (35,655) Paschim Nalhari (38,709), Loh-Barama (27,315), and Barisog-Banbhag (20,278). Jamalpur block also had exceptionally high number female workers with 10,650, whereas, for other blocks it varies between 1,246 in Barisog-Banbhag block to 9,120 in Baska block.

1. Rural Primary Census Abstract, Part I, Computed by ODE Unit Assam, 1991.

Table 2.7

Workers and Non-Workers in District Nalbari
(Block-Wise), 1991

Name of Block	Cultiva- tors	Agricul- tural Labour- ers	Live- stock	Mining & Quarrying	Manuf. etc. in L.H. Ind.	Manu. Proc. etc. in Other H.H. Ind.	Construc- tion	Trade & Commerce	Transport Storage & Communi- cation	Other Ser- vices	Marginal Workers	Non- Workers	Total Main Wor- kers
BASKA	28734	11537	3034	12	594	461	283	1547	412	3512	21242	95586	50241
TAMULPUR	36290	11969	3489	15	640	886	464	2262	993	3751	14945	116546	60781
BARIGOB BAMBHAG	3874	4273	231	17	513	428	338	1319	569	2763	2814	62494	20278
FUP-NALBARI	12317	6158	780	19	1282	2096	1698	4256	2083	6329	3212	121711	37509
TIHU-BARAMA	5167	2849	58	1	166	323	153	713	363	1926	922	39162	27335
PASCHIM NALBARI	10037	4458	769	5	1053	996	382	3021	1070	6438	7594	86224	28709
BARKHETRI	23138	5266	697	3	653	562	451	1598	368	2927	11562	37186	35653

Source: Field Enquiry, Census Operations, District, computed by D.D. Chakravorty, 1991.

Due to non-availability of data on the total population, the distribution of the workers in different categories is not available and hence not included in the analysis. It shows, however, that a large number of workers in the population are not included from Table 2.7, where both industrial and agricultural labourers are included. It is apparent that the total population is not included in the District Directory, followed by the workers in the trade and commerce with a percentage of 1.24%. This sector continues to lag behind even today. It is worth mentioning that the total population of the District is 1,04,74,000 (Hundred, Hundred, 74,000).

chances of this sector occupying a much larger share in the future is very faint. Although major business and trade is handled by the Marwaris in Nalbari town as well as in other parts of the district, the local population too have started taking keen interest in these activities mainly due to the incentives provided by the Government. Workers in other than in cottage industry constitute only 3 per cent of the total and workers in the cottage industry around 2 per cent of the total workforce was engaged during the same year. There were approximately 1.57 per cent workers in the veterinary, fishery and forestry sectors. Transport and communication too shows low development with below 1.09 per cent of the total workers engaged in it. Workers employed in construction and mines were also very low with 1.13 and 0.06 per cent respectively.

An overall opinion formed by the researcher on the basis of talks, discussions and views expressed by some important persons and also self observation, is that the efficiency of the worker is low in the district. There are various reasons to this, the first and foremost reason being the hot and humid climate which makes the people lethargic. Secondly, the returns are too low and also there are very less incentives given to the workers by the government. An important way to increase the efficiency of workers is to increase their spatial and sectorial mobility. Infra structural

facilities is an important factor in facilitating the mobility of workers.

In other services (particularly, tourism, sectoral activities like services etc. the share of workers is significantly high. It had accounted for over 10 per cent of the total workforce. Thus, the district statistics too confirms the distorted nature of its economy.

Dependency Ratio :

The dependency ratio is derived by dividing the total main workers by the number of non-working population which gives us the absolute dependency rate. At the district level the dependency ratio works to be 25.8% per cent. The dependency ratio has been calculated for main workers only. It is mainly due to availability of reliable census data for the main workers only. However, in a stagnant economy like that of district Nalbari proportion of main worker with other population get enhanced importance as an indicator of development. That is to say that out of every hundred persons, 25.8% persons are working and 74.1% persons are dependent. At the block level the situation is quite different. Most of the blocks have higher dependency ratio than the

7. Kuluja, B. S. : Political Economy of Under-development, Vikas, 1997, p. 134.

district level. The block having the highest dependency ratio is Limalpur with 46.27 per cent. It is followed by Baria block with 41.01, Barhetri with 36.11, Barigod Bandhog with 31.02 per cent, Paschim Nalbari with 30.60, Tihu Barama with 27.93 per cent and Pub-Nalbari with 26.50.

Table 2.8
Dependency Ratio

NAME OF BLOCK	TOTAL POPULATION	TOTAL MAJN WORKERS	ABSOLUTE DEPENDENCY RATIO (%)
1. BARIÁ	1,67,061	50,241	43.01
2. BARIGOD BAN	85,058	20,278	31.02
3. TIHU-BARAMA	1,25,840	37,335	27.93
4. PASCHIM-NALBARI	1,21,527	20,707	30.60
5. PUB-NALBARI	1,00,615	34,509	26.50
6. LIMALPUR	1,97,272	60,781	46.27
7. BARHETRI	1,34,407	37,659	36.11
8. DISTRICT NALBARI	10,16,790	2,67,512	25.82

Infra-structure and Economic Development :

The prosperity of the region depends directly upon the development of agriculture and industry. In its turn agricultural production too, requires power, credit, transport facilities, etc. Industrial production

requires not only machines and equipment but also skilled manpower, management, energy, banking facilities, marketing facilities, transport services which include railways, road and shipping and communication facilities etc. With these facts in mind the section attempts to find out the availability of infra structural facilities at the district and also at the block levels.

(a) Transport and Communication

If agriculture and industry are regarded as the body and the bones of the economy, then transport and communications constitute its nerves which help the circulation of men and materials. The district Nalbari is endowed with well developed rail transport network. The main North East Frontier Railway Line passes almost right through the centre of the district dividing it into two parts. This railway line has proved to be highly beneficial generating spatial interaction not only between the district and other parts of NEF but also with other parts of the country. The length of this line is 37.8 km. broad gauge within the district¹⁰. Within the district there are two other transport lines running parallel to the main railway line. These are 55.8 km. narrow gauge railway line and National Highway

10. North Eastern Railway Division, Maligaon, Assam, (1971-72).

to. 31. These together have played a significant role in the economy of the district. The length of the National Highway is 30 km. Apart from these main transport lines of national importance the district has state highways measuring around 46 km. in length and other district roads constituted the longest length with 1109 km. in 1992. The other district roads are the P.O.D. road with 67.755 km. concrete and 1041.117 km. unmetalled roads .¹¹ During the year i.e. 1992, there were 157 buses, 57 private carriers, 90% public carriers, 204 motor cars, 25 jeeps, 4 taxis, 3848 motor cycles, 67 auto rickshaw, 15 tractors, 63 trailers, 24 government vehicles, 901 others. The total number of vehicles amount to 6,304 .¹²

The communication system comprises post and telegraph, telecommunication system, broadcasting, television and information services. It, providing necessary information about the markets and also supplying necessary motivation, the communication system helps in bringing buyers and sellers together effectively and helps to accelerate the growth of the economy. In this way, the modern communication system has become an integral part of the development process.

At the district level, the communication system has not developed much. In the year 1991-92, there was only one

11. Executive Engineer, P.O.D., North Ladang, Guwahati, 1992.

12. District Transport Officer, Nalbari, 1992.

post office, 17 sub-post offices, 133 branch post offices, 265 letter boxes, one telegraph office and 424 telephone connections. Regarding radio broadcasting and television services, the programmes aired from the state capital Dispur is received. For the other information services, the district information office is the main source of collecting and dissemination of information.

(b) Banking Services

Indian agriculturists are traditionally poor and majority of them are farmers. They require money to purchase seeds, fertilizers and machineries etc. As such they need money and they depend largely on the village money-lenders who charge a high rate of interest. Even big businessmen and traders need money for their day to day functioning on soft interest rates. It is here where the banks play a significant role in the economy of a region. An efficient and effective banking service is the need of the hour for the overall socio-economic development. It is seen that district Nalbari lacks very much in this sphere with only 5 branches of the State Bank of India, 2 branches of Assam Co-operative Apex Bank Ltd., 24 branches of Prajyotish Bancha Bank and 11 other banks. It is not only the number of banks

17. Nalbari District at a Glance, O.D. of F & S, Nalbari, 1973, p. 3.

which matter, but it is their effectiveness with regard to serving as source of credit on priority basis. Most of these banks are not popular among the people, thus their economic use are much less than their potentials.

(c) Health Services

An easy and cheap availability of medical facilities goes a long way in maintaining the health of the people and therefore a high efficiency of production work. An overall situation of the district shows a bleak picture regarding such an important factor in the socio-economic development of the region. From the table 2.9 it is seen that during the year 1992-93, there was one Civil Hospital, 34 Primary Health Centres, 30 Dispensaries, 1 L.R. Hospital, 182 Sub Centres and the total number of beds were only 301¹⁴. At the block level these facilities are very unevenly distributed. Barhetri block did not have a single hospital with only 4 Primary Health Centres, 17 Sub-Centres and 7 beds. Barigoq Banbhag block was slightly better off with 1 Hospital, 2 Primary Health Centres, 3 Pharmacies, 16 Sub-Centres and 30 beds. Tamalpur block had 1 Hospital, 1 Primary Health Centres, 2 Pharmacies, 28 Sub-Centres and 3 beds. Pab-Nalbari block had 4 Primary Health

14. Nalbari District at a Glance, Office of the Deputy Director of Economic & Statistics, 1993, Nalbari.

low quality, hindered the normal functioning of the few factories and industries which are present in the district. The paucity of power has also adversely affected the rural sector, out of a total of 303 villages, only 16 were electrified. Though the nature of electricity supply is highly irregular.

General Land-Use Pattern

Land is the most important source of livelihood of the people. The general land-use as well as agricultural land-use patterns in the district shows that large proportion of land is used for agriculture purposes, out of which use under **Kharif** and **Rabi** crops occupy special significance. The land use and cropping pattern of any region are the outcome of geographic features, climatic variables, pedological differences, historical processes and social and economic institutions. In 1989-90, the net area sown in the district was 1,14,980 hectares. Area sown more than once was 67,915. Thus, the total cropped area was 2,14,895 hectares¹⁵. The area under forest cover in 1990-91 was 30,73 sq. km. This area was under reserve forest. Area under social forestry was approximately 437 hectares. The area under tea gardens was 1675 hectares and there were three tea estates in the district. Though,

15. Ibid.

agriculture is the main occupation of the people, yet percentage of area under irrigation is very low here. The area under some important crops in 1971-72 were as follows : winter paddy 41,300 hectares, summer paddy 1,500 hectares, total 42,800 hectares, rape and mustard 14,000, wheat 2,000, potato 1,800 and sugarcane 675 hectares.

From the above discussion, it is evident that physical aspects have played a great role in shaping the present socio-economic development in the district. Though, all of the aspects of physical environment are important and some of them have acquired specific significance in given context. Climate, no doubt has a greater role to play as the economy is predominantly agricultural.

The drainage system of the district is an important aspect of the physical environment of the district. It has contributed in shaping the landform as well as the soil type of the district. Areas prone to frequent inundation by flood water have new alluvial soil and areas far from the reaches of flood water have old alluvial soil. These in turn have influenced the aspect of economy and educational development. Low lying areas are rich in new alluvial soil and are good for the

cultivation of commercial crops like jute and oil seed and soil is used for fertilization. Area prone to frequent flood also experience damage of inter and intra village roads and communication lines. This has significant adverse impact upon the spread of educational facilities in the district.

The social and demographic composition too is the result of the physical environment. In fact physical environment is the structure on which all the social and demographic parameters operate. Being close to Bangladesh, district Malabar has been receiving large influx of Bangladesh immigrants. This has to a large extent changed the social and demographic profile of the district. Till today 95% per cent of the total population of the district live in villages. Considering the area of the district, the density as well as the population rate is too high. Some positive measures must be taken to halt this high rate of population growth so as to bring in some development. A reasonable check must be made otherwise whatever development is there, it will be swallowed by the increasing population. Education is another area where district Malabar has to take special care. The absolute literacy rate in 1991 was only 45.5 per cent. This area is very important as the future development much depends upon the literate and educated people.

CHAPTER – III

LITERATURE SURVEY AND METHODOLOGY

Acquiring new knowledge or getting fresh insight into the existing aspects of reality is the main object of the research work. To achieve these objectives a research work has to take certain methodological precautions, survey of past literature, and methodology acquire specific significance in this regard. Knowledge is always relative. Time, situation and techniques adopted for acquiring knowledge play important role in qualifying anything as knowledge. New knowledge or fresh insight is possible by placing the new insight in the context of existing or past insights. Thus one can be differentiated from other without reiterating the foretold or one can provide the explanation for the other. It is with these objective- the Survey of Literature has been included in this chapter.

Literature Survey

The study of literacy and its relation to socio-economic development is a relatively recent development among geographers. Although some aspects of literacy and development were done by economists and educationists earlier but the spatial context was missing. There is a considerable amount of literature by scholars of other disciplines which was consulted to find what aspects were death and what needs to be done. The following works are the main contribution in the field of education and development. Most of the works

are of very general nature and lack in depth study of any particular area.

The main thrust of the literacy and development study came during the second half of the present century, especially between 1950s and 1960s. Hansen¹ recognized the importance of education and socio-economic development when he says that education has a great capacity to assist in the development of nation and to bring about desirable social change. He critically discusses education as an agent of social, economic and political development. He also examines, the kind of functional education that is required if development and constructive change are to take place, conversely he also analyses the dysfunctional nature of education that impedes modernization.

The progress which the former Soviet Union has made in the spheres of education is extremely impressive. "Education in the USSR"² written by eminent Soviet specialists, describes the most important stages in the development of Soviet educational system and the basic principle underlying it. It is also mentioned that when Soviet power emerged triumphant, the vast majority of the adult population could not read or write. It was

1. Hansen, John W., Education and the Development of Nations, 1971, p. (iii), in N. Kuzem and M. Kandelkrov (ed) Education in USSR, 1977.

2. N. Kuzem, M. Kandelkrov, Education in the USSR, 1977.

then that Lenin appealed to the young people, "to learn, learn and learn". This became the keynote of the times. The whole country, literally, went to school.

Education promotes economic growth and is in turn influenced and induced by economic growth. Almost all countries are, nowadays, development conscious. The less developed countries which have been poor and stagnant for centuries are in a state of revolt against poverty, disease, ignorance and dominance of stronger power, and they are no longer disposed to entrust their future exclusively to the forces of the markets, the whim of nature, or the judgment of colonial rulers.

Frederick Harbison and Charles A. Myers³ (1968) have identified three methods of human resource developments for economic development.

(i) The first is by formal education, beginning with primary and ending with university education.

(ii) Second, human resources are also developed on the-job through systematic or informal training programmes in employing institutions.

3. Frederick Harbison & Myers, Charles A. : Economics of Education, Published by Gdoyar D. Hegnode, p.2.

- (iii) A third process is self development, as individuals seek to acquire greater knowledge, skills or capacities through preparation on their own initiative by taking formal or correspondence courses by reading or by learning from others in informal contacts.

With the rediscovery of the significance of human capital by J.M. Schultz, Richard A. Musgrave,⁴ Beckerman, Bowles, Leibenstein etc., educational investments have been brought into the mainstream of economics. The following are the study of economics of education.

- (a) determination of the relationship between educational expenditures and increases in income or physical capital over a period of time in a country;
- (b) the residual approach in assessing and determining the contribution of education to gross national product of a country;
- (c) estimation of the rate of return from educational investment and

4. Udeyar D. Hegde : Economics of Education, Bombay, 1972, p. 4.

(d) estimation of educational wastages and suggesting methods to avoid them.

"The Experimental World Literacy Programme: A Critical Assessment" by UNESCO is a collection of literary programmes conducted in several countries. The main purpose of this project was to test and demonstrate the economic and social returns of literacy and more generally, to study the mutual relationship and influences which exist or may be established or strengthened between literacy training-particularly among working population and development.

The seminar on "Eradication of Illiteracy" - UNESCO's contribution to the World Programme with special reference to India reviews the work that has gone before. It also disseminates the results of the experience in the experimental programmes conducted by UNESCO in recent years. It also evolves methods and techniques which would be most effective in arriving at the goal. It also provides an opportunity to take stock of the significant work that has been carried out in the country both by the Government and Voluntary organisations in and outside the plans.

Another very significant work on literacy and socio-economic developments was done by Jolly K.G.⁴ It is based on the census results of 1991 and the study followed the strategies adopted for development at the district level. He has analysed and studied the literacy position in detail at national, state and district levels. Looking at the special emphasis in the Eighth Five Year Plan on literacy for all, special efforts have been made in this book to make in-depth analysis of 1991 census data on literacy. The districts have been classified into very poor, poor, moderate, good and very good levels of literacy by sex and rural-urban breakdown. District Nalbari falls in the poor level of literacy. The study has also attempted to identify the districts which can achieve the goal of literacy for all by 1976, by 2001 and by 2005.

As far as work on literacy for the state of Assam is considered, H.N. Sharma⁵ has found that Assam with a relatively high literacy level and the highest proportion of persons of different educational levels, stands out prominently in the level of social development among all the states of the region. The general literacy rate for district Kamrup as a whole as shown on the map prepared by the author was between the range 25.01-25.00 in 1971. The rural literacy for the same year for the district Kamrup was 20.01-25.00. The sex disparity in literacy for district Kamrup was 0.45

W.19. The author also notes that Assam has been able to achieve relatively high literacy level because of the advantageous physical conditions, the legacy of the past of having a rich socio cultural background, the presence of culturally advanced groups of people and a large number of educational institutions and a wider contact with the rest of the country. The social profile of the state is highly uneven because of sharp differentiation in the levels of literacy and education among the various social groups over its different parts. Viewed in totality, the author notes that with the increased degree of urbanization and modernization at present, the area is in a state of flux leading towards a higher level of social development.

Methodology

It is evident from the above discussion on survey of literature that precious little material is available as far as literacy and economic development in Assam in general and district Nalbari in particular is concerned. Such a paucity of literature on these important aspect of our life and polity makes it

5. Jolly, K. G. : Literacy for All by 2001.
6. Sharma, H. N. (1993) : Social profile of North East India : Spatial Pattern of Literacy and Educational Levels, in Azizuddin Ahmad (ed) Social Structure and Regional Development : A Social Geography Perspective, Rawal Publications, New Delhi.

imperative on the part of the scholar to take up research with great care and systematically. For this purpose the following methodological steps were followed.

1. Selection of Indicators

The aspect of research under investigation consist very many complex phenomena. Therefore, to workout the relationship between economic development and literacy a large number of variable can be identified, but, for operational purposes the variable needs to be quantified and transformed into indicators so that an objective analysis can be made. Selection of indicators, thus acquires specific significance because, it is the ability of the indicators to capture the multi-dimensional aspect of reality, that makes the study meaningful. In this research the following indicators were identified for finding out the inter relationships.

(a) Indicator of Literacy and Educational Development :

For the purpose of present study both general as well as effective literacy rates were calculated for the total, male and female literates at the block level. The selection of these indicators was preferred over other indicators mainly for the following reasons.

(i) the data was available only for these indicators only.

(ii) the other important consideration was the relationship between literacy and economic development. Nalbari being a economically backward district with conspicuous absence of specialised economic activity selection of a sophisticated indicator for assessing literacy levels would have proved incompatible to economic aspects.

(b) Indicators of Economic Development :

Development in its ultimate analysis is always based on improving the economic condition of the people. Without proper and sustainable economic development all other development including social, political and cultural will remain entirely superfluous and at best induced. For proper economic development the material condition of the every day life of the people, their environmental attributes play significant role. District Nalbari being an agriculturally backward area traditional aspects of economic life are more prominent here. Therefore, the following indicators were selected for assessing the economic development in the district.

(i) Percentage of man workers,

(ii) Ratio between cattle and veterinary doctors, and

(iii) Number of hospital per 1000 of population etc. were taken as some of the important indicators of socio-economic development. The jurisdiction of these indicators is though self explanatory. However, it is worth mentioning here that higher percentage of main workers in a backward economy characterized by high unemployment and equally high dependency ratio acquires specific significance in assessing its economic development. Similarly, the regional economy in these areas within a perfect symbiotic relationship between animal and cattle research and economy. Therefore, the quality of cattle life contributes in the economic prosperity of the area. For this purpose the second indicator was included here. Good health of the citizen is the best indicator of all economic development. For providing good health apart from minimum nutrition the safety of people from disease is a must. In a backward area scarcity of hospital is the important handicap in providing good health to the people. Thus the third indicator was included to assess the health related aspect of social development.

7. Data Base

Facts are a pre-requisite for any objective study but, mere facts will do not make a research. For a good research adequate and adequate facts and equally efficient and appropriate methodology is necessary. In

This research work too facts have been collected from the important sources.

(a) Secondary Data Sources :

- (1) Agricultural Situation in India - Ministry of Agriculture, C.S.O., Government of India, for Area under Crops, Agricultural Production, Area Input.
- (2) Population Tables - Census of India for workforce, social composition of population, literacy, educational standard etc.
- (3) District Statistical Handbook - Directorate of Economics and Statistics, Government of Assam for social amenities, infrastructure, land-use, animal, water and other resources.
- (4) N.I.C. Office - Rural Primary Census Abstract for scheduled caste and scheduled tribe population, village wise information etc.

(b) Primary Data Sources :

For an analytical of the relationship between literacy and economic development in District Nalbari, a sample of 31 households was conducted. The information was collected through the household

questionnaire. Important aspect included in the questionnaire were : educational level of the family member, social status of the family, nature and size of family, economic status and assets position by the family, agricultural production at the household level, modern amenities/facilities available to the family, etc.

3. Data Processing :

Data thus obtained through these sources was processed by using traditional techniques of converting it to ratio like percentage, per thousand. For agricultural and other indicators productivity per hectare was calculated. Once the data was free scale bias, then the relationship between the indicators of educational development and indicators of economic development was calculated on the basis of the following formula:

$$r = \frac{1}{N} \sum \rho$$

where

$$\rho = \frac{(Y - \bar{Y})}{\sigma_Y} \quad \text{and} \quad \rho = \frac{(X - \bar{X})}{\sigma_X}$$

N = Total number of observation

σ = Standard Deviation

\bar{Y}, \bar{X} Means of Y and X variables respectively.

4. Data Presentation

The use of cartographic techniques is most common tool among the geographers for representing the data. Choropleth, Isopleth, bar diagram and flow models have been done in this dissertation for showing population distribution, transport linkages, distribution of climatic parameters etc., while, bar diagram have been used for showing the quantity of different attributes.

Finally it can be concluded that literature pertaining to this particular aspect, i.e., literacy and economic development is very scanty. Whatever data is available it is at best at the micro level. Therefore, for conducting a study at the micro level availability of data was a real problem. In this research both, i.e., secondary and primary data sources were used. To find out a relationship among the variables correlation coefficient was calculated so that some amount of generalisation can be made about the association between literacy and economic development.

CHAPTER IV

LEVELS OF LITERACY AND ECONOMIC DEVELOPMENT IN NALBARI

Introduction :

Literacy is a very useful attribute for measuring the level of socio-economic progress of a society. It is essential to gear up backward societies towards an enlightened one characterized by broad outlook and modern ideas. Further, the progress of literacy also holds the key in bringing about a change in the intangible human qualities in order to speed up the pace of socio-economic transformation of a society. It is in this background, a study of literacy and educational levels of district Malbar is undertaken with the two objective of presenting their spatial pattern as well as the socio-economic condition. The study will have significance both as an academic exercise and a practical guidance because so far a study of this type has not been attempted at the district level. Moreover, it will also have practical usefulness for the understanding of the patterns and processes of literacy and educational levels as there are critical to gear up the pace of socio-economic development in the district. Data for the present study are taken from the different census publications, districts statistical handbook and government reports. Its relevance is more so in a district like Malbar which is socio-economically backward. The extreme backwardness with respect to educational progress and human resource development in

the district is easily understandable from the fact that it had only 27.79 per cent literacy in 1971. According to 1991 census, the literacy rates has increased to 55.99 per cent as against the state average of 67.11 per cent.

In this chapter an attempt is made to study and analyze the literacy pattern in the district and to examine the ways in which the physical, economic, socio-cultural and historical factors have influenced the present patterns and trends therein. Block is taken as the basic unit for the purpose of analysis.

Spatial Patterns of Literacy :

According to 1991 census, district Nabha had 55.99 per cent effective literacy rate as against 50.09 per cent for the state (table 1.5). Like most parts of the state the progress of literacy in the region was slow prior to independence. It was only after independence that the increase in literacy has gained such a momentum

1. The figures are for the effective literacy rate as against the general literacy rate of 1971. The former is different from the latter in the following ways :

Effective Literacy Rate	=	No. of total Literates in the District	÷	100
				No. of People in the District above 15 years
General Literacy Rate	=	No. of total Literates	÷	100
				Total Population

ies. The literacy rate was 17.79 in 1971 and it reached a high of 55.99 in 1991 after two decades. The data for 1981 was not available as census was not taken in that year. One interesting feature about the 1991 census is that children in the age group 0-5 are treated as illiterates. Therefore, for finding out the literacy percentage this group of population was excluded. Although the literacy level is higher in the district as against the state, yet in terms of persons having certain educational level, the district still presents a dismaying picture. On the other hand the growth of literacy is not uniform in all the subdivisions or in all the blocks of the district. The major modern forces active in the spread of literacy in this area are westernization and urbanization resulting in a major step up in the continued growth pattern. However, the growth of literacy in most parts of the district is slow due to physical and socio-cultural constraints including the legacy of the past and also other socio-economic factors such as poverty, superstition etc. are operating against the spread of literacy both in the district as well as in the state as a whole.

From table 4.1, it is evident that Pab Nalbari Block has the highest percentage of literates. Hence the percentage of the rural literates was estimated to be around 38.14 per cent and the urban literates account for 60.99 per cent. The district headquarters, Nalbari

falls within this block so most of the educational facilities tend to concentrate in and around the capital town of Nalbari. To follow the Doh-Nalbari Block is the Lihu Barahi Block accounts second highest percentage of literates. Here the rural literacy rate was as high as 53.13 per cent and the urban literates were 55.75 per cent. The reason being that within this block, the second town of Lihu is located which acts as an important attraction point for the modern educational facilities after Nalbari. The remaining five blocks do not have urban areas and the rural literates varies from 31.70 per cent in the Jambpur Block to 59.58 per cent in Paschim Nalbari. The lowest number of literate persons are found in the Barhetia block with only 10.27 per cent. Adverse environmental condition particularly frequent condition of this block by River Brahmaputra has acted as an important deterrence in the spread of modern amenities including educational facilities and also literacy in this particular block.

Table 4.1 : Literacy Pattern in District Nalbari, Block-wise, 1991, General Literacy Rate.

(in per cent)

Development Block =		Literacy Rate		
		Total	Male	Female
Baksa	T	48.94	49.84	50.00
	R	48.20	49.84	50.00
	U	-	-	-
Bachum Halbari	T	59.58	68.40	50.12
	R	59.58	68.40	50.12
	U	-	-	-
Fub Nalbari	T	59.23	68.21	45.44
	R	59.14	67.45	48.10
	U	68.84	74.51	61.77
Barhachri	T	50.22	50.52	21.76
	R	50.22	50.52	21.76
	U	-	-	-
Famalpur	T	51.78	41.21	21.69
	R	51.78	41.21	21.68
	U	-	-	-
Beragoo Barbheta	T	47.10	58.69	38.01
	R	49.10	58.69	38.01
	U	-	-	-
Fihu Baroma	T	50.55	67.10	45.75
	R	53.13	67.10	45.75
	U	67.75	70.49	58.75
District Nalbari	T	45.56	54.68	35.83
	R	45.03	54.20	35.26
	U	68.20	74.07	61.26

Source : Census of India, 1991.

Table 4.2 : Literacy Pattern in District Nalbari, Block-wise, 1991, Effective Literacy Rate.

Development Blocks		Total	(in per cent)	
			Male	Female
Gosta	T	47.18	60.07	36.95
	R	47.18	60.37	35.95
Paschim Nalbari	T	71.29	81.77	60.06
	R	71.29	81.77	60.06
Pub Nalbari	T	71.60	82.13	60.05
	P	70.44	81.41	58.50
	U	71.67	88.07	74.06
Barhetra	T	38.75	49.23	21.26
	R	38.75	49.23	49.23
Lamsajua	T	39.80	51.21	27.37
	R	39.80	51.21	27.37
Barjook-Banbhui	T	60.75	72.40	48.17
	R	60.75	72.40	47.44
Lihu Baransa	T	64.47	75.30	53.42
	R	64.07	74.08	52.07
	U	75.97	80.59	69.69
District Nalbari	T	55.98	66.94	44.19
	R	53.38	66.43	43.51
	U	80.61	86.66	73.29

Source : Census of India, 1991.

As expected the literacy rate among the males is highest in Paschim Nalbari Block with 81.76 per cent followed by Pub-Nalbari Block with 82.13 per cent. The lowest being Barhetra Block with only 49.23 per cent. The female literacy is highest in Paschim Nalbari with 60.06 per cent followed closely by Pub-Nalbari with 60.05 per cent, Lihu Baransa with 53.42 per cent. The lowest female literate being Barhetra Block with 21.26

per cent and Jamalpur Block with 21.68 per cent. It is evident that the blocks Basia, Berheta, Jamalpur and Barua-Banbha which comprise 67.75 per cent area and 52.00 per cent population of the district have yet to reach the district average of 55.99 per cent literacy of 1971, least to speak of any higher literacy rate.

The actual position of literacy rate in the blocks becomes further clear when it is considered separately for rural and urban areas. Thus, the blocks of Paschim Nalbari, Pub Nalbari, Uthi-Barua and Barua-Banbha which seem to have somewhat higher literacy rates have, in fact, low level of higher literacy (Fig. 4.1). It indicates the general prevalence of illiteracy in these blocks. The situation is more alarming in the Jamalpur, Berheta and Basia blocks where the percentages of rural literates are, meagre 11.78, 30.22 and 40.24 respectively. The only exception here is Pub-Nalbari which has relatively, both high rural and urban literacy. When the situation is looked from the perspective of sex differential in literacy between the urban and rural areas it appears to be far more better. The main reason being that there are only two urban areas with very small population. Although there does exist sex differential in literacy between urban and rural areas, yet the difference is least significant. Except for Paschim Nalbari with 60.12% and Pub Nalbari with 43.16 per cent, the rural female

ASSAM LITERACY PROFILE

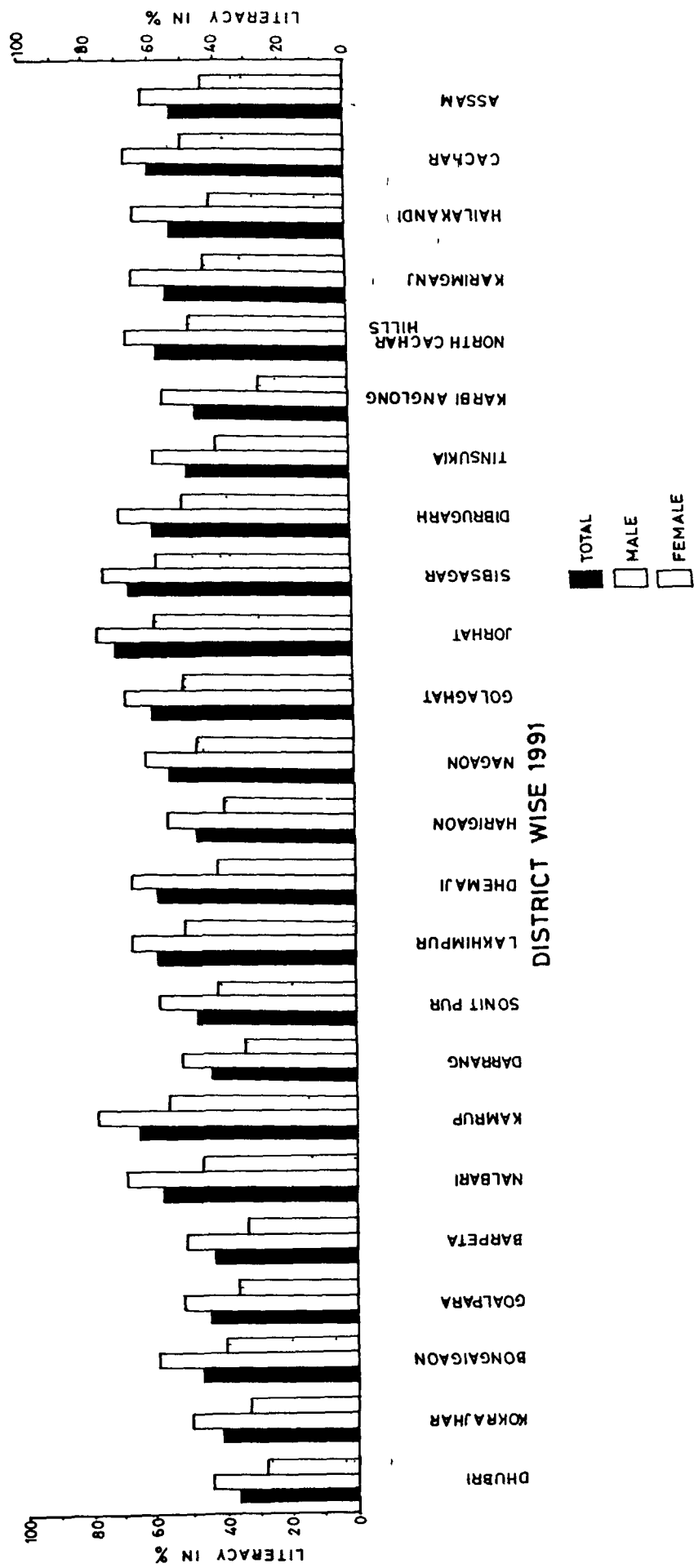


fig 4 1

literacy of the region is significantly low, and it is as low as 21.69 per cent in Lakhimpur (Hoch).

Literacy and Economic Development :

The study of spatial patterns of literacy and education, especially in a region like the North Eastern Region of India is characterised by distinctive physical, ethnic and socio-cultural diversities. It is of paramount importance as education holds the key to the process of comprehensive social and economic development. Such study gets enhanced importance particularly when the region has been experiencing secular stagnation and continues to be among the least developed regions of the country. However, the real issue is to minimise inter regional, inter ethnic and gender-based disparities in literacy and educational attainments of the people of the region.

There are various factors which have contributed to the prevailing backwardness/underdevelopments of the region. Its peripheral location, geographical inaccessibility, intermingling of diverse cultural streams entering the valley of Brahmaputra at different stages of history, and the consequent socio-cultural diversity seem to have played significant role. Thus, because of the scanty contacts of its habitate, both tribal and non-tribal, with the modern world,

besides isolated location and inaccessibility character, the social progress of the region remained stunted with low levels of literacy and education till the beginning of the century. The traditional social order has undergone a transformation due to the impulses of westernization particularly by the missionaries and the process were further accelerated after India's independence.

Literacy is one of the most important societal elements that holds key to the process of socio-economic development. It has intrinsic importance as a pre-condition of rural development and it is also considered a surrogate measure of rural socio-economic conditions. An attention of education is generally held to be a major desideratum to significant economic development. In addition to this it is expected that literacy will be able to generate adequate response from the people. Its relevance appear to be more for the social profile of a region like the North-Eastern India and if it happens to be district like Nilgiris which is one of the most socio-economically backward districts of the state. An estimation of educational levels in the district would help the researcher to look at the literacy position in

2. Schuth, Sister Katarina (1930) : "Village Literacy and its Correlates in Mysore Case Study", in David K. Gupta (ed), An Exploration of India, Geographical Perspectives on Society and Culture, Itanagar, Cornell University Press, p. 191.

a proper perspective. However, non-availability of data on educational levels and agricultural productivity and other such economical variables at the block level has been a major handicap in giving an exact picture in this respect. The methods of study include the use of ratios and indices and visual representation of results in maps and graphs.

a) Correlation Between Literacy and Economic Development

The two attributes of economic development selected here are the total main workers and animal (cattle) resource of the district. A correlation between the total main workers (in percentage) and literacy was found out and the result was a negative relationship to the extent of $r = -0.817$. It means that the number of total workers is not increasing with the increase in literacy and educational levels. The reason is that most of the educated people are moving out of the district, especially to Guwahati in search of better employment. Another reason for such a small share of workers is that a large section of the population (1,39,113) are between the age group of 0-6. Another chunk of the population is school and college going children, thus, leaving on an average a relatively low percentage of about 25% as the working population in the district. This has also added to the rise in the dependency ratio in the district. The dependents are increasing over the years.

Whereas increase in the number of men workers is only marginal. As a result such a low percentage of men workers has hindered the productivity as well as the prosperity of the district. To a great extent the government must take appropriate measures to check this large out-migration of people particularly educated ones from the district to seek better employment elsewhere. Opportunities must be provided within the district so that people will stay and work for the development of their own district in particular and the state in general.

Livestock and Animal Resources :

Animal resources, especially the ~~drought~~ animals have remained a major part of the traditional agriculture. Although, these animals are a subsidiary part of the main agriculture, yet their importance cannot be undermined. They are an important asset not only to the farmers but also for the whole economy of the State, especially in a district like Nalanda where agriculture continue to be traditional. Cows, buffaloes, pigs and horses still provide the necessary help by way of ploughing, pulling carts and providing the most important component of agriculture, manure.

The ratio between cattle to veterinary doctors and field surgeons was correlated with literacy and the

result show a negative relationship with $r = -0.8337$. The ratio between goat, sheep and pigs to veterinary doctor, field surgeons was correlated with the general literacy and the result was once again negative value with $r = -0.7595$. This is an indication showing that educations remains to be formal and the animals are reared by the illiterate population only. Due to the absence of the vocational education, the people educated formally shy away from agriculture as well as animal husbandry. There is also lack of interest in increasing the ~~of~~ number of cattle as this requires more manpower to look after, which is constructively absent in most of the villages. The village people always like to come out to the towns for small jobs, rather than to remain as farmers mainly because of low productivity, poverty and meagre return.

Literacy and Social Development :

Although literacy itself is a social attribute, it has a strong influence on the other aspects of social development. Normally with the increase in the literacy and educational levels, the social development is also rapid. Educated people are more conscious about their rights and duties. If the social amenities are available within easy reach then it is expected that prosperity and development will logically follow. Such a society would be forward

looking and economic development would follow. Literacy, literacy would bring about an all round development among the people and their dominance by the people of other society would not exist. Such is the power and influence of literacy and education levels.

In the present study a correlation between literacy and one aspect of social development i.e. hospitals and health related facilities was taken. In case of availability of hospitals, the total population was divided by the number of hospitals and the result was correlated with the total effective literacy rate. The correlation was found to be $r = -0.4007$. The correlation between literacy and primary health centres was 0.5243 , and for sub-centres it was $r = 0.5411$. Thus, correlation was though negative for three aspects of health related services, yet it was significant at more than 95 per cent levels of significance. The other two aspects which have a positive relation with literacy are pharmacies and bed numbers. The reason for such a correlation could be many. It is clear that the number of hospitals, PHCs and sub-centres are not increasing with the increase in the levels of literacy and education level. One important reason is that of the government policy. The government opens hospitals, primary health centres and sub-centres not according to the levels of literacy or on the basis of the need of the people but it restricts

its policy of social welfare schemes to political motives and pursuit of funds. Although people are getting educated, they lack consciousness about what they should get and what they are getting. Another very important reason for such a negative correlation is that the district is of recent making. As such, schools and colleges were already present so education was continuing but the social infrastructure was initiated relatively recently. Therefore, it is likely to take more time before it can have any significant impact.

As far as pharmacies are concerned in the district, there show positive relationship with literacy. The reason being that the number of pharmacies are increasing year by year due to the initiatives taken by private parties like doctors, businessmen and other unemployed youths. Regarding bed numbers, the correlation is positive. It is evident from this that the few hospitals that are present in the district are catering sufficiently with the limited number of beds they are having. It is also clear that the people prefer to have hospital with sufficiently large number of beds. It also becomes clear that although the number of hospital are less, they can accommodate more people from far off places.

To conclude the foregoing discussion, it can be concluded that both literacy and socio-economic development in the district Nabbar show urban bias. Most of the development opportunities are centering in and around the urban centres particular at the district head quarter, Nabbar. Negative correlation between some of the crucial indicators like number of veterinary doctor and animal resources, literacy rate and number of hospitals per thousand population is mainly due to lack of proper education and awareness among the people about the advantages offered by new techniques. Moreover, most of these opportunities have come to this district only after the formation of the district in the recent past and it is premature to conclude any thing significant as the gestation period for most of the modern activities is relatively longer.

**SUMMARY OF MAIN CONCLUSIONS
AND
SUGGESTIONS**

1.1 Education is the single most important factor to achieve the rapid economic development and technical progress and to creating a social order founded on the values of freedom, social justice and equal opportunity. Programmes for educational development lie at the base of the effort to forge the bonds of common citizenship, to harness the energies of the people and to develop the natural and human resources of every part of the country.

1.2 There is a paucity of research materials on the inter-relationship between literacy and socio-economic development at the district and village level particularly in the study area.

2.1 The location of the district on the northern bank of the river Brahmaputra and its spatial links with the other developed towns of the state by the National Highway 51 has significantly influenced the aspects of literacy and education in the district including large number of Government and private schools and colleges.

2.2 Geographical structure of the district and especially the varied geographical process particularly recurrent flood from the river

Brahmaputra have induced uncertainty in the agricultural development in the district on the one hand, frequent inundation of lowlying areas make spatial interaction difficult in the district on the other. This has adverse impact on the utilization of educational facilities.

2.3 Soils of the district are a combined product of local geology, relief, vegetation and climate. Soils are mostly alluvial both in texture and quality. The newer alluvium represent the riverine alluvium deposits brought by the river Brahmaputra and its tributaries. The older alluvial soils are confined at the relatively elevated tracts free from floods.

2.4 Humid climate with maximum rainfall during the south west monsoon, i.e., June to October is the specific characteristic feature of climate in district Nalbari. The annual variation of temperature between 15°C to 28°C is most favourable for carrying agricultural operation round the year. But due to temporal variation in the rainfall in the district a short but significant dry spell from January to March is experienced. It is during this period that the

difference between the potential evapotranspiration and the actual evapotranspiration is maximum.

2.5 The relatively homogeneous relief features of the district and the role of active fluvial geomorphological processes ^{have} ~~are~~ most significant in creating variation in the relief at the micro level. The process of erosion being higher and active in the south and deposition in the northern parts of the district.

2.6 The river Brahmaputra and its tributaries form the drainage system of the district. The volume and level of water in these also influence the ground water table in the district. Areas close to the flood plain have very high water table and the depth of water increases with the distance from the river Brahmaputra.

2.7 Evergreen vegetation are the dominant forest type in the district. Among the important species found are bamboo, sal, sesame, simal and teak.

2.8 Agriculture is the main occupation as well as means of livelihood of majority of the population of the district. Therefore the development and modernization of agriculture will have corresponding changes in the employment and standard of living of the population in the district. To bring in such changes improvement in the literacy and educational spheres is of utmost importance.

2.9 The high growth of population in the district has proved detrimental to the overall economic development. The population was about 6,80,904 in 1971 and it reached up to 10,15,790 in 1981. All the effort on the part of the Government to bring about educational and other development has in vain without showing much results due to this phenomenal rise in population. The density of population in the district too is very high of about 450 persons per Sq. Km. Any effort towards controlling population must first take literacy into account. It is expected that literate people are more concerned about the adverse aspects of higher population growth.

2.10 There is a conspicuous absence of urbanisation in the district. There are only two urban centres namely, - Malbani and Lahu. These two towns account for only 2.4 per cent of the total population. A study of the occupational structure of the working population in the district except the two towns consist of a working force overwhelmingly engaged in agricultural activity.

2.11 A study of the scheduled caste and the scheduled tribes in the district shows that the scheduled tribes (Bodis mainly) were more than the scheduled caste population. The Bodis inhabited mainly the northern part of the district being hilly and forested. It shows their relative isolation from the mainstream. The scheduled caste population lived with the other population group indicating their subjection.

2.12 Although the majority of the population are Hindus, there are also people belonging to other religious denominations. Next to follow the Hindus are the Muslims, a clear indication of the migration from the neighbouring country. Unlike other areas of the North-east where the majority are the Christians, the

Christian missionaries did not make much dent on district Nellore.

2.13 Almost all the important languages of the country have its representation in the district. It clearly shows the level of cultural, social and economic interaction of the district with other parts of the country.

2.14 The effective literacy rate in the district was about 50 per cent in 1991. Besides schools and colleges imparting education, there were also 400 Adult Education Centres and 5000 adult male literates during the period 1992-93. There is a long way to go to achieve cent per cent literacy and as far as the efforts on the part of the Government department other non-governmental organisations are concerned it can be said that a lot more is required to achieve the goal of hundred per cent literacy before the turn of the century. In this effort the help and participation from the people is also very essential as this would go a long way in accelerating the process.

2.15 Lack of adequate modern banking and credit institutions have contributed in the consolidation of traditional credit

institutions like money lenders and shikhas in the district. Most of the loans provided by these institutions force the poor villagers into the debt trap. As a result of which the incidence of land transfer due to indebtedness still prevail in the district.

2.16 Transport and communication too is not well developed in the district. Although the National Highway 37 runs right through the centre of the district, roads in most parts of the district are in a miserable condition especially in the northern part. Regarding communication, although services are available they are concentrated in the towns only. Letters take months to reach some rural areas.

2.17 Health services in the form of Primary Health Centres, sub centres and a Civil Hospital are present in the district. But the quality of services are far from satisfactory. Therefore, majority of the people move to Guwahati for better treatment.

2.18 Low volume of surplus generation and highly backward market relation complement each other in keeping agriculture backward in the

district including development of agro-based industries.

2.19 Village leaders and middlemen continue to dominate the agricultural market in the district. Their strength is proportional to the degree of accessibility and interaction between the rural areas and neighbouring market centres.

2.20 Selection of sample villages for the purpose of analysing the impact of literacy on the socio-economic development occupies special significance in the present study. For this purpose stratified random sampling technique was used.

2.21 Use of sophisticated statistical and cartographic tools are most common in the geographical research but use of mean, standard deviation and other simple technique have been done here mainly because of small sample size.

4.1 The two attributes of economic development selected here are the total man workers and animal (cattle) resource of the district. A correlation between the total man workers on

percentage and literacy was found out and the result was a negative relationship to the extent of -0.0017. It means that the number of total workers is not increasing with the increase in literacy and educational levels. It is so because most of the educated people are moving out of the district. (per call to Guwahati in search of better employment opportunities). Another reason for such a small share of workers is that a large section of the population (1,37,115) are in the age group of 15-64 and a significantly high proportion of population are school and college going children. Therefore, the percentage of workers in the district is low, 1.0%, 27 per cent. This has added to the rise in the dependency ratio.

4.7 A correlation between literacy, hospital and other health related facilities was found to be -0.1007. The correlation between literacy and primary health centres was -0.5230, and for sub-centres it was -0.5011. Thus, correlation was though negative for these aspects of health related services, yet it was significant more than 95 per cent levels of significance. The other two aspects which have a positive relation with literacy are

pharmacies and food outlets. The reason for such a correlation could be many. It is clear that the number of hospitals, primary health centres and sub centres are not increasing with the increase in the levels of literacy and education level. One important reason is that of the Government policy. The Government opens hospitals, primary health centres and sub centres not according to the levels of literacy or the need of the people but is restricted by its policy of social welfare schemes and paucity of funds. Although people are getting educated, they lack consciousness of what they should get and what they are getting. Another very important reason for such a negative correlation is that the district is of a recent making. As such, schools and colleges were already present so education had enjoyed a relatively longer gestation period while the social infrastructure was initiated relatively recently. Therefore, it is likely to take more time, before it can have any significant impact.

As far as pharmacies are concerned in the district, these show a positive relationship with literacy. The reason for such a relationship could be

that the number of pharmacies are increasing year by year mainly by private practice. The doctors, businessmen and other unemployed youths. The positive correlation between number of beds per thousand and literacy rate, it can be attributed to the limited demand by the people as majority are preferring to go to Guwahati for treatment.

4.3 On the basis of the household survey it was found that household having high male literacy rate are also showing equally high literacy among the females. But there is no statistically valid relationship between literacy and economic development in the district. On the contrary, the negative relationship of male and female literacy with the ownership of vehicles shows that educated people prefer to move out of the district in search of job or other occupations and do not contribute in creating economic asset in the village including owning a vehicle.

4.4 Hindus form the single most dominant group in the district with more than 85 per cent of the total population. Among the Hindus education of male shows positive correlation with female literacy. But most of the educated Hindus either prefer to move out of the district in

search or Government jobs or occupations or those who prefer to stay within the district, their engagement in secondary sectoral activities shows negative relationship with both male and female literacy. Meaning thereby education is negatively related with the engagement in the secondary sectors among the Hindus.

4.5 The negative relationship between literacy both male and female and land holding shows that people those who can obtain their livelihood from agriculture, do not feel the necessity of getting higher education for obtaining alternative source of livelihood. On the contrary, people with smaller holding, go for higher education, in order to get alternative source of livelihood.

4.6 The negative relationship of male and female literacy with secondary source of income can be attributed to the nature of formal education system in the district as well as the state. Most of the educated people prefer to take up jobs in the tertiary and service sector.

4.7 There is no statistically valid relationship between male and female literacy among the talukas and their economic status. This could be possible because most of the talukas are engaged in primary and service sectors and their economic status as far as agriculture and secondary sectors concerned is very weak.

4.8 Higher dependency ratio shows the nature of burden on agricultural sector in the district. Existence of joint family system is largely responsible for it and with the introduction of market relation and modernization in agriculture the dependency ratio can be brought down.

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