

MFV-567

**THE SETTLEMENT STRUCTURE OF EASTERN COLONIAL  
INDIA - AN ANALYSIS OF PATTERN  
AND CORRELATES, 1901-1931**

*Dissertation submitted to the Jawaharlal Nehru University  
in partial fulfilment of the requirements  
for the award of the Degree of  
MASTER OF PHILOSOPHY*

**PARAMITA MAJUMDAR**

**CENTRE FOR THE STUDY OF REGIONAL DEVELOPMENT  
SCHOOL OF SOCIAL SCIENCES  
JAWAHARLAL NEHRU UNIVERSITY  
NEW DELHI-110067,  
INDIA  
1994**

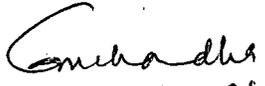


जवाहरलाल नेहरू विश्वविद्यालय  
JAWAHARLAL NEHRU UNIVERSITY  
NEW DELHI - 110067

CENTRE FOR THE STUDY OF REGIONAL DEVELOPMENT  
SCHOOL OF SOCIAL SCIENCES

This is to certify that the dissertation entitled "SETTLEMENT  
STRUCTURE OF EASTERN COLONIAL INDIA - AN ANALYSIS OF PATTERN AND  
CORRELATES, 1901-1931" submitted by Paramita Majumdar in  
fulfilment of six credits out of the total requirement of twenty  
four credits for the degree of Master of Philosophy is a bonafide  
work to the best of my knowledge and may be placed before the  
examiners for their consideration.

  
20/7/94  
(A.H. KIDWAI)  
Supervisor

  
21-7-94  
(G.K. CHADDHA)  
Chairman

## A C K N O W L E D G E M E N T S

The writing of this dissertation had received a lot of co-operation from different quarters. I wish to extend my sincere thanks to all of them who very kindly extended their help for the preparation of this study.

Firstly, I would like to acknowledge my supervisor Professor Atiya Habib Kidwai to whom I am very grateful for her interest in the problem and invaluable suggestions and necessary corrections which she made for the improvement of the manuscript. I am also grateful to Professor Aijajuddin Ahmad for his helpful ideas and discussions.

My grateful thanks are due to the staff of Teen Murti Library, Central Secretariat Library, National Archives and JNU Library for allowing me to consult the relevant materials.

I would also like to record my special thanks to my friend Kuldip Singh for his help all through the preparation of the study and help in proof-reading.

My friends Urmi and Devika have given freely their time and suggestions during the writing of this dissertation and it is a pleasure to take the opportunity of thanking them.

I would also like to express my thanks to Mr. Rajiv Kumar Saxena for typing the dissertation, inspite of his heavy preoccupations.

In the end, I also wish to acknowledge in gratitude the encouragement given to me by my father, mother and sisters Papri and Babli to finish the work.

However, the entire responsibility for the correctness of internal details is my own.

*Paramita Majumdar*

New Delhi, 1994.

PARAMITA MAJUMDAR

307.14

## CONTENTS

	<b>Acknowledgements</b>		<b>Pages</b>
	<b>Contents</b>		
	<b>List of Tables</b>		
	<b>List of Maps and Diagrams</b>		
Chapter	I	<b>Introduction.</b>	1-29
	I.1	Significance of the present study.	1
	I.2	Introduction to the region.	2
	I.3	Physical Setting.	8
	I.4	Objectives.	16
	I.5	Data Base.	16
	I.6	Methodology.	17
	I.7	Literature Review.	17
	I.8	Organisation of the Study.	28
Chapter	II	<b>Settlement Structure</b>	30-134
	II.1	Introduction.	30
	II.2	Census Definition of the term 'Village'	31
	II.3	Growth of Population in the Natural Divisions of Bengal Bihar and Orissa.	37
	II.4	Density and Distribution of Population in the Natural Divisions.	42
	II.5	Density of Rural Population in the Natural Divisions.	47
	II.6	Density of Urban Population in the Natural Divisions.	57
	II.7	District Level Analysis.	62
	II.7.1	Density of Rural Population in West Bengal and Orissa.	64
	II.7.2	Density of Urban Population in West Bengal and Orissa.	77
	II.8	Size Class Distribution of Population and Settlements.	79
	II.9	Concentration of Urban Population in the Natural Divisions.	90
	II.10	Concentration of Rural Population in the Natural Divisions.	100
	II.11	District-wise Distribution of Population in West Bengal and Orissa.	110
	II.12	Conclusions.	132
Chapter	III	<b>Economic Structure</b>	135-228
	III.1	Introduction	135
	III.2	Participation Rate.	136
	III.3	Participation Rate in Primary Secondary and Tertiary Sector.	141

	III.4	Participation Rate of Male and Female Workers.	149
	III.5	Occupational Structure.	154
	III.5.1	Distribution of Workers in the Primary Sector.	164
	III.5.2	Distribution of workers in the Secondary Sector.	170
	III.5.3	Distribution of Workers in the Tertiary Sector.	177
	III.6	District Level Analysis.	182
	III.6.1	Participation Rate.	182
	III.6.2	Distribution of Workers in the Primary Sector.	194
	III.6.3	Distribution of Workers in the Secondary Sector.	211
	III.6.4	Distribution of Workers in the Tertiary Sector.	223
	III.7	Conclusions.	227
Chapter	IV	<b>Migration</b>	229-300
	IV.1	Introduction	229
	IV.2	Migration in Bengal.	231
	IV.3	Migration in Bihar and Orissa.	242
	IV.4	Migration between the Provinces -Bengal Bihar and Orissa.	248
	IV.5	District Level Migration - West Bengal and Orissa.	259
	IV.6	Conclusions.	299
Chapter	V	<b>Conclusions.</b>	301-306
		<b>BIBLIOGRAPHY</b>	307-314

## LIST OF TABLES

<u>Sl. No.</u>	<u>Table No.</u>	<u>Title</u>	<u>Pages</u>
1.	1.1	Area in Square Kilometres	6
1.	2.1	Distribution of inhabited Villages.	35
2.	2.2	Growth Rate of Population in the Natural Divisions.	39
3.	2.3	Density of Population.	43
4.	2.4	Density of Rural Population.	49
5.	2.5	Share of Net Cultivated area to Total area.	51
6.	2.6	Density of Rural Settlements.	54
7.	2.7	Density of Urban Population.	57
8.	2.8	Distribution of Urban Population.	60
9.	2.9	District-wise Density of Population.	66
10.	2.10	Rural Density and Percentage of Net Cultivated Area to Total Area.	71
11.	2.11	Distribution of Rural Population.	81
12.	2.12	Distribution of Villages and Population in Different Size Classes-1901.	83
13.	2.13	Distribution of Population and Villages with less than 500 inhabitants.	101
14.	2.14	Distribution of Population and Villages with population size 500-1000.	103
15.	2.15	Distribution of Population and Villages with Population size 1000-2000.	104
16.	2.16	Distribution of Population and Villages with Population size 2000-5000.	106
17.	2.17	Distribution of Villages and Population in Different Size Classes-1911.	107
18.	2.18	Distribution of Villages and Population in Different Size Classes-1921.	109
19.	2.19	District-wise Distribution of Rural Population.	110
20.	2.20	Distribution of Villages and Population in Different Size Classes 1901-1931.	112

21.	2.21	Distribution of Villages and Population in West Bengal and Orissa.	114
22.	2.22	Distribution of Villages and Population in Settlements with less than 500 population.	116
23.	2.23	Distribution of Population and Villages with Population Size 500-1000.	118
24.	2.24	Distribution of Urban Population.	128
25.	2.25	Distribution of Towns and Population 1901-1931.	130
1.	3.1	Participation Rate - 1901.	137
2.	3.2	Participation Rate - 1911.	139
3.	3.3	Participation Rate - 1921.	142
4.	3.4	Participation Rate - 1931.	148
5.	3.5	Distribution of Workers in Primary, Secondary and Tertiary Activities, 1901.	155
6.	3.6	Distribution of Workers in Primary, Secondary and Tertiary Activities 1911.	158
7.	3.7	Distribution of Workers in Primary, Secondary and Tertiary Activities- 1921.	161
8.	3.8	Distribution of Workers in Primary, Secondary and Tertiary Activities- 1931.	166
9.	3.9	Districtwise Participation Rate- 1911 to 1931.	183
10.	3.10	Distribution of Population in West Bengal and Orissa Division.	182
11.	3.11	Participation Rate in Primary, Secondary and Tertiary Sector-1911.	190
12.	3.12	Participation Rate in Primary, Secondary and Tertiary Sector-1921.	192
13.	3.13	Participation Rate in Primary, Secondary and Tertiary Sector-1931.	193
14.	3.14	Distribution of Workers in Primary, Secondary and Tertiary Activities- 1911.	189
15.	3.15	Distribution of workers in Primary, Secondary and Tertiary Activities- 1921.	190
16.	3.16	Distribution of Workers in Primary, Secondary and Tertiary Activities- 1931.	191

17.	3.17	Distribution of Workers in the Primary Sector-1911.	202
18.	3.18	Distribution of Workers in the Secondary Sector-1911.	209
19.	3.19	Distribution of workers in the Tertiary Sector-1911.	217
20.	3.20	Distribution of Workers in the Primary Sector-1921.	204
21.	3.21	Distribution of Workers in the Secondary Sector-1921.	212
22.	3.22	Distribution of Workers in the Tertiary Sector - 1921.	221
23.	3.23	Distribution of Workers in the Primary Sector - 1931.	205
24.	3.24	Distribution of Workers in the Secondary Sector - 1931.	215
25.	3.25	Distribution of Workers in the Tertiary Sector - 1931.	224
1.	4.1	Rate of Migration - 1911.	232
2.	4.2	Rate of Migration - 1921.	234
3.	4.3	Immigration and Emigration - 1911.	236
4.	4.4	Immigration and Emigration - 1921.	245
5.	4.5	Migration Pattern - Bengal, Bihar and Orissa - 1911.	251
6.	4.6	Emigration from Bihar and Orissa into Bengal - 1911.	253
7.	4.7	Emigration from Bihar and Orissa into Bengal, 1911-1931.	256
8.	4.8	Emigrants from North Bihar and South Bihar -1921.	258
9.	4.9	Emigration from Bengal into Bihar and Orissa - 1911 to 1931.	260
10.	4.10	Characteristics of Migration Pattern - 1911.	261
11.	4.11	Characteristics of Migration Pattern - 1921.	262
12.	4.12	Immigrants into West Bengal - 1911.	264
13.	4.13	Immigrants into Orissa - 1911.	265
14.	4.14	Immigrants into Orissa - 1921.	267
15.	4.15	Immigrants into Orissa - 1921.	271
16.	4.16	Immigration and Emigration - 1911.	273
17.	4.17	Immigration and Emigration - 1921.	274
18.	4.18	Emigrants from West Bengal - 1911.	279
19.	4.19	Emigrants from Orissa - 1911.	281
20.	4.20	Emigrants from West Bengal-1921.	282
21.	4.21	Emigrants from Orissa - 1921.	286
22.	4.22	Emigrants from Orissa - 1911.	287



23.	4.23	Emigrants from Orissa - 1921.	288
24.	4.24	Districtwise Density of Population, 1911-1931.	291
25.	4.25	Distribution of Urban and Rural Population, 1901-1931.	293
26.	4.26	Number of Town - 1901-1931.	295
27.	4.27	Birth Rates and Death Rates in Calcutta with Suburbs and Howrah 1911-1920.	297
28.	4.28	Growth Rate of Urban and Rural Population for selected districts 1901-1931.	298

## List of Maps and Diagrams

<u>Fig. No:</u>	<u>Title</u>	<u>Pages</u>
1.1	Location of the Study Area.	3
1.2	Natural Divisions of Bengal Bihar and Orissa.	5
1.3	General Relief And Drainage - Bengal, Bihar and Orissa.	13
2.1	Distribution of inhabited Villages, 1901-1931.	36
2.2	Variation in Population.	40
2.3	Density of Population 1901-1911.	44
2.4	Density of Population 1921-1931.	45
2.5	Density of Rural Population, 1901-1911.	48
2.6	Density of Rural Population, 1921-1931.	50
2.7	Percentage of Net Cultivated Area to Total Area.	52
2.8	Relation between rural density and Percentage of net cultivated area, 1911-1931.	56
2.9	Density of Urban Population, 1901-1911.	58
2.10	Density of Urban Population, 1921-1931.	61
2.11	Density of Population in West Bengal and Orissa, 1901.	63
2.12	Density of Population in West Bengal and Orissa, 1911.	65
2.13	Density of Population in West Bengal and Orissa, 1921.	67
2.14	Density of Population in West Bengal and Orissa, 1931.	68
2.15	Relation between rural Density and Percentage of Net Cultivated Area, 1911-1931.	70
2.16	Distribution of rural and Urban Population in the Natural Divisions, 1901-1931.	80
2.17	Level of Urbanization, 1901-1931.	91
2.18	Lorenz Curve showing the concentration of Population in Different size class Village, 1901.	84
2.19	Lorenz Curve showing the concentration of Population in Different Size Class Villages, 1911.	85 86
2.20	Lorenz Curve showing the concentration of Population in Different Size Class Villages, 1921.	87
2.21	Lorenz Curve showing the concentration of Population in Different Size Class Villages, 1931.	93

2.22	Lorenz Curve showing the concentration of Population in Urban Areas - 1901.	94
2.23	Lorenz Curve showing the concentration of Population in Urban Areas - 1911.	96
2.24	Lorenz Curves showing the concentration of Population in Urban Areas - 1921.	97
2.25	Lorenz Curves showing the concentration of Population in Urban Areas - 1931.	111
2.26	Districtwise Distribution of Rural and urban Population, 1901-1931.	117
2.27	Lorenz Curves showing the concentration of Population in Rural Areas, 1901-1911.	119
2.28	Lorenz Curves showing the concentration of Population in Rural Areas, 1921-1931.	120
2.29	Lorenz Curves showing the concentration of Population in Urban Areas, 1901-1911.	121
2.30	Lorenz Curves showing the concentration of Population in Urban Areas, 1921-1931.	124
3.1	Distribution of Workers in Primary, Secondary and Tertiary Sectors - 1901.	156
3.2	Distribution of Workers in Primary, Secondary and Tertiary Sectors-1911.	159
3.3	Distribution of workers in Primary, Secondary and Tertiary Sectors-1921.	162
3.4	Distribution of workers in Primary, Secondary and Tertiary Sectors - 1931.	167
3.5	Districtwise Participation Rate of Male and Female Workers, 1911-1931.	184
3.6	Participation Rate of Male and Female Workers in Primary Secondary and Tertiary Sectors - 1911.	185
3.7	Participation Rate of Male and Female Workers in Primary, Secondary and Tertiary Sectors- 1921.	187
3.8	Participation Rate of Male and Female worker in Primary, Secondary and Tertiary Sectors - 1931.	189
3.9	Distribution of workers in Primary, Secondary and Tertiary Activities - 1911.	198
3.10	Distribution of workers in Primary, Secondary and Tertiary Activities - 1921.	199
3.11	Distribution of workers in Primary, Secondary and Tertiary, Activities - 1931.	201
3.12	Distribution of Workers in the Primary Sector - 1911.	203
3.13	Distribution of workers in the Primary Sector-1921.	206

3.14	Distribution of workers in the Primary Sector - 1931.	207
3.15	Distribution of workers in the Secondary Sector - 1911.	210
3.16	Distribution of workers in the secondary Sector - 1921.	213
3.17	Distribution of workers in the Secondary Sector-1931.	216
3.18	Distribution of workers in the Tertiary Sector-1911.	219
3.19	Distribution of Workers in the Tertiary Sector - 1921.	222
3.20	Distribution of Workers in the Tertiary Sector-1931.	225

## CHAPTER II

### SETTLEMENT STRUCTURE

#### II.1 INTRODUCTION

Settlements may be defined as places which are inhabited on a permanent basis, as distinct, for example, from camps or fairs. Although they may be categorized according to their size, status and range of facilities provided, so that hamlets may be distinguished from villages, villages from towns and so on, it is important to bear in mind that, in reality there exists a settlement continuum and each category merges gradually into the next.

Settlements provide a focus for interdisciplinary study. The economist, sociologist, historian, psychologist and geographer are all able to examine a settlement from a clearly defined disciplinary base. Geography acts as an integrator, borrowing from the other disciplines but at the same time making its own distinctive contribution particularly with respect to spatial organization.<sup>1</sup> In geography, a settlement means an establishment and an abode with an established way of life and fixate and certainty with respect to time and space. Its study helps in understanding the inter-relationship between man and environment. Settlements, illustrate the degree of man's dependence on physiographic conditions. The reciprocal relationship of man environment is the central thrust in settlement studies. These relation

---

1. Daniel, P and Hopkinson M. " The Geography of Settlement" Conceptual frameworks in Geography, Oliver and Boyd 1979, P.7.

ships are simpler in the initial stages but with time, the degree

During the period 1901 to 1911, the increase in the number of villages was mainly due to the fact that, the residential villages were treated as census villages. The major contribution to the increase was by the Northern and Eastern part of Bengal for the Bengal Presidency, and by Chotanagpur Plateau mainly, in Bihar and Orissa where till 1911 the residential villages were the census village.

During 1911 and 1921, the above mentioned three natural divisions were brought under the land revenue survey and mauza was treated as the census village. The same trend continued during 1921 and 1931 so that the number of villages were reduced to a large extent.

Some part of the decrease was largely due to the epidemic environment, decline in the drainage condition, floods and famines which led to whole villages being deserted which were formerly inhabited.<sup>2</sup>

### **II.3 GROWTH OF POPULATION IN THE NATURAL DIVISIONS OF BENGAL, BIHAR AND ORISSA**

The growth of population in Bengal, Bihar and Orissa was as much the consequence of its high natural increase and diversified economic base as of the inter-regional and intra-regional movements of population. The combined effect of epidemic environment which was due to the deteriorating drainage condition, and agri-

---

2. Tallents P.C. Census of India 1921, Vol. VII, Bihar and Orissa Part I, Report P. 94.

cultural decadence<sup>3</sup> lead to the diminution of population till 1921. After 1921, improvement in public health and favorable changes in economic activity lead to the growth of population. In Bengal during 1911-21, there was a decrease of 2.24%, in the total population (Table 2.2) while the rural population declined by 6.94%. The next decade 1921-1931 experienced a growth both in total and rural population by 14.10% and 16.03% respectively.

The decade of 1901-1911 experienced an increase in the total and rural population in Bengal as well as, in Bihar and Orissa. Every natural division except Central Bengal and Orissa contributed to this increase, although in unequal shares. (Table 2.2). Immigration was partly responsible for the accretion but the main factor, however, was the natural growth of population in Bengal. In different parts of the province the natural growth was largely dependent upon the strength of the Musalmans who, as is well known are more prolific than Hindus - the Census of Bengal 1911,

states in its report. The increase was greatest where they were most numerous, viz, in North and East Bengal and least where they were in minority viz, in Central and West Bengal though the immigrant population was strongest there. The proportion of Musalmans, in North Bengal was 59.3% and in East Bengal was 67.5% as against 13.4% and 48.1% in West Bengal and Central Bengal respectively in 1911.

---

3. Sen, J. Land Utilisation and Population Distribution, A case study of West Bengal, 1850-1985, Daya Publishing House, Delhi, 1988 p. (viii).

the increase is felt when we consider the density of population which had increased considerably over the years.

## II.6 DENSITY OF URBAN POPULATION IN THE NATURAL DIVISIONS

With the continued decline in the percentage of population living in rural areas from 1901 to 1931 and simultaneous increase in the percentage of urban population, it is quite obvious that the urban density of population of the region had also increased. In 1901, Bengal Bihar and Orissa together had only 10 persons living per square-kilometer urban areas (Table 2.7). The maximum

Table - 2.7

Density of Urban Population  
(Persons per square kilometer)

Natural division	1901	1911	1921	1931
BENGAL	10	18	27	27
BIHAR AND ORISSA		6	6	9
West Bengal	15	18	21	25
Central Bengal	55	55	58	61
North Bengal	7	7	6	17
East Bengal	7	11	25	21
North Bihar	17	14	15	22
South Bihar	15	19	15	22
Orissa	9	8	7	8
Chotanagpur	1	2	1	3
Plateau				

Source: Same as Table 2.1

density was in Central Bengal which comprised the districts of 24



Table - 2.9

## Density of Population (Persons per sq km)

Districts	1901			1911			1921			1931		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
West Bengal	228	213	15	234	216	18	139	118	21	239	214	25
Burdwan	217	205	12	217	203	14	203	188	15	223	204	19
Birbhum	195	191	4	202	196	6	183	176	7	217	206	11
Bankura	166	158	8	169	160	9	152	142	10	165	156	9
Midnapore	207	200	7	209	202	7	205	198	7	208	198	10
Hooghly	343	303	40	360	308	52	356	296	60	368	299	69
Howrah	693	550	143	763	601	162	727	522	205	800	568	232
Orissa	186	177	9	177	169	8	187	180	7	200	192	8
Cuttack	219	209	10	224	215	9	219	210	9	231	221	10
Balasore	205	198	7	193	185	8	179	172	7	191	184	7
Puri	159	150	9	159	152	7	149	142	7	162	155	7

Source: Same as Table 2.1

It is seen from Table 2.9 and the supporting figure that though the rural density was very high it was uneven in the six districts of West Bengal and three districts of Orissa division.

Bankura was the most thinly populated in the West Bengal division all through 1901 to 1931 supporting only 156 persons to the square kilometer in 1931. The physical factors played a distinct role in determining the rural and urban density of population. The eastern portion of the district had the greatest density than the western part which is of hilly undulating character and had large areas under jungle. The character, type and

Table - 2.10

## Rural Density &amp; % of Net Cultivated Area to Total Area

Natural Div/ District	1911 Rural Density	1911 Percentage of Net cultivated Area	1921 Rural Density	1921 Percentage of Net Cultivated Area	1931 Rural Density	1931 Percentage Cultivated
West Bengal	216	53.0	118	49.3	214	47.5
Burdwan	203	52.6	188	44.6	204	32.2
Birbhum	196	69.7	176	69.7	206	55.2
Bankura	160	33.5	142	33.6	156	44.3
Midnapore	202	56.7	198	55.4	198	59.8
Hooghly	308	52.3	296	41.4	299	33.0
Howrah	601	61.7	522	41.8	568	31.4
Orissa	169	55.1	180	53.8	192	53.6
Cuttack	215	52.5	210	55.2	221	52.2
Balasore	185	69.1	172	59.6	184	61.1
Puri	152	47.1	142	47.1	155	49.5

the fact, that the rural population has increased during the period 1921-1931, without increase in the percentage of net cultivated area creating much pressure on the existing land.

Midnapore also had a fairly dense population. In 1901 and 1911 the rural density was 200 and 202/sq Km respectively but during the decade of 1911-21 the depletion of population all over the country had also resulted in the decrease of population. Therefore in 1921 and 1931 the rural density was lower than the previous years. This extensive district covering an area of 13456 square Kilometers and the largest of all six districts in West

## CHAPTER I

### INTRODUCTION

The discipline of geography has undergone a remarkable transformation both in its content of study as well as its approaches and methodology since the 1950's. There has been almost a revolution in this field resulting into many branches. Of all the areas of studies, settlement geography has had a much more conceptual and empirical revolution. The study of rural settlement geography as compared to urban has, however, lagged behind in the development of theoretical constructs and statistical approaches. However, the growing interest in the latter, has brought out a number of studies during recent years.

The form of settlement in any particular region reflects Man's relationship with the environment. It will not be an exaggeration to say that the pattern and structure of settlements in a space along with the organization of population provides a fair idea about the levels of development achieved by that region. It therefore, becomes necessary to understand the structure of settlement of an area in order to evaluate the spatial linkages of the settlements with the regional economy.

#### I.1. SIGNIFICANCE OF THE PRESENT STUDY :

The study of settlement is inter-disciplinary in nature. Therefore the economist, sociologist, historian, psychologist and geographer are all able to examine a settlement from a clearly defined disciplinary base. Geography acts as an integrator, borrowing from the other disciplines but, at the same time making its own distinctive contribution particularly with respect to

spatial organization.<sup>1</sup>

This study on the Bengal Presidency and the Province of Bihar and Orissa attempts to look into certain demographic and economic characteristics of the settlements for a specified time period 1901-1931, in order to understand the settlement structure of the region.

The area chosen for the present study, namely the eastern provinces of Bengal, Bihar and Orissa is a highly involved and complex area which has been the scene of many political events which shaped its society and economy.

The regions history has been most significant in the context of colonial rule in India. It went through most turbulent periods in terms of economic casualty, political instability, social transformation and cultural synthesis. To perceive the vicissitudes of changes in every sphere, the region is one of the best and it offers a variety of subjects to the scholars for research.

The present study aims to provide a brief account of the settlement structure of colonial eastern India in terms of distribution, density, growth of population and the size class of settlement, the occupational pattern and the trend of migration for a period of thirty years.

## 1.2. INTRODUCTION TO THE REGION :

Bengal (more precisely designated, Lower Bengal) before the partition of 1905 was the largest and most populous province in India. It extended between latitude  $19^{\circ}18' N$  to  $28^{\circ}15' N$  and from

---

1. Daniel P., M.Hopkinson, Geography of Settlement, Conceptual Frameworks Geography, Oliver and Boyd, 1979, p.7.

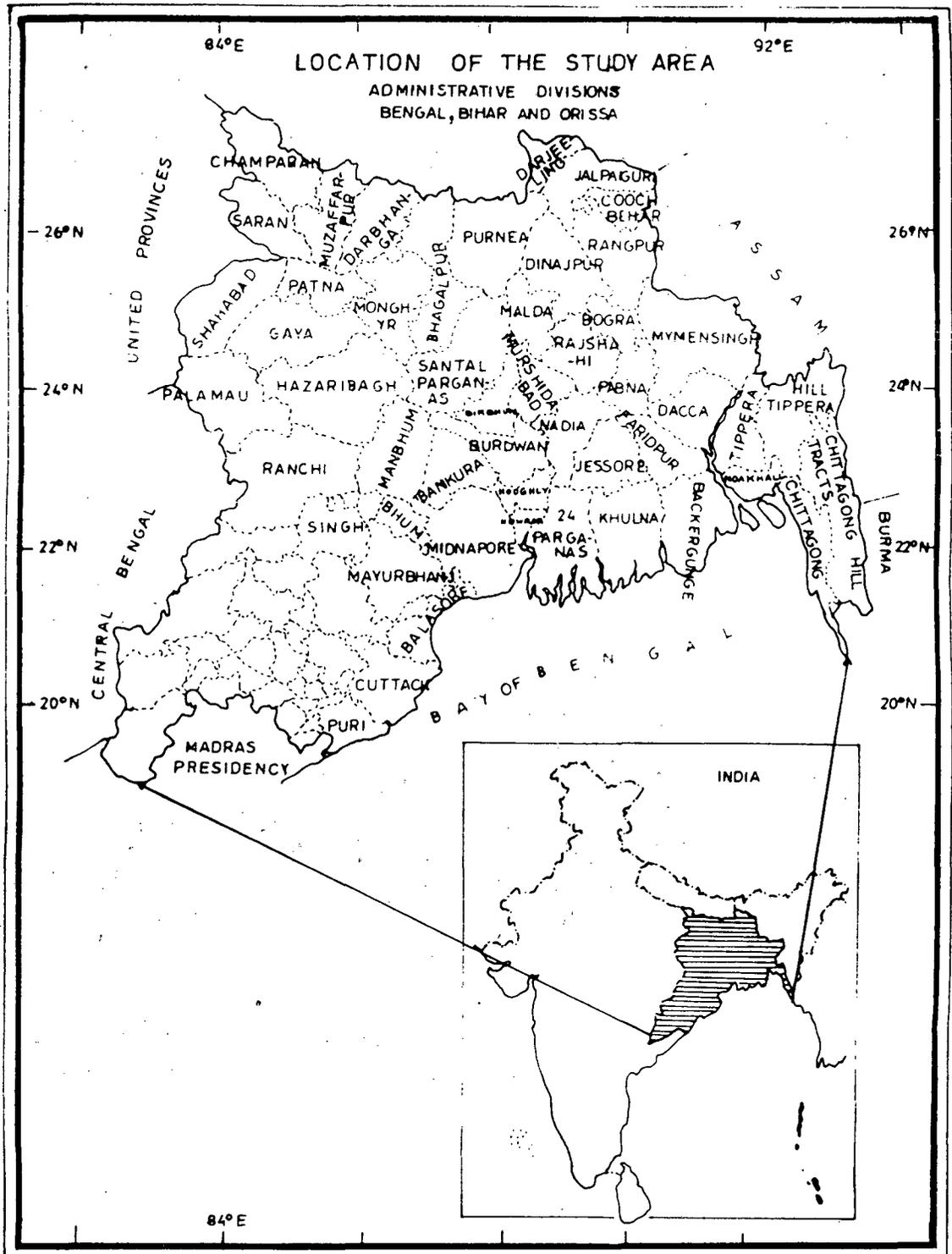


Fig 1.1

82<sup>0</sup>E to 97<sup>0</sup>E longitude and contained four large sub-provinces, namely Bengal Proper, Bihar, Chotanagpur and Orissa.<sup>2</sup> But due to the rising tide of nationalism in Bengal, Lord Curzon issued an order on 20th July 1905 to divide the province of Bengal into two parts: East Bengal and Assam.<sup>3</sup> Eventually, the partition was annulled on the 1st April 1912, when the state of Bihar was separated from Bengal and the province of Bihar and Orissa came into existence. Later, on the 1st April, 1936, Bihar was separated from Orissa.<sup>4</sup>

The present area under study is bounded in the north by Nepal and Bhutan, in the east by Assam and the continuation of the range of hills, in the south by the Bay of Bengal, and on the west by the United and Central provinces.

Out of the total area of 5,04,740 square km (1,94,657 sq.miles) in 1931 census record, 2,15,296 square km were in Bengal and 2,89,444 were in Bihar and Orissa.

---

2. Imperial Gazetteer of India, Provincial Series, Bengal, Vol I, 1909, p.1.

3. Chandra Bipin, Modern India NCERT 1990, p.193.

4. Ahmad, Enayat, Bihar- A Physical, Economic and Regional Geography, Ranchi University 1985, p.6.

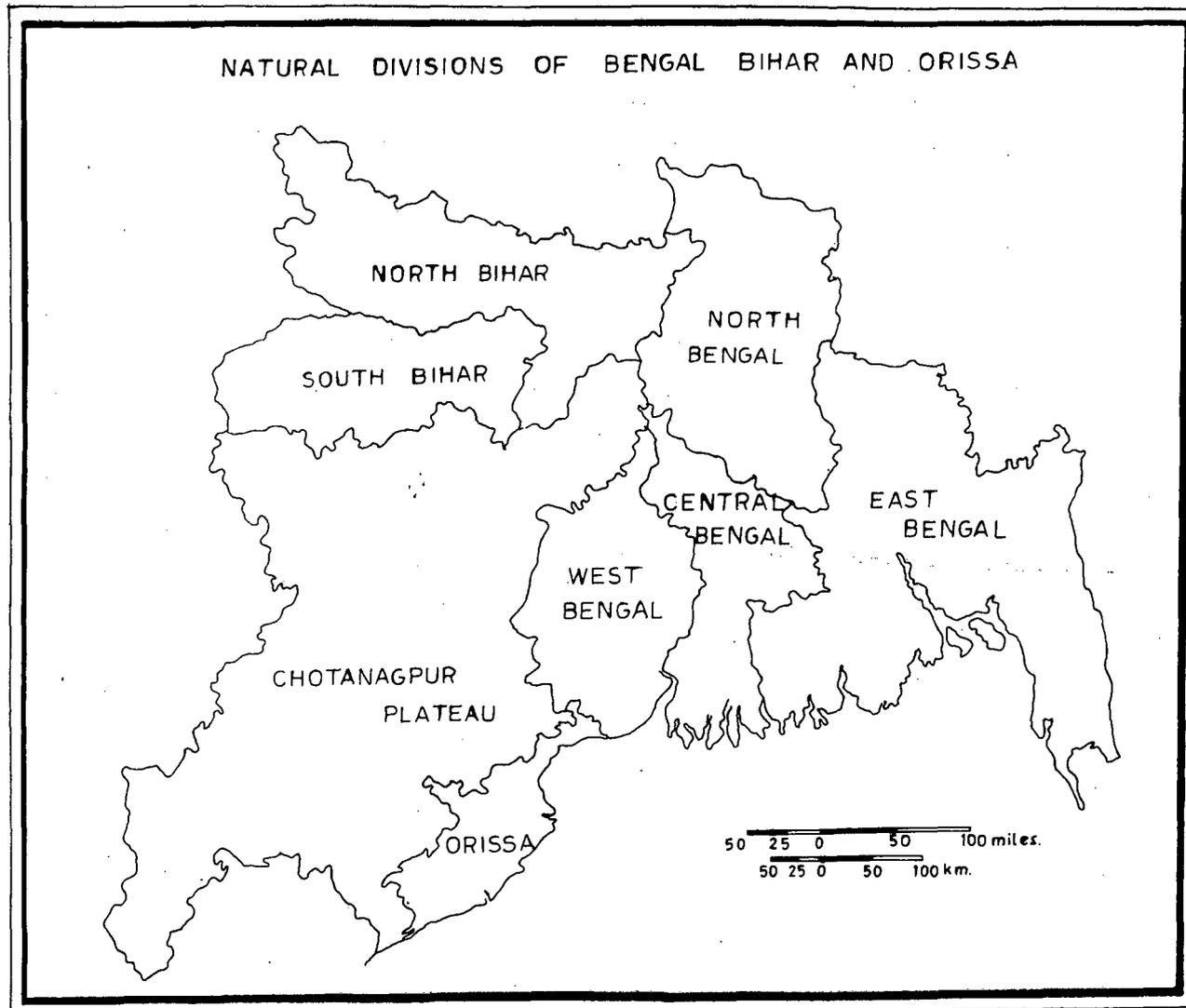


Fig 1.2

**AREA IN SQUARE KILOMETRES**

	1901	1911	1921	1931
<b>BENGAL</b>	<b>4,85,990</b>	<b>21,18,089</b>	<b>2,13,444</b>	<b>2,15,296</b>
British Territory	3,91,876	2,03,401	1,98,916	1,99,809
Feudatory States	94,114	14,688	14,528	15,487
<b>BIHAR AND ORISSA</b>	-	<b>2,90,521</b>	<b>2,89,444</b>	<b>2,89,444</b>
British Territory	-	2,15,296	2,15,296	2,15,296
Feudatory States	-	75,225	74,148	74,148

Altogether 4,15,105 square kilometres were in British territory (an increase of 23,229 square km area from 1901) and 89,635 square kilometers were in the Feudatory states. As a result of the territorial changes, the feudatory states of Bengal, Bihar and Orissa lost an area of 4,479 sq. kilometers between 1901 and 1931.

Throughout almost its whole extent Bengal is a low lying alluvial plain, the southern portion of which is formed by the united deltas of the Ganges and Brahmaputra, while the northern portion consists of the valleys of these great rivers and their tributaries. Whether physical conditions, or the character of the people and their languages are considered, the Presidency, with a few exceptions, is remarkably homogeneous. For practical



purposes, however, it may be treated as consisting of four natural divisions, viz Western, Central, East and North Bengal.<sup>5</sup>

In contrast to Bengal, the province of Bihar and Orissa lacks in homogeneity "It consists of three sub-divisions, Bihar, Chotanagpur and Orissa which have different language and land systems while their physical configuration and the character of their people are entirely distinct".<sup>6</sup>

Administratively, though Bengal, Bihar and Orissa together comprised of ten divisions, their "arrangement was not altogether convenient for discussing the main result of the census, the limits of divisions having been fixed for administrative purposes and without regard to physical and ethnological considerations. In the Orissa division, for instance, the Angul district is entirely different from the sea-board districts. The former is a hilly district with a non-Aryan population largely composed of Kandhs who till about sixty years ago practiced human sacrifice. The latter are deltaic districts long under the domination of Brahmans with an Aryan population, an old civilization and a peculiar caste system. The Bhagalpur division again contains the Santal Parganas, which physically is a part of the Chotanagpur Plateau, while its people are mainly Animistic Santals and Sauria Paharias, the latter of whom cling to the hill tops and are one of the most primitive races in the provinces."<sup>7</sup> Therefore in the census

---

5. Census of India 1911, Bengal, Bihar and Orissa Vol V, Part I, Report, p. 2 and p. 5.

6. Census of India 1911, Ibid p. 5.

7. Census of India 1911, Ibid p. 5.

reports the districts were grouped together by natural divisions with physical and ethnical affinities. In the present study the natural division instead of the administrative divisions have been considered as units of analysis.

### I.3 PHYSICAL SETTING

As regards the physical features, Bengal Bihar and Orissa present a great variety including the alluvial plains of the Ganga and the Brahmaputra and the deltas of those rivers which form the greater part of Bihar and Bengal proper; the crystalline plateau of Chotanagpur, including the Tributary States of Orissa and the hills stretching to the Ganges at Rajmahal; the narrow strip of alluvium comprising Orissa and lastly, a small portion of the sub-Himalayas, forming the main part of the Darjeeling district.<sup>8</sup>

The whole of Bengal proper except the Darjeeling district in the north and Chittagong Hill Tract and Hill Tipperra East Bengal, the south and south east is a flat alluvial plain. Nevertheless, there is a good deal of physiographic variety within the general pattern of alluvial and detrital plains.<sup>9</sup> The western margin, i.e, the area between the Bhagirathi-Hooghly and the surface outcrop of the solid rocks of the Peninsula lies outside the true delta. The west is a shelf of lateritic old alluvium (the Rarh) flanked by the coalesced fans of rivers draining the

---

8. Imperial Gazetteer of India, op.cit p. 3.

9. Spate O.H.K., Learnmonth A.T.A. and Farmer B.H. India, Pakistan and Ceylon The Regions, Methuen and Co. Ltd. London, 1967 p. 571.

Peninsula Plateaus - Ajay, Damodar, Rupnarayan and Kasai. The eastern portion of this tract is low and of alluvial formation.

Central Bengal, or the part lying south of Padma between the Bhagirathi-Hooghly on the west and the Madhumati on the east is the moribund delta<sup>10</sup> which lies mainly in Nadia, Jessore and Murshidabad districts. It is bounded on the south by a line roughly along the northern boundaries of 24 Parganas and Khulna. The mature delta<sup>11</sup> lies between the moribund delta and the Sundarbans. The northern half of 24 Parganas and Khulna is in this part, where land is being built up to some extent.

East Bengal, or the country east of Madhumati includes the present delta of the Ganges and Brahmaputra where the process of land-formation is still going on. The active delta<sup>12</sup> consists of the Sundarbans of southern Khulna and 24 Parganas and Faridpur and Backergunge. The area east of the Jamuna-Padma-Meghna line forms a great embayment of lowland except in the south-east where the Chittagong Hill Tracts are included. The country along the Padma and the lower Meghna is very similar to the active delta across the estuary, but it is backed by the Madhupur Jungle, a much dissected older alluvial terrace rising some 40 ft (12mts) above the general level.

North Bengal, the country between the Ganga and the Brahmaputra-Jamuna is essentially Strickland's "paradelta", a vast

---

10. Spate O.H.K., Ibid p. 588

11. Spate O.H.K., Ibid p. 588

12. Spate O.H.K., Ibid p. 588

lain falling from about 300 to 100 ft, scarred by innumerable old river courses and liable to disastrous floods especially along the Tista.<sup>13</sup> In the heart of the Doab lies the Barind, a tract of older quasi-lateritic alluvium and covers a considerable area on the confines of Dinajpur, Malda, Rajshahi and Bogra.

The province of Bihar is divided by the Ganges into two parts - north and south. The entire tract north of the Ganga is absolutely alluvial and monotonously flat except small tracts in Champaran and North Saran. The imperceptible general slope of the plain is both from the north to the south towards the Ganga and from the north west to the south-east as shown by the course of the rivers.<sup>14</sup> This plain is very fertile and densely populated. The soil consists mainly of the older alluvium or Bangar, a yellowish clay, with frequent deposits of Kankar.<sup>15</sup> Patna, Bhagalpur and Tirhut divisions including the districts of Patna, Gaya, Shahabad Bhagalpur, Monghyr, Purnea excluding Santal Parganas and Champaran, Saran, Muzaffarpur and Darbhanga comprise this river in plain.

In South Bihar, the Ganga plain is irregularly defined in the south because of the approach of southern hills and plateaus. The plain is rather a sandwiched area between the southern plateau and Ganga river. It gradually tapers from a wide base in the west to a narrow tongue on the north of the Rajmahal Hills.<sup>16</sup> The

---

13. Spate O.H.K, Ibid p. 583

14. Ahmed E., Op.cit p.21.

15. Imperial Gazetteer Op.cit p.4.

16. Ahmed E., Op.cit p.22.

general slope is towards the north-east. There are numerous isolated hills located in this tract. Barabar, Rajgir and Kharagpur hills areas a few example, in this regard. Due to intrusion of Kharagpur hills towards the north, Ganga has taken a sharp bend near Monghyr.<sup>17</sup>

The southern hilly region,<sup>18</sup> the country south of the 500 ft or 150 mts. contour line is the hill and plateau region of Bihar. All this tract except the Kaimur plateau in Shahabad and Santal Parganas is known as the Chotanagpur Plateau. It consists of a series of plateaus of different elevations. There are four plateaus in the region.

1. The highest surface is formed by the Western or higher Ranchi plateau (or Pat) region at an elevation of 2500 to 3600 ft above the sea level. It covers the north-western corner of Ranchi and the southern edge of Palamau district.
2. The second is the Ranchi plateau covering the whole of Ranchi except the (Pat) region at an elevation of 2000 ft above sea level and composed mostly of gneisses and granites. The Ranchi plateau is separated from the Upper Hazaribagh plateau by the Damodar trough which also has the same elevation and is probably a continuation of the Ranchi plateau.
3. Rising at an elevation of 1000 ft above level is the Lower Chotanagpur plateau and the Lower Hazaribagh plateau.
4. The next lower, erosion level is ununiform surface formed by

---

17. Census of India 1981, Regional Division of India-A Cartographic Analysis, Occassional papers Bihar, Series I, Vol IV, p.27.

18. Ahmed E., Op.cit, pp.22-23.

the river valleys, plains and lower parts of the outer lower plateau lying between 500 and 1000 ft above sea level. The basaltic Rajmahal Hills and the sandstone Kaimur plateau belong to this erosion level.

But the different plateau surfaces of Chotanagpur are parts of the same plain successively uplifted during Tertiary and Pleistocene times.

The tributary states of Orissa belongs to the some geological formation of the Chotanagpur plateau. The level rises gradually towards the north and west, leaving behind, the plains of Orissa, a flat alluvial tract of which the center and south comprises the delta of the Mahanadi and the north has been formed by the fluvial deposits of the rivers which drain the southern flank of the Chotanagpur plateau.

The climate<sup>19</sup> of the area is usually characterized as tropical, i.e, it has a high temperature and humidity and a dry and a wet season from the middle of March to the end of October. During the other months the temperature is much lower, the humidity is slight or moderate and the rainfall is generally scanty.

The soils of the region are mainly alluvial as it covers entire Bengal except Darjeeling, Hill Tippera and Chittagong where the greater part of the districts are covered by hill ranges. The new alluvium covers the entire North, East and Central Bengal except the Barind, Madhupur and Lalmai tracts which

---

19. Imperial Gazetteer Op.cit p.13.

GENERAL RELIEF AND DRAINAGE - BENGAL, BIHAR AND ORISSA

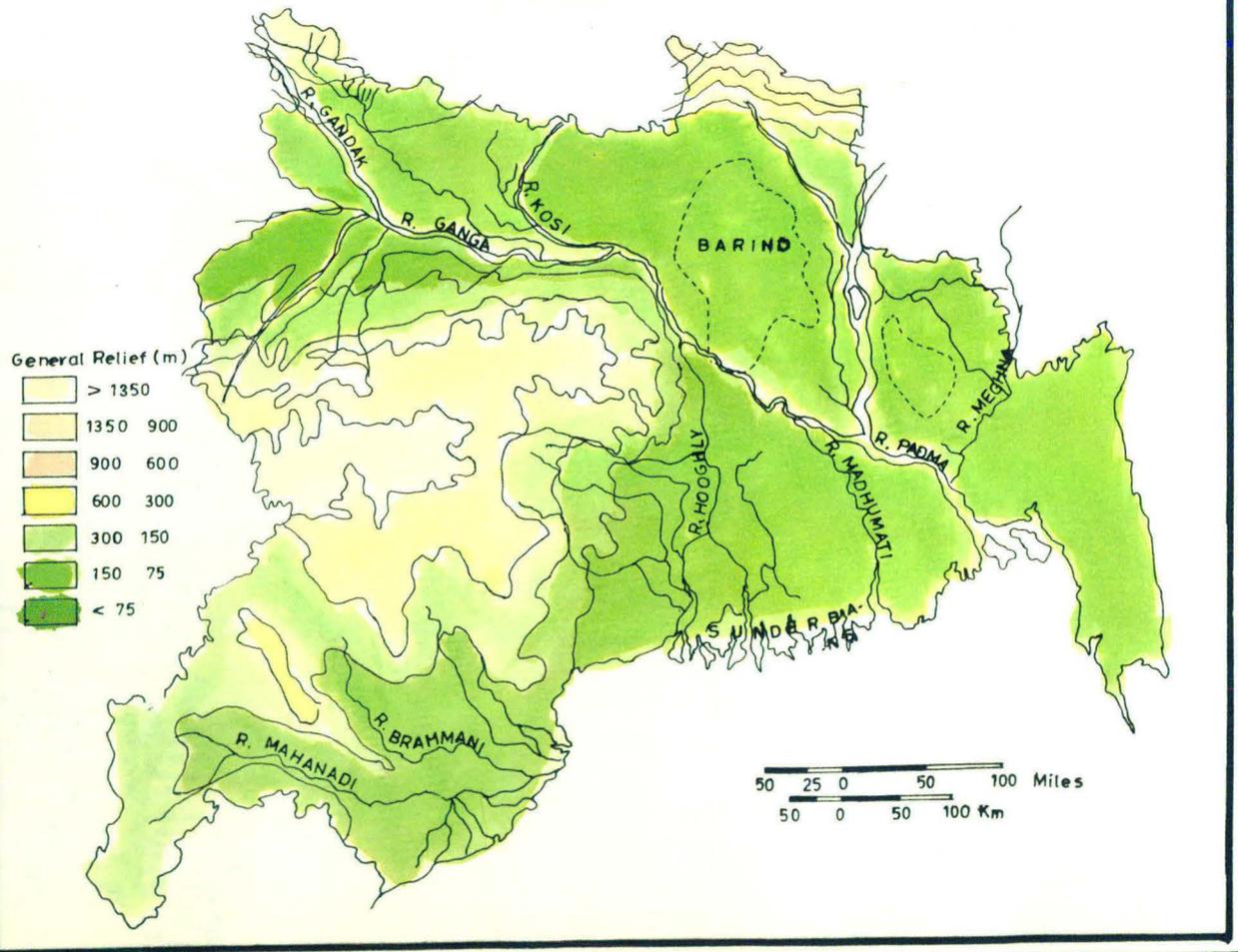


Fig 1.3

rises above the recent alluvium. The vast Ganga plain of North and South Bihar is also formed by a thick alluvial mantle of drift origin while the soils of Chotanagpur and its fringe is composed mainly of ancient crystalline gneisses, schists and granites and are known as Red Archaen Soil. In Orissa except the coastal zone where alluvial soil predominates, red soil, yellow soil, black soil and laterites occur in the northern plateau, the central tablelands and the Eastern Ghats.

The natural vegetation or forest cover is mainly confined to the sub-montane Himalayan region, in Chotanagpur and in the hill tracts of Chittagong and Hill Tippera. Elsewhere every bit of tillable land is used for cultivation to meet the demand of a huge population.

During the period under study rice was the staple food of the millions inhabiting the land and covered more than 70% of the cropped area. The next important crop was jute which also had acquired a dominant position in the region's economy. Among other crops maize, wheat and barley hold considerable area under cultivation in the drier and relatively infertile areas of Bihar. Tea plantation of the Duars was another important economic activity.

In West Bengal, the highlands of Orissa and in Chotanagpur plateau, a host of minerals are found and mining appeared as an important economic activity. Coal was the chief mining industry in the two river valleys, Barakar and Damodar where the coal seams occur. Iron mining also employed a considerable number of people. Mica was worked over a large area in Gaya, Hazaribagh, and Monghyr districts.



Throughout the Province, various handicrafts were carried on, mainly to meet the local demand.

Among the large industries, jute, cotton and paper were important, though a number of other industrial activities dotted the banks of the Hooghly.

The favourable physical and economic condition of the area led to a heavy concentration and growth of population over the years. In 1901, while there were 78,493,410, people, including the Native States, in 1911, it was 84,740,935 for Bengal, Bihar and Orissa, an increase of 7.96% and in 1931, the increase was 19.02% for the entire province. The density of the province increased from 160 persons per square kilometer in 1901 to 234 persons/sq. kilometer in Bengal in 1931 and 146 persons/sq. kilometer in Bihar and Orissa. But it varied remarkably in different parts and even in the same natural division.

The population of the villages and towns also increased considerably except during the decade of 1911-21 which is marked as the epidemic decade. As a whole, during 1901-1911, 6,210 villages were added in Bengal and 2,255 villages in Bihar and Orissa (Table 2.1). but during 1911-21, the province suffered from epidemic and endemic diseases which took a great toll of life and devastating natural calamities like floods and famines lead to the migration of the people into safer places. As a result, there was a decline both in the number of villages as well as the population. The next decade 1921-'31 witnessed favourable conditions and growth of population and other economic activities gained momentum. The second chapter of the present study attempts to analyse the changes in population and the

consequent changes in settlement structure.

I.4.

**OBJECTIVES:**

The main objectives of the present study are as follows :

1. To observe the temporal variation in settlement structure in terms of density, distribution, growth and size of settlements.
2. To analyse the occupational distribution of the population in order to understand the economic structure of the settlements.
3. To analyse the differences in the density of population and settlement growth by observing the pattern and trend of migration to and from the region.

**I.5 DATA BASE :** The present study is exploratory in nature and limited in scope. It is mainly confined to the secondary sources of data published in reports and tables of the Census of India for 1901, 1911, 1921 and 1931.

Type of data collected is about the distribution of population in different size class settlement, economic organisation of the population in different industrial categories and the birth place data for the migrant population. Base map is taken from the Census of India, 1911.

Though the first census was conducted in the year 1872, the first synchronous Census was, however, conducted in 1881. But due to boundary changes, addition of new areas and the relatively poor quality of the earlier census data the present study begins its analysis from 1901. Though the census was also conducted in 1941 but due to the second world war, the elaborate study was not possible. In 1947, India was partitioned and the area of East

Bengal (present Bangladesh ) and some parts of North Bengal which is included in the study was separated from India. Therefore the time period for the present study has been chosen from 1901 to 1931.

#### **I.6. METHODOLOGY :-**

The following statistical and cartographic methods have been used in the study for the calculation and representation of data

The growth of population, workforce participation rate, industrial classification of workers, immigration and emigration are calculated through percentage distribution and density of population through ratios. Lorenz curves are drawn to show the concentration of population in a few large size settlements.

For the purpose of presenting the statistical information on the maps relevant cartographic techniques have been used.

To show the spatial variation, choropleth maps have been made. Pie diagrams have been used to analyse the proportion of workers in different economic activities. Histograms and line graphs are used to describe the trends in the growth of selected variables.

#### **I.7. LITERATURE REVIEW**

The study of settlement in its modern context began with the work of a German geographer Carl Ritter during the early 19th century.<sup>20</sup> He studied the man-land relationship which is revealed in such phenomena like rural house types settlement pattern etc. The study of such phenomena gave a broad base to early settlement

---

20.Singh, R.L (Ed),Ibid, p(vii).

geography. Blache, Aurosseau, Auman, Demangeon, Brunhes and others also laid the foundations of settlement geography as early as 1920's, but the evidence of real interest was seen at the time of the establishment of the commission on "Types of Rural Habitation" under the auspices of the International Geographical Union which published its first report in 1928.<sup>21</sup> Since then research work in rural settlements has developed in many directions.

K.H. Stone<sup>22</sup> in his article "The Development of a focus for the geography of Settlement" has defined rural settlements in a restricted form. According to him rural settlement geography is "the description and analysis of the distribution of buildings by which people attach themselves to the land for the purposes of primary production".

In 1966, a year after Stone's article was published, Terry G Jordan<sup>23</sup> challenged the narrow views of Stone. He noted that the words "distributions and buildings" limits the field. According to him a better definition of settlement geography would be "the ing the major fault of the initial paper as lack of clarity of its objective defines the theme of the paper in his later article

---

21. Mandal R.B and Sinha V.N.P, Recent Trends and Concepts in Geography, Vol 3. Concept Publishing Company New Delhi, 1988, p.32.

22. Stone, K.H "The development of a Focus for the Geography of Settlement" Economic Geography Vol 41, 1965.

23. Jordan, Terry G "On the nature of Settlement Geography" The Professional Geographers, Vol 18, 1966.

study of the form of the cultural landscape, involving its orderly description and attempted explanation. Stone,<sup>24</sup> while accepting "Further Development of a Focus for the Geography of Settlement".

Numerous geographical studies have been concerned with tracing the evolution of rural settlements through time, the consequent transformation of the cultural landscape, the spatial organization, the morphology of rural settlements and so on. Recently, in the light of statistical testing numerous attempts have been made for the precise descriptions of the relative degrees of nucleation and dispersion.

Peter Daniel and Michael Hopkinson<sup>25</sup> have traced the development of towns and villages of England and Wales to give an idea of the present day settlement structure. The theoretical structure, related to distribution and interaction have been analysed and illustrated within the context of recent urban growth. The perception of the people about their environment and the change in the fabric of settlement due to the perceptions have also been analysed.

In India, the contribution of geographers in the field of rural settlement geography is far from encouraging.

C.D.Deshpande<sup>26</sup> studied the "Settlement Types of Bombay Karnataka" region in relation to population size of rural settle-

---

24. Stone, K.H. "Further Development of a Focus for the Geography of Settlement in R.L.Singh (Ed), Op.cit.

25. Daniel Peter and Michael Hopkinson, Op.cit

26. Deshpande C.D, "Settlement Types of Bombay-Karnataka", The Indian Geographical Journal, Vol 17, 1942.

ments. He has emphasized on the relief, soil fertility, slope as the guiding factor of rural settlements.

S.M.Ali<sup>27</sup> (1942) has discussed the type of rural settlements, their patterns, locations, sites and house types of Ghaggar plain in relation to population distribution in his article "Population and Settlement in the Ghaggar Plain".

"Rural Settlement Types in Uttar Pradesh" a contribution of E.Ahmad (1952)<sup>28</sup> emphasised the role of physical and cultural factors on which the pattern and types of settlement are totally dependent.

Sharma's<sup>29</sup> (1972) study on the "Settlement Geography of the Indian Desert" provides a comprehensive analysis of various aspects of settlements. It is essentially a regional account of the mutual connections between environment and settlement of Western Rajasthan. Accordingly emphasis has been laid on the physical aspects, which play a decisive role in the growth of settlements, their economic and social development.

V.N.P.Sinha<sup>30</sup> in his "Settlement Geography of Chotanagpur"

---

27. Ali, S.M, "Population and Settlement in Ghaggar Plain" Indian Geographical Journal, Vol 17, 1942.

28. Ahmed E, "Rural Settlement Types in Uttar Pradesh" A.A.A.G., Vol 42, 1952.

29. Sharma, R.C "Settlement Geography of the Indian Desert", Kumar Brothers, New Delhi, 1972.

30. Sinha, V.N.P "Settlement Geography of Chotanagpur" Rajesh Publishers, New Delhi, 1973.

studied the types, patterns, evolution and growth of settlement in a predominantly tribal area. The impact of industrialization in the structural changes of settlements have also been analysed.

A. Prasad<sup>31</sup> has published his D.Lit thesis on rural settlement geography in 1973. This is a detailed geographical study of the Chotanagpur region and focuses on the physical and economic background and the cultural complex of rural settlements.

The study of rural settlement dispersion in the district of West Champaran in the north-western part of Bihar by S.P. Yadav<sup>32</sup> (1993) has contributed by way of quantitative measurement, to settlement dispersion, comprehension of areal variation and processes leading to the evolution of settlement. He has taken six independent variables i.e., water table, paddy acreage, irrigated land area, agricultural labourers, literacy and proportion of scheduled castes and tribals to measure the rural settlement dispersion. Nearest neighbour analysis and quadrat method have been applied for measuring the rural settlement dispersion, and correlation, regression for establishing cause and effect relationship. The analytical character of this book makes it important and different from the other purely descriptive studies outlined so far.

In terms of general studies of the settlement structure the

---

31. Prasad, A., Chotanagpur: Geography of Rural Settlement, Ranchi University, Ranchi 1973.

32. Yadav S.P. Settlement Dispersion : A Quantative Analysis, Inter-India Publications, New Delhi, 1993.



31 ← NC, TH-5020

contribution of R.C. Eidt, K.N. Singh and Dr.R.P.B. Singh <sup>33</sup> is important. The work of Eidt, Singh and Singh on "Man, Culture and Settlement" is an anthology of 35 papers divided into four sections. It deals with the intimate relationship of man with his environment and evolution of diverse characteristics in different environs of the world.

Though the problem of settlement structure has been viewed in terms of regional and general studies in India by a number of scholars, no such attempt has been made to study the settlement structure of the Presidency of Bengal and the Province of Bihar and Orissa during the colonial period. The present study is an attempt to understand the settlement structure of Bengal Bihar and Orissa between 1901-1931. Most of the early literatures are written by British officers though some Indian writers did venture the study of Bengal, Bihar and Orissa mainly from the historical, political, social and cultural perspective. Only a few studies have been done from the geographical point of view. Here an attempt has been made to highlight some of the relevant works, which support the present study which is one of its kind so far as the region is concerned.

"Bihar Through the Ages" edited by R.R. Diwakar <sup>34</sup> is somewhat different from books on general history. While political and administrative aspects are dealt with, the main emphasis in this

---

33.Eidt R.C Etal (eds) Man, Culture and Settlement, Kalyani Pub. New Delhi, 1977.

34.Diwakar R.R, Bihar Through the Ages, Bombay, 1959.



book is laid on the socio-economic and religio-aesthetic activities of the people inhabiting Bihar, during the last three thousand years. Therefore for the study of early settlement structure it serves as an important source.

"The early history of Orissa", starting from the prehistoric period and weaving out a connected account of primitive life and culture upto the reign of King Kharavela i.e, the first century B.C. by Dr. Amar Chand Mittal <sup>35</sup> also provides an useful source of information for tracing out the origin of settlements during the early periods, in Orissa.

As far as Bengal is concerned, the edited volume of R.C. Majumdar, <sup>36</sup> provides an insight into the early settlements of the region, and the life of the primitive people. The economic condition, the socio-religious rites, ceremonies and festivals of Bengal are also illustrated which gives the reader a view of the past life in Ancient Bengal. The chapters related to the physical and historical geography of the legendary period written by Prof. H.C. Raychaudhuri; to the society by Dr. R.C. Majumdar, Dr. D.C. Ganguly and Dr. R.C. Hazra and the chapter related to the economic conditions by Dr. P.C. Chakravarti have proved useful sources of information for the present study.

As the works of Diwakar, Mittal and Majumdar forms a base

---

35. Mittal A.C, An Early History of Orissa, Jain Cultural Research Society, B.H.U. Varanasi, 1962.

36. Majumdar R.C. (ed), The History of Bengal, Vol I, Hindu Period University of Dacca, Dacca, 1963.

for discussing the evolution of settlements in the ancient times of Bihar and Orissa and Bengal, information about the Geographical base on which these settlements originated was provided by the studies of various Indian and foreign authors.

Spate and Learmonth<sup>37</sup> have taken India as a unit of geographical study and analysed the structure & relief, climate, soils and vegetation, and economy in order to understand the life of the peoples of India and also Pakistan. Besides the systematic approach, a regional approach has also been applied to study the physical environment, economy and society of the different regions of India on a physical basis. The sub region dealing with the Bengal delta, has been utilised for defining the physical aspects of Bengal.

Another study edited by R.L. Singh<sup>38</sup> is a valuable contribution to the regional geography of India. The historico-cultural and physical factors and the processes and patterns of resource utilization have been analysed in detail to highlight their role in regional differentiation at different levels. The stage of economic development and the growth potential of each region has also been analysed. Out of the 28 regions analysed in the book, the Middle and Lower Ganga Plain region, the Chotanagpur region and the East Coastal Plains region is relevant for the present

---

37. Spate O.H.K and Learmonth A.T.A. India and Pakistan, A General and Regional Geography, Methuen and Co. Ltd. 3rd.Ed. 1967.

38. Singh R.L (ed), India, A Regional Geography, National Geographical Society of India, Varanasi, 1989.

study which brings out the regional character of the study area. "Geography of Orissa" written by B.N.Sinha<sup>39</sup> is the only book which gives a detailed account of the state relating to the study of physical, economic, demographic and cultural aspects.

Ahmad's<sup>40</sup> account on "Bihar-A Physical, Economic and Regional Geography" as the name suggests is another important book which gives a detailed account of the geography of Bihar.

The two books of Nafis Ahmad,<sup>41</sup> "A New Economic Geography of Bangladesh" (1976) and "An Economic Geography of East Pakistan" (1958)<sup>42</sup> while studying the economic condition of Bangladesh give a brief general treatment of physiography, river changes geological aspects and climate and soils to demonstrate the interaction of geographical and economic conditions.

Sen<sup>43</sup> has studied the intimate relationship between fluctuating unfavourable natural environment and the resultant change in land use and population in the Bhagirathi-Jalangi interfluvium

---

39. Sinha B.N. Geography of Orissa, National Book Trust, India, New Delhi, 1971.

40. Ahmad, E, Bihar- A Physical, Economic and Regional Geography, Ranchi University, Ranchi, 1965.

41. Ahmad Nafis A New Economic Geography of Bangladesh, Vikas Publishing House Ltd., New Delhi, 1976.

42. Ahmad Nafis, An Economic Geography of East Pakistan, Oxford University Press, London, 1958.

43. Sen Jyotirmoy, Land Utilization and Population Distribution, West Bengal 1850-1985, Daya Publishing House, Delhi, 1988.

(West Bengal) which covers a period of one hundred and thirty five years (1850-1985). He has also studied the role of different physical and socio-economic factors severally and collectively which has played part in inducing the metamorphosis in land use and settlement.

Like Sen, Bhattacharya <sup>44</sup> has also studied the role of physical factors in determining the rural settlement pattern of a region. He has studied the changing courses of Padma during the historic as well as the present time and the consequent changes in the pattern of human settlement.

The treacherous nature of the river Ajoy and malarial fever which controlled the dynamics of evolution of rural settlements in the Rarh region of Birbhum, West Bengal have been studied by J.Sen and R.Bhattacharya <sup>45</sup> in their article "Evolution of a Rural Settlement in Birbhum District".

N.D.Bhattacharya <sup>46</sup> has studied the distribution, size and forms of rural settlement in Murshidabad, West Bengal in relation to physical and cultural forces of the site.

---

44.Bhattacharya N.D. "Changing Course of the Padma and Human Settlement" National Geographical Journal of India, Vol 24, No 2, 1978.

45.Sen J. and R. Bhattacharya "Evolution of a Rural Settlement in Birbhum District"Geographical Review of India, Vol 37, No.4, 1975.

46.Bhattacharya N.D "Rural Settlements of Murshidabad, West Bengal", National Geographical Journal of India, Vol 12, no.4, 1969.

R. Bhattacharya <sup>47</sup> has also studied the settlement pattern of deltaic West Bengal in relation to physiography and available agricultural land for the three sub-divisions of Bongaon of 24 Parganas district and Chandernagar and Serampore sub-divisions of Hooghly district. The study shows that there are numerous variations in the settlement pattern of this region.

Sinha <sup>48</sup> has studied the impact of different factors which determine the evolution, distribution, typology and morphology of rural settlements in the Bokaro basin. He has recognized four main types of rural settlements- (1) compact, (2) semi-compact, (3) semi-sprinkled or hamletted and (4) sprinkled or dispersed settlements and discussed the factors leading to the consolidation and fragmentation of these settlement types.

The importance of Patna and its neighbouring towns, as commercial centers have been studied by A. Sami <sup>49</sup> from the early period of history of commerce to the recent developments. The location of Patna on the southern bank of river Ganga was the important factor for commercial development of the region. Therefore the role of physical factors is important among the other factors, i.e, economic and social in shaping the commercial

---

47. Bhattacharya R, "Settlement Pattern in Deltaic West Bengal Geographical Review of India, Vol 37, No.4, 1975.

48. Sinha V.N.P "Population and Settlements in Bokaro Basin in Bihar", India 21st International Geographical Congress.

49. Sami, A "Evolution of Commercial Centres in Patna" Indian Geographical Studies Research Bulletin, No.7, September 1976.

character of the city.

The most important literature for the present study is the "Statistical Account of Bengal" by W.W. Hunter.<sup>50</sup> The description of Bengal is given in twenty volumes. Each volume proceeds on a uniform plan dealing with the same subjects in the same order of sequence. The subjects dealt with, for each district is related to the administration, economics, history, geography, sociology and education of undivided Bengal.

Another important source is the "Imperial Gazetteer of India" for Bengal.<sup>51</sup> Written in two volumes it deals with the physical aspects, history, demography, economy and administration of the Province, as well as for each district in great details.

Apart from the quoted literature, the district gazetteers and the census reports for the province of Bengal, Bihar & Orissa have served as source material for the present study.

#### **I.8.ORGANISATION OF THE STUDY : -**

The present study which is a modest attempt to understand the settlement structure of the provinces of Bengal, Bihar and Orissa has been arranged in the following five chapters.

The first chapter is an introduction to the study which includes the significance of the study, a general introduction to the region, objectives of the study, source of data, the methodology adopted and the literature review.

---

50.Hunter W.W "A Statistical Account of Bengal" in 20 Volumes. Trubner and Co. London, 1875,Reprinted in India New Delhi, 1973.  
51.Imperial Gazetteer of Indian, Op.cit.

the **second** chapter is related to the study of settlement in terms of distribution, density, growth, and size of settlements.

The **third** chapter is related to the study of the regional economy of the region. It attempts to analyse the economic structure of the settlements in the two provinces, through an assessment of the labour force distribution and their participation in primary, secondary and tertiary sectors of the economy.

The **fourth** chapter is devoted to the study of interaction within the region based on migration.

The **last chapter** presents general conclusions derived from the study.

ships are simpler in the initial stages but with time, the degree of variability in size, form and complexity of their inter-relationships becomes increasingly greater.

The aim in this chapter is to understand the settlement structure of undivided Bengal for the years 1901, 1911, 1921 and 1931. The structure of settlements in terms of density, distribution, growth and size for the rural and urban areas in the various natural divisions of the Province has been examined in the following pages.

## II.2 CENSUS DEFINITION OF THE TERM 'VILLAGE'

Rural settlements, form an essential part of the cultural landscape. It is an emblem of man made features of the surrounding conditions. Therefore the study of rural population and rural settlements is the most important aspect of any settlement study.

With a vast majority of the people living in villages (88.59% in 1931), in Bengal, Bihar and Orissa, and the dependency of the inhabitants entirely on agriculture, the importance of the study of rural settlements and rural population can easily be understood.

The growth of rural population and the number of villages has its own distinctive characteristics in Bengal, Bihar and Orissa. Before analyzing the growth pattern, it is important for the present study to understand the term 'village' as was used in the census records of that time.

The word "village" in the sense in which it is ordinarily understood, should not be used without qualification in respect



of rural Bengal, Bihar and Orissa. The term "village" as used in the census records had very different meanings in different parts of the province.

In 1911, in the province of Bengal, mauza was treated as the 'Census Village', in Burdwan and Presidency Division, and elsewhere, residential villages were treated as the basis of census organization. The 'Census Village' corresponded to the mauza in all the districts of Bihar and Orissa except, Manbhum, Palamau and Hazaribagh.

In 1921, except the Khondmals sub-division of Angul, certain parts of Manbhum and in the coal fields proper, the census village was the mauza in Bihar and Orissa. But in Bengal; in 1921 census, the residential villages were replaced by the mauza to be treated as census villages. The Revenue survey parties which came over from Bihar into the adjoining districts of Bengal gradually covered the eastern part of the province where residential villages were treated as census village in the previous census record.

The mauza, it may be explained consisted of a parcel of land, the boundaries of which were defined by the revenue survey done as early as 1836. It was the first attempt to remove the indefiniteness of village boundaries which was the source of dispute and litigation since the decennial settlement in the Lower Provinces of Bengal except in the districts of Chotanagpur Plateau. It usually bears the name of the main village. It may contain only one village, or a number of separate villages or may be uninhabited. Being a geographical unit, the boundaries of a mauza are more or less permanently fixed. They cannot disappear,

except by being diluviated and the mauza, it is therefore a constant unit. The adoption of this unit was an innovation in the Bengal census procedure.

The term 'village' was, however, elusive and difficult to define while its application proved a source of great divergence. Under the original Bengal Tenancy Act the 'village' was the revenue survey village but experience proved that the boundaries as laid at the revenue survey were not always suitable and therefore when the Act was revised in 1907 power was taken to vary the boundaries of the villages as then laid down. The result was that, in all districts of Bihar cadastrally surveyed down to the year 1907, viz, the districts of North Bihar and a large part of Monghyr the revenue survey village was the mauza till 1931, but in South Bihar (except in parts of Monghyr) which was surveyed after 1907, the mauza was the revenue survey village. Though after 1911, a village in Eastern Bengal was the revenue survey village which was the mauza ; prior to 1911, it was the residential village which was considered as census village, and had the disadvantage that it was impossible to decide which groups of houses formed an independent village and which groups were part of another village.

Moreover, the mauza in Bihar, was a parcel of land belonging to one estate, but in Bengal, the Revenue surveyors used the word with a significance, altered to mean a parcel of land for their survey in one block, whether only one estate was included or several. But this was done gradually. In the initial stage the revenue survey in Bengal was done like in Bihar, as a separate

mauza, each parcel belonging to a separate estate. Consequently there were many, very small mauzas to be found in Dinajpur, Malda, Rajshahi, parts of Bogra, Pabna and Rangpur away from the Jamuna, in Burdwan, Birbhum, Bankura, Midnapore, Hooghly and Jessore and this in addition to the comparatively low density of population accounted for the high proportion of rural population which was found in these districts and who lived in villages with less than 500 inhabitants. In Eastern Bengal where estates were minutely divided, the revenue-surveyors included lands of any number of estates, in the same block for the purposes of survey.

It is therefore, evident from the foregoing discussion that the word 'village' as used in connection with the census had different meanings in different parts of the province and that detailed comparison of one district with another is not worthy making.

The census tables show only the number of inhabited villages and this number may and does fluctuate. The aggregate number of the inhabited villages from 1901 to 1931 for the two provinces and the eight natural division is given in Table 2.1.

It is observed from Table 2.1 that except during the decade 1901-1911, Bengal and the province of Bihar and Orissa registered a decline in the number of villages. Between 1911 and 1921 the decline for Bengal was 33,947 and for Bihar and Orissa it was 3,701. During 1921 and 1931 the number of villages further declined in Bihar and Orissa by 1,544, but in Bengal the number of villages added was 1,730.

**Table 2.1**

**Distribution of Inhabited Villages.**

**Number of Inhabited Villages in**

<b>State/ Natural Division</b>	<b>1901</b>	<b>1911</b>	<b>1921</b>	<b>1931</b>
<b>BENGAL</b>	<b>116911</b>	<b>123121</b>	<b>89174</b>	<b>90904</b>
<b>BIHAR AND ORISSA</b>	<b>105613</b>	<b>107868</b>	<b>104167</b>	<b>102623</b>
West Bengal	24869	24099	22488	22372
Central Bengal	17061	11361	11296	11073
North Bengal	33107	40262	24858	24644
East Bengal	41874	47399	30532	32815
North Bihar	22177	21860	22102	21171
South Bihar	20837	15722	15817	15690
Orissa	11978	12280	12152	11970
Chotanagpur Plateau	50621	58006	54096	53792

**Source:** Based on 1. Census of India 1901, Vol. VI A, The Lower Provinces of Bengal and their Feudatories, Part II, The Imperial Tables.

2. Census of India 1911, Vol V Bengal, Part II Tables.

3. Census of India 1911, Vol. V Bihar and Orissa, Part III Tables.

4. Census of India 1921, Vol V Bengal, Part II Tables.

5. Census of India 1921, Vol. VII Bihar of Orissa, Part II Tables.

6. Census of India 1931, Vol. V Bengal, Part II Tables.

7. Census of India 1931, Vol. VII Bihar and Orissa, Part II Tables.

## DISTRIBUTION OF INHABITED VILLAGES 1901 - 1931

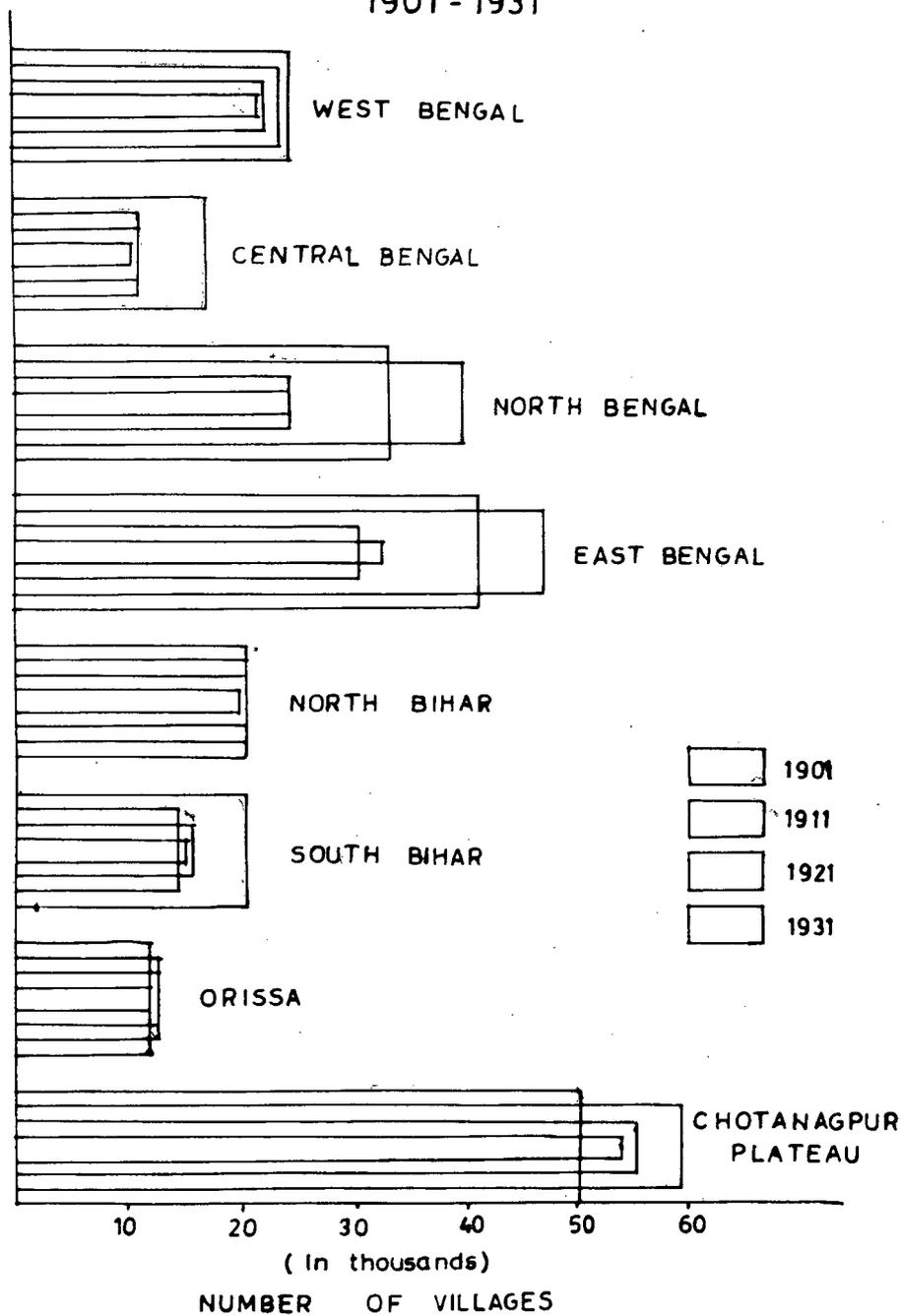


Fig 2.1

Table 2.2

## Growth Rate of Population in the Natural Divisions

(Percentage Shares)

State/ Natural Division	Total Population			Rural Population		
	1901-1911	1911-1921	1921-1931	1901-1911	1911-1921	1921-1931
BENGAL	7.80	-2.24	14.10	5.94	-6.94	16.03
BIHAR & ORISSA	6.78	-4.87	17.60	7.37	-4.92	15.57
West Bengal	2.73	-40.66	72.43	1.62	-45.47	81.96
Central Bengal	5.53	-0.72	6.01	-0.25	-2.30	5.64
North Bengal	8.11	2.15	2.87	8.14	-2.00	1.97
East Bengal	11.16	12.10	9.04	9.11	5.67	11.97
North Bihar	1.41	-0.82	8.47	2.98	-0.86	5.78
South Bihar	2.33	-25.70	47.60	1.58	-27.10	47.76
Orissa	-3.10	5.66	5.21	-2.97	6.11	5.11
Chotanagpur	21.38	0.44	17.95	21.05	0.43	15.74
Plateau						

**Source:** Same as Table 2.1

In Bihar and Orissa, the substantial increase only in the Chotanagpur Plateau due to natural growth among the aboriginal was responsible for the 6.78% growth in total population and 7.37% growth in rural population in 1901-1911 decade. The country north and south of Bihar shows a slight advance both in total and rural population while Orissa shows a decrease in both. The slow rate and the negative rate of growth in these areas was the combined result of emigration, scarcity and epidemics of disease, notably plague which had caused a mortality of half a million in Bihar during the decade.

# VARIATION IN POPULATION

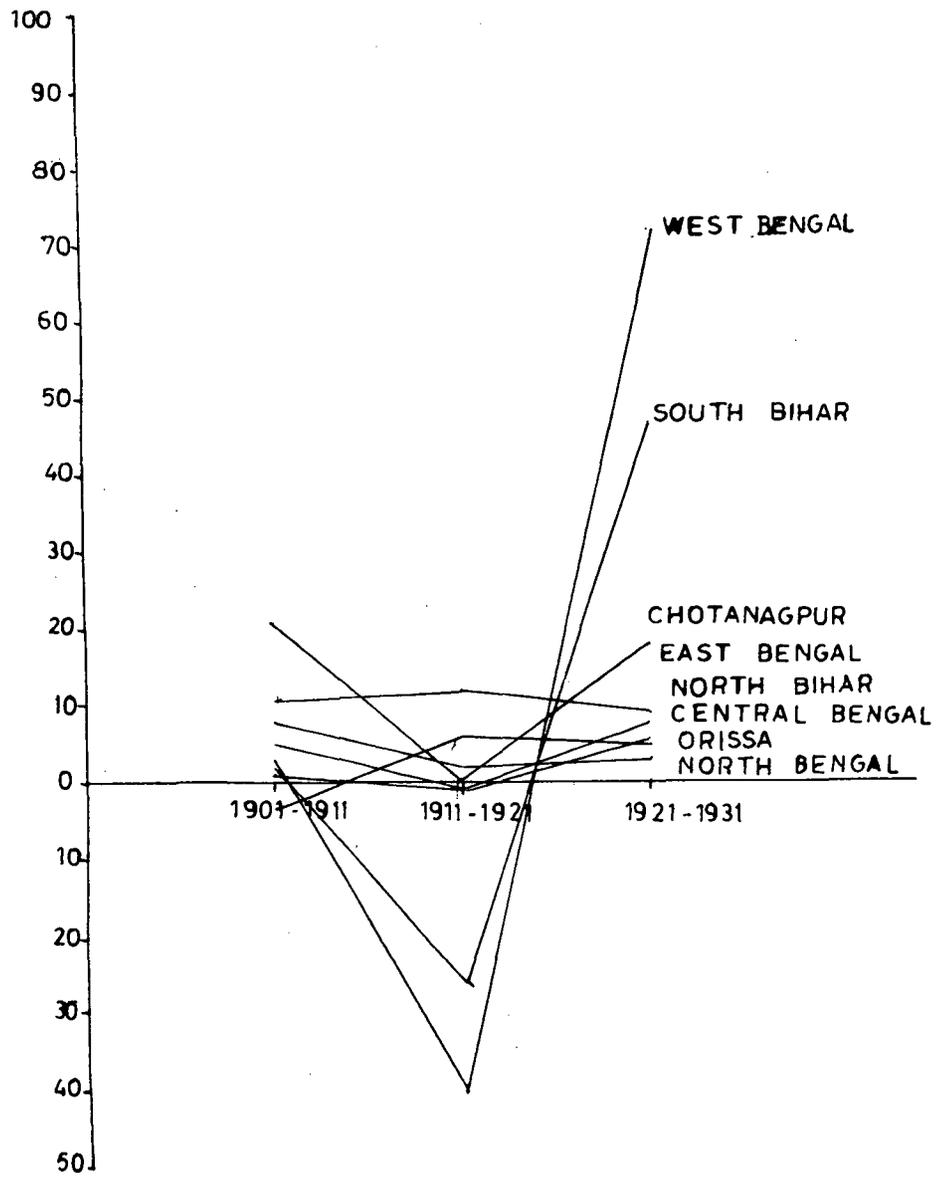


Fig 2.2

The first four years of the 1901-1911 decade had been good years but between 1905 to 1908 crops were not good and unhealthy conditions prevailed. There was however, a great improvement in 1909 and 1910, and Bengal entered upon the decade 1911-21 in prosperity. The years 1911 and 1912 were free from serious calamities although floods caused some damage to crops in Birbhum in 1911 while in 1912 bad weather and the appearance of insect pests spoiled some in Bakarganj. But, a disastrous flood came down the Damodar river in August 1913 which breached the embankments and spread over a large area on either side. The loss of cattle and collapse of the houses was much greater than the death of the people or the destruction of the crops. The fall in the price of jute in 1914, the Bankura famine of 1915-16, rise of prices of rice from the middle of 1918<sup>4</sup> - all had a combined effect on the population growth. But the great influenza epidemic of 1918, overshadowed all the other happenings and took a great toll of human lives, both in Bengal and Bihar. The worst affected was West Bengal and South Bihar where the depletion was the maximum.

In Orissa during 1901-1911 the growth of settlements was checked by floods, disease and scarcity and in 1911-21 the division suffered more acutely from agricultural distress due to the failure of the rains in 1918, and by the disastrous flood in 1919. From the end of the decade 1911-21 normal conditions set in and population started to increase, though the accelerated growth

---

4. Thompson W.H. Census of India 1921, Vol V Bengal, Part I Report p. 28-30.



started only in the thirties.

The rate of growth though different in three decades was not the same everywhere. Depending upon the physical and cultural factors which influences the spatial distribution of population, the growth was also confined to some areas in comparison to the other. The growth pattern not only varied among the different natural divisions but also among the districts and thanas. Due to the differential rate of growth, the density and distribution of population was also very different which is the following theme of discussion.

#### **II.4 DENSITY AND DISTRIBUTION OF POPULATION IN THE NATURAL DIVISIONS.**

The analysis of density and distribution of population is one of the most important aspect of the study of habitat. The factors that affect the spatial aspects of population are as complex and varied as are the patterns of distribution. This is all the more important in a densely populated area with a predominantly rural economy, like the provinces of Bengal, Bihar and Orissa.

Population and settlements in an area are not distributed evenly over space. Differences in the nature of topography, water table, soil conditions, climatic elements and also the variation in productivity of land, industrial development, development of transport and communication, differential birth and death rates and the currents of migration have all influenced the spatial distribution of population in the study area.

In the province as a whole, in 1901 there were 160 persons

**Table 2.3****Density of Population****(Persons per square Kilometer)**

<b>State/Nat. Div.</b>	<b>1901</b>	<b>1911</b>	<b>1921</b>	<b>1931</b>
<b>BENGAL</b>	<b>160</b>	<b>210</b>	<b>209</b>	<b>234</b>
<b>BIHAR AND ORISSA</b>		<b>130</b>	<b>124</b>	<b>146</b>
West Bengal	228	234	139	239
Central Bengal	295	243	241	248
North Bengal	187	202	207	212
East Bengal	196	194	226	246
North Bihar	247	245	247	268
South Bihar	193	198	147	217
Orissa	186	177	187	200
Chotanagpur	59	71	71	84

Plateau

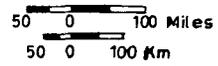
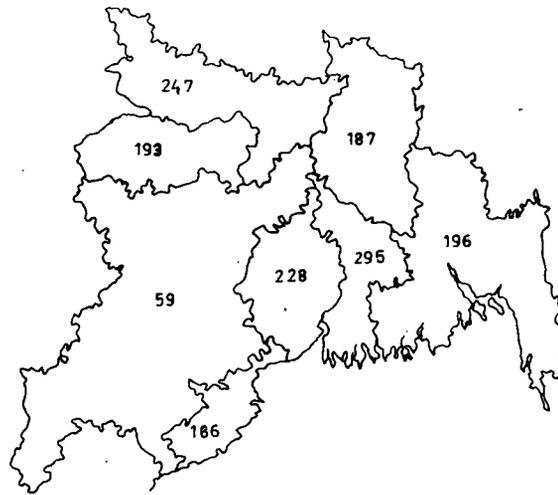
**Source:** Same as Table 2.1

per square km, but the density varied remarkably in different parts. It was greatest in Central Bengal, where there were 295 persons per square km. North Bihar and West Bengal were also thickly peopled with a density of 247 and 193 persons/sq Kilometer respectively. Chotanagpur Plateau with only 59 persons per square kilometer in 1901 was the area of least dense population, and remained the area of least concentration even in 1931 with only 84 persons living per square kilometer in the plateau area.

The first three ranks were the same during 1911 with Central Bengal leading with 243 people/sq Kilometer followed by North

# DENSITY OF POPULATION

1901



1911

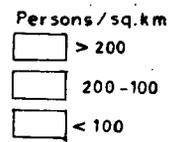
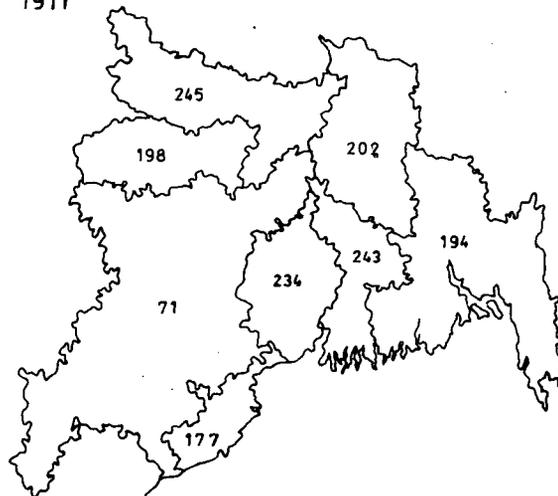
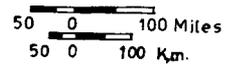
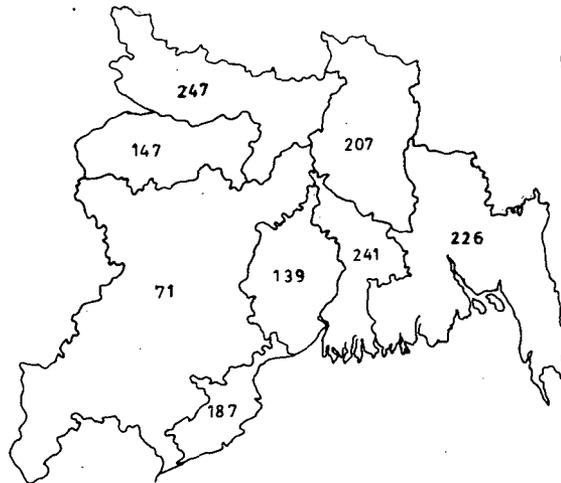


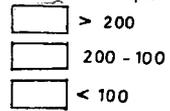
Fig 2.3

# DENSITY OF POPULATION

1921



Persons / sq.km



1931

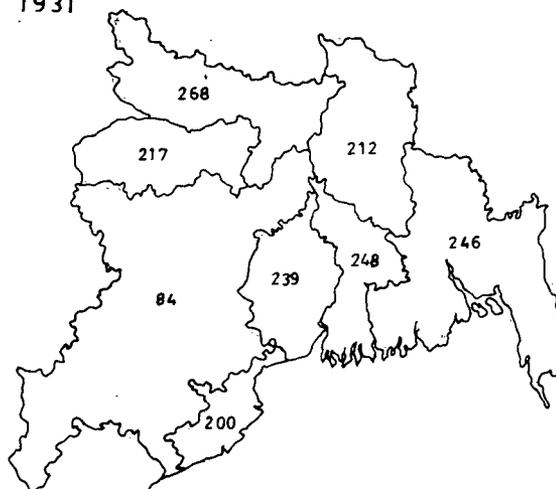


Fig 2.4

Bihar and West Bengal, both having more than 200 persons living per sq kilometer (Table 2.3). Though there were slight variation in each of the natural division, the remarkable change is noticed in case of Central Bengal where there was a decline of 52 persons per square kilometres.

In 1921 North Bihar surpassed Central Bengal to take the lead with 247 persons per sq. km. West Bengal was replaced by East Bengal with 226 persons living per sq km. area. West Bengal and South Bihar registered a very low density in 1921. The combined effect of epidemic environment which was due to deteriorating drainage condition and agricultural decadence lead to the diminution of population density; all over and especially in these two regions. In West Bengal, ravages of malarial fever known as Burdwan fever followed by floods (between 1911 and 1913 in Birbhum) and famine (of 1915-16 in Bankura) and succeeded by influenza epidemic was responsible for the decline. The decrease in South Bihar was mainly due to the direct and indirect results of plague which first broke in January 1900, and since then became an annual visitation causing heavy mortality in the area. The decade of 1911-21 was actually a decade of depletion in population all over India and the Bengal presidency and Bihar and Orissa experienced the same, though the density of Bengal was almost stagnant at 209 persons/sq. km in 1911 and 210 in 1921. Bihar and Orissa experienced a negligible decline of 6 persons per square kilometer between 1911-21.

In 1931, the density figures for each of the natural division and Bengal, Bihar and Orissa showed a remarkable increase. The province of Bengal registered a density of 234 persons per

square kilometer and Bihar and Orissa 146 persons per square kilometer. It was greatest in North Bihar (268/sq km) followed by Central Bengal (248/sq km), East Bengal (246/sq Km) and West Bengal (239/sq.km), which were thickly populated. South Bihar, North Bengal and Orissa also had more than 200 people per square kilometer in 1931. Chotanagpur plateau though remained the least densely populated area, received a spurt in population growth during the decade 1921-31 which is revealed in the increase in density of 13 persons per square kilometer during the same period.

#### II.5 DENSITY OF RURAL POPULATION IN THE NATURAL DIVISIONS

The rural density for the same years reveal the same picture (Table 2.4) as that revealed by the total density of population because of the fact that most of the people in Bengal Bihar and Orissa live in rural areas. In 1931, 88.59% of the population in Bengal lived in 90904 villages, which consisted 99.52% of the total inhabited town and villages. Again, the chunk of the rural population, around 70% in 1931 in Bengal was confined in the small villages having a population of less than 500 heads. The rural density was considerably high in all the years from 1901 to 1931 in all the natural divisions, except in Chotanagpur Plateau which is an upland tract with a general elevation of 2000 feet and largely covered under forest. The poor quality of soil limits the cultivated area and hence the population is also quite low. But the interesting feature is that, the percentage of net cultivated area is much higher than the density of population. The population did not increase even in 1931, in relation to the net

# DENSITY OF RURAL POPULATION

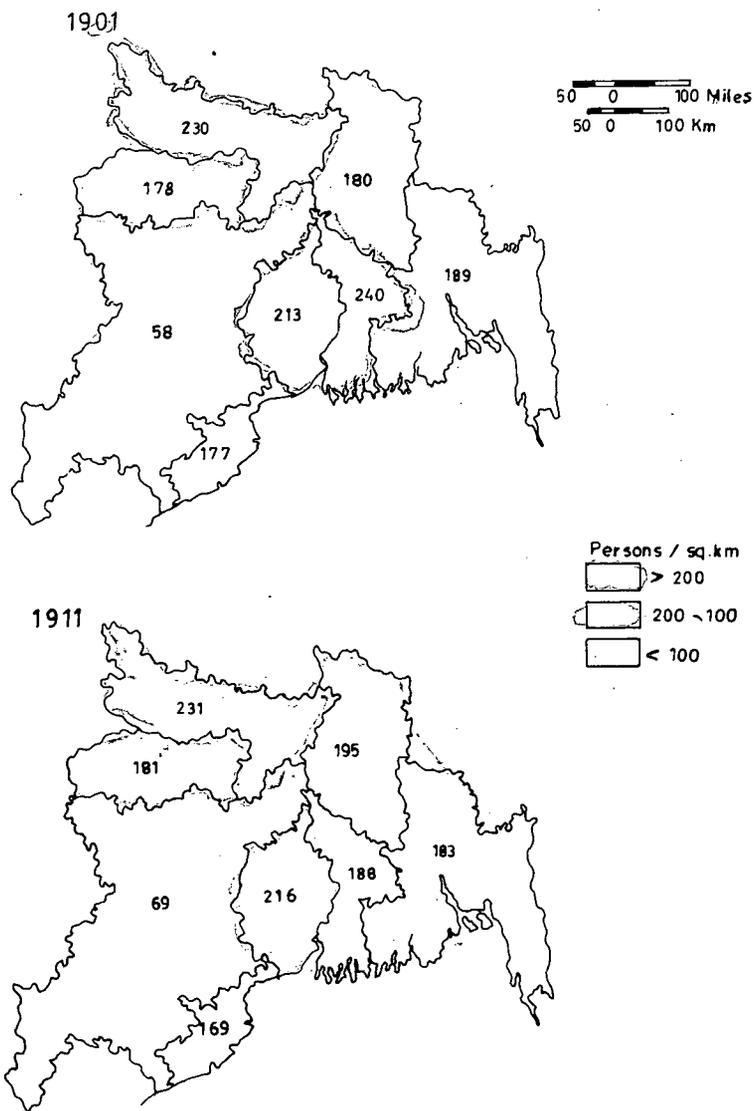


Fig 2.5

**Table 2.4**

**Density of Population**  
(Persons per sq. Kilometer)

State/Nat. Div.	1901	1911	1921	1931
<b>BENGAL</b>		<b>192</b>	<b>182</b>	<b>207</b>
	<b>150</b>			
<b>BIHAR AND ORISSA</b>		<b>124</b>	<b>118</b>	<b>137</b>
West Bengal	213	216	118	214
Central Bengal	240	188	183	187
North Bengal	180	195	191	195
East Bengal	189	183	201	225
North Bihar	230	231	232	246
South Bihar	178	181	132	195
Orissa	177	169	180	192
Chotanagpur Plateau	58	69	70	81

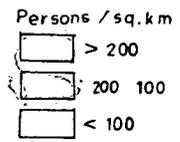
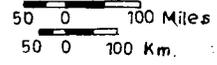
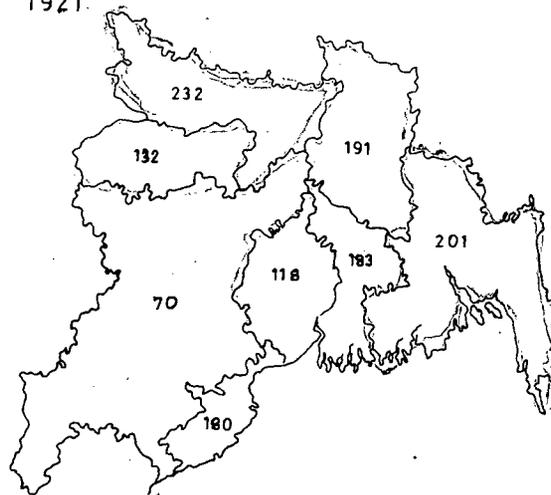
**Source:** Same as Table 2.4

cultivated area. The pressure on land was thus comparatively much lower and it could be said that agriculture was at a very primitive stage. Not only in Chotanagpur which is a table land but Bihar and Orissa as a whole and in the three natural divisions of North Bihar, South Bihar and Orissa the pressure on land was much less. But in case of Bengal, the population pressure was much more on the land and every bit of tillable land was cultivated. The fertile alluvial plain of riverine Bengal is suitable for a variety of crops and agriculture was thus the main economic



# DENSITY OF RURAL POPULATION

1921



1931

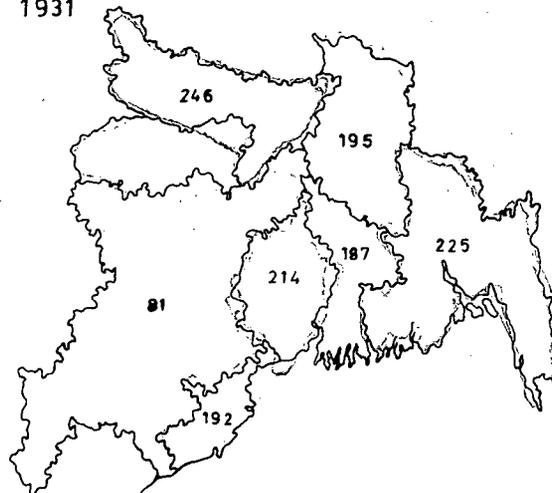


Fig 2.6

Table 2.5

Share of Net Cultivated Area in Total Area

Natural Division	1911	1921	1931
<b>BENGAL</b>	<b>49.5</b>	<b>45.5</b>	<b>47.7</b>
<b>BIHAR AND ORISSA</b>	<b>51.7</b>	<b>46.6</b>	<b>46.0</b>
West Bengal	53.0	49.2	47.5
Central Bengal	41.5	34.3	31.6
North Bengal	54.8	55.0	50.9
East Bengal	47.9	48.1	51.8
North Bihar	68.2	64.7	62.5
South Bihar	59.3	55.2	57.6
Orissa	55.1	53.8	53.6
Chotanagpur	38.6	31.0	30.4
Plateau			

**Source:**

1. Census of India 1911, Vol. V. Bengal, Bihar, Orissa and Sikkim, Part I, Report, Subsidiary Tables.
2. Census of India 1921, Vol. V, Bengal, Part I Report.
3. Census of India 1921, Vol.VII, Bihar and Orissa, Part I, Report.
4. Census of India 1931, Vol V Bengal and Sikkim, Part I, Report
5. Census of India 1931, Vol VII Bihar and Orissa, Part I Report activity of the population. In 1911 91.52% of the rural popula-



tion depended upon the 49.5% of net cultivated area. Therefore it is quite clear, that the pressure on land was very high and also the density. More or less the same the trend continued till 1931, (the period which limits the study) between the density of rural population and percentage of net cultivated area. (Fig.2.8) and (Table 2.5)

In 1931, there was a decrease of 1.8% in net cultivated area in Bengal as compared to 1911 but there was an increase of 15 persons per square kilometer during the same period. The same was the case for Bihar and Orissa. The natural divisions of Bihar and Orissa. The natural divisions of Bihar and Orissa except Chotanagpur Plateau though shows the maximum percentage of net cultivated area experienced a gradual decline in it from 1911 to 1931. Therefore it is clear that the increase in population was not coupled with the increase in the net cultivated area, so that we find the increasing density leading to the decline of proportionate share of cultivated area, in each subsequent year.

Bengal was always ahead of Bihar and Orissa in terms of the density of population. This was because of the flat alluvial plain of Bengal, where villages were more in number in terms of its area, though in absolute terms Bihar had the greater number of villages. Table 2-6 depicts the density of rural settlement in Bengal Bihar and Orissa. It is seen from the table that Bengal in terms of density of rural settlements was always ahead of Bihar. In Bihar the Chotanagpur plateau reduced the density of villages because of few tribals lived there in small scattered hamlets. Elsewhere, in North and South Bihar Plain and in Orissa the

Table 2.6

## Density of Rural Settlement

(Figures in Parentheses Indicates Density)

Natural Division	1901		1911		1921		1931	
	Area in Sq. Kilometers	Total Number of villages	Area in Sq. Kilometers	Total Number of Villages	Area in Sq. Kilometers	Total Number of Villages	Area in Sq. Kilometers	Total Number of Villages
<b>BENGAL</b>			<b>218089</b>	<b>123121</b>	<b>213444</b>	<b>89174</b>	<b>215296</b>	<b>90904</b>
	485990	222524		(0.56)		(0.42)		(0.42)
<b>BIHAR AND ORISSA</b>		(0.46)	<b>290521</b>	<b>107868</b>	<b>289444</b>	<b>104167</b>	<b>289444</b>	<b>102623</b>
				(0.37)		(0.36)		(0.35)
West Bengal	36092	24869	36100	24099	36100	22488	36100	22372
		(0.69)		(0.67)		(0.62)		(0.62)
Central Bengal	25921	17061	33124	11361	33124	11296	34225	11073
		(0.66)		(0.34)		(0.34)		(0.32)
North Bengal	52900	33107	52900	40262	52900	24858	52900	24644
		(0.63)		(0.76)		(0.47)		(0.46)
East Bengal	84681	41874	95555	47399	91809	30532	91809	32815
		(0.49)		(0.50)		(0.33)		(0.36)
North Bihar	56169	22177	57600	21860	56644	22102	56644	21171
		(0.39)		(0.38)		(0.39)		(0.37)
South Bihar	39216	20837	39204	15722	39204	15817	39204	15690
		(0.53)		(0.40)		(0.40)		(0.40)
Orissa	20996	11978	21316	12280	21316	12152	21025	11970
		(0.57)		(0.58)		(0.57)		(0.57)
Chotanagpur	168921	50621	172225	58006	172225	54096	172225	53792
		(0.30)		(0.34)		(0.31)		(0.31)
Plateau								

**Note:** Density of settlements has been calculated by dividing

the number of villages by area

**Source:** Same as Table 2.1

density was comparable to the divisions of Bengal. The variation was pronounced in 1901. In 1931, the differences were minimized though the density of rural settlements in Chotanagpur was the lowest having only 0.31 villages per square kilometer after Central Bengal which had 0.32 villages per square km in 1931. In Chotanagpur the topography as well as the lack of development among the tribals, restricted the number of villages while in Central Bengal the tremendous influence of Calcutta and its suburbs lead to the increasing concentration of people in large villages which gradually gained the status of small towns. In terms of area East Bengal was the largest one, and had fertile agricultural land but the villages (though the maximum in number than the other natural divisions of Bengal) were scattered among the rice fields in great distances so that the density per square kilometer was lower than in other divisions. West Bengal though possessed a smaller area and a tower proportion of net cultivated area supported a greater population in 22,372 villages in 1931. Industrial development along the banks of the Hooghly and development of mining activities attracted laborers from distant places who settled in villages around the mines and near the industrial centers. This lead to the high density of rural settlements in West Bengal. One noticeable fact, from the table is that, from 1901 to 1931 all the natural divisions registered a decline in the density of rural settlements except Chotanagpur. Urbanization lead to the decrease of villages in all the divisions while in Chotanagpur migration of laborers increased the number of villages, with an increase in the number of rural population over the years though in a declining proportion. But

RELATION BETWEEN RURAL DENSITY AND PERCENTAGE OF NET CULTIVATED AREA 1911 - 1931

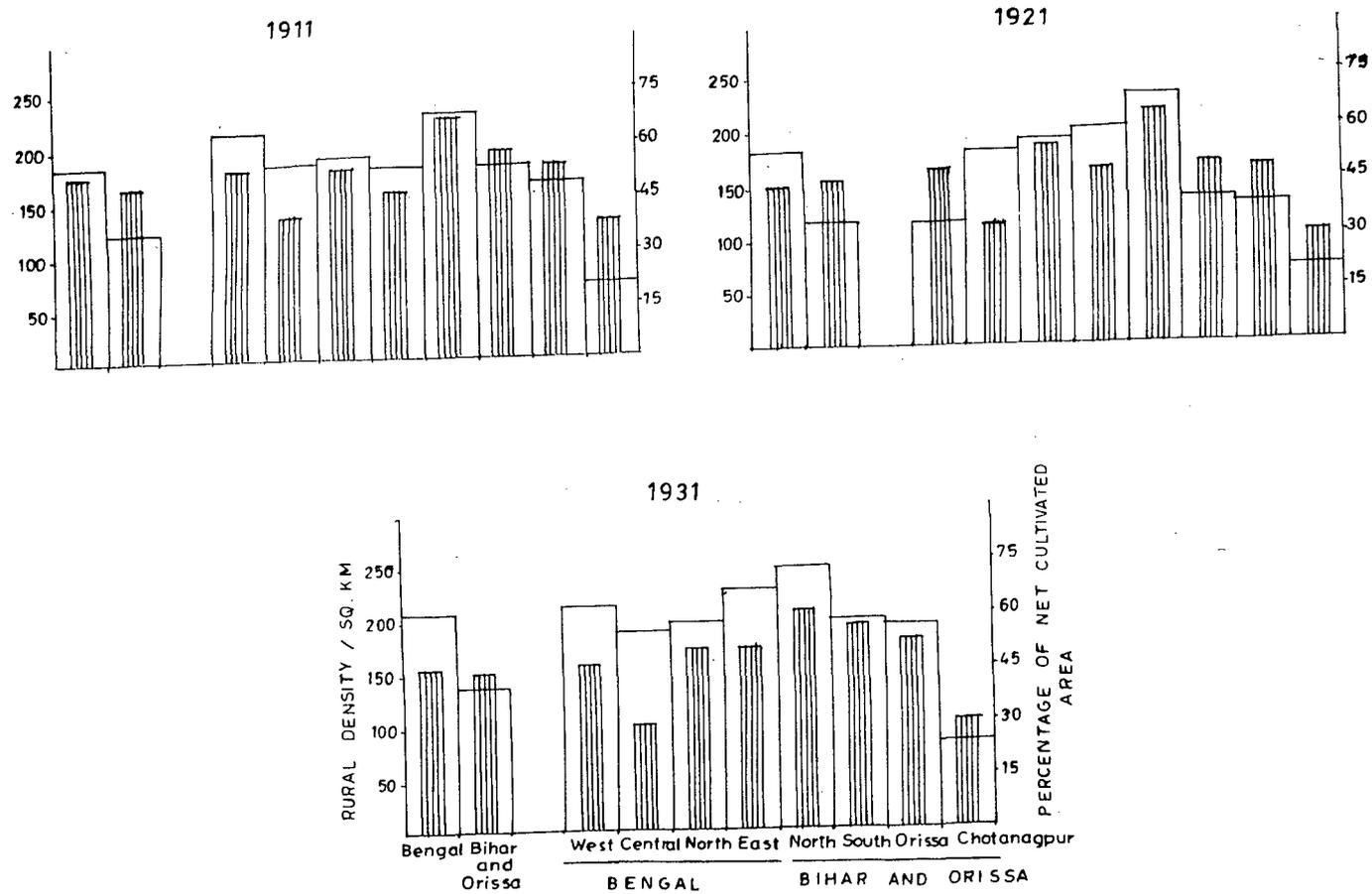


Fig 2.8

# DENSITY OF URBAN POPULATION

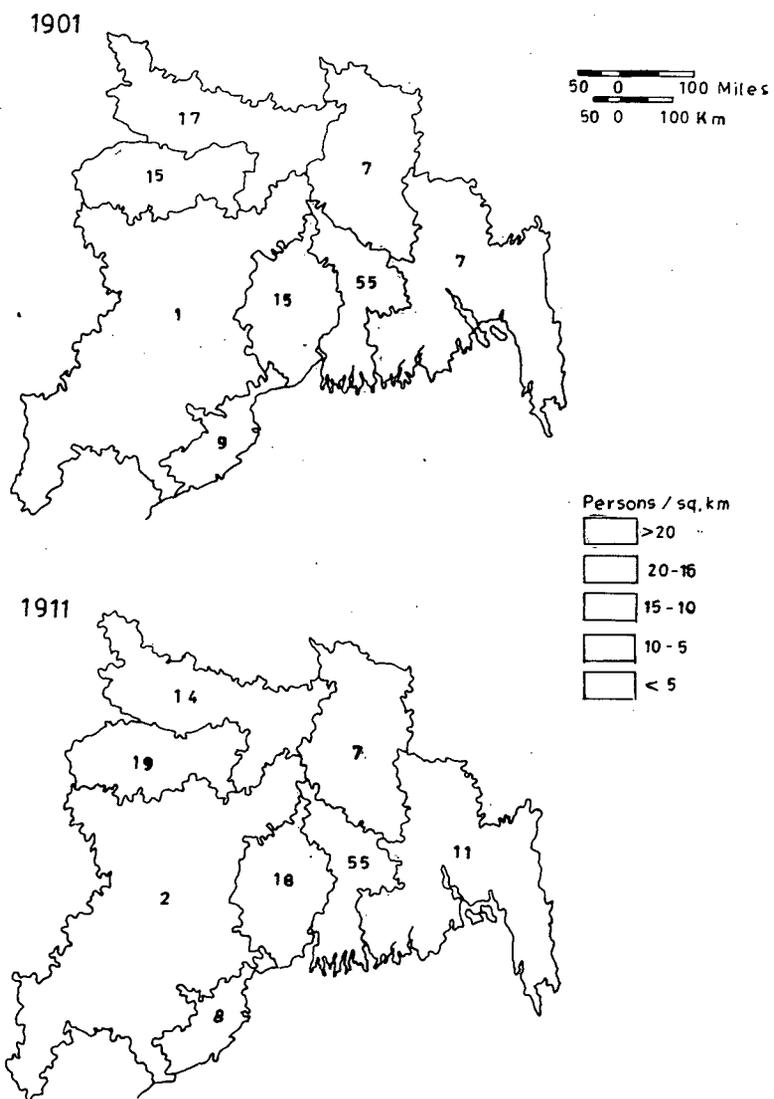


Fig 2.9



Parganas, Calcutta, Nadia, Murshidabad and Jessore. With 18.43% (1961) of the Urban population residing in Central Bengal, it was well ahead of North Bihar which had a density of urban population of 17 persons/sq kilometer. Though the total number of towns was much greater in North Bihar (106) as compared to Central Bengal (37) the percentage of Urban population could not even reach to 10% level because majority (89 town) of the population lived in small towns in Bihar while in Central Bengal the city of Calcutta alone was the residence of a huge chunk of population. The leading rank of Central Bengal continued and it is seen from Table 2.7 that in 1931, 61 person lived per square km in Central Bengal. West Bengal was second in terms of Urban density in 1931. The urban on semi-urban conduction prevailing along the bank of the Hooghly from Chinsurah on the north to Howrah on the south supported the teeming population.

The districts north and south of the River Ganga in Bihar also supported a fairly dense urban population. Table 2.7 Shows that both the North Bihar and South Bihar plain had 22 persons per sq. km residing in urban areas. But in fact South Bihar is much more developed than North Bihar, in terms of urbanization. The districts of North Bihar - Saran, Champaran area, Muzaffarpur, Darbhanga, Purnea and Bhagalpur were mainly agricultural and 91.91% of the villagers lived in 21,171 villages in 1931 which accounted for 20.63% of the villages in Bihar during the period. The number of towns in North Bihar was high than South Bihar. But the city of Patna, like Calcutta pushed up the population figure. The dis-

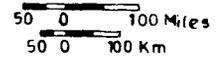
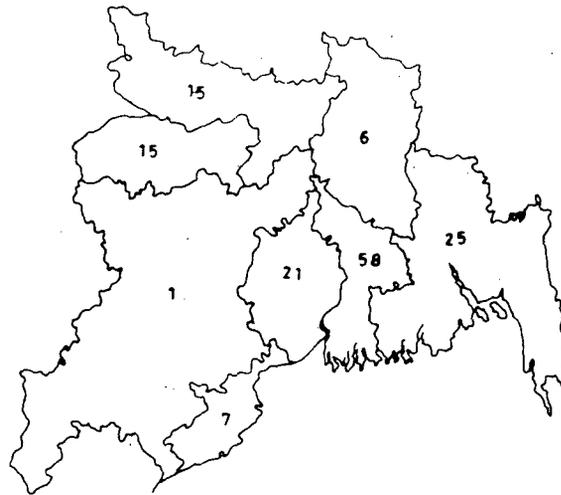
**Table 2.8**  
**Distribution of Urban Population**

Natural Division	1901		1911		1921		1931	
	Total Urban Population	% Urban	Total Urban Population	% Urban	Total Urban Population	% Urban	Total Urban Population	% Urban
<b>BENGAL</b>			<b>3875799</b>	<b>8.48</b>	<b>5757511</b>	<b>12.89</b>	<b>5814711</b>	<b>11.41</b>
	<b>4815006</b>	<b>6.19</b>						
<b>BIHAR AND ORISSA</b>			<b>1831391</b>	<b>4.84</b>	<b>1759910</b>	<b>4.89</b>	<b>2765467</b>	<b>6.54</b>
West Bengal	543450	6.61	643628	7.62	757289	15.12	900615	10.43
Central Bengal	1407532	18.43	1845997	22.91	1930972	24.14	2069422	24.40
North Bengal	357389	3.61	383150	3.58	820169	7.51	935017	8.32
East Bengal	607290	3.65	1003024	5.42	2249081	10.85	1909657	8.45
North Bihar	993280	7.15	804324	5.71	803167	5.75	1225802	8.09
South Bihar	574522	7.58	640743	8.26	575261	9.99	840712	9.89
Orissa	180408	4.63	169757	4.49	163028	4.08	175248	4.17
Chotanagpur	151135	1.51	216567	1.78	218454	1.78	523705	3.63
Plateau								

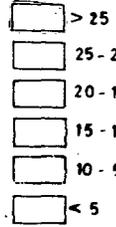
Source Same As Table 2.1

# DENSITY OF URBAN POPULATION

1921



Persons /sq. km



1931

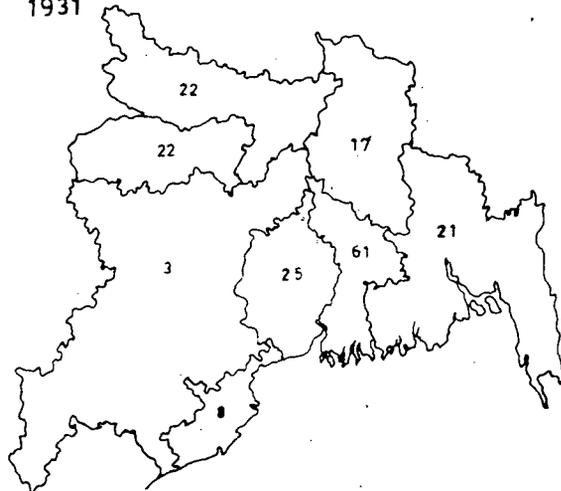


Fig 2.10

DENSITY OF POPULATION IN WEST BENGAL AND ORISSA  
1901

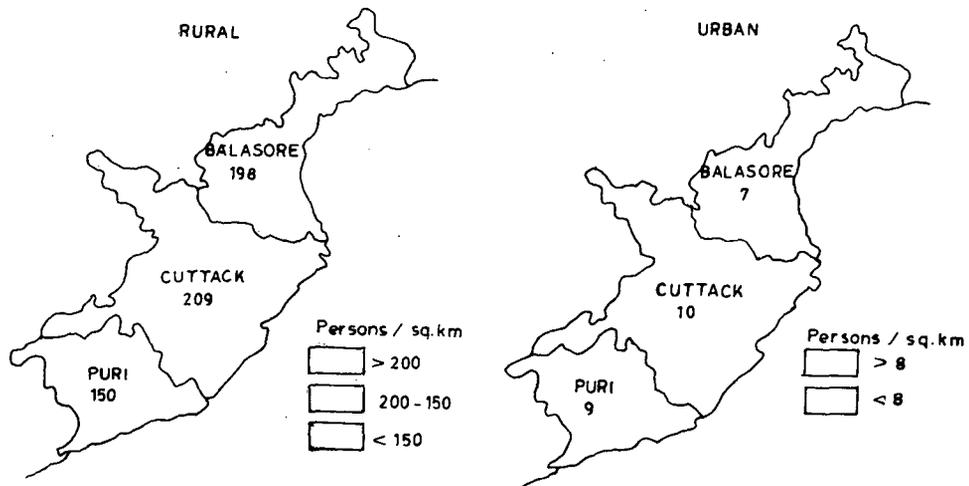
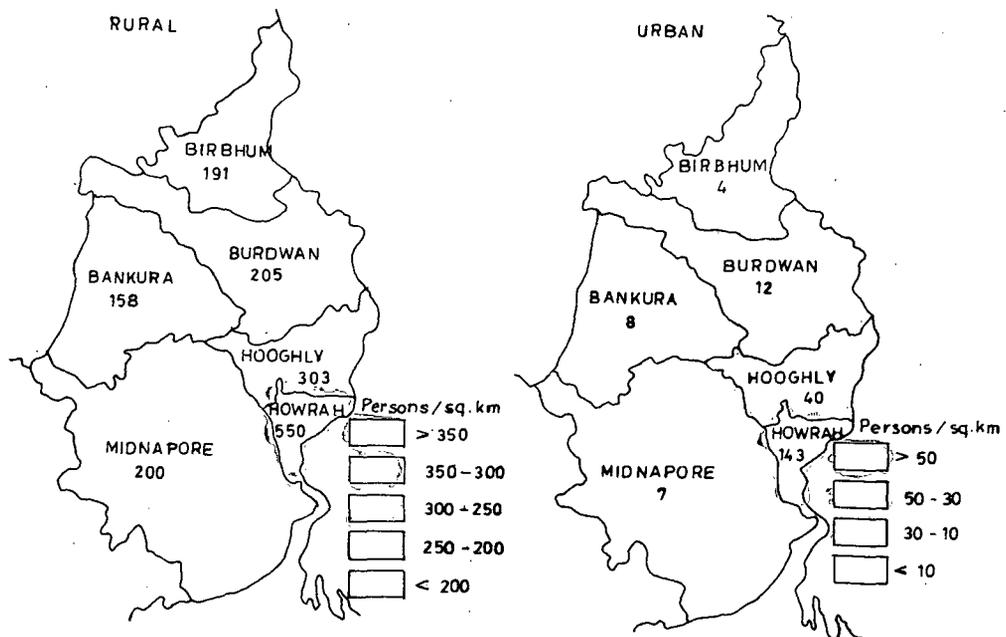


Fig 2.11

there were remarkable variations even in the same natural divisions.

To study the district level variation for which the data is available, two natural divisions, viz., West Bengal and Orissa have been selected depending on the level of urbanization in 1931. It is seen from the adjoining Table 2.8 that, Bengal as a whole was much more urbanized than Bihar and Orissa from 1911 to 1931. Within Bengal, Central Bengal was well apart from the other natural divisions, having 24.4% of the urban population in 1931. Second was West Bengal with 10.43% of the urban population living in 47 towns, followed by South Bihar, East Bengal, North Bengal and North Bihar which had more than 8% of population living in urban areas. The level of urbanization was the least in Chotanagpur (3.63%), and Orissa also had a very low level (4.17%).

West Bengal which stood second in rank and Orissa which had the bottom rank represent a better picture for comparison. Central Bengal has not been selected for the analysis of the district level variation because Calcutta and its neighborhood had a tremendous influence on the percentage figure for the natural division which will not bring out the actual picture.

#### II.7.1 DENSITY OF RURAL POPULATION IN WEST BENGAL AND ORISSA

The total, rural and urban density of population for the two natural divisions of West Bengal and Orissa has been depicted districtwise in the following table in order to understand the uneven distribution of population in these two regions which is also equally applicable for the other natural divisions.

DENSITY OF POPULATION IN WEST BENGAL AND ORISSA  
1911

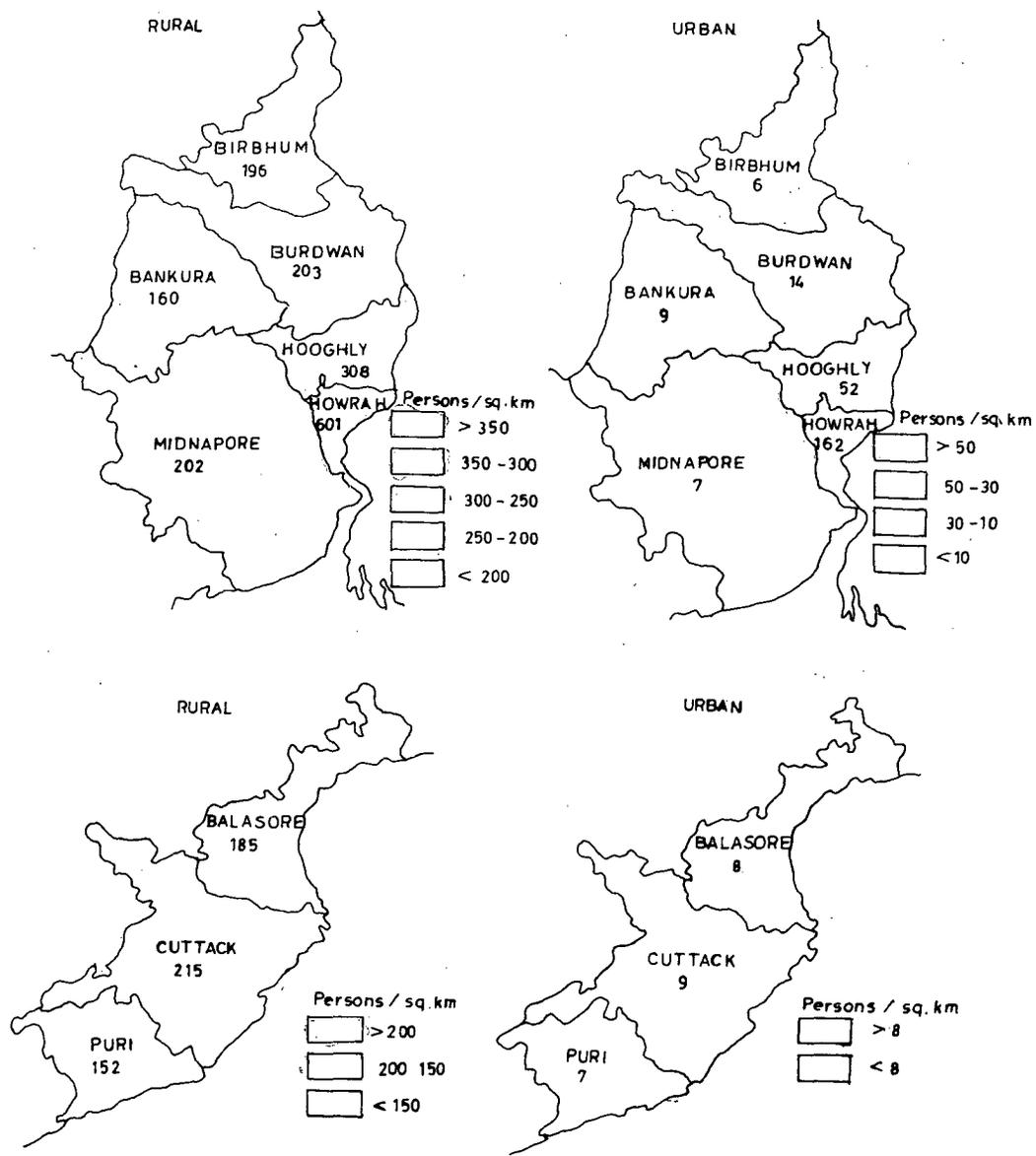


Fig 2.12

DENSITY OF POPULATION IN WEST BENGAL AND ORISSA  
1921

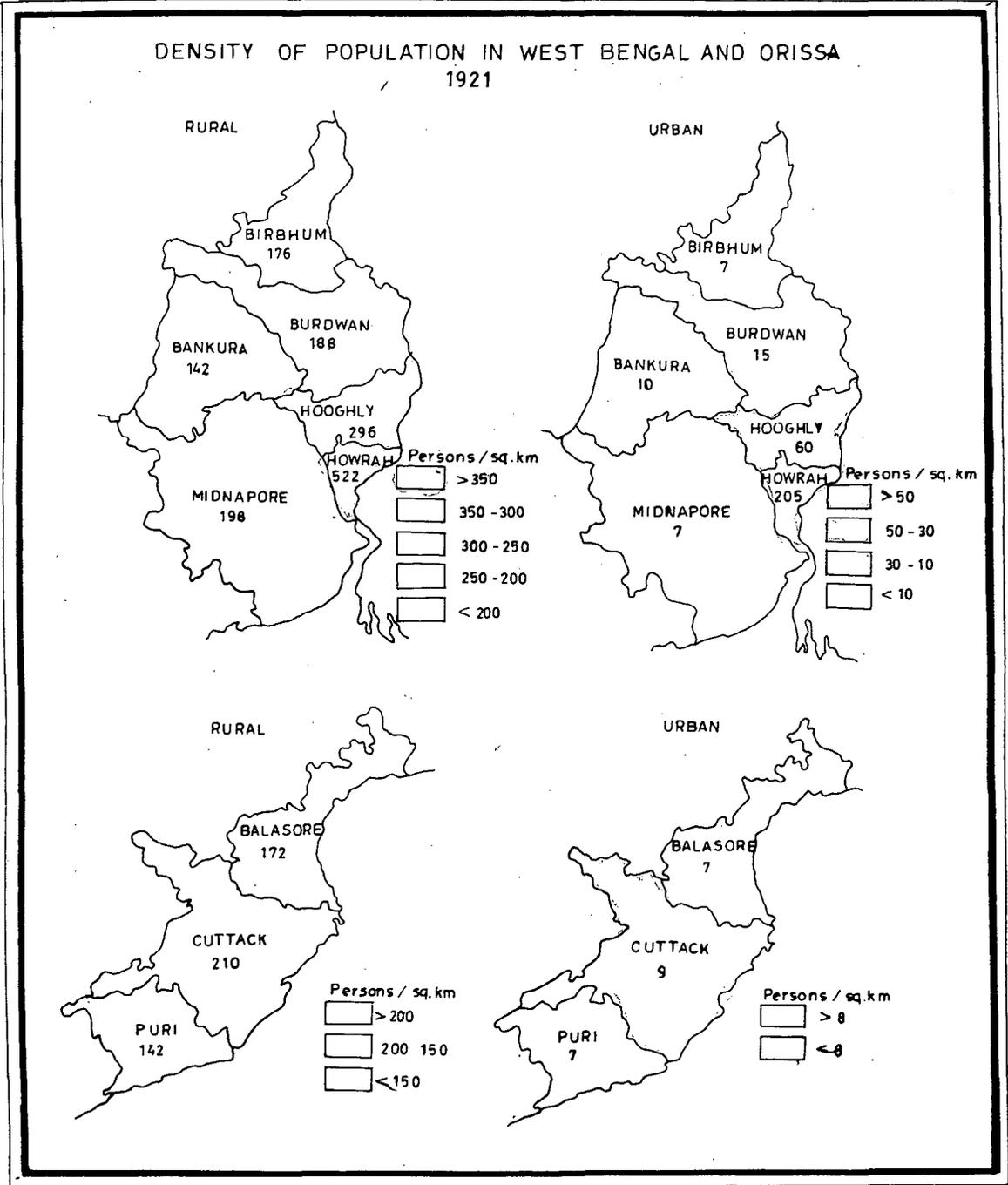


Fig 2.13

## DENSITY OF POPULATION IN WEST BENGAL AND ORISSA 1931

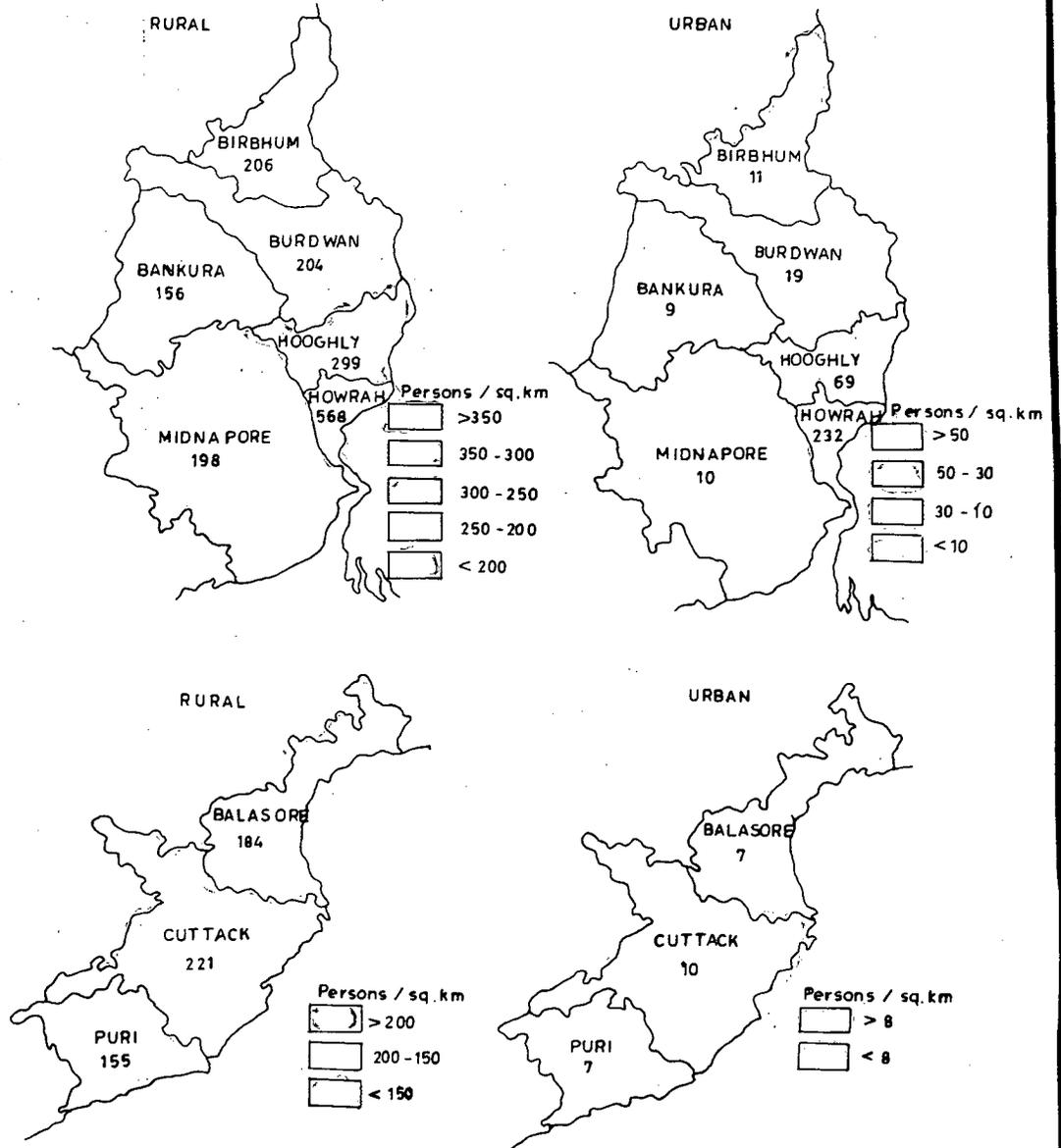


Fig 2.14



pattern of the villages hence differed considerably in the east and west of the district.

The same, may be said about the Birbhum district, which also was more sparsely populated than any other district except Bankura in West Bengal division. The surface of the triangular tract of the country, throughout almost its entire area is broken by a succession of undulations, the general trend of which is from north west to south east. here also the density decreased towards the west where the ground is rolling and large tracts were unfit for cultivation, and increased towards the east where the land is level and more suitable for cultivation. The major part of the population lived in village as the density of rural population shows. In 1931, only 11 persons lived per square km in the urban areas of Birbhum district, as against 206 people living in rural areas. The level of urbanization was also very low (5.06% in 1931) because of the natural configuration, where development had not taken place. In Birbhum the net cultivated area was much greater than other West Bengal districts. But the rural density was much lower because agriculture was practiced intensively mainly in the east and to a lesser extent in scattered plots in the small hamlets inhabited mainly by the tribal men. But with the same sort of physical barrier in Bankura, the area available for cultivation in terms of total geographical area was much lower in comparison to rural density. The nature of topography limited the land for cultivation.

Only in 1931, it is seen that, with the decreased in the proportion of available area for cultivation the rural density has minimized the gap between the two. This might be attributed to

RELATION BETWEEN RURAL DENSITY AND PERCENTAGE OF NET CULTIVATED AREA 1911 - 1931

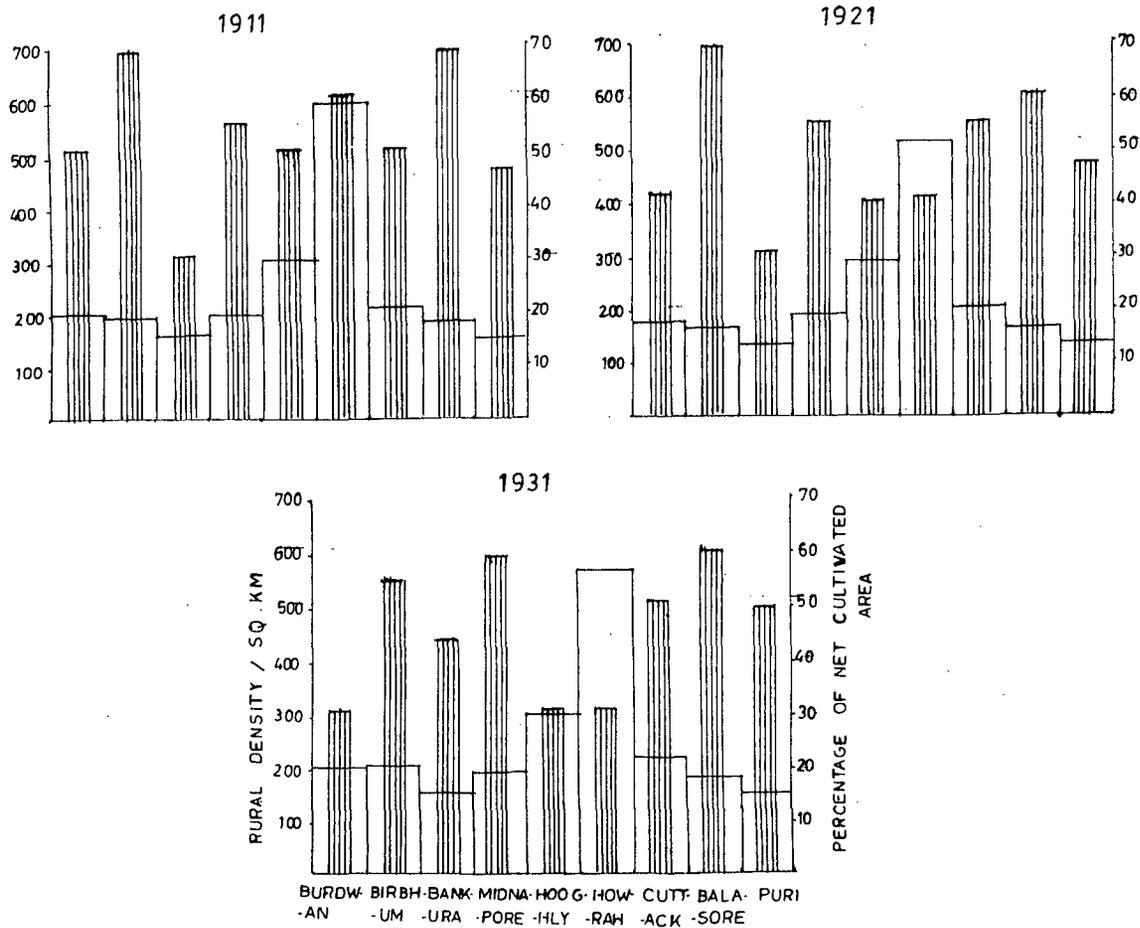


Fig 2.15

Bengal comprises three tracts of well-marked characteristics: (1) the north and west are of laterite formation, (2) the east is deltaic and (3) the south is sea-board. The east and the south, the country of new alluvium produces abundant rice crops and it is obvious that even within the district, densities should be greater in these parts. In the west and north rice was grown in the depressions between successive ridges by terracing the slopes, and maize, millets, oilseeds and pulses were grown on the uplands; but the crests of the ridges were very infertile. Population density hence would be comparatively lower in these areas.

Burdwan district, lying mainly between the Ajay, the Bhagirathi or Hooghly and the Damodar rivers naturally falls into two main divisions depending on which the density also varies. The eastern portion comprising of the Burdwan, Kalna and Katwa subdivisions is a wide alluvial plain and the west is a mere strip of rocky undulating land, some 24.15 kilometers wide, lying between the Ajay and Damodar. The eastern portion which contained more than two thirds of the total area of the district was densely cultivated, and it was in this part that majority of the rural population lived. The western rocky and rolling country with laterite soil was practically treeless, and the area was unfit for cultivation. It is chiefly in the depressions and along the edges of the numerous drainage channels that rice was cultivated in terraces banked up on the slopes. In this part due to the mining activity, population had clustered in Asansol and Raniganj areas where the density was considerably high. But in other areas poor soil and absence of coal mines prohibited the settlement of

population. Though, generally speaking population was thicker in the eastern part, the western part also had a major chunk of rural population to support. The availability of land for cultivation showed a decline over the years. This was because of the fact, that no new areas were added to the cultivable area for supporting the population, as a result of which we see that, pressure of population on the net area cultivated was much higher than other districts except Hooghly and Howrah. In 1931, 91.43% of the rural population were supported by 32.2% of the net cultivated area. Immigration to the coal mines had also increased the pressure on land in rural areas.

Hooghly and Howrah the two most developed districts of the West Bengal division, covered the least area of 3,025 and 1,369 sq. kilometers in 1931 but supporting the maximum percentage of rural and urban population.

Hooghly, the south-eastern district, had a very high population density of 343 persons/sq. km in 1901, which increased to 368 persons/sq.km in 1931. The density of population was exceeded only by the metropolitan district of Howrah. As a general rule most of the population (81.20%) lived in rural areas and hence the rural density was considerably high. The pressure on land was great because the district contained a large quantity of waste and uncultivable lands and over the years as is seen from Table 2.10, the pressure on existing land increased quite considerably. But due to the fertility of the soil and the industrial expansion, the pressure on the net cultivated area was not as excessive as should have been.

The district of Howrah, hemmed in between the Hooghly on the east and the Rupnarayan on the west, and intersected by the Damodar, consists of a flat alluvial plain with a gradual, almost imperceptible, rise towards the north and north west. Though smallest district in terms of area (1,369 sq. kilometers in 1931) it supported the maximum population, and had a total density of 800 persons/sq.km. The villages tended to be semi-urban in character, and though the percentage of rural population (71.03% in 1931) was quite low the rural density was quite high. In 1901 it was 550/sq. km, which increased to 568/sq km in 1931. In 1921 the slight decrease was due to the general trend of depletion of population all over the country due to epidemic environment. The pressure on land was quite high as is depicted from figure-2.15 which like the district of Hooghly, kept on increasing from 1911 to 1931. The increase in population was due to the great industrial activity in the metropolis of Calcutta, in Howrah city and along the river bank as far south as Uluberia. This attracted a large number of laborers from other parts of India and the density gradually increased over the years.

The natural divisions of Orissa were much more backward in terms of economic development and the physical configuration of the region limited the settlement of population. As a whole, the density was 200 persons/sq. km in Orissa as against 239 persons per sq. kilometer in West Bengal division. Variation also existed in term of rural and urban density, West Bengal being more urbanised had a greater density or urban population all through the period under study.

An interesting feature about the rural density of the districts of Orissa is that they had maintained the same trend from 1901 to 1931. Cuttack leading with 212 persons/sq km in 1931 was followed by Balasore and Puri with 184 and 155 persons living per square km in the villages.

The central district of the Orissa Division, Cuttack differs widely in its physical aspects forming three distinct tracts. The first is the marshy woodland strip along the coast abounding in swamps and morasses and intersected by innumerable winding creeks, with a coarse jungly growth of canes. Brushwood and reedy grass on either side. The region is subjected to inundations of sea-water which leaves deposits of salt on the surface of the low lying country and in many parts render cultivation impossible. Therefore the region is sparsely populated. The second, the cultivated alluvial plain lying between the coast and the submontane tract of rocky hill and barren soil in the west had a density of population very high as the area was the only fertile part of the district where cultivation was very intensive. The Western chain of hills with thickly wooded slopes and fertile valleys between, supported a comparatively lower population. The saline soil mainly covered with coarse grass and shrub along the sea coast is unfit for cultivation and therefore population density was the lowest. However, in the district as a whole, the rural density was 221 persons per square kilometer in 1931, which increased from 1901 by only 12 persons per square kilometer.

In terms of total density Balasore, the northern district of Orissa Division also has three distinct areas of variation, based

land between the hills and the sea, marks the variation in land and the density as well. Balasore at its greatest width is only 64.40 kilometers broad from east to west and every thana contained considerable areas of saline soil or uncultivated laterite, there being no police circle which was not either littoral or submontane. The arable tract, beyond the salt lands includes greater part of the district and was covered with rice fields. From this tract the area of high density, the density gradually decreased towards the coast as well as towards the submontane tract where large tracts were covered with sal jungle. However, near the hills there were patches of cultivated land because the soil is often of great fertility on account of the rich vegetable matter brought down by the mountain torrents.

The rural density for the district as a whole was 184 persons/sq. kilometer in 1931. From 1901 to 1921 the rural density decreased from 198 to 185 and then to 172 persons/sq. km. In 1931, natural increase raised the density for the total, rural and urban areas.

Puri the southern district of the Orissa division supported a total population of to 10,34,948 in an area of 6400 sq. kilometers in 1931. The rural density was 155/ sq.km in 1931, a mere increase of only 5 persons/sq km from the 1901 figure. Here also physical features determined the variation in rural density. The alluvial country near the coast and a broad tract in the north-coast had higher density of population than the western portion of the district which is occupied by laterite, sandstone and metamorphic rocks.

## II.7.2 DENSITY OF URBAN POPULATION IN WEST BENGAL AND ORISSA

In terms of urban density Howrah was well apart from the other West Bengal districts. The urban density had increased from 143/sq km in 1901 to 162/sq. km in 1911 and 205/sq km in 1921 and in 1931 it was 232 persons/sq. km residing in the urban areas of the Howrah district. The increase was due to the great industrial activity which had its start as early as the middle of 18th century to meet the essential needs of Europeans, when the Howrah city was considered to be the workshop of Calcutta. Moreover the location of the city opposite Calcutta and the existence of a hinterland, rich both in men and raw material led to the consolidation and extension of a variety of industries. Though there were 8 small towns having a total population of 54,307 in the 5000-10000 category, the main population concentration was in the city of Howrah and its surroundings. It supported 69.85% of the districts total urban population in 1931. The level of urbanization as compared to the other districts was also very high for Howrah having 28.97% of the total urban population.

Next came Hooghly, with 18.8% of the urban population in 1931. The urban density though quite high in comparison to the other four districts (leaving Howrah) was much lower than the density of Howrah district. In 1931 the urban density of Hooghly was 69 persons/per square km, while that of Howrah was approximately  $3 \frac{1}{2}$  times more than Hooghly. Though the total number of towns both in Hooghly and Howrah was eleven in 1931, in the district of Hooghly the urban population was concentrated in



towns having population less than 50,000. The major chunk of the urban population was concentrated in large towns but the immigrants were attracted more towards the Calcutta metropolis and Howrah city.

The district of Burdwan with an increasing number of people, per square kilometer ranked third in urban density having 19 persons/sq. km area in 1931. The western portion of the district which is a rocky and rolling country with laterite soil rising into rocky hillocks also has a narrow strip of land formed by alluvium along the Damodar to the south which yields good harvests. The famous Raniganj coalfield is situated in this strip of undulating country enclosed by the Ajay and Damodar rivers and this corner of the district is one of the busiest industrial tracts in Bengal. The country is dotted with coal pits and factories and its coal and iron fields are thronged by miners from the neighboring districts. Therefore the urban density is quite high in this area, in the towns of Raniganj and Asansol. In the eastern part, Burdwan and Katwa sub divisions also had a fair amount of urban population.

Bankura, Birbhum and Midnapore had and in urban density of less than 15 persons per square km in 1931. In 1901, Birbhum had only 4 persons/sq. km which increased to 11 persons/sq.km. in 1931. Bankura had a density of 8 persons/sq. km. which increased to 9persons/sq km in 1911 and then in 1921, it increased to 10 persons per sq km but in 1931 it decreased to 9 persons/sq. km. In terms of urbanization level Birbhum made a remarkable increase from 1.69% in 1901 to 5.06% in 1931, though the percentage values were quite low. But Bankura which had 4.77% of the urban popula-

tion in 1901

of urban p

remained more or less static in terms of percentage growth of urban population. The density of urban population in Midnapore increased from 7 persons/sq. km in 1901 to 10 persons/sq. km in 1931. There was no growth in the number of towns in Midnapore. Seven towns which existed in 1901, were there in 1931. The population in the existing towns increased so that they were promoted to the next higher order. This change in population increased the urban density by a mere change of 3 persons/sq. km area.

From the foregoing discussion it appears that there is a great difference in the plain and plateau areas in terms of the density of total rural and urban population. The physical factors to a large extent determines the density of population even within the plain areas. The differences in the density of rural and urban population has been analysed for the nine districts of West Bengal and Orissa division. It is seen from the discussion that even within a single natural division the districts have different physical configuration which distinctively marks the density and distribution of population. The sub divisions within each district again had a different physical setting and social and economic development together brings out minor variation in each sub-division under different police circles which has not been included in the present study.

## **II.8 SIZE CLASS DISTRIBUTION OF POPULATION AND SETTLEMENTS:-**

Another important aspect of settlement structure analysis is

### DISTRIBUTION OF RURAL AND URBAN POPULATION IN THE NATURAL DIVISIONS 1901 - 1931

RURAL
  URBAN

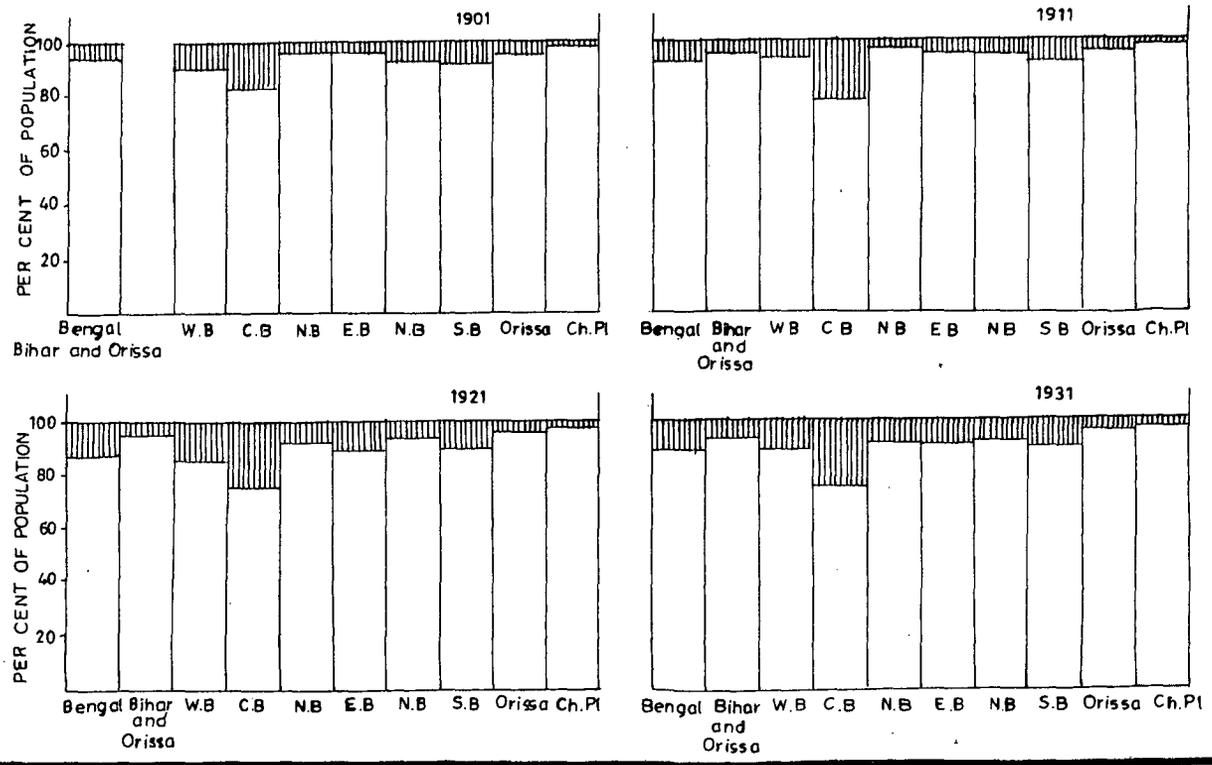


Fig 2.16

to understand the size class distribution of settlements and the population inhabiting it, to get an idea about the concentration at different levels, be it at the state level or regional or district level.

There appears to be an optimum size of settlement beyond which a settlement cannot grow without entertaining a change in its character and economy. The size of settlements is therefore an important indicator of development of a region.

Table 2.11

Distribution of Rural Population

(Percentage Shares)

Nat. Division	1901 Percentage of Rural Pop. to Total Pop.	1911 Percentage of Rural Pop. to Total Pop.	1921 Percentage of Rural Pop. to Total Pop.	1931 Percentage of Rural Pop. to Total Pop.
BENGAL	93.81	91.52	87.11	88.59
BIHAR AND ORISSA		95.16	95.11	93.46
West Bengal	93.39	92.38	84.88	89.57
Central Bengal	81.57	77.09	75.86	75.60
North Bengal	96.39	96.42	92.49	91.68
East Bengal	96.35	94.58	89.15	91.55
North Bihar	92.85	94.29	94.25	91.91
South Bihar	92.42	91.74	90.01	90.11
Orissa	95.37	95.51	95.92	95.83
Chotanagpur Plateau	98.49	98.22	98.22	96.37

Source: Same as Table 2.1

For the present analysis, the eight natural divisions of Bengal, Bihar and Orissa have been taken to understand the spa-

tial dimension of concentration in rural and urban areas. For a district level analysis for the same phenomenon the natural divisions of West Bengal and Orissa has been taken into account.

Table 2.11, indicates that the provinces of Bengal, Bihar and Orissa were mainly rural and that the majority of the population lived in rural areas till 1931. Bihar and Orissa together comprised 93.46% of the total rural population in 1931. Though Bengal was in a better position compared to its neighbor, 85.59% of the population lived in rural areas in Bengal. All the natural divisions except Central and West Bengal had more than 90% of the population living in rural areas. The influence of the city of Calcutta and Howrah in case of Central and West Bengal respectively has reduced the percentage of rural population living in these two natural divisions.

Moreover, it is seen that more than 82.29% of the villages in Bengal, Bihar and Orissa in 1901 were small villages having only 500 or less than 500 people. The medium sized villages having population between 500-1000 and 1000-2000 had 12.12% and 4.33% of the total villages in 1901. Out of the total number of villages of 222524, only 2,791 (1.26%) were large villages. But this 1.26% were large villages. But this 1.26% of the larger villages supported 10.45% of the rural population in Bengal in 1901. Table 2.12, shows the distribution of villages and population according to size class of population by the natural divisions for 1901. It is seen from the table that the villages having population less than 500 had the maximum percentage shares among the other classes in all the natural division. But the

**Table 2.12**  
**Distribution of Villages and Population**  
**in Different Size Classes - 1901**

State/ Nat. Div.	Total number of Villages	Under 500	500- 1000	1000- 2000	2000- 5000	Total Number of Pop. in villages	Under 500	500- 1000	1000- 2000	2000- 5000	
<b>BENGAL</b>	<b>222524</b>	<b>183123</b>	<b>26976</b>	<b>9634</b>	<b>2791</b>	<b>72991989</b>	<b>33876233</b>	<b>18431532</b>	<b>13056701</b>	<b>7630623</b>	
<b>BIHAR AND ORISSA</b>		<b>(82.29)</b>	<b>(12.12)</b>	<b>(4.33)</b>	<b>(1.26)</b>		<b>(46.41)</b>	<b>(25.25)</b>	<b>(17.89)</b>	<b>(10.45)</b>	
West Bengal	24869	20738 (83.39)	3088 (12.42)	866 (3.48)	177 (0.71)	7674850	3965717 (51.67)	2094591 (27.29)	1149696 (14.98)	464846 (6.06)	
Central Bengal	17061	13189 (77.30)	2956 (17.33)	792 (4.64)	124 (0.73)	6228145	2910098 (46.72)	1913121 (30.72)	1064043 (17.08)	340883 (5.48)	
North Bengal	33107	28692 (86.66)	3004 (9.07)	1063 (3.21)	348 (1.06)	9539371	5146800 (53.95)	2029723 (21.28)	1451579 (15.22)	911269 (9.55)	
East Bengal	41874	32132 (76.73)	6654 (15.89)	2360 (5.63)	728 (1.75)	16031104	6494175 (40.51)	4382047 (27.33)	3203984 (19.99)	1950898 (12.17)	
North Bihar	22177	13939 (62.85)	4783 (21.57)	2516 (11.34)	939 (4.24)	12902520	3325875 (25.78)	3449337 (26.73)	3464136 (26.85)	2663172 (20.64)	
South Bihar	20837	17126 (82.19)	2439 (11.70)	979 (4.70)	293 (1.41)	7003446	3215174 (45.91)	1662240 (23.73)	1327020 (18.95)	799012 (11.41)	
Orissa	11978	9685 (80.86)	1669 (13.93)	540 (4.51)	84 (0.70)	3720920	1885663 (50.68)	900126 (24.19)	718118 (19.30)	217013 (5.83)	
Chotanagpur Plateau	50621	47622 (94.07)	2383 (4.71)	518 (1.02)	98 (0.20)	9894633	6932731 (70.06)	2000347 (20.22)	678125 (6.85)	283430 (2.87)	3.63

Source : Census of India, 1901

Vol. VI A

The Lower Provinces of Bengal and

Their Feudatories

Part II, The Imperial Tables.

LORENZ CURVE SHOWING THE CONCENTRATION OF POPULATION IN DIFFERENT SIZE CLASS VILLAGES - 1901

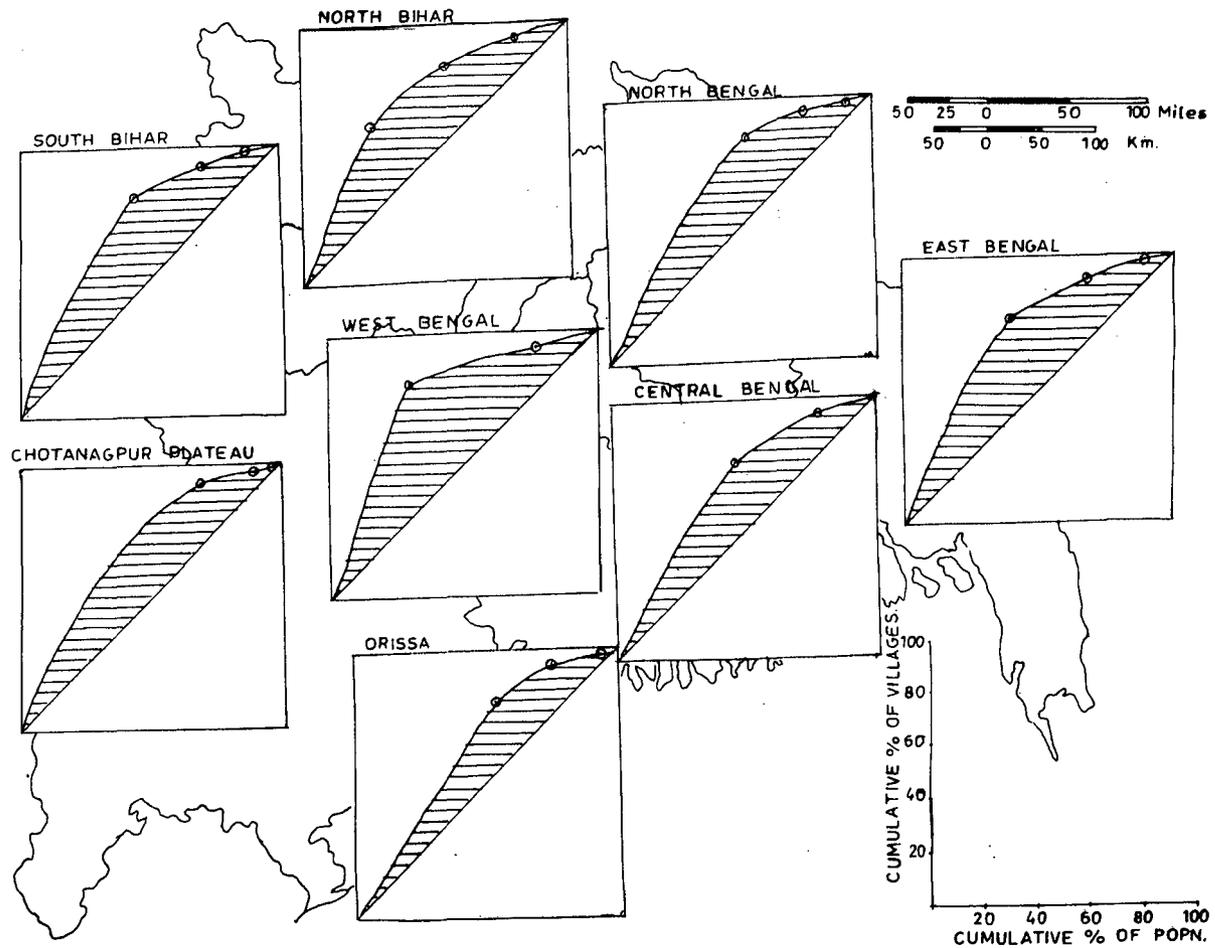


Fig 2.18

LORENZ CURVE SHOWING THE CONCENTRATION OF POPULATION IN DIFFERENT SIZE CLASS VILLAGES - 1911

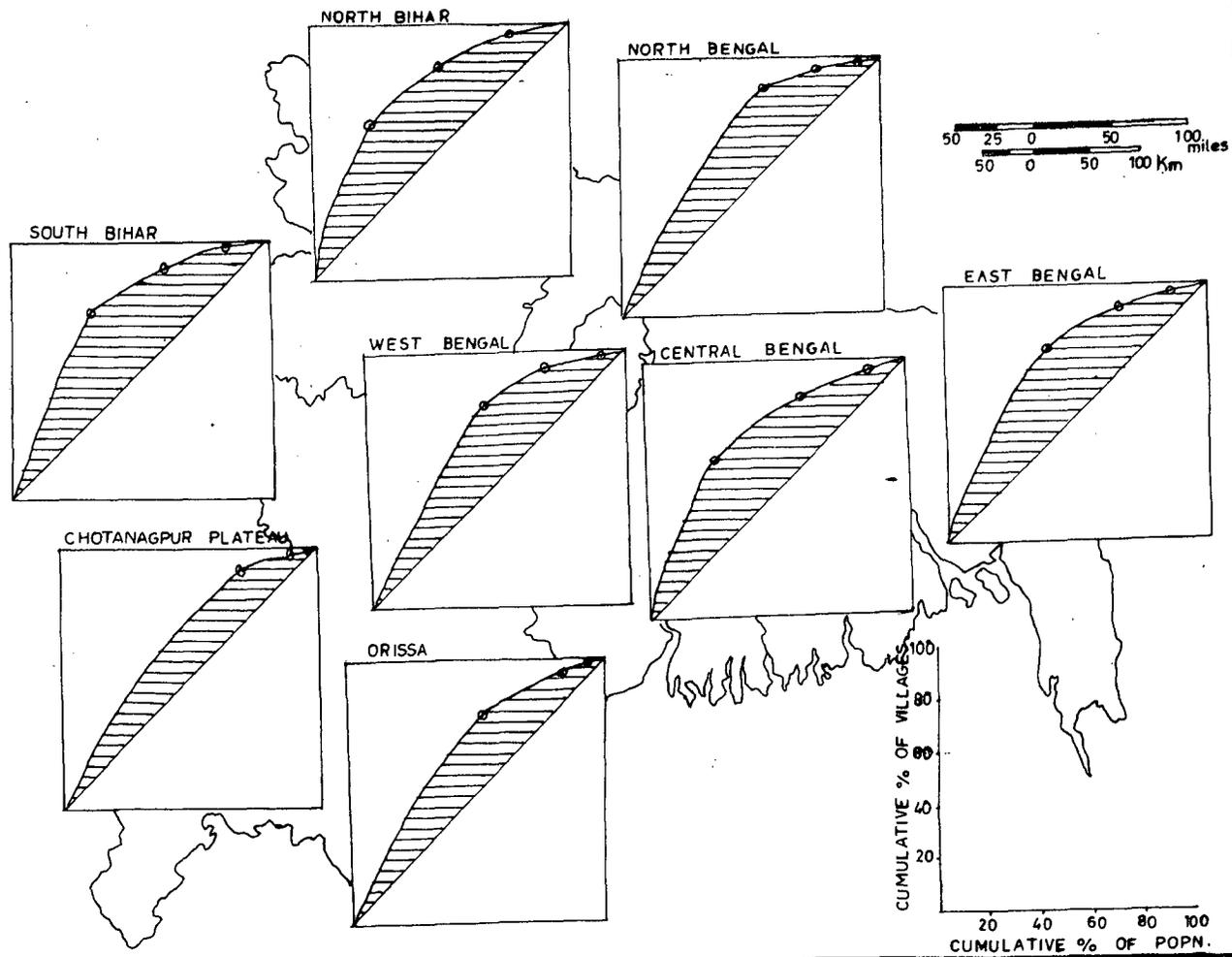


Fig 2.19



LORENZ CURVE SHOWING THE CONCENTRATION OF POPULATION IN DIFFERENT  
 SIZE CLASS VILLAGES - 1921

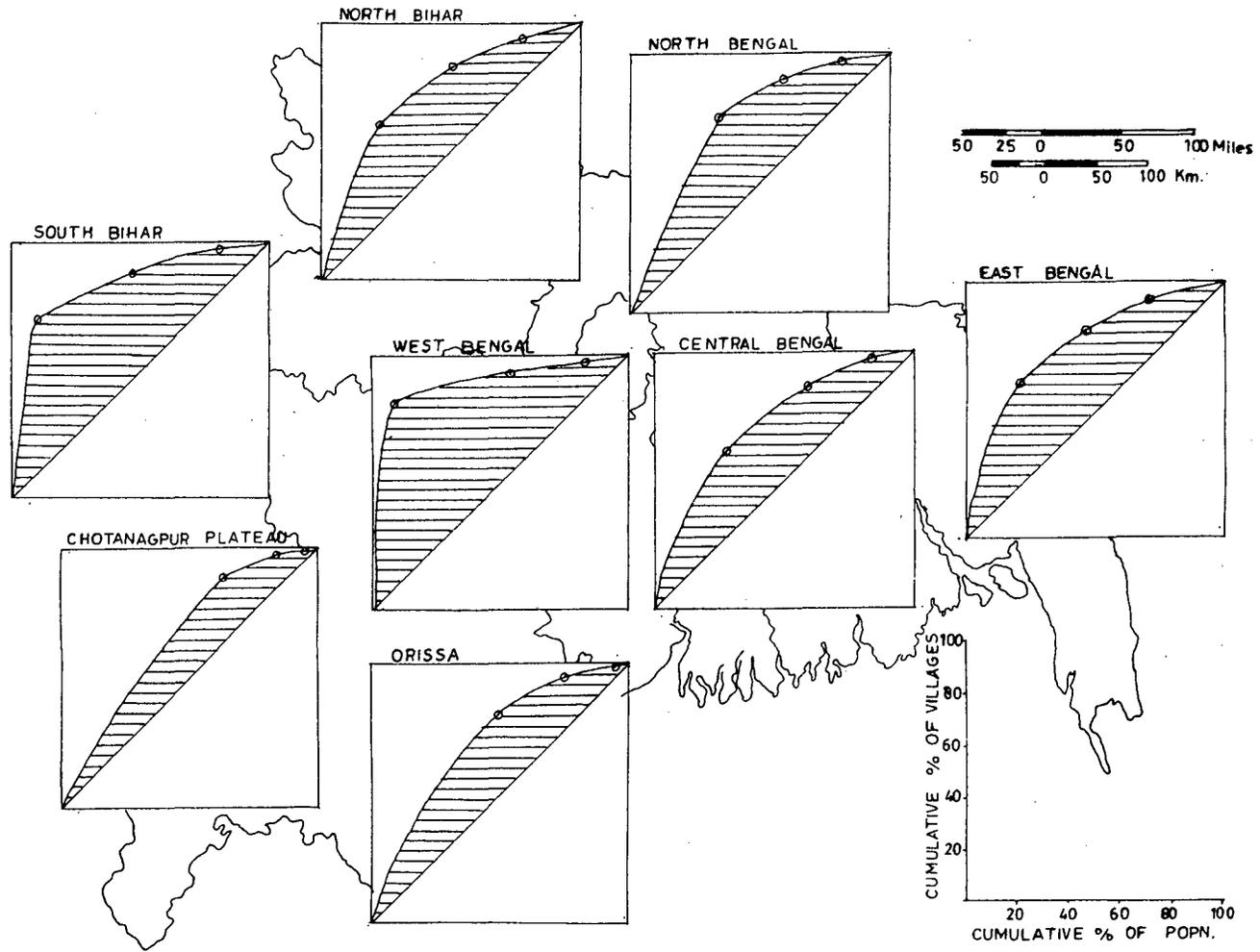


Fig 2.20

LORENZ CURVE SHOWING THE CONCENTRATION OF POPULATION IN DIFFERENT SIZE CLASS VILLAGES - 1931

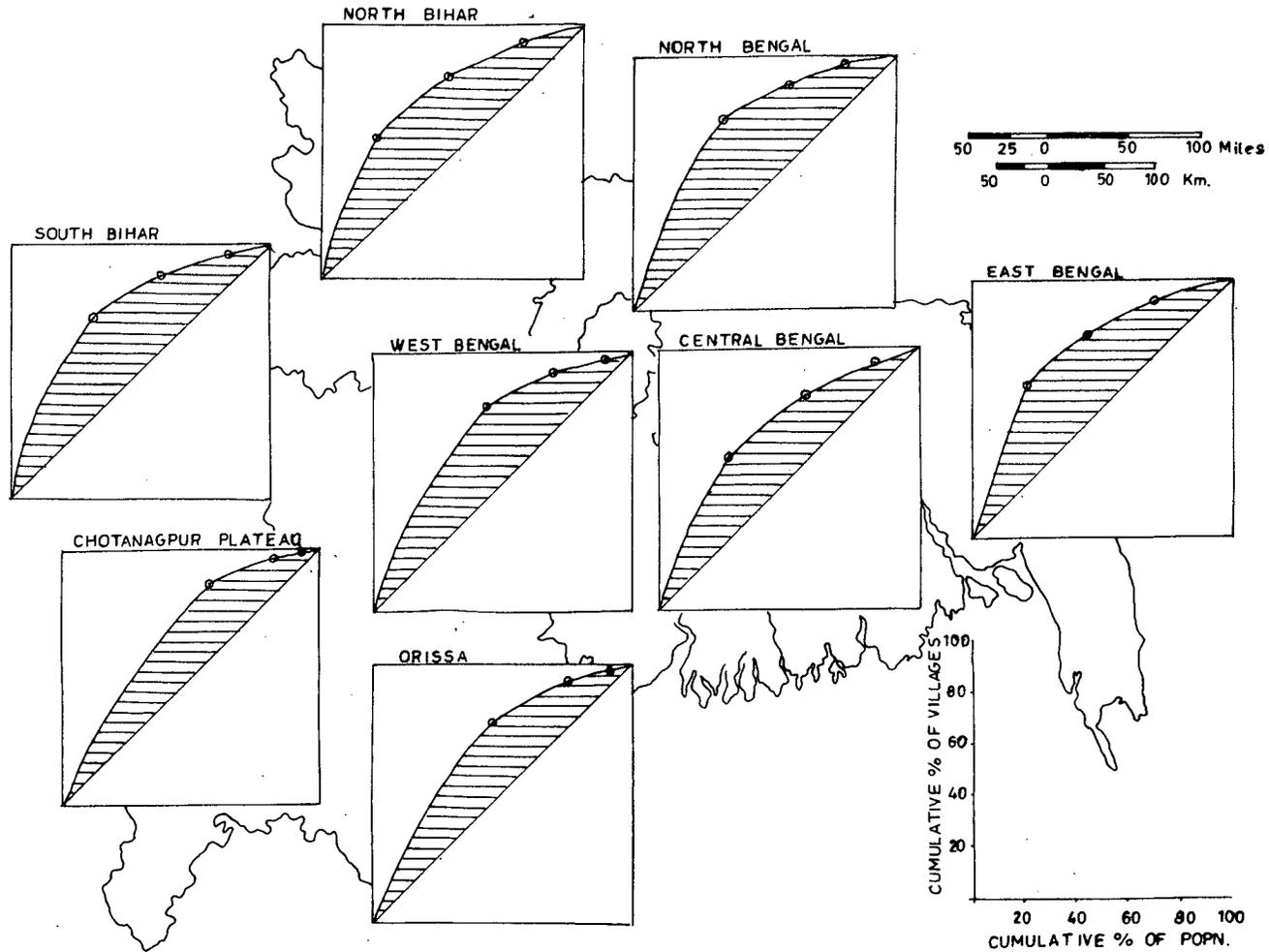


Fig 2-21

concentration of population was much higher in the smaller number of larger villages, which can be attributed to the economic backwardness of the region. The high degree of imbalance in the distribution of rural population in various size groups of villages have been worked out by plotting them through Lorenz curves. The curves for the different natural regions depict the degree of imbalances in their concentration in 1901. (Fig. 2.18) The influence of the topography on the distribution pattern is well marked. Chotanagpur plateau for its uneven configuration is mainly dotted with small villages occupied by 70% tribals. The Gangetic plain of north and south Bihar also varies considerably between these two attributes of population and settlement. In North Bihar while 62.85% of the small villages (under 500) had 25.78% of population, South Bihar had 82.19% of the small villages having 45.91% of the rural dwellers. In north Bihar the proportion of rural population was more or less even in all the size class villages though the smaller number of larger villages (4.24%) supported 20.64% of the rural population. In West and Central Bengal, 0.71% and 0.73% of the total villages of each division respectively had 6.06% and 5.48% of rural population in 1901. North Bengal and East Bengal had the same general trend with the maximum concentration in a smaller number of larger villages.

In 1911, for the two states and the 8 natural the proportionate share of the number of villages increased in the higher category, for example in West Bengal, which had 0.71% of the villages having 2000-5000 population in 1901, the share increased to 1.24% in 1911. Though the increase in the number of larger

villages had led to their increased share, the total picture had not changed. With more than 90% of the population living in rural areas in 1911 in all the national divisions except in Central Bengal, the total picture was the same for the two provinces. In 1921, a negligible decrease took place in the percentage of population residing in rural areas all over the country.

The uneven distribution of population and settlement was marked in 1911, 1921 and 1931 with minor variations taking place over the years. The Lorenz curves for the different natural divisions shows the assemblage of population in a particular category of settlement. But the concentration of the population in West Bengal and South Bihar brings out a change in the concentration during the decade 1911-21. The Lorenz curves for these two natural divisions depicts the fact that the epidemic environment of these two regions forced the dwellers to shift to the smaller number of medium sized and larger sized villages where the conditions were comparatively better. Though the bulging portion of the curves of these two divisions as seen in 1921. But during the decade 1921-1931, population started increasing and we find that these two natural divisions attained their normal position in terms of population concentration in 1931.

From the curves of 1931, three categories of concentration is well marked.

(1) Chotanagpur and Orissa Division the two underdeveloped areas have most of their population in smaller villages, and a smaller share of population in less than 1% larger villages (2000-5000). During 1911 and 1921, the picture was almost the same as was in

1931. Burdwan or West Bengal Division though had more than 40% of the population living in 80% of the small villages differed from Chotanagpur and Orissa from the fact that 10% of the population lived in 1.30% of the larger villages, in 1931.

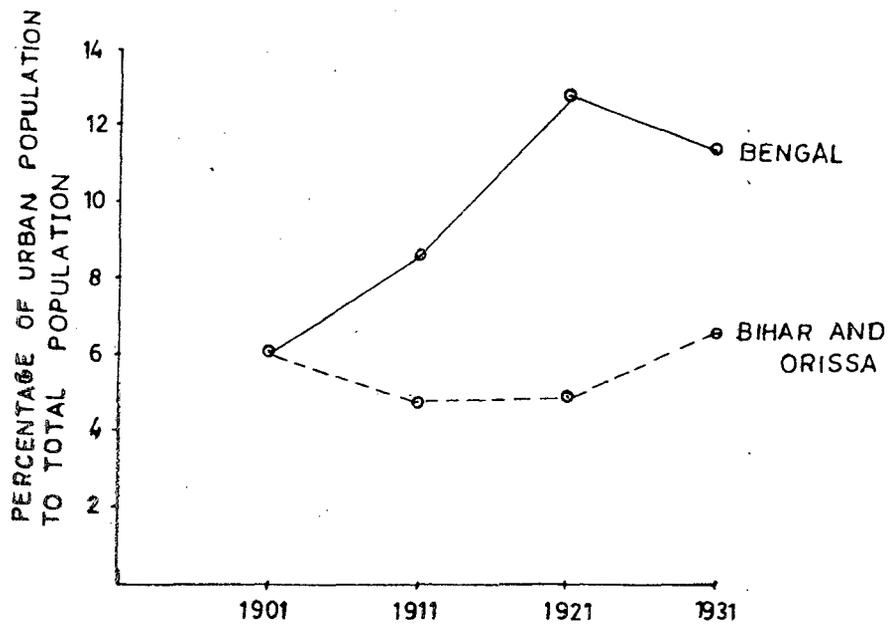
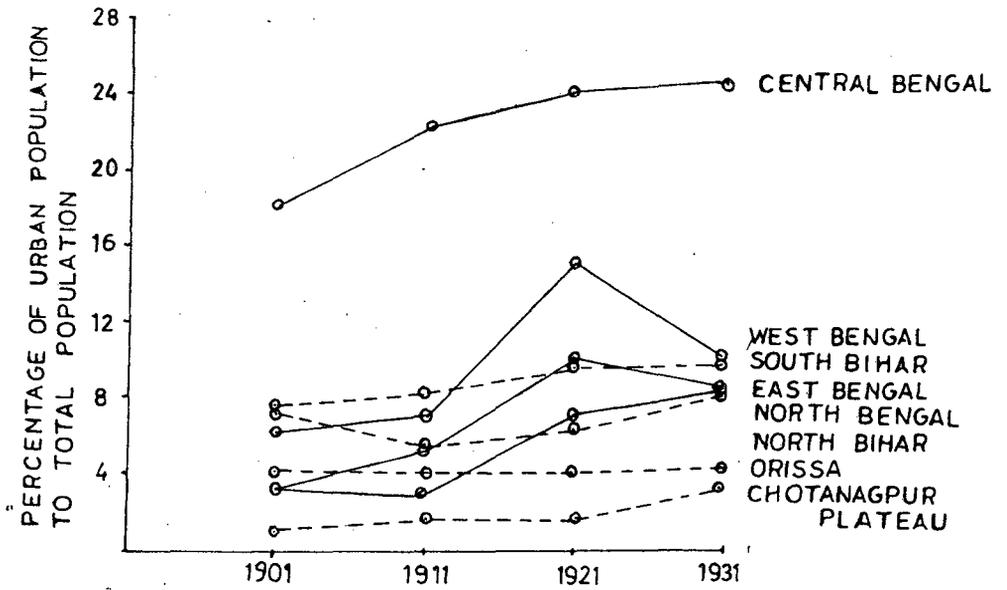
(2) South Bihar and North Bengal though had majority of the people living in smaller villages but here nearly 20% of the population also resided in villages having 2000-5000 population.

(3) North Bihar, East Bengal and Central Bengal shows more or less even distribution of population in different size class villages though majority of the villages even in these areas were of small size.

## **II.9 CONCENTRATION OF URBAN POPULATION IN THE NATURAL DIVISIONS -**

Bengal is distinctly an agricultural country as we have seen from the foregoing discussion. Here only 11.41% of the population lived in towns as against 88.59% of the rural population in 1931. The province of Bihar and Orissa was no exception having only 6.54% of the urban population in 1931. The urban population was considerable only in Central Bengal where the inclusion of Calcutta and its environs brought the proportion upto 24.4% in 1931. From 1901 to 1931 it was distinctly apart from the other natural divisions of the province (Table 2.9). Second place was shared by West Bengal, with its flourishing industrial centers at Howrah, Bally, Serampore and Raniganj and South Bihar with its ancient towns of Patna, Gaya Monghyr, South Bihar was just after West Bengal occupying the third position with 9.89% of the urban population. North Bengal, East Bengal and North Bihar had slight-

### LEVEL OF URBANIZATION 1901 - 1931



Note In 1901 Bengal Bihar and Orissa was united. Therefore the percentage figure is high for Bihar and Orissa.

Fig 2.17

ly more than 8% of the inhabitants living in urban areas, in 1931. Next was Orissa with 4.17% of the urban population followed by Chotanagpur Plateau with 3.63%.

From 1901 to 1931, the lowest and the highest rank were maintained by Chotanagpur Plateau and Central Bengal respectively with the other division interchanging their positions with slight variation in population distribution. The adjoining figure depicts the very low level of urbanization in Bengal during the period, 1901 to 1931.

Not only was the level of urbanization very low, but the concentration of the population in each natural division was also very different in different size class towns. The concentration of population in different size class towns has been depicted by Lorenz curves, in order to understand the degree of imbalances in the distribution of population. The Lorenz curves, shows the high degree of imbalance in Central Bengal, West Bengal and South Bihar between the two attributes of population and towns.

The province as a whole in 1901 had 64.13% of the small towns in which 29.03% of its urban population lived. The share of population was very little in the small sized towns and the major concentration was in the one or two big cities. As in 1901, 20% of the population lived in 0.61% of the towns which had population above 100,000. During the next two decades the same trend continued with the clustering of population in one or two major urban centers of the province.

Bihar and Orissa though had the same trend but the population was much lower in the urban areas as compared to Bengal. Bengalis appear to have a greater predilection for town life than

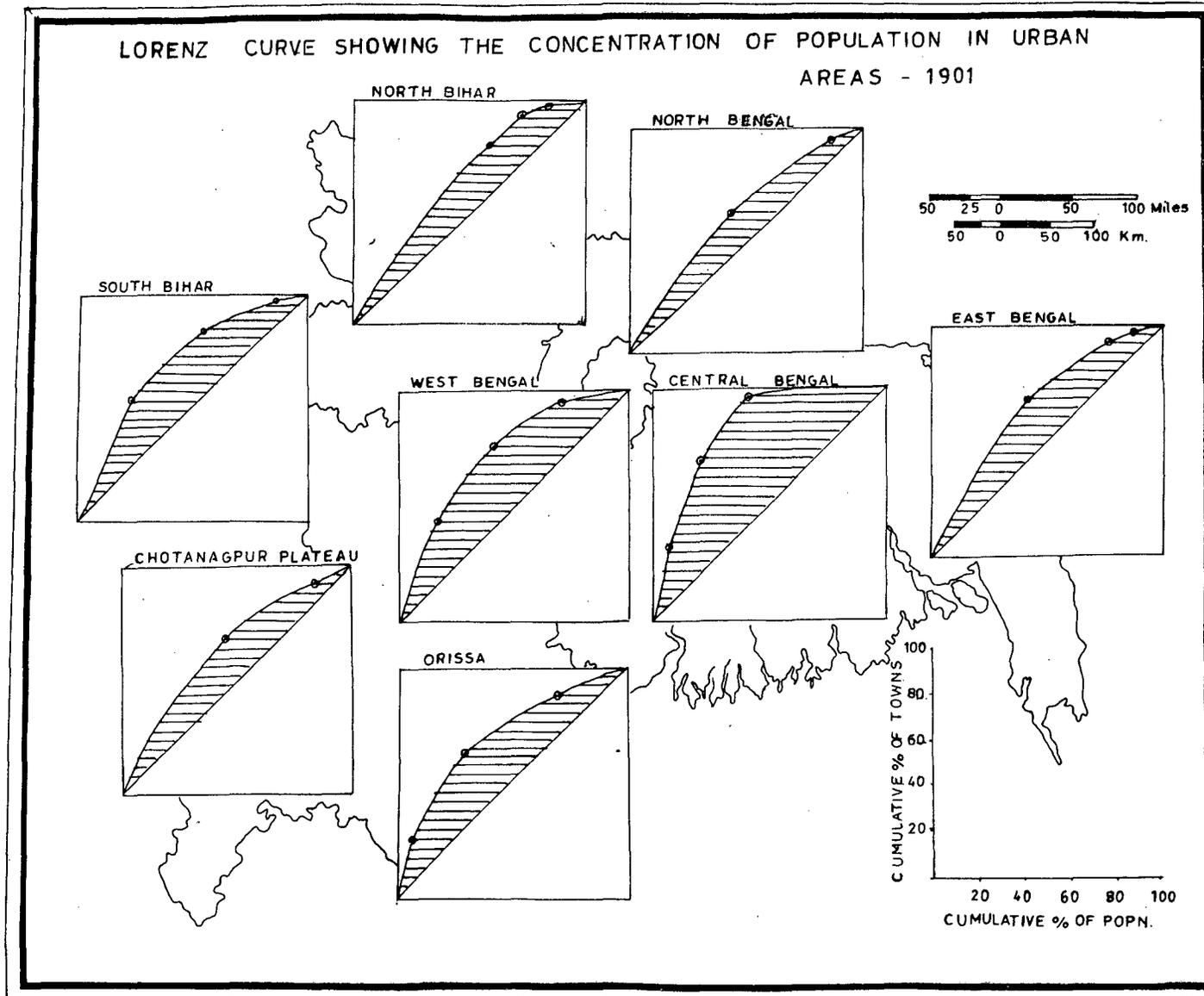


Fig 2.22



LORENZ CURVE SHOWING THE CONCENTRATION OF POPULATION IN URBAN AREAS - 1911

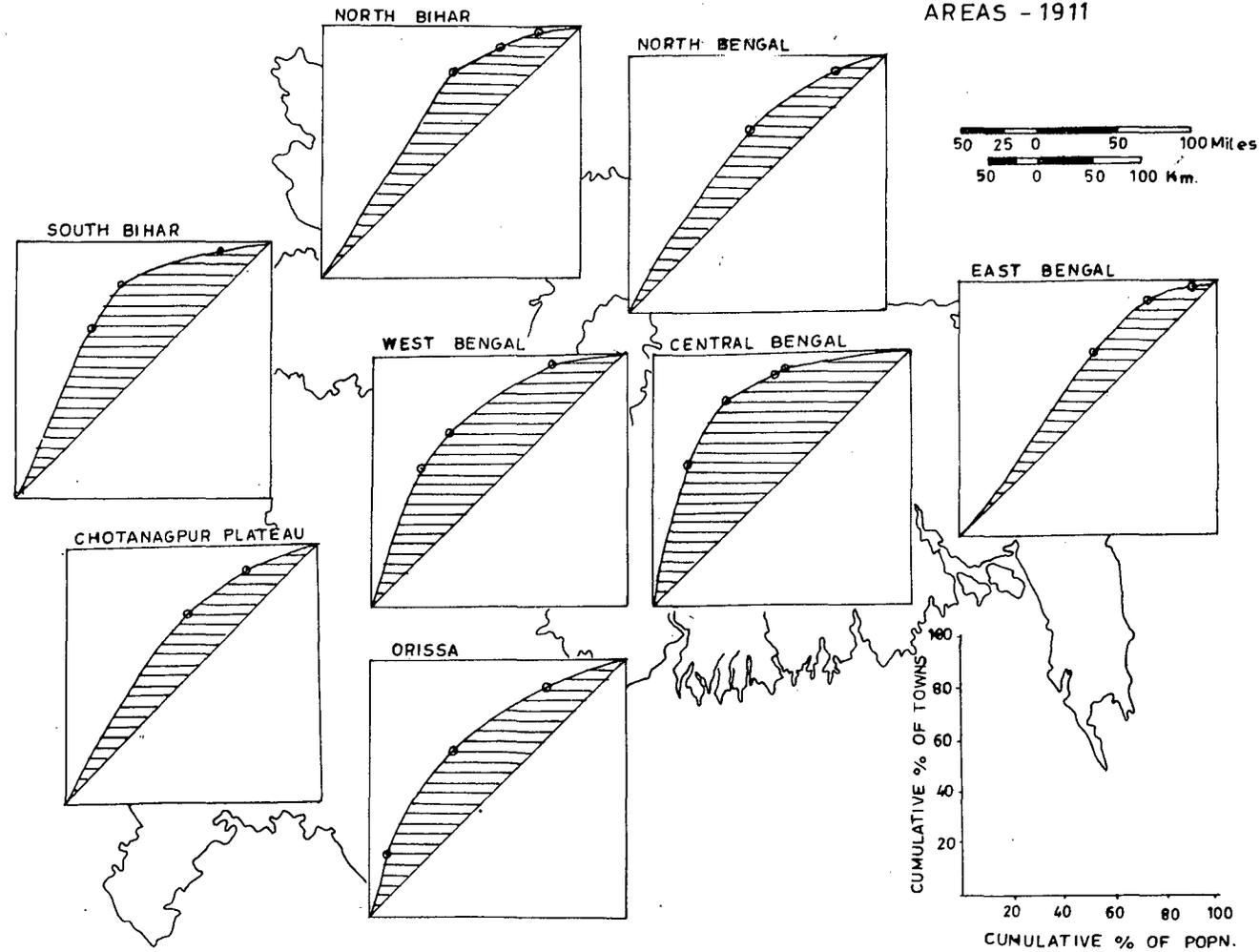


Fig 2.23

the inhabitants of Bihar and Orissa. Bengal contained 439 towns whereas Bihar and Orissa had only 241 towns in 1931, though the area was 28,748 sq. km greater than Bengal in 1931.

The proportion of people living in urban areas was almost the double in Bengal (Table 2.9) because of Calcutta and Hooghly.

In 1901, taking the province as a whole, Central Bengal had 29.23% of the total urban population of the province. The trend continued even after the partition of Bihar and Orissa.

Having the smallest area in the Bengal Presidency, Central Bengal had a density of urban population greater than other natural divisions. More than 50% of the population in Central Bengal was concentrated in Calcutta and its conurbations. The small towns having 5000-10,00 population had only a little over 10% population residing in Central Bengal, all through the period from 1901 to 1931. The Lorenz curves for Central Bengal for the years 1901, 1911, 1921 and 1931 indicate the concentration of population in less than 2% of the cities. The assemblage of population in a particular region also indicates the nature of economic development. The commercial and industrial activity of Calcutta was responsible for the agglomeration of population.

The emergence of class II towns was due to the increase in population in the Calcutta-Hooghly industrial area who preferred to live in the conurbation rather than in the city itself.

In West Bengal, the proportion of urban population was more or less evenly distributed in 1901, though the pressure was much greater on the banks of Hooghly river because of industrial development. On 3.7% of the town having more than 100,000 popula-

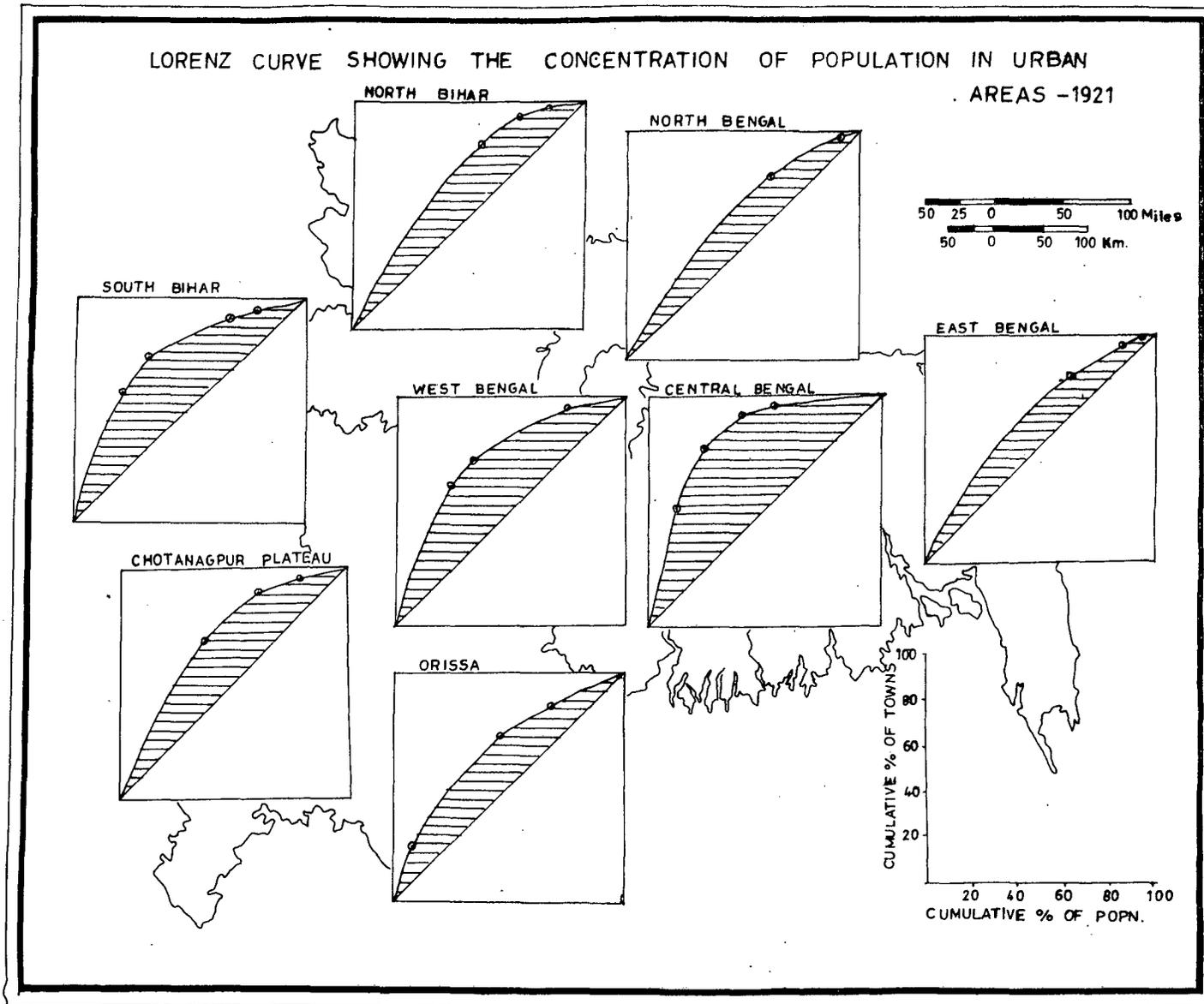


Fig 2.24

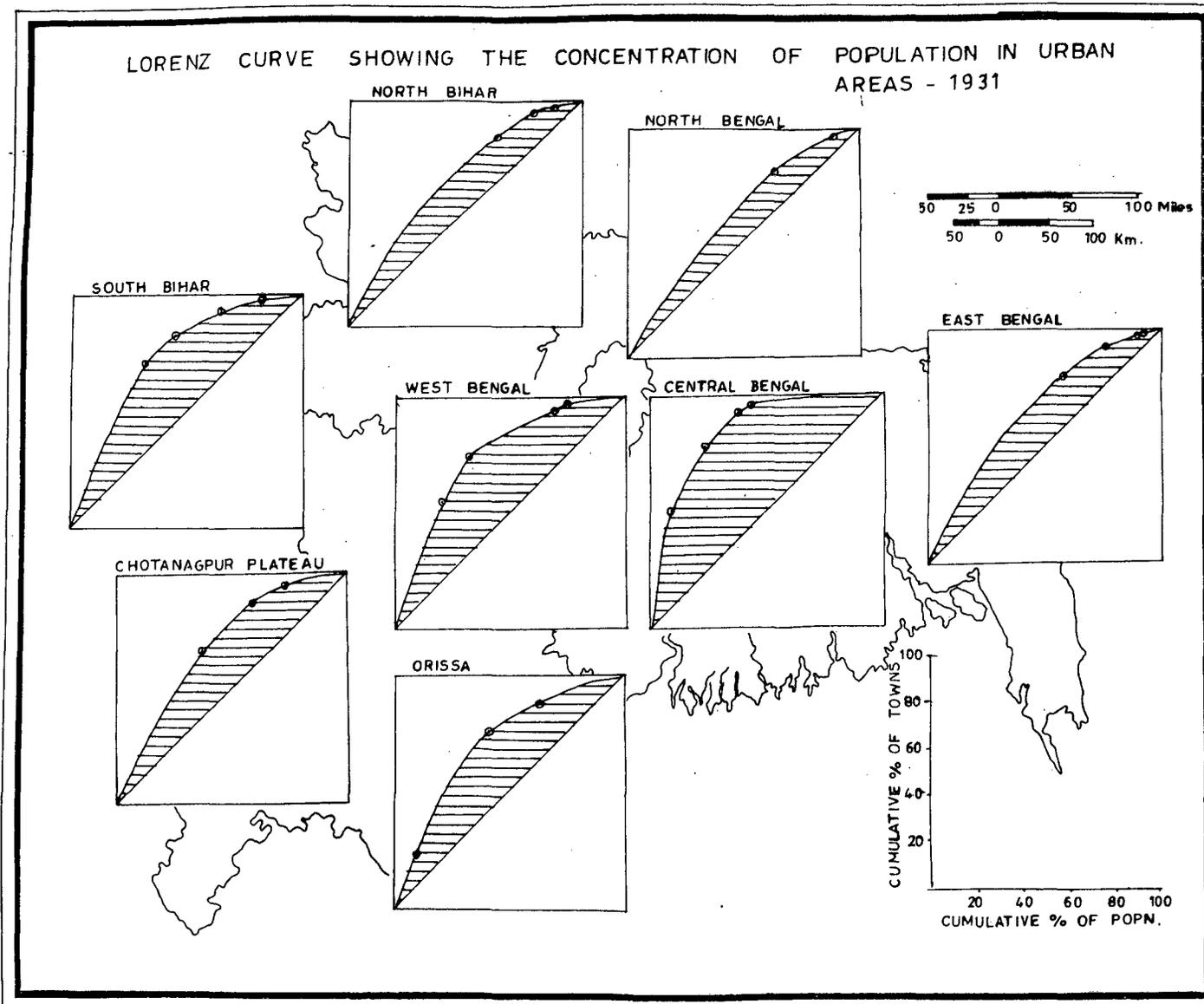


Fig 2.25

tion 28.92% of the population earned their livelihood. Only 16.25% of the population resided in 44.44% towns. From 1911 onwards as is seen from the curves, the concentration tends to be located in the larger urban centers of class III and I towns, as Class II towns emerged only after 1921.

In South Bihar more than 70% of the population lived in 50% of urban settlements, while less than 30% of the population lived in the remaining 50% in 1901, i.e. in the small towns having 5000-10,000 population. Class I towns were noted for the first time in 1911, which were the Class II towns of 1901. From the Lorenz curve of 1911 it is seen that, in less than 20% of the urban areas, nearly 60% of the urban population were concentrated mainly in the Class III towns and a considerable portion in Class I town. In 1921, with the emergence of class II towns in South Bihar the proportion of people living in Class III towns were reduced. The percentage share in class I cities was nearly the same. In 1931, it is seen that nearly 70% (67.35%) of the urban population were concentrated in 27.28% of the urban settlements having a population more than 10,000. The small towns inhabited by 5000-10,000 population accounted for only 32.65% of the urban population in 72.72% of the urban areas. Therefore, it is clear that the general tendency of the population was to agglomerate in the larger urban centers which were very few in number in comparison to the small ones.

East Bengal and North Bihar mainly contained an agricultural population and had few towns. Though the population distribution was uneven the majority of the population lived in small towns

(Class V) in 1931. The general standard of comfort was high even though small proportion of population lived in towns. The concentration of urban population mainly in small urban centers is depicted by the Lorenz curves, for these two regions.

Though the level of urbanization of North Bengal in 1931 was 8.32%, i.e. very close to that of East Bengal and North Bihar, the major concentration was in towns having less than 10,000 population. In 1931 even when all the natural regions had class I and class II towns, North Bengal had only 10.82% of the urban population in 3.57% class III urban centers.

Orissa division with 4.17% of the urban population in 1931 had most of the urban population in medium and large sized urban centers. In Orissa, the small towns (5000 - 10,000 population) had less than 10% of the urban population in all the three decades. The Lorenz curve shows that the major concentration was in class II and class IV cities with class III urban centers also having a considerable proportion of urban population, in all the years.

Chotanagpur plateau, the least urbanized of all the eight natural divisions, had an urban population concentrated in class III, IV and V towns during 1901 and 1911. In 1921 and 1931, we see that Class II towns emerged in the area and more than 25% of the urban population, in 1931 resided in those urban centers. The level of urbanization in Chotanagpur plateau was largely reduced by the Orissa feudatory states which were backward areas and inhabited by tribal people in scattered dwellings in forest clearings.

From the foregoing discussion it can be summarized that, on the whole, the regional division show a high degree of imbalance in the distribution of population among various size groups of settlements. In both the rural and urban areas, a high degree of concentration of population in very few large sized settlements is observed. This concentration may be due to the level of economic development and better prospects of providing employment in few large sized settlements.

Not only is it important to understand the distribution of population in rural and urban settlements of different size classes but it is also necessary to study the concentration of population in each size class for the different natural regions.

#### **II.10 CONCENTRATION OF RURAL POPULATION IN THE NATURAL DIVISIONS**

In 1901, there were 1,83,123 villages under 500 people, and supported 3,38,76,233 population. Out of the total the maximum number of villages were in Chotanagpur Plateau which had 47,622 (26.01%) villages and had 20.46% of the rural population. The vast area of Chotanagpur covering 65,155 sq. km was responsible for the large number of villages, of the smallest size. Chotanagpur Plateau was followed by East Bengal with an area of 32,977 sq. miles area and 17.55% of the villages. 19.17% of the population lived in these villages. In terms of the distribution of villages and population in the proportion of North Bengal shared the third position among other natural divisions accounting for 15.19% of the population living in 15.67% of the total small villages. West Bengal also had 11.71% of the population living in 11.32% of the small villages of Bengal. All the other divisions had less than 10% of the population in these small villages.

Table 2.13

**Distribution of Population and Villages with  
Less than 500 Population (Percentage Shares)**

Nat. Div.	1901		1911		1921		1931	
	Vill.	Pop	Vill	Pop.	Vill	Pop.	Vill	Pop.
West Bengal	11.32	11.71	19.82	19.26	29.02	3.44	28.29	25.78
Central Bengal	7.20	8.59	7.19	10.04	11.33	18.40	10.56	13.17
North Bengal	15.67	15.19	35.98	32.21	29.98	37.51	29.73	28.26
East Bengal	17.55	19.17	37.01	38.49	29.67	40.65	31.42	32.79
North Bihar	7.61	9.82	14.82	19.25	15.92	23.28	14.97	19.02
South Bihar	9.35	9.49	12.91	14.79	13.71	4.28	13.85	16.07
Orissa	5.29	5.57	11.29	11.93	11.89	13.89	12.01	12.08
Chotanagpur	26.01	20.46	60.99	54.03	58.48	58.55	59.17	52.83.

Plateau

Source: Based on the Census of 1901, 1911, 1921 and 1931.

In 1911, Bengal was separated from Bihar and Orissa and therefore the distribution is dealt for the two provinces separately. In Bengal the total number of villages under 500 inhabitants was 98,986 which was greater than Bihar and Orissa which had 11,015 villages less than Bengal.

East Bengal had the maximum number of villages and also the maximum population of the total small villages. Second was, North Bengal with 35.98% of the villages being the home of 32.21% of the villages. Central Bengal and West Bengal, where developmental activities gained momentum the concentration of population in small villages was very small especially in Central Bengal.

In Bihar and Orissa Chotanagpur plateau accounted for 53.77%



of the total villages of the province. Out of the 87,971 villages having less than 500 people Chotanagpur accounted for 61% and had 54.03% of the population. North Bihar the fertile agricultural country had 14.82% of the villages and 19.25% of the population.

During 1921 and 1931, East Bengal maintained the lead with North and West Bengal sharing the second and third position respectively. In Central Bengal the influence of Calcutta was felt even in the countryside which accounts for the larger villages, fewer in number, where majority of the people are concentrated.

In the presidency of Bihar and Orissa Chotanagpur with its East area of more than 1,71,396 sq. km. had the maximum share of villages as well as population, both in 1921 and 1931. South Bihar and North Bihar had less than 15% of the small villages in 1931, and accounted for less than 20% of the rural population of small villages of Bihar and Orissa.

For the province as a whole in 1901, the number of villages having 500-1000 population, were 26,976 in number and had 1,84,31,532 rural population which accounted for 25.25% of the total rural population of Bengal in 1901. Table 2.14 depicts the distribution of villages and population under the category 500-1000 size class.

It is seen that East Bengal had the maximum share of villages and population in all the four years starting from 1901. The predominance of rural paddy culture, dependence on agrarian resources, limited means of communication and too meager a development of industry were responsible for the village life in East Bengal.

Table - 2.14

**Distribution of Population and Villages with  
Population size 500-1000 (Percentage Shares)**

Nat. Div.	1901		1911		1921		1931	
	Villages	Pop	Vill	Pop.	Vill	Pop.	Vill	Pop.
West Bengal	11.45	11.36	19.04	18.87	18.10	17.82	19.13	18.75
Central Bengal	10.96	10.38	17.05	17.23	17.25	17.13	17.42	17.43
North Bengal	11.13	11.01	19.95	19.73	23.32	23.16	22.11	21.89
East Bengal	24.67	23.77	43.96	44.17	41.33	41.89	41.34	41.93
North Bihar	17.73	18.71	39.33	39.60	37.64	38.14	34.25	35.01
South Bihar	9.04	9.02	20.56	20.87	20.13	20.58	18.53	18.73
Orissa	6.19	4.88	13.14	13.04	11.83	11.80	11.91	11.82
Chotanagpur Plateau	8.83	10.85	26.97	26.48	30.40	29.48	35.31	34.44

Source: Based on the Census of 1901, 1911, 1921 and 1931.

North Bengal and West Bengal followed East Bengal in all the years from 1911 to 1931. The clustering of the villages in North Bengal was due to the development of tea industry and mainly the large villages were found in Darjeeling and Jalpaiguri district. In West Bengal the medium sized villages were found surrounding the larger ones all over the districts.

In the province of Bihar and Orissa, the North Bihar region the fertile land producing rice, had the maximum number of villages of this size and accordingly maximum share of population from 1901 to 1931. Chotanagpur plateau also had a good share of these medium sized villages. Orissa division, the smallest in

terms of area, had the least share among all the divisions.

The next higher order villages in terms of hierarchy, again, had East Bengal in the lead. Out of the total number of 9,634 villages having 1000-2000 people, 2,360 were in East Bengal, 10,63 were in North Bengal, 866 were in West Bengal and 792 in Central Bengal in 1901. East Bengal was only exceeded by North Bihar in 1901, which had 2,516 villages. In terms of population distribution also, East Bengal was after North Bihar having 19.99% of the total population living in these villages. Table 2.15 gives the distribution of villages and population in 1000-2000 size class.

Table 2.15

Distribution of Population and Villages with  
Population Size 1000-2000 (Percentage Shares)

Nat. Div.	1901		1911		1921		1931	
	Vill.	Pop.	Vill.	Pop.	Vill.	Pop.	Vill.	Pop.
West Bengal	8.99	8.81	17.85	18.63	13.14	12.88	13.59	13.20
Central Bengal	8.22	8.15	18.70	19.80	15.30	15.19	14.91	14.70
North Bengal	11.03	11.12	17.98	19.21	21.23	21.27	19.53	19.44
East Bengal	24.50	24.54	45.47	42.36	50.33	50.66	51.97	52.66
North Bihar	26.11	26.53	50.48	55.75	50.05	50.79	47.62	48.64
South Bihar	10.16	10.16	24.61	26.97	23.41	23.66	23.12	23.16
Orissa	5.61	5.50	10.84	5.45	9.82	9.61	9.01	87.77
Chotanagpur	5.38	5.19	14.07	11.83	16.72	15.94	20.25	19.43
Plateau								

Source: Based on the Census of 1901, 1911, 1921 and 1931.

The same picture is revealed in the distribution of these villages except, the place of West Bengal was replaced by Central Bengal which had large sized villages because of the trading activities of the small and big towns. Development of industries in rural areas also lead to the concentration of people in large numbers giving a higher proportionate share to villages in the 1000-2000 category in Central Bengal. East Bengal had 50% of the total villages and population because of its rural nature. The prosperity of East Bengal was marked by the increasing concentration of population in larger villages. In 1901, 19.99% of the total rural population in East Bengal lived in villages having 1000-2000 inhabitants, while in 1931, it is seen from table that 28.39% of the population lived in such villages.

In Bihar, the region north and south of the River Ganga was fertile and was dated with large villages. In North Bihar, the agricultural development lead to the increase in large number of villages, while in South Bihar, the northern part of the region was marked with larger villages, where most of the developmental activities took place because of the approach of southern hills and plateaus in the southern part of the division which limited the availability of agricultural land.

The distribution of the larger villages in Bengal, Bihar and Orissa also marks the same trends. Villages having 2000-5000 people were greater in number in Central and East Bengal and also the concentration of people were more or less fairly distributed in these two regions, North Bengal was the lease developed among the Bengal division and therefore the percentage of villages and population was also very low. But in terms of the total number of

villages in the category of 2000-5000 souls, the number of villages and population was greater than Central and West Bengal. But the actual picture emerges only when we take into account the total number of villages and population of the division itself. It is seen from Table 2.16, that in terms of the distribution of population, in villages North Bengal was just ahead of West Bengal in 1931, because of the total population strength.

In Bihar and Orissa, the larger villages were found in the Ganga plain in greater number and only a few in the Chotanagpur plateau because of its topography, soil and other physical factors which prohibited easy life, Table 2.16, gives the distribu

Table 2.16  
Distribution of Population and Villages  
with Population Size 2000-5000 (Percentage Shares)

Nat. Div.	1901		1911		1921		1931	
	Vill.	Pop.	Vill.	Pop.	Vill.	Pop.	Vill.	Pop.
West Bengal	6.34	6.09	16.74	15.97	9.21	8.63	8.37	8.31
Central Bengal	4.44	4.47	18.48	18.92	11.41	10.96	11.29	11.30
North Bengal	12.47	11.94	17.30	17.33	22.17	21.75	20.13	20.54
East Bengal	26.08	25.57	47.48	47.78	57.20	34.36	60.21	59.85
North Bihar	33.64	34.90	64.09	64.63	64.02	65.04	60.80	61.44
South Bihar	10.50	10.47	24.60	24.35	23.49	22.81	24.12	24.23
Orissa	3.01	2.84	4.51	4.33	4.61	4.41	4.06	3.67
Chotanagpur Plateau	3.52	3.71	6.80	6.69	7.88	7.74	11.02	10.66

Source: Based on the Census of 1901, 1911, 1921 and 1931.

Table 2.16

**Distribution of Villages and Population in  
Differnt Size Classes - 1931**

State/ Nat. Div.	Total number of Villages	Under 500	500- 1000	1000- 2000	2000- 5000	Total Number of Pop. in villages	Under 500	500- 1000	1000- 2000	2000- 5000
BENGAL	90904	63340 (69.68)	15975 (17.57)	8126 (8.94)	3463 (3.81)	45155781	13008571 (28.81)	11184235 (24.77)	11162450 (24.72)	9800525 (21.70)
BIHAR AND ORISSA	102623	79404 (77.37)	15099 (14.71)	6250 (6.09)	1870 (1.83)	39546803	15389097 (38.91)	10400601 (26.30)	8482475 (21.45)	5274630 (13.34)
West Bengal	22372	17922 (80.11)	3056 (13.66)	1104 (4.93)	220 (1.30)	7738062	3353434 (43.34)	2096949 (27.10)	1473502 (19.04)	814177 (10.52)
Central Bengal	11073	6689 (60.41)	2781 (25.12)	1212 (10.95)	391 (3.52)	6411015	1712936 (26.72)	1949141 (30.40)	1641526 (25.60)	1107412 (17.28)
North Bengal	24644	18828 (76.40)	3532 (14.33)	1587 (6.44)	697 (2.83)	10308625	3676655 (35.66)	2448423 (23.76)	2170271 (21.05)	2013276 (19.53)
East Bengal	32815	19901 (60.65)	6606 (20.13)	4223 (12.87)	2085 (6.35)	20698079	4265546 (20.61)	4689722 (22.66)	5877151 (28.39)	5865660 (28.34)
North Bihar	21171	11887 (56.15)	5171 (24.42)	2976 (14.06)	1137 (5.37)	13934284	2926625 (21.00)	3640992 (26.13)	4125925 (29.61)	3240742 (23.26)
South Bihar	15690	10996 (70.08)	2798 (17.83)	1445 (9.21)	451 (2.88)	7663801	2473284 (32.27)	1947891 (25.42)	1964758 (25.64)	1277868 (16.67)
Orissa	11970	9533 (79.64)	1798 (15.02)	563 (4.70)	76 (0.64)	4027007	1859190 (46.17)	1229557 (30.53)	744480 (18.49)	193780 (4.81)
Chotanagpur Plateau	53792	46988 (87.35)	5332 (9.91)	1266 (2.35)	206 (0.39)	13921711	8129998 (58.40)	3582161 (25.73)	1647312 (11.83)	562240 (4.04)

Source : 1. Census of India, 1931

Vol. V, Bengal

Part II Tables

2. Census of India, 1931

Vol. V, Bihar and Orissa

Part II, Tables.

tion of population in large sized (2000-5000) villages among the natural divisions of Bengal, Bihar and Orissa, which brings out of fact just stated.

Having discussed the distribution of population in villages of different size class among the eight natural divisions, we find that the geographical factors, combined with economic development mainly agricultural, had had to the agglomeration of villages and population in particular regions. Therefore, we find, East Bengal which covered the best rice lands and a major proportion of the jute tract, to be essentially rural, within the divisions of Bengal. The actively built river in lands, heavy seasonal inundations with renewal of silt deposits and proper flushing, and easy water communication, based on the Jamuna, Padma and Meghna and their energetic distributaries led to the agricultural prosperity of East Bengal and no rush to the towns was witnessed over the decades, because people preferred the country life than town life.

In Bihar and Orissa, the entire tract north of Ganga was alluvial and monotonously flat except small tracts in Champaran and North Saran. The plain was very fertile and 62.5% of it was cultivated in 1931 which indicates the agricultural prosperity of the region. Therefore it is obvious that the number of villages and also the proportion of rural population were much greater than other regions. Moreover, lack of industrial activity confined the people to their lands. In other divisions availability of agricultural land determined the population residing in villages.

The discussion based on each natural division has brought out their level of urban development. This shows that Central Bengal was the most developed among all, followed by West Bengal and South Bihar.

## II.11 DISTRICTWISE DISTRIBUTION OF POPULATION IN WEST BENGAL AND ORISSA : -

The variation in the distribution and concentration of population was not only between the two provinces and the eight

**Table 2.19**

### Distribution of Rural Population

(Percentage Share in Total Population)

Nat. Div/ District	1901	1911	1921	1931
<b>West Bengal</b>	<b>93.39</b>	<b>92.38</b>	<b>90.57</b>	<b>89.57</b>
Burdwan	94.35	93.57	92.30	91.43
Birbhum	98.31	97.02	96.33	94.94
Bankura	95.23	94.33	94.03	94.39
Midnapore	96.78	96.55	96.54	95.40
Hooghly	88.12	85.56	83.01	81.20
Howrah	79.33	78.77	71.88	71.03
<b>Orissa</b>	<b>95.64</b>	<b>95.94</b>	<b>95.89</b>	<b>95.83</b>
Cuttack	95.79	95.88	95.68	95.56
Balasore	96.31	96.21	96.40	96.35
Puri	94.65	95.78	95.83	95.88

**Source:** Same as Table 2.1.



### DISTRICTWISE DISTRIBUTION OF RURAL AND URBAN POPULATION 1901 - 1931

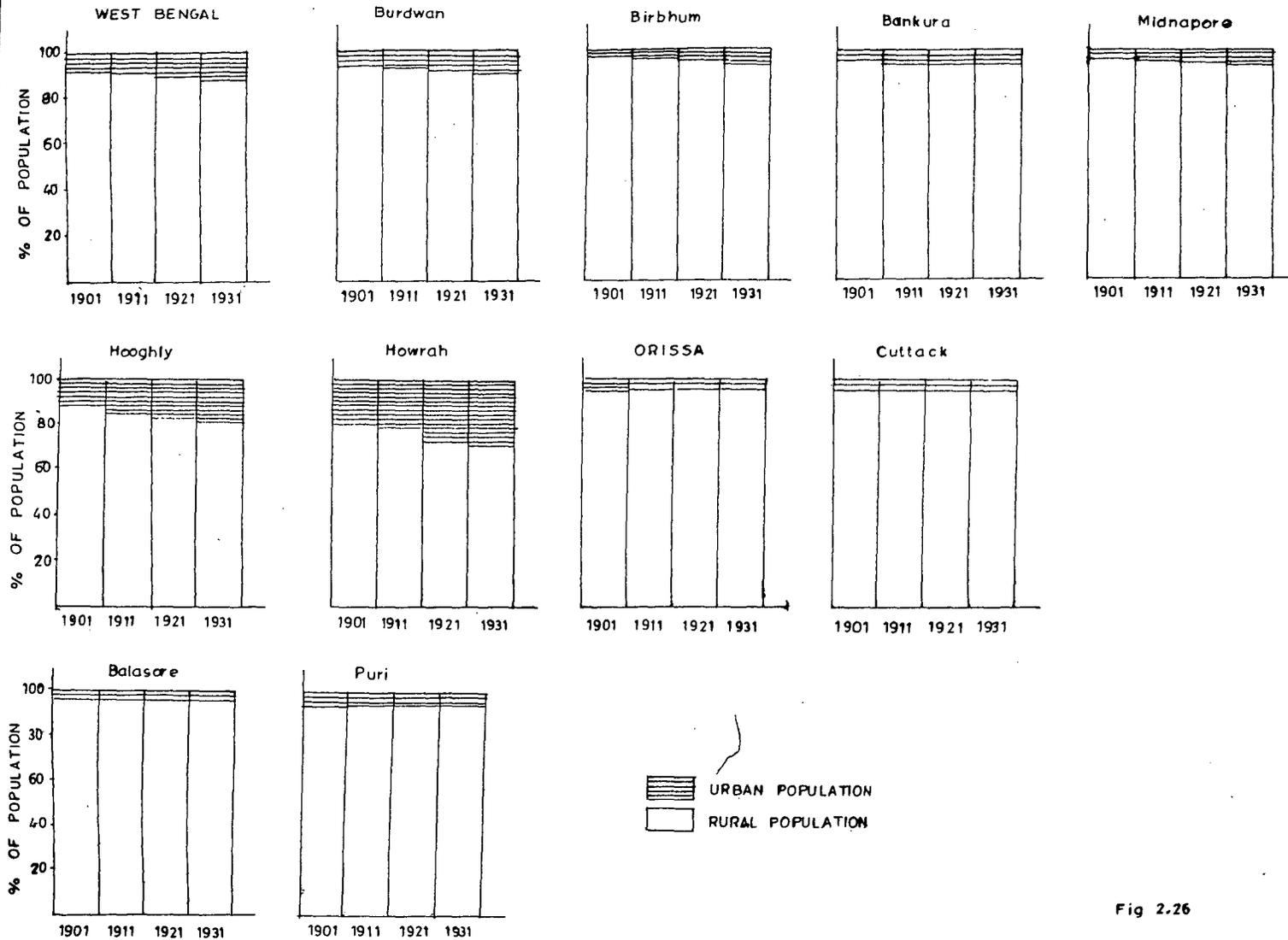


Fig 2.26

natural divisions but also between the different districts of a single natural region and within the districts between different police Stations. For our present study the district is the smallest unit of analysis which has been analysed here for West Bengal & Orissa division.

Table 2.20 gives the distribution of rural population in the districts of the two natural divisions. All the districts except Hooghly and Howrah in the division of West Bengal had more than 90% of the population in 1931 living in rural areas. The increasing industrial and commercial activity of the Hooghly and Howrah districts had reduced the proportionate share of rural population in these two districts. On 1901, while both the natural divisions had more than 90% of the rural population, in 1931, we find that Burdwan Division or West Bengal had 89.57% of the rural population as against 95.83 % in Orissa Division. West Bengal experienced a decrease of 3.82% between 1901 and 1931 while Orissa remained stagnant in its share of rural population. A marginal increase by 0.19% however, took place between 1901-1931. Though both the regions were essentially rural in nature, West Bengal was better off than Orissa with 6.26% rural population more in Orissa in 1931, than in West Bengal.

Table 2.21, shows the distribution of rural population and number of villages in different size classes for the years 1901, 1911, 1921 and 1931.

It is shown in the following table, that out of the 24,869 villages in West Bengal in 1901, Midnapore District had the largest share, of villages which accounted for 34.04% of the

total villages in West Bengal. In 1911, 1921 and 1931, also Midnapore had the largest share in the total number of villages in West Bengal. Second was Bankura with 15.54% (1931) of the total number of villages which was followed by the district of Burdwan and Birbhum (Table 2.22).

Table 2.21

Distribution of Villages and Population in West Bengal

and Orissa

Natural Div/ District	% of Villages to Total Number of Villages in the Natural Divisions				% of Rural Pop. to Total Rural Pop. of Each Nat. Divisions			
	1901	1911	1921	1931	1901	1911	1921	1931
West Bengal	100	100	100	100	100	100	100	100
Burdwan	14.73	11.48	12.49	11.76	18.83	18.35	18.20	18.60
Birbhum	13.33	9.18	10.22	10.72	11.54	11.61	11.18	11.62
Bankura	22.48	19.22	17.78	15.54	13.85	13.77	13.17	13.56
Midnapore	34.04	46.98	46.00	47.31	35.08	34.89	35.30	34.48
Hooghly	9.59	9.13	9.72	9.74	11.92	11.94	12.28	11.68
Howrah	5.83	4.01	3.79	4.93	8.78	9.44	9.87	10.06
Orissa	100	100	100	100	100	100	100	100
Cuttack	46.07	45.91	46.30	45.99	49.79	50.38	51.54	51.66
Balasore	28.04	29.03	28.68	29.06	25.91	25.29	24.65	23.70
Puri	25.89	25.06	25.02	24.95	24.30	24.33	23.81	24.64

Source: Same as in Table 2.1

The proportion of rural population was the highest in Midnapore which was followed by Burdwan, Bankura, Hooghly Birbhum and Howrah (Table 2.22). The size of Midnapore, the largest among the West Bengal districts is the obvious reason for its greater share of villages and population. But Hooghly and Howrah the two most

developed districts with small area also support a considerable percentage of the rural population. Among the two, Howrah had the least share of 4.93% of the villages in West Bengal in 1931 but supported a rural population of 10.06% which was much greater than the remaining districts.

The division of Orissa with a comparatively small area (21,025 sq. kilometers in Orissa, 36,100 sq. kilometers in West Bengal, 1931) had a lower population and lesser number of villages. But the districtwise distribution of villages and population shows that Cuttack the central district of the Orissa division had 45.99% of the rural dwellers in 1931. It was much more important than Midnapore which had 34.48% of the total rural population in 47.31% of the villages. Cuttack was much more developed than Midnapore as the percentage share of population was much greater in comparison to Midnapore as well as the other two districts of Orissa division. The pressure of population was only in the villages of Cuttack, elsewhere the proportionate share of villages and population had equal distribution. This was true even for the distribution of villages and population, under different size classes. Cuttack always had the maximum share of population and villages, with Puri and Balasore following it for the four decades till 1931. But in West Bengal, Midnapore district which had the lead in the smaller and medium villages was replaced by Burdwan and Howrah in the distribution of larger villages. Accordingly the population concentration was also much greater in Burdwan and Howrah compared to Midnapore, in these villages.

Table 2.23, which shows the distribution of villages and population under 500 category shows the dominance of Midnapore and Bankura in West Bengal and that of Cuttack in Orissa division in the proportionate share of the small villages and population.

Table 2.22

Districts	Distribution of Villages & Population in Settlements With less than 500 Population							
	1901		1911		1921		1931	
	Vill	Pop	Vill	Pop	Vill	Pop	Vill	Pop
Burdwan	13.24	14.75	9.10	12.36	10.46	13.19	9.31	12.02
Birbhum	13.85	12.82	8.38	10.57	9.94	11.51	10.29	11.55
Bankura	25.11	18.16	21.23	19.11	19.43	18.36	16.41	17.61
Midnapore	34.07	39.02	50.83	44.28	49.30	43.40	51.74	43.80
Hooghly	8.78	9.47	8.22	10.20	8.87	10.42	9.04	10.53
Howrah	4.95	5.77	2.24	3.48	1.98	3.12	3.20	4.49
Cuttack	44.71	45.83	44.25	45.56	44.19	45.78	43.66	45.84
Balasore	28.72	27.48	30.32	28.38	30.10	28.19	30.98	27.93
Puri	26.57	26.69	25.43	26.06	25.71	26.03	25.36	26.23

Source: Based on Census of 1901, 1911, 1921, 1931

From the above table it is observed that in the four districts of West Bengal namely Burdwan, Birbhum, Bankura and Howrah the percentage share of the small villages has declined between 1901 and 1931, and accordingly the rural population of these villages had also declined.

In Orissa Division the total picture remained almost unchanged with minor variation between the three districts.

LORENZ CURVE SHOWING THE CONCENTRATION OF POPULATION  
IN RURAL AREAS 1901 - 1911

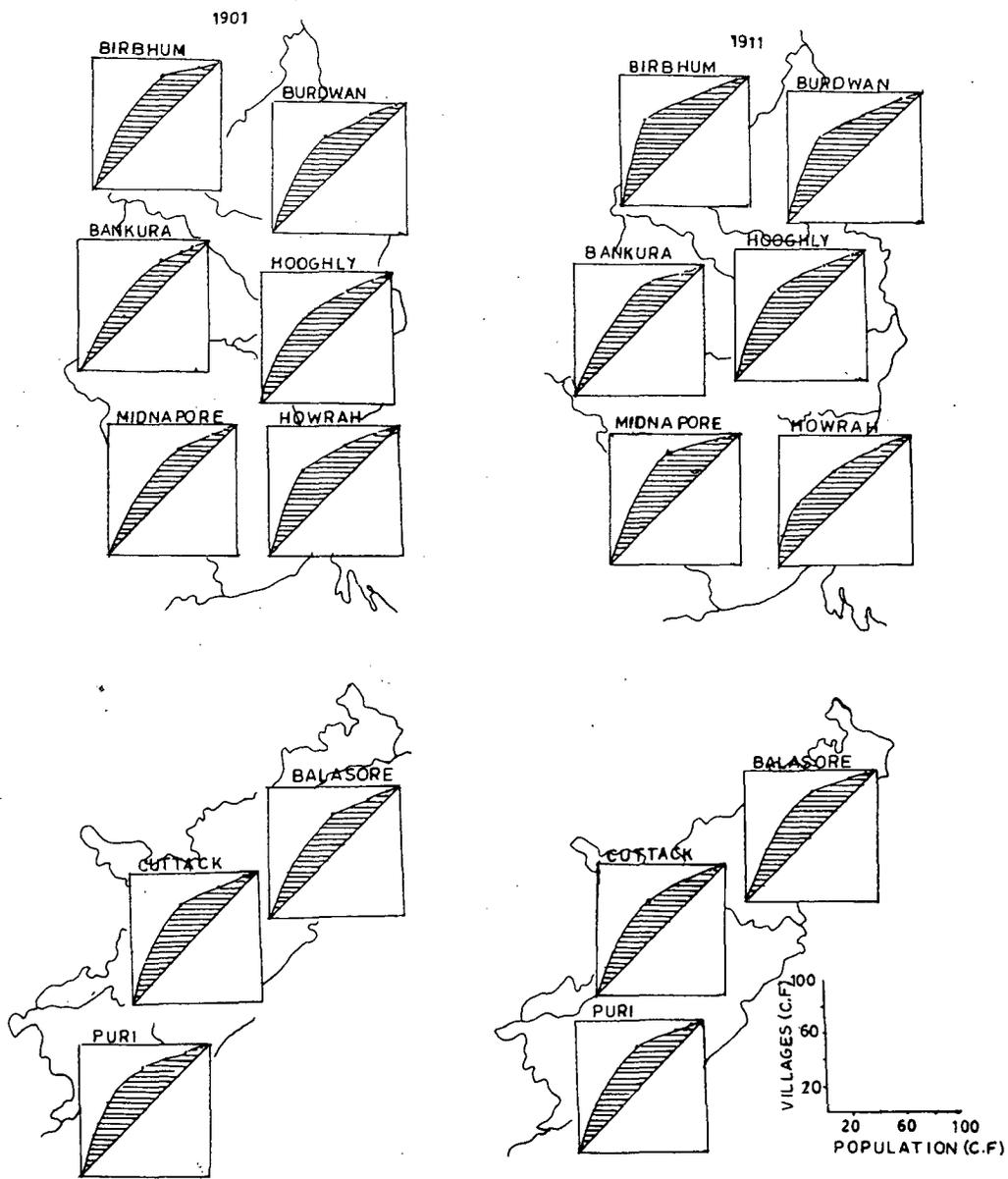


Fig 2.27

The number of small villages in the next higher order having 500-1000 population was maximum in Midnapore district with a continuous decline in the proportionate share of the villages, and also the population. (Table 2.24). Midnapore which had 36.2% of the rural population in 1901, registered only 30.89% of the villages with 30.44% of the population living in these villages. The decline in the proportion of population in these villages was due to the migration of the villages to the nearest large village where better opportunities were available. In Cuttack the number of these villages and also the population increased between the period 1901 and 1931. In addition to the winter rice crop, which

**Table 2.23**

**Distribution of Population and Villages  
with Population Size 500 - 1000 (Percentage Shares)**

Districts	1901		1911		1921		1931	
	Vill	Pop	Vill	Pop	Vill	Pop	Vill	Pop
Burdwan	21.02	21.48	20.27	20.31	20.95	21.18	19.47	20.01
Birbhum	11.20	10.84	13.12	13.11	11.98	11.92	13.29	13.09
Bankura	9.58	9.72	11.36	11.30	11.58	11.42	13.45	13.20
Midnapore	36.20	35.79	32.75	32.58	32.06	31.75	30.89	30.44
Hooghly	12.98	12.99	13.33	13.38	13.66	13.56	12.76	12.66
Howrah	9.02	9.17	9.17	9.32	9.77	10.17	10.14	10.60
Cuttack	50.39	50.99	50.91	51.65	54.23	54.87	53.00	53.34
Balasore	25.88	25.76	24.46	23.95	22.85	22.40	22.97	22.84
Puri	23.73	23.25	24.63	24.40	22.92	22.73	24.03	23.81

Source: Based on Census of 1901, 1911, 1921, 1931

LORENZ CURVE SHOWING THE CONCENTRATION OF POPULATION  
IN RURAL AREAS 1921-'31

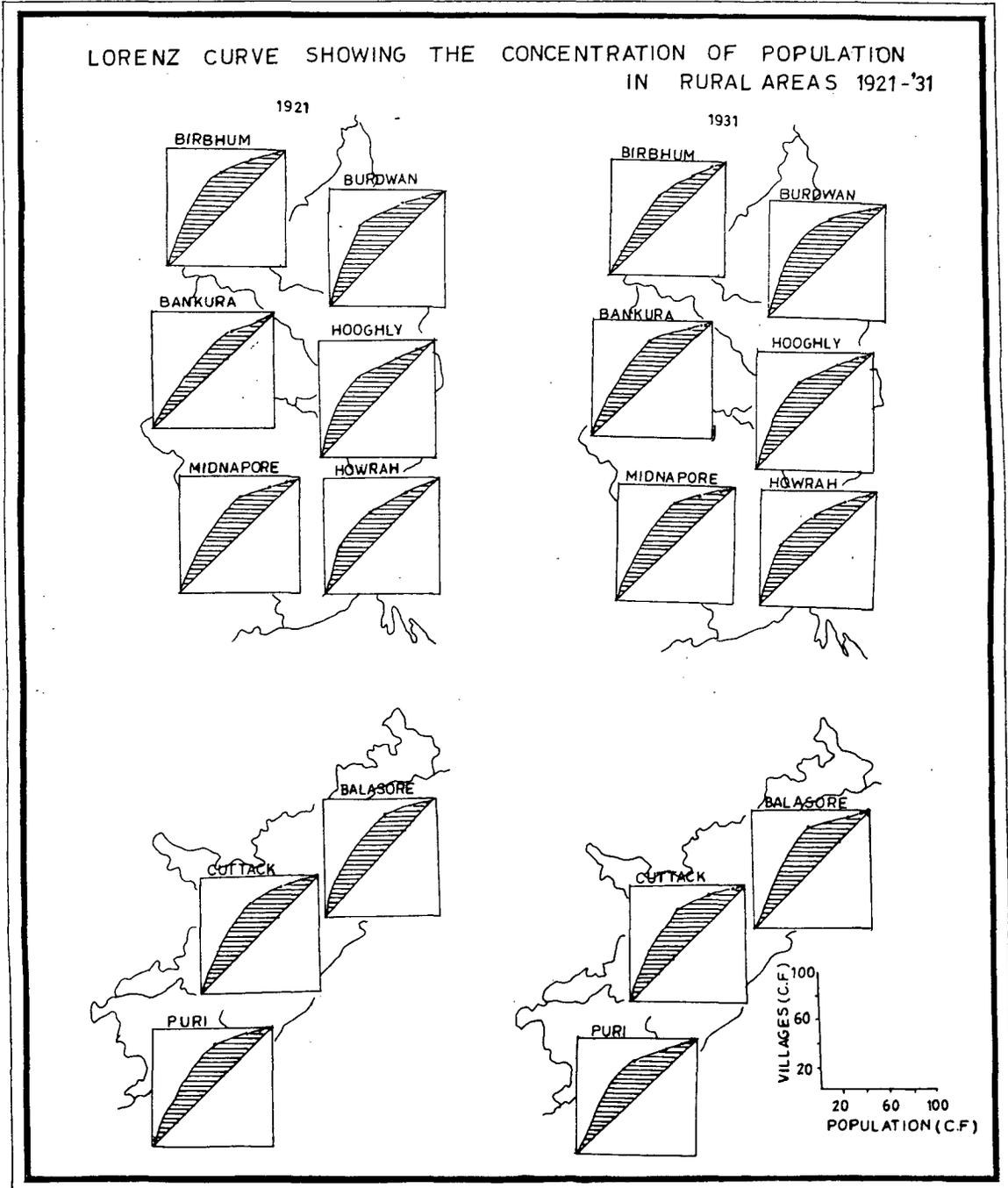


Fig 2.28



LORENZ CURVE SHOWING THE CONCENTRATION OF POPULATION  
IN URBAN AREAS 1901-1911

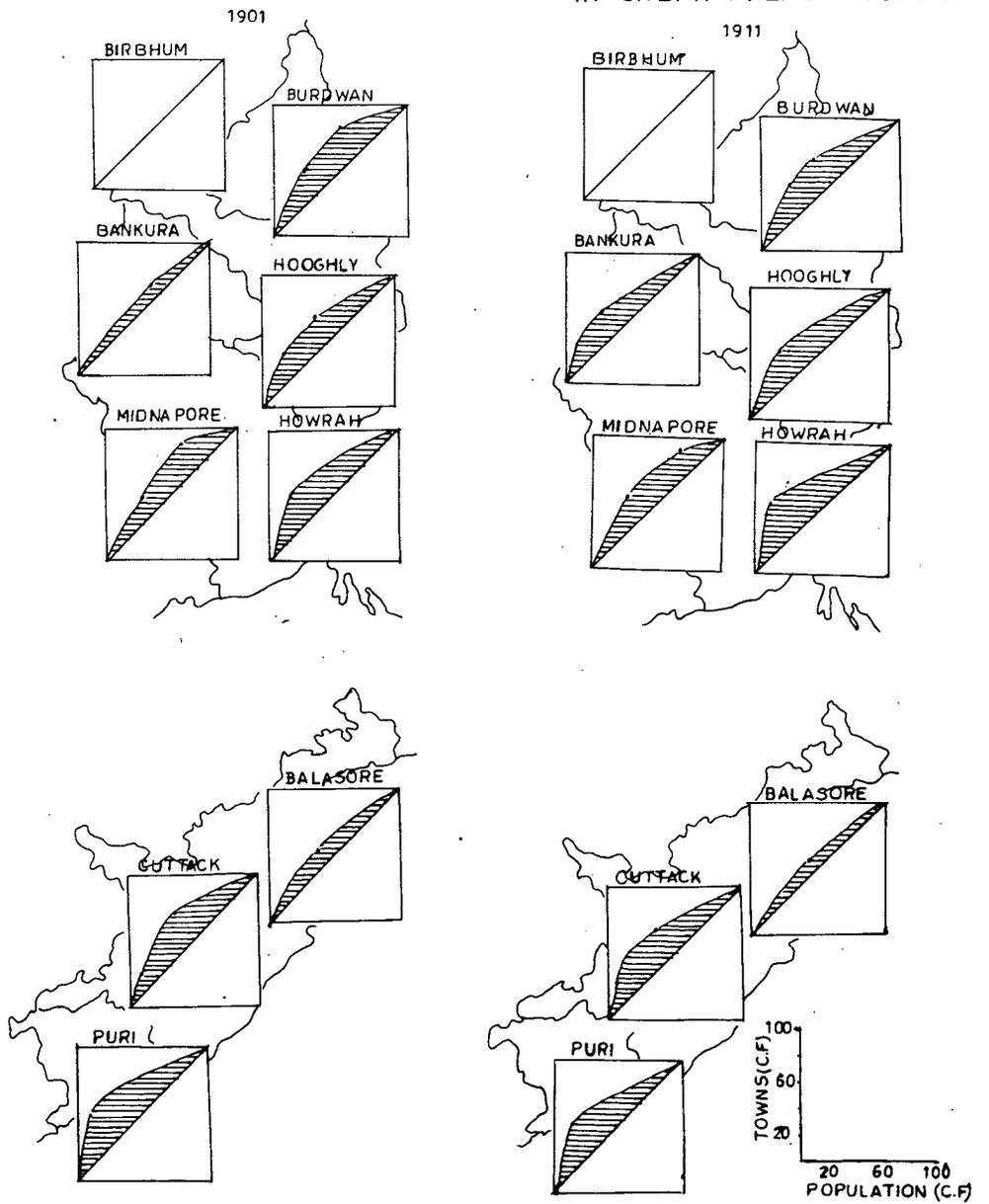


Fig 2.29

is grown in all the three districts of Orissa division, Cuttack enjoyed an advantage over Puri and Balasore because in parts of the Cuttack district rabbi crops were raised though on a limited scale. Therefore the highest rural population was registered in Cuttack.

In West Bengal division, over the years the large villages increased considerably in Burdwan and Howrah districts and were also accompanied with the increase in population, though the other districts had also registered an increase in the number of villages and population.

Therefore we see that the distribution of the small, medium or larger villages varied remarkably between the six districts of West Bengal and three districts of Orissa depending upon the nature of topography, the total area available for cultivation and the nature of economic development.

But, not only the distribution of villages and population varied among different districts under different category, there were also marked variations in the concentration of population within one district in different size classes, with majority of the villages being small and having comparatively lesser people than the larger villages which were lesser in number but supported a heavy population.

In Burdwan district, out of 3662 villages 2,746 villages had under 500 population in 1901, and had only 40.48% of the total rural population of the district, whereas only 916 villages of medium and large size supported 59.52% of the rural population. Moreover, only 1.09 % of the large villages (2000-5000) had 7.10% of the total rural population of the district. This uneven dis-



tribution of population and villages is depicted in the form of Lorenz curves, for each district, which deals with the cumulative percentage share of the two attributes (1) percent of population (2) percentage of settlement among various size groups of population.

Table 2.29 gives the distribution of villages and Table 2.30 the distribution of population. From the Lorenz curves, it is seen that Burdwan district which had 74.99% of the villages under 500 in 1901, and 40.48% of the population, in 1931 had only 28% of the population living in small villages comprising 63.40% of the villages. On the other hand the percentage share of large villages had increased from 1.09% in 1901 to 3.15% in 1931 with an increase in population from 7.10% to 16.06% in 1931. In 1931, medium and large sized villages together had 55.94% of the rural population of Burdwan district which was 54.02% in 1921 and 52.42% in 1901. Thus, over the years the concentration of population had shifted towards the large size villages which was possible because of the better standard of living. The preference of the people was to live in villages, so that they can look after their agriculture, and at the same time they also tried to exploit the economic opportunities available in villages. The larger villages having better avenues attracted people and concentration over the years had become much greater in the large villages than the smaller ones. The opening up of a new broad gauge railway line through Kalna, Katwa and Azimganj and the extension of the Burdwan-Katwa line, brought the main prosperous agricultural localities in close proximity so that the agricul-

tural laborers moved more quickly to those areas where there was greater demand for his services, and earned a better living and the cultivator was benefited through improved facilities for marketing his produce.

In Birbhum district, the conditions had also changed but compared to its neighbor, Burdwan, the concentration of population was much less in the large villages. In 1931, while 43.06% of the villagers of Birbhum lived in small villages where the total number of heads was less than 500, in Burdwan it was 28%. Thus the lorenz curve for Burdwan is much smoother than Birbhum as is seen from Fig.2.30. In 1901, 0.52% of the villages had a population between 2000-5000 population, in 1911 the share was 1.49% but in 1921 due to the epidemics and ravages of Burdwan fever the percentage was 0.92, and the population also decreased from 7.53 % in 1911 to 7.53 in 1921. But after 1921, a healthy climate, combined with developmental activities like the opening of several rice mills and trading improved the general condition of Birbhum. The influence of which is seen in the distribution of population. In 1931, 9.71% of the rural population was registered in 1.29% of the villages under the size class 2000-5000. A little more than 20% of the medium sized villages, were the home of 47.23% of the rural dwellers.

In Bankura, 56.29% of the rural population lived in villages containing less than 500 inhabitants in 1931. Though the district was entirely agricultural, large number of villages constituted only 0.32% of the total villages in 1931 and had 2.94% of the population. The district as a whole was unprogressive among the West Bengal districts, during the period 1901 to 1931. The cli-

LORENZ CURVE SHOWING THE CONCENTRATION OF POPULATION  
IN URBAN AREAS 1921-1931

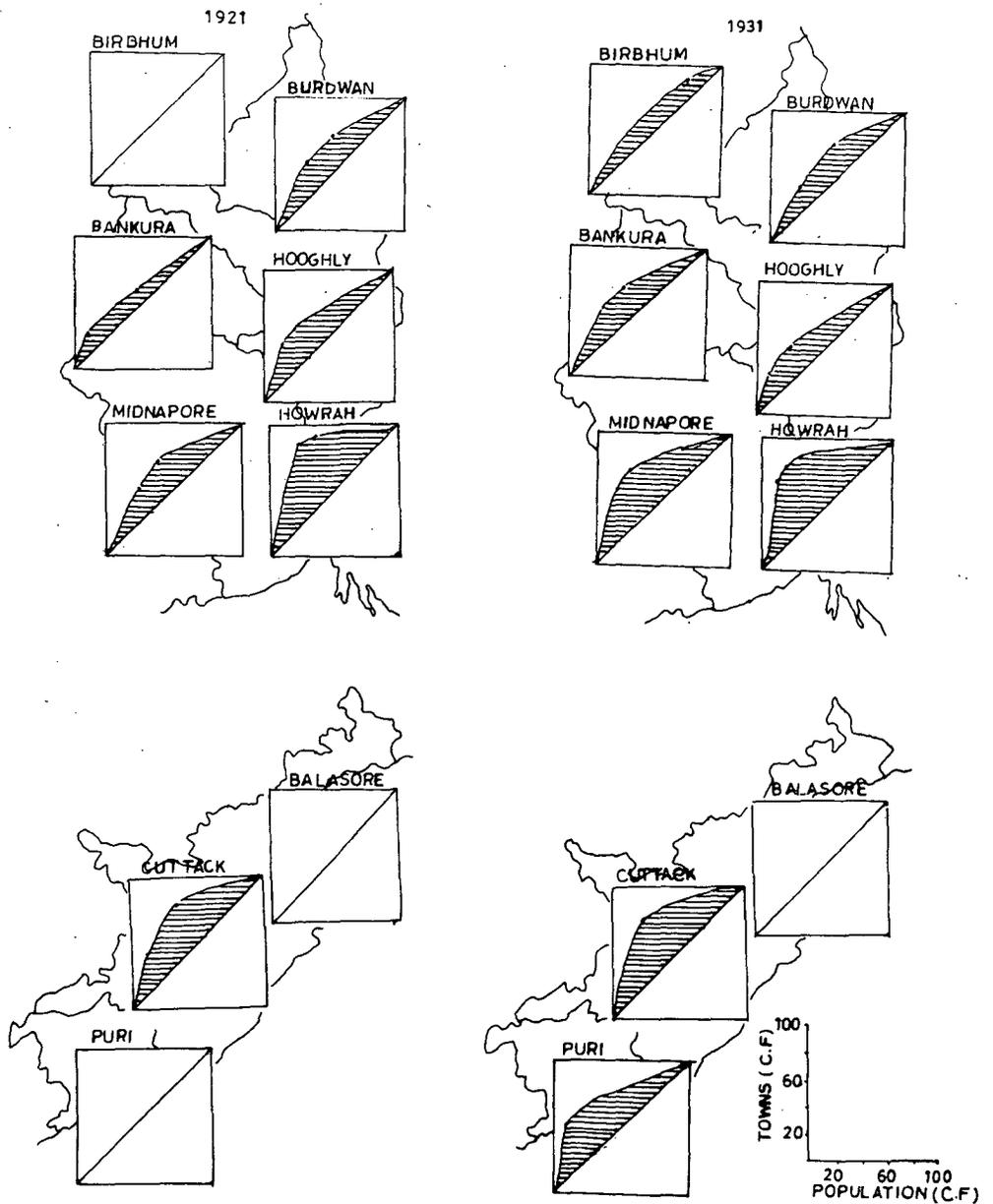


Fig 2.30

matic condition which made the people suffer from malaria in the initial period was worsened by the famine conditions in 1916 and again in 1919. Till 1921, normal progress was obstructed for one reason or the other. After 1921, health and economic conditions started improving and increase in population in large villages took place, particularly in the east and north east, where the low lying alluvial country presented the appearance of the ordinary rice lands of Bengal, in sharp contrast to the Western tract of a hilly undulating country with large areas under jungle.

Midnapore, the largest of West Bengal districts is one of the most varied in terms of physical conditions, owing to its geographical position. Therefore the distribution of population is also very varied. But the distribution of population depends more on the nature of the soil than on any other cause. The eastern half of the district, which is an alluvial tract similar to most districts of the Gangetic plain in Lower Bengal, produced abundant crops of rice. It was dotted with numerous villages of different sizes and was thickly populated. But the north and west of the district consisting mainly of a lateritic upland tract had a small cultivable area mainly under maize, millets and oilseeds and was sparsely inhabited by the tribals in most places in small scattered hamlets. But the total number of villages increased from 8464 in 1901 to 10,585 in 1931, the major increase being under the two category of under 500 and 500 - 1000 population.

The opening up of the Bengal-Nagpur Railway has benefited the district in many respects. Although there was an increase in the absolute number of small and medium sized villages between

1901-1931, the proportionate share of population during the same decade had declined. The same number of large villages which were inhabited by 2.56% of the villagers in 1901, were the home of 5.68% of the rural dwellers of Midnapore district in 1931.

Hooghly, one of the district, of Burdwan Division, inspite of its industrial expansion which has been so marked a feature of the economic history of Hooghly prior to 1901, registered an overall decline in the concentration of population in the villages.

In terms of population concentration in large villages, Burdwan district was ahead of Hooghly with 16.06% of the rural population as against 12.41% in 1931. The proportionate share of large villages in terms of the district was greater in Burdwan than Hooghly. The lorenz curve for the two districts expresses this difference. Burdwan has a much smoother curve than Hooghly. Between 1901 and 1931, the rural population as well as the number of villages declined in the Hooghly district. This decline in the population and villages started much earlier with the siltation of the old watercourses. The degradation really began about two centuries ago when the Ganges marched on its way to the Meghna and the rivers of the region which were active offshoots from the Ganges began to be reduced to a network of moribund channels. The decline of the rivers in Western Bengal resulted in the decline of agriculture, spread of jungle and malaria and desertion and enfeeblement of the population by recurrent attacks of the disease. Therefore the whole district except the parts along the Hooghly which have been animated by the touch of industrialism, was characterized by overgrown vegetation which buried the homesteads of the population and generally had an air of stagnation.

Howrah the smallest district of Burdwan Division was situated in the south east of the division and supported a fairly heavy concentration of population. The rural population formed 71.03% of the total district population in 1931 which resided in 1102 villages. The population of the villages ranged between less than 500 to less than 5000, forming four size classes.

The medium and large sized villages consisted 80.64% of the rural population in 1931 which was 14.59% greater than in 1901. The district was more urban than rural. Therefore the large villages were more or less semi-urban in character. Though the presence of marshes had prevented a dense rural population from crowding against the eastern side of Calcutta, the land West of Howrah supported a large rural and residential population. The sustained progress of Howrah is revealed through the Lorenz curves which is a smooth one showing even distribution of rural population in the district except in 1901, irrespective of the number of villages and their proportionate share in each category.

Cuttack, Balasore and Puri, the three districts of Orissa division registered a slight variation in population. In Cuttack 40.97% of the rural population lived in small villages in 1931, while in Puri 49.15% lived in such villages. The concentration of population in large village was greater in Puri, than Cuttack. Balasore had only 1.95% of the population in eight large villages in 1931. The growth of population in Puri was due to a healthy climate and the opening of the railway benefited the people. In general, back of industrial, and commercial development confined



the people mainly to the small and medium villages of the districts of Orissa division.

In terms of the distribution of urban population in the districts of West Bengal and Orissa, a highly concentrated pattern both spatial as well as in terms of size is noticed. This pattern of urbanization is the feature of the province as a whole. The level of urbanization was much greater in West Bengal than in Orissa in 1931 which was accentuated by the industrial expansion in Howrah and Hooghly and also in Burdwan. Table 2.25 showing the spatial concentration in term of the proportion of

**Table 2.24**

**Distribution of Urban Population**

(Percentage Shares)

Nat. Div/ District	1901	1911	1921	1931
<b>West Bengal</b>	<b>6.61</b>	<b>7.62</b>	<b>9.43</b>	<b>10.43</b>
Burdwan	5.65	6.43	7.70	8.57
Birbhum	1.69	2.98	3.67	5.06
Bankura	4.77	5.67	5.97	5.61
Midnapore	3.22	3.45	3.46	4.60
Hooghly	11.88	14.44	16.99	18.80
Howrah	20.67	21.23	28.12	28.97
<b>Orissa</b>	<b>4.36</b>	<b>4.06</b>	<b>4.11</b>	<b>4.17</b>
Cuttack	4.21	4.12	4.32	4.44
Balasore	3.69	3.79	3.60	3.65
Puri	5.35	4.22	4.17	4.12

Source: Same as in Table 2.1

urban population to total population for each district shows the uneven distribution of population.

Howrah ranked first, followed by Hooghly and Burdwan, in the West Bengal Division. The increase in the proportion of urban population in Howrah and Hooghly was largely due to the industrial development which attracted people from long distances. Through a process of cumulative causation, growth led to further growth and still further growth. Howrah grew from a city of 1,75,611 people in 1901 to 1,98,526 in 1911, 2,79,754 in 1921 and 3,17,387 in 1931. The pattern of urbanisation was externally imposed in order to meet the needs of the colonial economy, and was therefore mainly based on the export trade. The construction of railways facilitated further development. On the other hand, the districts of Orissa were more or less in a stagnant position, because they lacked such industrial or commercial development.

According to the cumulative percentage distribution of urban population 28.92% of the urban population lived in 3.71% of the urban settlement (i.e. the city of Howrah), in 1901, in West Bengal. In 1911, the urban population of Howrah increased to 176,241, an increase of 19,110 people from 1901 census. It again increased to 193705 in 1921 and 221688 in 1931, though in terms of total urban population only 24.62% lived in Howrah city in 1931. This was due to the increase in town population in other districts of Burdwan Division.

The total urban population of Burdwan increased from 86,535 in 1901 to 1,34,867 in 1931, the increase being maximum in the towns having 20000-50000. But in terms of proportion of urban population the two towns in 20000-50000 category show a decline

of 6.16% from 1921 to 1931. But such a decline does not present the over-all picture neither does it alter the picture of increasing concentration of population in large towns between one decade and the other. During 1931, in Burdwan district, the towns having 20000-50000 population enumerated 4,907 more people than 1921, whereas the proportionate figure shows a decline of 6.16% in the same period. Therefore it is often misleading to go through the proportion of urban population only without taking into account the absolute increase.

The lorenz curves show the concentration of urban population in small number of large urban centers., Besides Howrah and Hooghly, the towns which were trading centers, army camps, or pilgrim towns like Puri, housed the major part of the urban population. In Bengal as a whole, the process of industrialization in some parts lead to high rate of urbanization. For example, the western portion of the Burdwan district was one of the busiest industrial tracts because of the location of coal and iron fields. Raniganj and Asansol developed very rapidly mainly because of the development of coal mines, and also due to large potteries and paper mills which employed a considerable number of urban population. Others were largely, trading centers and had less than 20,000 population.

Thus from the distribution of urban population we see that in towns of moderate size there seems to have been a tendency towards congregation of the population in towns with more than 20,000 in preference to towns with population between 10,000 - 20,000. Some small town have also emerged during the period in some districts.

## II.12 CONCLUSIONS :-

Having analysed the structure of settlement in terms of growth, density and distribution and size class concentration of population we can sum up the findings of this chapter in the following manner :-

1. The growth of population in Bengal, Bihar and Orissa was as much the consequence of high natural increase and diversified economic base as of the movements of the population. The decade of 1901-1911 experienced an increase in the total population both in Bengal, Bihar and Orissa. Immigration was partly responsible for the growth of population in Bengal in the economically developed areas. But natural growth was largely responsible for the increase, specially in areas where Musalman population was the maximum. In Bihar and Orissa on the other hand the natural growth among the Chotanagpur tribals was responsible for the growth of population. But the epidemic environment, deteriorating drainage condition scarcity etc. bad to the diminution of population in Bengal as well as in Bihar and Orissa during the decade 1911-1921. As a result, Bengal registered a negative growth rate of - 2.24% and Bihar and Orissa - 4.87%. The Central and Western part of Bengal and the southern part of Bihar was the worse affected. But after, 1921, improvement in public health lead to the increase in population. Favourable economic condition in Bihar and Orissa due to the Tata Iron and Steel works and other industrial concerns lead to the immigration of population in these areas. Therefore, it can be said that even within the province there were few pockets where the growth of population was confined due

to favourable physical and economic conditions.

2. The density and distribution of population was also uneven in the two provinces. In general, the plain areas of Bengal and the North and South Bihar plains were densely populated. But in Bengal the population pressure was much more on the land than in Bihar and Orissa and every bit of tillable land in Bengal was cultivated. Except in Central Bengal, where industrial and commercial activities attracted people into the urban areas from outside, rural density in the other natural division of Bengal was considerably higher. In Bihar only the northern part of the Ganga which had a high percentage share (62.5% in 1931) of net cultivated area supported a fairly dense rural population. The poor quality of soil in Chotanagpur limits the cultivated area and being an upland tract largely under forest cover net cultivated area was very low. Therefore the population density was obviously quite low. Only 81 persons lived per sq. km in Chotanagpur in 1931. In terms of urban density, Central Bengal was well ahead of the other natural divisions having 61 persons per sq. km in 1931. West Bengal followed Central Bengal with only 25 persons per sq. km. in 1931. Industrial and mining activities lead to the concentration of people in these divisions. Similarly in Bihar, Patna being the most important commercial center supported a large share of urban population and had the highest density. The number of town in North Bihar though was greater than in South Bihar, the level of urbanization was low in the former. As a whole, Bengal was much more urbanised and had 27 persons per sq. km in 1931 in contrast to only 9 persons per sq. km in Bihar and Orissa.

3. In terms of size-class concentration of population, the region on the whole shows a high degree of imbalance. The concentration of people in villages as well as in towns, reveal the fact that the tendency of the people was to congregate in larger towns and villages though they were fewer in number. This high degree of imbalance can be attributed to the economic backwardness of the region in the majority of the rural areas. The Lorenz curves which depicts the fact, shows that in all the years Central Bengal and West Bengal and South Bihar which had prospects of providing better avenues of employment had the maximum concentration of people in the one or two urban centers. For example, while more than 50% of the population in Central Bengal was concentrated in Calcutta and its conurbation, only a little over 10% population resided in small towns having 5000-10,000 population. Not only in large towns, but also in large villages people congregated to avail the better opportunities.

## CHAPTER III

### ECONOMIC STRUCTURE

#### III.1 INTRODUCTION

In this chapter an attempt will be made to analyse the economic structure of the settlements in the province of Bengal, Bihar, and Orissa through an assessment of the labour force distribution and their participation in primary, secondary and tertiary sectors of the economy. The study of economic structure is important as it reflects the personality of a region and among all the attributes occupational structure is of paramount importance as it constitutes the core of the economic system.

The settlements play an important role in the economy of a human society and the urban and rural settlements have their different configurations of economy. The impact of a city may make a remarkable change in occupational structure of the neighboring settlements. The tendency towards the non-agricultural activities measures the degree of city's influence on the region.

Due to the non-availability of census data depicting the rural and urban workers the present study takes into account, only the total, male and female workers for the analysis. Moreover, the different orders of the twelve subclasses depicting different categories of workers have been clubbed into three broad groups for 1911, 1921 and 1931 i.e, into primary, secondary and tertiary sectors. The census data of 1901, representing the different industrial categories were also grouped into the primary, secondary and tertiary sectors but instead of the total of 'orders', for 1901, the total of sub-orders were taken for the broad grouping.

Table 3.1

## PARTICIPATION RATE - 1901

	Total	Total			Total	Male			Total	Female		
		Pri- mary	Second- ary	Terti- ary		Pri- mary	Second- ary	Terti- ary		Pri- mary	Second- ary	Terti- ary
BENGAL	32.39	22.85	2.93	6.61	29.36	21.49	2.32	5.55	3.03	1.36	0.61	1.06
1. West Bengal	34.27	21.00	3.93	9.34	28.35	18.49	2.87	6.99	5.92	2.51	1.06	2.85
2. Central Bengal	32.84	18.38	4.15	10.31	30.19	17.47	3.57	9.15	2.65	0.92	0.53	1.20
3. North Bengal	35.04	27.85	2.12	5.07	31.48	25.82	1.40	4.26	3.56	2.03	0.72	0.81
4. East Bengal	29.56	22.95	2.13	4.48	28.05	22.36	1.76	3.93	1.51	0.59	0.37	0.55
Bihar & Orissa	45.27	35.05	2.92	7.30	30.48	23.88	1.87	4.73	14.79	11.17	1.05	2.57
1. North Bihar	40.98	32.34	1.96	6.68	20.95	15.33	1.32	4.30	20.03	17.01	0.64	2.38
2. South Bihar	73.38	61.65	3.59	8.14	52.50	45.05	2.45	5.00	20.88	16.60	1.14	3.14
3. Orissa	34.19	21.56	4.42	8.21	29.93	20.72	2.42	6.79	4.26	0.84	2.00	1.42
4. Chotanagpur Plateau	42.88	32.61	3.16	7.11	27.24	20.94	1.97	4.33	15.64	11.67	1.19	2.78

Note : The proportion of labour force to total population is labour force participation rate. (Chandna, p.211)

Source : Based on : Census of India 1901

Vol VI A

The Lower Provinces of Bengal and Their Feudatories.

Part II, The Imperial Tables.



Table 3.2

## PARTICIPATION RATE - 1911

	Total				Male				Female			
	Total	Pri- mary	Second- ary	Terti- ary	Total	Pri- mary	Second- ary	Terti- ary	Total	Pri- mary	Second- ary	Terti- ary
BENGAL	36.68	26.14	3.67	6.87	31.55	23.51	2.47	5.57	5.13	2.63	1.20	1.30
1. West Bengal	41.70	28.64	5.60	7.46	32.05	23.68	3.32	5.05	9.65	4.96	2.28	2.41
2. Central Bengal	40.27	22.21	6.76	11.30	33.83	21.01	3.36	9.46	6.44	1.20	3.40	1.84
3. North Bengal	37.39	29.40	2.33	5.66	32.69	26.87	1.37	4.45	4.70	2.53	0.96	1.21
4. East Bengal	31.44	23.74	2.20	5.50	28.78	22.56	1.58	4.64	2.66	1.18	0.62	0.86
BIHAR and ORISSA	47.49	37.01	3.95	6.53	30.46	24.49	2.15	3.82	17.03	12.52	1.80	2.71
1. North Bihar	42.60	35.79	2.46	4.35	29.88	25.81	1.44	2.63	12.72	9.98	1.02	1.72
2. South Bihar	50.35	37.33	5.30	7.72	31.16	23.49	3.21	4.46	19.19	13.84	2.09	3.26
3. Orissa	40.53	24.22	6.00	6.44	31.65	22.10	2.59	3.91	8.88	2.12	3.41	2.53
4. Chotanagpur Plateau	53.48	41.38	3.99	8.11	30.31	23.61	2.07	4.63	23.17	17.77	1.92	3.48

Note : The proportion of labour force to total population is labour force participation rate.

Source : Based on Census of India 1911  
Vol V, Bengal.  
Part II, Tables.

Census of India, 1911  
Vol V, Bihar and Orissa  
Part III Tables.

the family are important. Numerous other social and economic factors also influence the magnitude of working force. Socially, levels of literacy and education, status of women in the society, age at marriage and general health standards are significant. Economically, the type of economy, availability of employment opportunities and levels of income are vital<sup>2</sup>

In Bengal, Bihar and Orissa the participation rate in general was quite low in all the years starting from 1901. In 1901, 32.39% of the total population in Bengal was registered as working population, while in Bihar and Orissa it was 45.27%. It increased to 36.68% in 1911 for Bengal and to 47.49% in Bihar and Orissa. In 1921, the participation rate in Bihar was much higher (52.19%) than Bengal which was 36.06%. In 1931, both Bengal and Bihar and Orissa registered a decline in the work force participation rate.

The low proportion of working force was largely the product of high natural increase. Prejudices against female participation in work was another crucial factor responsible for poor overall participation rates. This was the case more in Bengal than Bihar and Orissa in all the years from 1901, 1911, 1921 and in 1941.

The natural division wise participation rate in Tables 3.1 to 3.4 reflects the variation in the working population in the region under study.

The spatial variation in participation rates were due to the geographical setting and the impact of immigration in different

---

2. Chandna, R.C. Ibid, p.214.  
natural division. Natural resources also influenced the variation

immigrants increased the participation rate though the standard of living was also quite high in Central Bengal. Migration also played an important role in West Bengal's participation rate. North Bengal compared to the other Bengal divisions was less prosperous and a larger proportion of persons were dependent on agriculture.

### III.3 PARTICIPATION RATE IN PRIMARY, SECONDARY AND TERTIARY SECTOR:

The sectoral distribution of work force participation rate reflects the maximum proportion in primary sector followed by tertiary and secondary sectors. This is because, the predominance of agriculture has not relieved by the presence of any large industries except the tea industry which were only partially manufacture<sup>5</sup>. Therefore the participation rate of North Bengal was higher than the state average of 32.39% in 1901.

In Bihar and Orissa on the other hand the disparity between the workers and dependents was less. The rate of participation in different economic activities was higher in Bihar and Orissa than in Bengal, particularly in primary sector. In contrast to the prosperous cultivations of eastern Bengal, part of central Bengal and West Bengal, the agriculturists of Bihar and Orissa were in a very different position of poor position of Bihar and Orissa was unable to afford hired labour to the same extent as in Bengal. His family therefore had to take a much more active part in cultivation.<sup>6</sup> Therefore the rate of female participation in Bihar

---

5. Census of India 1911. Op.cit, p.535.

6. Census of India 1911, Ibid ,p.538.

Table 3.3

## PARTICIPATION RATE - 1921

	Total				Male				Female			
	Total	Pri- mary	Second- ary	Terti- ary	Total	Pri- mary	Second- ary	Terti- ary	Total	Pri- mary	Second- ary	Terti- ary
BENGAL	36.06	24.97	3.75	7.34	32.46	24.32	2.79	5.35	3.60	0.65	0.96	1.99
1. West Bengal	40.02	26.96	5.72	7.34	30.38	21.79	3.76	4.83	9.64	5.17	1.96	2.51
2. Central Bengal	42.63	20.76	6.43	15.44	33.00	18.38	5.37	9.25	9.63	2.38	1.06	6.19
3. North Bengal	37.12	30.39	2.02	4.71	32.55	27.55	1.30	3.70	4.57	2.84	0.72	1.01
4. East Bengal	30.94	24.11	2.32	4.51	28.12	22.19	1.78	4.05	2.82	1.82	0.54	0.46
BIHAR and ORISSA	52.19	41.79	4.19	6.21	33.09	27.47	1.83	3.79	19.10	14.32	2.36	2.42
1. North Bihar	46.04	39.93	1.99	4.12	31.40	27.64	1.19	2.57	14.64	12.29	0.80	1.55
2. South Bihar	68.18	47.38	8.55	12.25	42.45	31.34	3.78	7.33	25.73	16.04	4.77	4.92
3. Orissa	38.17	24.83	6.05	7.29	28.90	21.44	2.69	4.76	9.28	3.39	3.36	2.53
4. Chotanagpur Plateau	56.31	46.82	4.05	5.44	32.67	27.43	2.05	3.19	23.64	19.39	2.00	2.25

Note : The proportion of labour force to total population is labour force participation rate.

Source : Based on 1. Census of India 1921

Vol V, Bengal.

Part II, Tables.

2. Census of India, 1911

Vol VII, Bihar and Orissa

Part II Tables.

and Orissa was much higher (14.49 %) as against 3.03 % of total worker's participation in Bihar and Orissa in 1901.

Among the four natural division of Bihar and Orissa, Orissa division had the lowest participation rate in 1901 and also in 1911, 1921 and 1931. The lower participation rate of Orissa was due to the fact that the religious classes were grouped with the strictly professional classes and that it was a land under priestly domination.<sup>7</sup> Primary activities were confined within the long strip of alluvial land between the hills and the sea, and in 1901 21.56 % of the total people participated in the primarily activities.

North Bihar being a predominantly agrarian region registered a high labour force participation (40.98 %) in 1901. Chotanagpur Plateau and South Bihar had the maximum participation rate owing to the agricultural and mining and other primarily activities. The physiography of Chotanagpur Plateau and southern part of South Bihar resulted in extensive agriculture and manual operation in the hilly tracts.

In 1911, the total participation rate increased by 4.29% for the Bengal Presidency and in Bihar and Orissa by 2.22 %. The trend was the same with East Bengal having a low percentage of working population as compared to other division followed by Central Bengal, and North Bengal and West Bengal. West Bengal surpassed North Bengal by 4.06% in 1911 in the total participation rate. The increased was attributed by the primary and the

---

7. Census of India 1911, Ibid ,p.535.

secondary sectors of the West Bengal where opening of the mines attracted labourers from the surrounding area and the development of industries engaged more labourers than the previous census record.

In Bihar and Orissa the change in the total participation rate was 2.22 % during 1901 and 1911 but a remarkable change was observed in South Bihar where the participation rate declined from 73.38 % in 1901 to 50.35% in 1911, a decrease of 23.03 %. This decline was contributed by the primary sector alone which registered 24.32 % decline during the same period although there was a slight increase in the secondary sector. In North Bihar and Chotanagpur Plateau the agricultural predominance and other primary activities with a minor increase in other occupations increased the participation rate between 1901 and 1911.

In 1921, the West Bengal districts registered a very high participation rate as compared to 1911 and 1901. The decade 1911-21 experienced a depletion in population on account of epidemic and endemic disease. As stated earlier the ravages of Burdwan fever took away thousands of lives during the decade. As a result the total population registered in 1921 was 34,32,733 less than in 1911 in West Bengal and 58,102 less in Central Bengal. The total work force participation rate thus registered in West Bengal was 40.02 % in 1921 against 41.70 % in 1911.

In Central Bengal the participation rate was 42.63 %. It was 40.27 % in 1911 and 32.84 % in 1901. In 1921, the major share of the increase was contributed by the services or tertiary sector which registered 4.14 % between 1911 and 1921. The increase in the tertiary sector, as is known, mainly takes place in the urban

areas where people flock in search of better employment opportunities. Moreover, comfort of living prohibits the female participation in urban areas, which shows its direct impact upon the total participation rate. North Bengal and East Bengal maintained their position with a minor change in the participation rate. In Bengal and more particularly in the eastern part and other prosperous districts, the cultivator<sup>8</sup> was used to obtain a sufficient return for very little labour from his land to support him at the existing standard of living. He certainly did not take any subsidiary occupation which gave but a very poor return for a great expenditure of labour and time. Not only did the laziness and the easy return for little labour on his land disincline the Bengali for more work in order that he might be able to raise his standard of living but there were many prejudices and much false pride which prohibited the cultivator for more work. Though East Bengal wholly was a agricultural country, the general comfort of the dwellers was quite high. As stated in census report of 1921, the cultivator of Jessore and Nadia was in the best economic position, where population was reduced by disease to a decidedly lower level than the highest the country can support. The average Noakhali cultivator shared the gross produce of the soil worth Rs. 139.5 while in Midnapore it was Rs. 100, in a year. But the Noakhali cultivator was better off than the figures indicate because many cultivators who lived on the main land had land also on the islands from which the assets of the cultivating classes of the district were supplemented.

---

8. Census of India 1921, Bengal, Vol V, Part I, Report, p.383.

Bihar and Orissa in 1921 registered a total participation rate of 52.19 % (Table 3.3). Which was 4.7 % more than 1911 working population. The increase in the total work force participation rate in Bihar and Orissa was contributed by the primary sector and more so by North Bihar and Chotanagpur Plateau. South Bihar and Orissa show a decrease in the proportion of working population in 1921 as compared to 1911. Within the primary sector, the increase in cultivators was more marked. In Bihar the increase in cultivators was probably due chiefly to the change in terms used to describe the classes of agriculturists though the high prices of food-grains so far as they affected the number of agriculturist must have tended to increase it.<sup>9</sup>

The census report continues- " The increase of cultivators is most marked in Chotanagpur and above all, in Ranchi, where it amounts to 3,86,000. Enquiry shows that the most important cause of this increase in Ranchi is the settlement, the full effects of which had not been felt in 1911, and which has resulted in many persons who were previously regarded as landlords' servants finding themselves in possession of lands of their own and so promoted to the group of rent payers. There has also been reclamation of jungle land and extension of cultivation which is very marked in some parts of the district such as Chainpur and Pithoria: many of the coolies who returned from the labours corps as independent gentlemen have invested their savings in this manner. There has also been a marked decrease in the number of persons returned as

---

9. Census of India 1921, Bihar and Orissa Vol VII, Part I, Report, p.255.



following the primitive pursuits of fishing and hunting and cutting and collecting wood while the village artisans are said to be devoting more attention to agriculture than before. These causes probably apply also mutatis mutandis to the other districts of Chotanagpur".

Table 3.4 showing the participation rate for the total, male and female population in primary, secondary and tertiary sectors for the year 1931 shows an appreciable decline in all the natural divisions as compared to 1921. This was due to the different methods employed in 1931 for arriving at the "working population" as compared to 1921 census.<sup>10</sup> Due to this change the total workers declined from 1,61,10,215 in 1921 to 1,40,97,600 in 1931 for Bengal and from 1,87,77,877 to 1,69,09,477 in 1931 for Bihar and Orissa. The earners cum working dependents of the 1931 census were taken to correspond roughly with the actual workers of 1921, and the ratio between the working population and the total number of persons supported was not likely to differ materially from that previously recorded. Moreover the fall was much more marked among females than among males. It was common to almost every important group of occupations. No economic explanation was offered and it was almost certain that the true reason consisted in the fresh instruction issued for the classification of 'earners', 'working' dependents and so on. So far as females were concerned the number of workers was reduced by a stroke of the pen to less than half when it was decided to eliminate "house-keep-

---

10. Census of India 1931, Bihar and Orissa, Vol VII, Part I, Report, p.185.

Table 3.4

## PARTICIPATION RATE - 1931

	Total				Male				Female			
	Total	Pri- mary	Second- ary	Terti- ary	Total	Pri- mary	Second- ary	Terti- ary	Total	Pri- mary	Second- ary	Terti- ary
BENGAL	27.66	19.29	2.44	5.93	24.44	17.72	1.91	4.81	3.22	1.57	0.53	1.12
1. West Bengal	32.95	22.05	3.81	7.09	26.79	18.62	2.84	5.33	6.16	3.43	0.97	1.76
2. Central Bengal	33.68	17.72	5.12	10.84	30.73	16.91	4.37	9.45	2.95	0.81	0.75	1.39
3. North Bengal	28.64	22.67	1.52	4.44	25.22	20.57	1.04	3.61	3.42	2.10	0.48	0.93
4. East Bengal	28.58	17.13	1.36	4.09	20.78	16.25	1.06	3.47	1.80	0.88	0.30	0.62
BIHAR and ORISSA	39.96	31.39	2.72	5.85	28.23	22.86	1.68	3.69	11.73	8.53	1.04	2.16
1. North Bihar	39.31	33.72	1.58	4.01	28.91	25.14	1.07	2.70	10.40	8.58	0.51	1.31
2. South Bihar	44.94	29.75	3.80	11.39	30.39	20.72	2.56	7.11	14.55	9.03	1.24	4.28
3. Orissa	35.63	25.37	4.42	5.84	27.74	22.30	1.71	3.73	7.89	3.07	2.71	2.11
4. Chotanagpur Plateau	38.94	31.66	2.78	4.50	26.08	21.91	1.45	2.72	12.86	9.75	1.33	1.78

Note : The proportion of labour force to total population is labour force participation rate.

Source : Based on 1. Census of India 1931

Vol V, Bengal.

Part II, Tables.

2. Census of India, 1931

Vol VII, Bihar and Orissa

Part II Tables.

ing" as a census occupation.<sup>11</sup> In other parts of India there was a similar decline in the proportion of the working population between 1921 and 1931 but it was less pronounced—from 460 to 438 per mille.<sup>12</sup>

Though there was decline in the proportionate share of working population in 1931, the trends continued to be the same with East Bengal having the least participation rate within the Bengal Presidency and Orissa having the least participation rate in the province of Bihar and Orissa. It may be remarked that in Orissa, with its enervating climate the proportion of workers was lower than in any other natural division, in South Bihar it was the highest.<sup>13</sup>

#### III.4- PARTICIPATION RATE OF MALE AND FEMALE WORKERS.

The total working force was composed of 1,24,43,587 males (90.65 %) and 12,83,878 females (9.35 %) in 1901 in Bengal. It was 1,07,94,321 (67.32 %) males and 52,40,473 (32.68 %) females in Bihar and Orissa. In terms of total population the proportion of working force was 29.36 % males and 3.03 % females in Bengal in 1901. For Bihar and Orissa it was 30.48 % males and 14.79 % females in 1901.

Within the natural divisions of Bengal male participation rate was highest in North Bengal followed by Central Bengal, West Bengal and the least in East Bengal. East Bengal had the lowest

---

11. Census of India 1931, Bihar and Orissa, Vol VII, Part I, Report, p.184.

12. Ibid, p.184.

13. Ibid, p.184.

participation rate both for male (28.75 %) and female (1.51 %) labour. West Bengal with 5.92 % of the female labour participation had the highest participation rate among the other natural divisions of Bengal. South Bihar had the maximum male labour participation among the natural divisions of Bihar and Orissa followed by Orissa, Chotanagpur Plateau and North Bihar. Orissa had only 4.26 % of female labour force participating in different economic activities.

In 1911, 31.55 % males and 5.13 % females were enumerated as working population, in Bengal. In Bihar and Orissa it was 30.46 % and 17.03 %. As described earlier, the general comfort and high standard of living of the Bengal districts prohibit the males to do more work while in Bihar the position was entirely different. Both men and women participate in the economic activity to make their condition a little better off.

In 1921, the proportion of working males and females both increased in Bihar and Orissa, while in Bengal the increase was restricted only within the male workers, though West Bengal and Central Bengal registered increase in the female labour force participation.

During in 1931, the total participation rate declined because of the change in the method adopted for arriving at the "working population". Female labour participation declined from markedly. It declined 19.10 % in 1921 to 11.73 % in 1931, a decrease of 7.37 % during a decade in Bihar and Orissa. In terms of absolute female labour the decrease was 9,68,378 female heads. In 1901 the total female workforce was 12,83,878 in the three broad sectors (primary, secondary and tertiary). It was 21,43,555

during 1911. During in 1921 it increased to 26,09,743 but in 1931 the figure enumerated was 16,41,365, for Bengal.

In Bihar and Orissa the decline was greater than Bengal during 1921 and 1931. 19,07,121 more female workers were enumerated in 1921 census as compared to 1931 census, in Bihar and Orissa. There was also a decline in the male workers.

The spatial variation in the distribution of male and female workers within the eight natural divisions of Bengal, Bihar and Orissa depends upon their social, economic, cultural and physiographic conditions. Bengal having a flat alluvial plain is easy to work and with a minimum labour the workers generally get the maximum benefit, and were "contented" with the subsistence level of earning which provides a satisfactory standard of living for the workers. On the other hand in Bihar and Orissa due to the low level of living most of the people were engaged in one or the other economic activities. The proportion of male and female workers in terms of total population is obviously higher, and more particularly in the primary sectors of the economy. But the male participation rate is far higher than female, and this is revealed in all the natural divisions, in all the years. The extent to which the female participates in the work of any area depends primarily upon the status enjoyed by the women in the society, the extent to which they are allowed mobility, the economic pressure necessitating their participation, availability of suitable jobs and the desire to avail them on part of the females. In Bengal economic conditions were satisfactory so that most of the females were dependents, while in Bihar and Orissa economic necessity forced the females to work in different occu-

pations to share the burden.

Due to the lack of rural-urban break up of the census data for occupation, the study is limited to the foregoing analysis only.

But if we consider the size and class of population and the total number of people residing in different size class settlements we can roughly get an idea about the workforce participation rate. In small size settlements the socio-economic condition is far from satisfactory and there are lesser facilities and amenities available in the small sized villages than in the larger ones. The large size settlements have better socio-economic conditions and better amenities. Therefore it can be assumed that, larger the size of population lesser is the rate of participation in different economic activities. Conversely, smaller the size class of population the participation rate is higher. Moreover, greater the number of villages in any area, greater is the number of total population residing in villages and therefore participation in particularly primary and secondary activities of smaller scale is also quite large. But greater number of villages and rural population always does not mean greater participation rate e.g. in East Bengal though the number of villages of different size classes ranging from below 500 heads to 5000 heads was the maximum among the natural divisions of Bengal Presidency, the region had the lowest participation rate for male and female workers. Therefore, only the total number of villages and population can not be taken as the criteria for finding out the rate of participation. The only thing which we can assume is that, if the total rural population is

large the rate of participation in primary activities will also be large. The participation rate in primary activities in North Bihar was well above 80 % during 1911, 1921 and 1931 where the total rural population was also the largest among the four natural divisions of Bihar and Orissa. The same was the case in North and East Bengal where the proportion of workers engaged in primary activities was quite high in all the decades having a fair high concentration of rural population.

In urban areas the better standard of living restricts the participation of female workers in different economic activities which brings down the total participation rate. The income associated with the predominance of secondary and tertiary sectors support a somewhat high dependency ratio. Availability of better infra-structural facilities, easy transport and communication with the nearby towns and the locational advantage of being nearer to the district or state capital results in low workforce participation.

In the urban areas of Bengal Bihar and Orissa the same holds true with the majority of the urban population, female, children and old people depending upon the earner in contrast to the rural people engaged in one or the other gainful economic activity. The reason indicated for the existing disparity in the participation rate between rural and urban areas can also hold good in explaining the relationship between the size of the settlement and participation rate in so far as the size of the settlements associates with the rural-urban classification.

### III.5 OCCUPATIONAL STRUCTURE :-

The occupational structure of any area is the product of a number of intimately related factors. The nature and variety of physical resource base, of course, lays down the basic foundation in the form of good land for agriculture, indented coast for fishing, thick vegetational cover for forestry, rich geological strata for mining etc. Above it, science and technology introduces an element of specialization in the occupational composition by creating highly specialized types of jobs.<sup>14</sup>

Since, there are innumerable number of occupations, the pattern of a tri-sectoral (comprising the primary, secondary and the tertiary sectors ) employment/income structure is generally taken to be an index of the state of development of an economy.<sup>15</sup> Though simple, yet it helps in having a broad idea about the pattern of economy of an area.

Bengal, Bihar and Orissa was predominantly agricultural which is judged from the fact that, during 1931, 69.74 % of the people in Bengal and 78.54 % of the people in Bihar and Orissa were engaged in primary activities and about 88.59 % of Bengal's total population and 93.46 % of Bihar and Orissa's total population lived in the rural areas. The configuration of the country, the character of the soil, the river and the mountain systems, the amount and the distribution of rainfall is such that it determines the nature of the economic activities of its inhabi-

---

14. Chandna R.C, Op.cit, p.217.

15. Techno Economic Survey of West Bengal, National Council of Applied Economic Research, New Delhi, 1962. p.26.



Table 3.5

**Distribution of Workers in Primary Secondary and  
Tertiary Activities (1901)  
(Percentage Shares)**

Natural Division	<u>PRIMARY SECTOR</u>			<u>SECONDARY SECTOR</u>			<u>TERTIARY SECTOR</u>		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
BENGAL	70.55	73.20	44.84	9.05	7.90	20.19	20.40	18.90	34.97
1. West Bengal	61.26	65.20	42.42	11.47	10.12	17.95	27.27	24.68	39.63
2. Central Ben- gal	55.98	57.85	34.61	12.64	11.83	19.93	31.38	30.32	45.46
3. North Bengal	79.49	82.01	57.15	6.05	4.45	20.23	14.46	13.54	22.62
4. East Bengal	77.66	79.73	39.10	7.20	6.27	24.67	15.14	14.00	36.23
BIHAR and ORI- SSA	77.43	78.35	75.54	6.44	6.13	7.09	16.13	15.52	17.37
1. North Bihar	78.93	73.16	84.96	4.78	6.32	3.17	16.29	20.52	11.87
2. South Bihar	84.02	85.82	79.48	4.89	4.66	5.46	11.09	9.52	15.06
3. Orissa	63.05	69.25	19.54	17.92	8.06	47.02	24.03	22.69	33.44
4. Chotanagpur Plateau	76.04	76.87	74.59	7.36	7.25	7.56	16.60	15.88	17.85

Source : Same as Table 3.1

DISTRIBUTION OF WORKERS IN PRIMARY, SECONDARY AND TERTIARY SECTORS - 1901

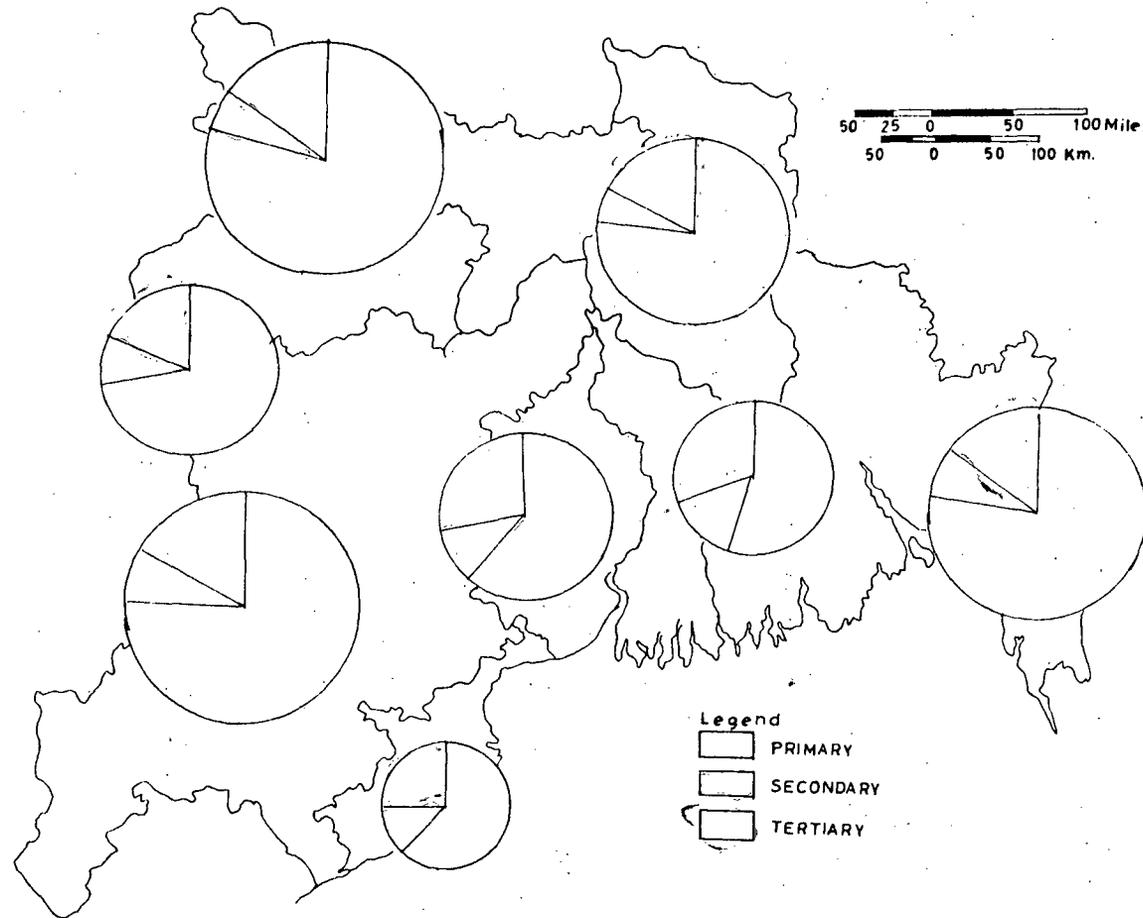


Fig 3.1

tants to be primarily based on agriculture. The economy was deep rooted in agriculture and it was the pivot around which all the economic activities revolved.

The part played by industries was of comparatively small significance in the economic life of the people of Bengal during the British rule. This condition was brought about by the British by forcible decay of the old handicraft industries without the compensating advance of modern industry.<sup>16</sup> The first hundred years of Company rule totally wrecked Bengal's indigenous industries. All authorities agree that it was never the East India Company's policy to foster Indian industries. In as early as 1769, the Company's Directors wished the manufacture of raw silk to be encouraged in Bengal and that of silk fabrics discouraged. The Company ordered that silk-winders should be made to work in the Company's factories and prohibited them from working outside under severe penalties. This mandate had the desired effect and the manufacture of silk and cotton goods, which had ready markets in Europe and Asia, fast began to decline. On the other hand, the revenues of the country were spent on the Company's investments, that is on the purchase of Indian goods for exportation and sale in Europe without any commercial return. The Regulation of 1793 provided as noted by Dutt (1901) that a weaver receiving advance from the Company was prohibited to give to any other persons any goods or services under threat of prosecution in the Diwani

---

16. Munsi, Sunil Kumar, Economic Development of West Bengal prior to Indian Independence in Population and Settlement Geography, Part I, 21st International Geographical Congress, p.498.

DISTRIBUTION OF WORKERS IN PRIMARY, SECONDARY AND TERTIARY SECTORS - 1911

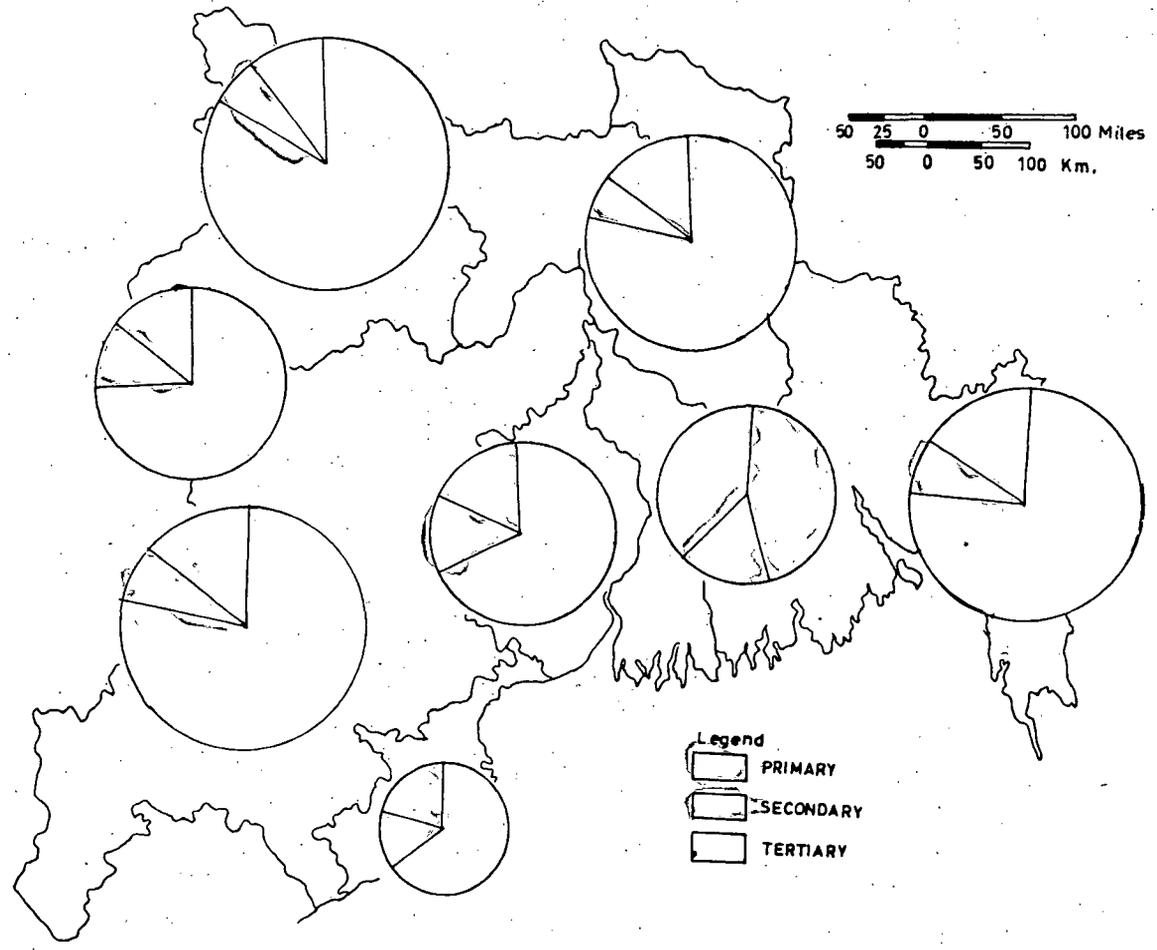


Fig 3.2

Table 3.6

**Distribution of Workers in Primary, Secondary and Tertiary  
Activities (1911)  
(Percentage Shares)**

Natural Division	PRIMARY SECTOR			SECONDARY SECTOR			TERTIARY SECTOR		
	Total	Male	Female	Total	Male	Female	Total	Male	Fema.
BENGAL	71.27	74.50	46.83	9.99	7.85	25.36	18.74	17.65	27.81
1. West Bengal	68.69	73.89	51.40	13.42	10.35	23.62	17.89	15.76	24.98
2. Central Bengal	55.18	62.12	18.61	16.79	9.92	52.98	28.03	27.96	28.41
3. North Bengal	78.61	82.22	53.60	6.23	4.18	20.44	15.16	13.60	25.96
4. East Bengal	75.51	78.38	44.56	7.01	5.48	23.50	17.48	16.14	31.94
BIHAR & ORISSA	77.92	80.42	73.47	8.32	7.05	10.60	13.74	12.53	15.93
1. North Bihar	83.99	86.39	78.38	5.78	4.82	8.02	10.23	8.79	13.60
2. South Bihar	74.15	75.40	72.09	10.52	10.30	10.90	15.33	14.30	17.01
3. Orissa	66.07	77.28	26.23	16.37	9.06	42.33	17.56	13.66	31.44
4. Chotanagpur Plateau	77.39	77.75	76.88	7.46	6.82	8.30	15.15	15.43	14.82

Source : Same as Table 3.2

Adalat ( Civil Court ); and on his failing to deliver stipulated clothes, the British Commercial Resident was at liberty to use force and charge penalty on the price of cloth.<sup>17</sup> Under such circumstances, it was quite obvious that the industrial activity would decline. Otherwise Bengal was richer than Egypt in the opinion of Bernier, a French traveller who visited Bengal twice around 1660, before the final break up of the Mughal Empire. Bengal was the biggest producer of sugar, cotton and silk not only in India but also in the neighbouring kingdoms. Bernier was amazed to find the vast quantity of cotton clothes of every sort which the Dutch exported from Bengal to different places, especially to Japan and Europe.<sup>18</sup> But in 1901 as the figure shows there were only 9.05 % of the workers engaged in the secondary sector in Bengal, and 6.44 % in Bihar and Orissa.

Agriculture was the mainstay of the people though agricultural development was at a very low ebb, due to methods of cultivation, which were mostly crude and unscientific.<sup>19</sup>

Table 3.5 to 3.8 and the maps 3.1 to 3.4 representing the census data provide the regional pattern of occupational structure in the Bengal Presidency and the Province of Bihar and Orissa. Let us now analyse the occupational structure of the two provinces by delving into each one of the occupational categories of industrial origin. Before doing that, a brief introduction

---

17. Munsif S.K. Ibid, pp.492-493.

18. Munsif S.K. Ibid, pp.490.19.

19. Saha K.B , Economics of Rural Bengal, Chatterjee, Calcutta, 1930, p.42.

Table 3.7

**Distribution of Workers in Primary, Secondary and Tertiary  
Activities (1921)  
(Percentage Shares)**

Natural Division	<u>PRIMARY SECTOR</u>			<u>SECONDARY SECTOR</u>			<u>TERTIARY SECTOR</u>		
	Total	Male	Female	Total	Male	Female	Total	Male	Femal
BENGAL	69.26	74.92	49.57	10.39	8.59	16.46	20.35	16.49	33.9
1. West Bengal	67.37	71.72	53.66	14.29	12.38	20.33	18.34	15.90	26.0
2. Central Bengal	48.68	55.68	24.70	15.08	16.28	10.99	36.24	28.04	64.3
3. North Bengal	81.88	84.62	62.24	5.43	4.00	15.59	12.69	11.38	22.1
4. East Bengal	77.93	79.28	64.38	7.50	6.34	18.97	14.57	14.37	16.6
BIHAR and ORISSA	80.07	83.01	75.00	8.05	5.53	12.38	11.89	11.46	12.6
1. North Bihar	86.74	88.02	83.96	4.32	3.78	5.49	8.94	8.20	10.5
2. South Bihar	69.50	73.83	62.35	12.54	8.92	18.50	17.96	17.25	19.1
3. Orissa	65.06	74.22	36.53	15.85	9.30	36.24	19.09	16.48	27.2
4. Chotanagpur Plateau	83.15	83.95	82.05	7.20	6.27	8.49	9.65	9.78	9.4

Source : Same as Table 3.3

about the scheme of occupation of the census records, is necessary. As early as in 1881, when occupation was first tabulated, according to the English scheme, only the occupation of workers was returned, but it proved unsuitable to Indian conditions. Therefore in 1891, an entirely new scheme was devised which recorded the means of subsistence rather than occupation, and dependents were included as well as workers but without being distinguished from them. The scheme of occupation included 478 groups. In 1901 distinction between workers and dependents was introduced and since then, has been maintained. The number of occupational groups also rose to 520. ( In 1901 the scheme of occupation consisted of 8 classes, 24 order, 79 sub-order and 520 groups ). Experience had however by 1911 shown that such an elaborate classification was not only, not required in the circumstances of India, but was liable to be actually misleading. In 1911 therefore an elaborate revision took place and a practically new scheme based on a scheme approved by the International Statistical Institute was introduced, consisting of 4 classes, 12 sub-classes, 55 orders and 169 groups.<sup>20</sup> This was followed during the next 2 censuses.

For convenience the occupational category was clubbed into the 3 broad groups namely primary, secondary and tertiary sectors.

---

20. Census of India 1921 Vol VII, Bihar and Orissa, Op.cit, p.249.



DISTRIBUTION OF WORKERS IN PRIMARY, SECONDARY AND TERTIARY SECTORS  
1921

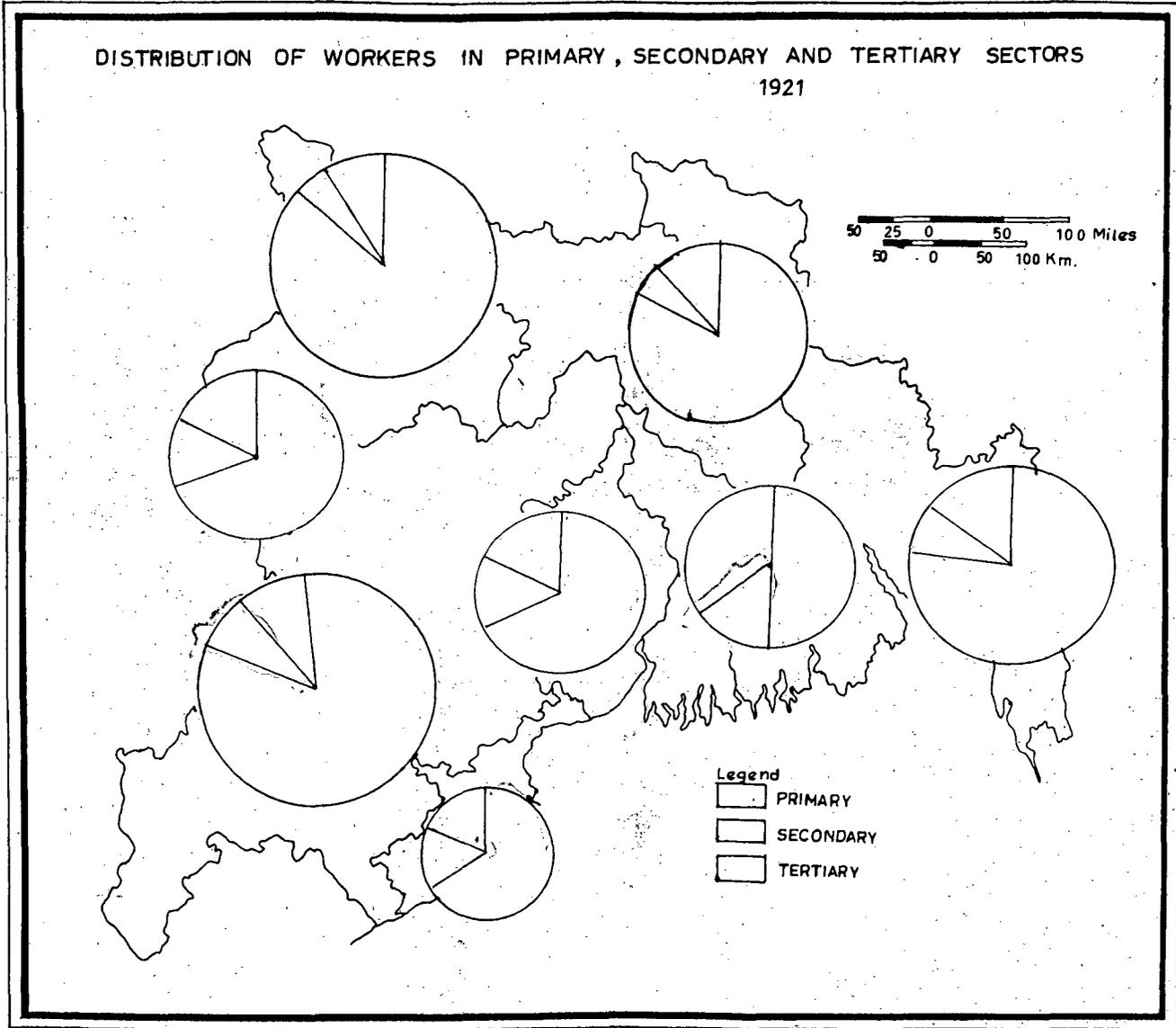


Fig 3.3

DISTRIBUTION OF WORKERS IN PRIMARY SECONDARY AND TERTIARY SECTORS  
1931

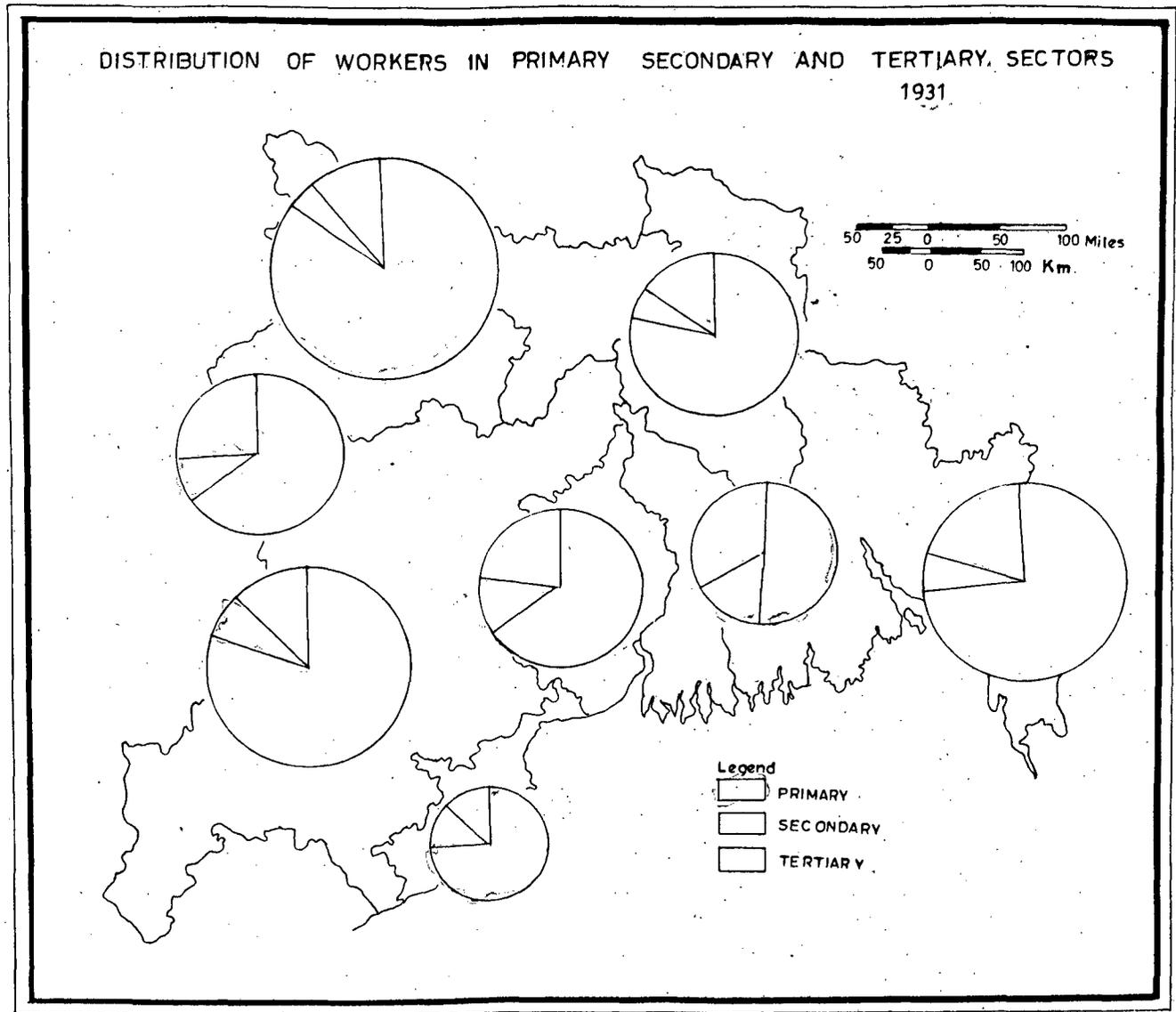


Fig 3.4

### III.5.1. DISTRIBUTION OF WORKERS IN THE PRIMARY SECTOR

The primary sector for 1901 as included in the present study takes into account class B : order V namely agriculture, under which 4 sub-orders and 12 groups were included. The total of the 4 sub-orders consist the primary sector for 1901. For 1911, 1921 and 1931, the first 3 orders namely (1) Pasture and Agriculture.

(2) Fishing and Hunting. and

(3) Mines were included in

the primary sector. These occupation comes under class A which means Production of Raw Materials and sub class I and II, namely "Exploitation of Animals and Vegetation" and "Exploitation of Minerals" respectively.

Bengal, Bihar and Orissa is essentially a primary sector dominant region, in which the primary sector in 1901 accounted for 70.55 % of the total workers in Bengal and 77.43 % in Bihar and Orissa. In 1911, the proportion of primary workers in Bengal was 71.27 % and in Bihar and Orissa 77.92 %. In 1921, 69.26 % and 80.07 % and in 1931 69.74 % and 78.54 % of the total workers were engaged in the primary sector in Bengal and Bihar and Orissa respectively.

Tables 3.5 to 3.8 shows the proportionate distribution of workers in the different occupational categories, of Bengal, Bihar and Orissa. The region wise distribution shows that in Bengal, in 1901, North Bengal had the maximum percentage of economically active population engaged in primary sector (79.49%). It was followed by East Bengal ( 77.66 ) and West Bengal ( 61.26 % ), the minimum proportion being engaged in central Bengal ( 55.98 % ). In Bihar and Orissa, south Bihar had

the maximum percentage of workers engaged in the primary sector, followed by North Bihar (78.93 %), Chotanagpur Plateau ( 76.04 % ) and Orissa ( 63.65 % ).

During 1911, 1921 and 1931 the Bengal divisions maintained these same positions with North Bengal the leader, followed by East Bengal, West Bengal and central Bengal, with minor variations in the proportionate share. The minimum share of primary workers in Central Bengal was due to the high level of urbanization compared to the other natural divisions of Bengal due to the location of Calcutta. In West Bengal, a considerable amount of people were engaged in the industrial activity ( in the coal mines ).

Therefore the primary worker's share in the total workers automatically declined, yet, another factor which restricted the primary workers to a comparatively low level in Central and West Bengal was due to the differences in the fertility of land or in the methods of cultivation. The area of land available for cultivation is a very important factor in determining the size of the population that can be maintained in an efficient condition.<sup>21</sup> West Bengal, lies outside the true delta. The eastern portion of this tract is low and of alluvial formation; but farther west laterite begins to predominate and the surface rises and becomes more and more undulating and rocky until at last it merges in the uplands of Chotanagpur.<sup>22</sup> The gneissic, and lateritic soils mainly depend upon artificial manures to maintain their fertility

---

21. Saha, K.B. Op cit, p.250.

22. Imperial Gazetteer of India, Op cit, p.4.

Table 3.8

**Distribution of Workers in Primary, Secondary and Tertiary  
Activities (1931)  
(Percentage Shares)**

Natural Division	PRIMARY SECTOR			SECONDARY SECTOR			TERTIARY SECTOR		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
BENGAL	69.74	72.48	48.91	8.81	7.83	16.30	21.45	19.69	34.79
1. West Bengal	66.92	69.49	55.70	11.56	10.60	15.76	21.52	19.91	28.54
2. Central Bengal	52.63	55.03	27.60	15.20	14.22	25.33	32.17	30.75	47.07
3. North Bengal	79.17	81.58	61.45	5.32	4.13	14.12	15.51	14.29	24.43
4. East Bengal	75.88	78.18	49.30	6.02	5.10	16.56	18.10	16.72	34.14
BIHAR & ORISSA	78.54	80.99	72.64	6.81	5.93	8.90	14.65	13.08	18.46
1. North Bihar	85.78	86.50	82.50	4.02	3.69	4.95	10.20	9.35	12.55
2. South Bihar	66.20	68.16	62.11	8.46	8.43	8.51	25.34	23.41	29.38
3. Orissa	71.20	80.36	38.94	12.40	6.18	34.29	16.40	13.46	26.77
4. Chotanagpur Plateau	81.28	84.00	75.77	7.15	5.57	10.35	11.57	10.43	13.88

Source : Same as Table 3.4

whereas the recent alluvium is periodically fertilized by fresh deposits of silt from the overflowing rivers. The fertility of the soil thus distinguishes the agricultural conditions in Bengal.

In Bihar and Orissa from 1911 onwards the percentage of workers engaged in primary activities was the maximum in North Bihar districts of Saran, Champaran, Muzaffarpur, Darbhanga, Bhagalpur and Purnea. In 1931, 85.78 %, of the total workers of these districts together were engaged in primary activities performing pasture and agriculture, and fishing and hunting and mine workers were found only in Bhagalpur and Purnea districts. The invariable floods of the numerous winding streams and the depressions formed by the abandoned channels of river make North Bihar east of the Gandak, the typical rice country of the state.<sup>23</sup> Other important crops produced are wheat, maize, barley, sugarcane etc. In the thickly populated and closely cultivated sections of the plains there is little pasture and the ill-fed livestock can browse on some poor grasses or vegetation in the village wastes or orchards or on the uncultivated riverine grasslands.<sup>24</sup> Due to the predominance of agriculture other primary activities were negligible in North Bihar.

South Bihar districts though form the drier parts, had a good deal of agricultural activity depending upon the irrigation from the Son river. Mining and fishing and hunting were also

---

23. Ahmed, Enayat, Bihar-A Physical, Economic and Regional Geography. Ranchi, 1965, p.136.

24. Ahmed E, Ibid, p.149.

important activities. But due to the importance of secondary and tertiary activities in South Bihar the proportion of primary workers showed a gradual decline from 74.15 % in 1911 to 69.5 % in 1921 and 66.2 % in 1931.

Chotanagpur Plateau ranked second with 81.28 % of the primary workers of the area in 1931 after North Bihar. The gneissic tract of Chotanagpur Plateau and portions of the neighbouring districts were dependent upon artificial manures to maintain their fertility. But rice was grown in the valleys of the hilly country which surrounded the Chotanagpur Plateau. In areas of steep slopes and dense undergrowth small patches of land were artificially cleared and scanty crops of millets and pulses were raised and in some areas primitive form of nomadic culture known as 'Jhum' was also practised. Fishing and hunting and mining activities were also important.

Orissa had 71.2 % of the primary workers in 1931. Along with agricultural pursuits fishing and hunting and mining activities, were important in Orissa.

In all the divisions of Bengal, majority of the primary workers constituted of male labourers only. They constituted about 90 % of the total workforce in primary sector. In Bihar and Orissa this percentage share ranged between 70-85 %.

As stated earlier, in terms of size class if we observe, we find that lower the size class higher is the proportion of workers and larger the size of settlement lower the proportion of workers engaged in the primary sector. Here we can also add another fact that, in the natural divisions, where the number of small villages are greater, the concentration of primary activi-

ties tend to be greater. With the decline in the number of villages in the population size class of 2000 and above, the deviation from the primary activity take place and in cities it is non-existent. Rural industries of the household type are thus found in larger villages, primary occupation however remains agriculture.

Thus from the present analysis we find that the variation in the proportion of workforce engaged in the different primary activities between the plain areas of Bengal and Bihar and between the plains and plateau areas is mainly due to the influence of topographic conditions and the socio-economic conditions of the area.

### III.5.2.DISTRIBUTION OF WORKERS IN THE SECONDARY SECTOR: -

Secondary Sector is an important organ of the economy of a region. It is characterized by those activities where the form of the commodity is changed and its value is increased.<sup>25</sup> It is the cornerstone of the development process of any region because of its dynamic nature which is due to the higher productivity, income and external economics. More specially, industrial development is the key word to the decision makers and is treated almost as a synonyms of economic development.

The development of secondary sector during the British rule was at a very low level due to the decline of the indigenous handicraft industries of the past. Secondary sector had very

---

25. Prabha K. Towns: A Structural Analysis: A Case Study of Punjab, Inter-India Publications, Delhi, 1979,p.78.



little influence in the economic life of the people of Bengal, Bihar and Orissa.

In 1901, the secondary sector comprised of 34 sub-orders. In 1911, 14 orders were identified and in 1921 and 1931, 13 orders comprised the secondary sector.

In 1901, 12,42,119 people were engaged in the secondary sector of Bengal and 10,33,250 in Bihar and Orissa. Different proportion of males and females were engaged in the different activities of the secondary sector. But numerically the males dominated the pattern. Therefore out of the total 12,42,119 workers engaged in Secondary Sector in 1901, 9,82,905 (79.13 % ) were males and 25,92,14 ( 20.87 % ) were females in Bengal. In Bihar and Orissa the males and females workers were more or less equally distributed in the secondary sector. Therefore in Bihar and Orissa 56 females worked per 100 males in 1901. Although numerically only a few females were absorbed in secondary activities in all the years and particularly in Bengal, their proportion to the total female workers was higher than the males. The reason is quite obvious - only a small proportion of the total female working force enters in the labour market due to household responsibilities and rearing of the children.<sup>26</sup> Moreover there were some occupations in which women were employed as skilled or semi-skilled or unskilled laborers. For example, in the tea gardens the number of female workers was relatively high where the laborers lived with their families and the women contributed by plucking tea as well as cultivating the gardens. In mining

---

26. Prabha K, Ibid, p.78.

areas, the chief employment of the women was as help-mates to their husbands where there were 72 females for every 100 males in 1931.

Within the natural divisions of Bengal, Central Bengal had the maximum percentage share in total secondary workers in all the years covered under the present study, and was followed by West Bengal, East Bengal and North Bengal in the same order in all the census years.

In 1901, Central Bengal had 12.64 % of the total workers engaged in the secondary sector. The proportionate share increased to 15.20 % in 1931. This was due to the concentration of industrial activity in Calcutta and 24 Parganas and its surrounding area. During 1911, the metropolitan districts of Calcutta, Howrah and Hooghly (included in West Bengal) and the 24 Parganas contained 2/3 of the industrial undertakings in the province.<sup>27</sup> West Bengal with 10.60 % of the secondary workers of the region in 1931 ranked second in the hierarchical order. Out of 3,29,095 workers engaged in the secondary sector in West Bengal in 1931, 2,46,884 were males and only 82,211 were females. Outside the concentration of organised industries and manufactures in Calcutta and its surroundings, the district of Burdwan with its coal mines were distinctly marked as one of the important centres.

In terms of industrial activity the most backward parts of the province were the Dacca and Chittagong Divisions of East Bengal, where there were only 84 works, employing 13,000 persons in 1911. The districts of Khulna, Noakhali and the sparsely

---

27. Census of India 1911 Op cit, p.526.

populated Chittagong Hill Tracts did not contain a single factory or other industrial concern employing 20 hands in 1911. Therefore, the percentage of workers engaged in the secondary sector was only 7.01 % in 1911. These secondary workers were mainly occupied in the jute-industries and tea gardens of Chittagong.

North Bengal the predominantly agricultural area had 4.45 % of the secondary workers in 1901, 6.23 % in 1911, 5.43 % in 1921 and 5.32 % in 1931. The tea garden districts of Jalpaiguri and Darjeeling were the two main industrial centres of North Bengal. Dinajpur one of the North Bengal districts was devoid of any industrial concern employing even 20 hands, in 1911. During 1921, the decline in the proportionate share of secondary workers in North Bengal was due to the disadvantageous position into which the war had thrown its markets from which the tea industry did not recover. Moreover, the old gardens were not working at full pressure as in 1911.<sup>28</sup>

During 1911 and 1921 the proportion of workers engaged in secondary sector was 9.99 % and 10.39 % in Bengal but in 1931 8.81 % of the total workers in Bengal was enumerated as secondary workers. The decline in the secondary sector was contributed by a number of industries from 1911 onwards and of course with the establishment of the British power in Bengal. Between 1921 and 1931 there was a decrease of 4,33,104 workers in Bengal. Out of the total decline, 2,71,052 were male worker and 1,62,052 were female workers. Some part of the decrease was genuine. Between 1930 and 1931 the report of the chief inspector of factories

---

28. Census of India 1921 Bengal, Vol V ,Op cit, p.388.

shows a decrease of workers in registered factories amounting to 83,438.<sup>29</sup> Therefore, we can say that with the exception of the capital and the six districts namely Burdwan, Howrah and Hooghly of West Bengal, 24 parganas of central Bengal and the tea garden district of Jalpaiguri and Darjeeling of North Bengal, industrial enterprise in the presidency was at a very low level.

The secondary activities in Bihar and Orissa was at a very low level even during 1931 only 6.81 % of the total workers of the province was engaged in this sector. The industrial development of Bihar and Orissa was even less advanced than that of Bengal for the total number of industrial and manufacturing works employing 20 person or more was only 583 and employees 1,79,714. The extraxtion of the minerals rather than the conversion of raw material into finished products was moreover by far the most important branch of industry.<sup>30</sup> But due to smaller proportion of people engaged in mining, it has included in the primary sector in the present study. The only other important industrial concern beside it, was indigo plantation. During 1901, 6.13 % of the total workers were engaged in the secondary sector of Bihar and Orissa. Its share increased to 8.32 % in 1911 and declined to 8.04% in 1921 and further to 6.81 % in 1931. The decline in the proprtionate share was mainly due to the declined in the number of female workers.

---

29. Census of India 1931 Bengal and Sikkim, Vol V, Part I , p.275.

30. Census of India 1911, Op cit, p.528.

In terms of the distribution of Industrial enterprises Orissa division lacks behind, though the percentage of the people engaged in the secondary sector was much higher, particularly that of females. Uttarakhand and Puri had some industrial workers whose major occupation was agriculture. Most of the industries were rural industries as the total number of towns in Orissa division was only 8 in 1901 and remained the same even in 1931.

North Bihar though had 137 towns in 1931, 119 towns (87 %) were merely overgrown-Villages, because of the fact this part of the province was purely agricultural. This was a natural corollary of the circumstance fact that the proportion of the rural inhabitants in the division was greater than it was in any other part of the province. In 1931 only 4.02 % of the total workers of North Bihar were engaged in secondary activities. The only important industry of North Bihar was indigo industry which was mainly confined in the districts of Champaran, Muzaffarpur and Darbhanga .

The condition in South Bihar was better than that of Orissa. Patna was the most important centre for manufacturing activities. Monghyr and Gaya also had some amount of industrial activities. In 1931, 8.46 % of the total workers of South Bihar were engaged in the secondary sector. The proportionate share of workers was much less in South Bihar (8.46 %) than in Orissa (12.40 %) as is revealed from Table 3.8. But the actual population engaged in the secondary sector was greater in South Bihar (3,23,268 persons) than in Orissa (1,85,625 persons).

Chotanagpur Plateau, though the most advanced area industrially, owing to its mineral resources shows only 7.15 % of the

secondary workers of the area in 1931. It was 7.36 % in 1901, 7.46 % in 1911 and 7.20 % in 1921. The low percentage of workers according to its contribution to the industry is due to the fact that, some districts of Chotanagpur were highly developed and some were not. The backward character of the rest of the districts except some, obscures the rate of development. The Jharia coal-fields puts Manbhum district a ahead of the other. The Tata Iron and Steel works at Sakchi in Singhbhum district was the most important iron and steel works and of great economic importance in the province. Hazaribagh, Ranchi, Santal, Parganas and Mayurbhanj and Gangpur districts of Orissa Feudatory states were the other important industrial centres of Chotanagpur.

Due to the non-availability workforce data according to different size classe it is not possible to bring out the original picture. But we can say that, if the size of the settlements is taken into consideration we can observe that, larger the size of the settlements higher is the perecentage of workers engaged in this sector and smaller the size of settlement, smaller is the percentage of workforce engaged in this sector. Central Bengal provides a good example in this respect. Calcutta and its surrounding districts had the highest proportion of industrial workers in the provice. The number of workers in secondary sector increased with the increase in population size. It is because, manufacturing is generally concentrated in its big centres where finance and skilled and unskilled labourers are easily available. Calcutta city alone supported 8,47,796 people while in East Bengal 59 towns of varying size classes (ranging from 5000 to

100,000) supported 6,07,290 people in 1901. Therefore it is quite obvious that secondary sector was much stronger in Calcutta than it was in East Bengal. The maximum concentration was in the large size urban centres. But with the decline in the population size classes the towns deviate from the pattern, and the concentration of workers in the secondary sector goes on declining. The concentration of secondary workers declines in small towns due to the predominance of other activities in them. The distributional pattern of the workforce structure as revealed in figures 3.1, 3.2, 3.3 and 3.4 shows considerable regional variation. North Bihar, North Bengal and East Bengal had lesser workers in secondary activities due to the prevailing geographical conditions which have favoured the predominance of agricultural activity. Whatever industrial units were there, most of them were agriculture oriented. Chotanagpur Plateau had secondary activities due to its mineral wealth West Bengal and Central Bengal due to the location of Calcutta and South Bihar due to the commercial and industrial centre of Patna had a greater number of workers in secondary sector.

### III.5.3 DISTRIBUTION OF WORKERS IN THE TERTIARY SECTOR:

The tertiary sector in 1901 comprised of thirty five categories (total of sub-orders) and 1911, 1921 and 1931 of thirty four categories (total of the orders). In Bengal this sector was second ranking among the three sectors accounting for 21.45 % of the working population in 1931. These workers were mainly males (81%). In Bihar and Orissa in the same year only 14.65 % of the total workers were engaged in tertiary activities. Out of the total 24,77,140 workers, 63 % were males and re-

remaining 37 % were females. Like that of the econdary sector the proportion of females engaged in the tertiary sector was also large, although numerically siginificant gaps appear between the two sexes. During 1901, the percentage of workers engaged in the tertiary sector was 20.4 % in Bengal and 16.13 % in Bihar and Orissa. During 1911, though there was an increase in the actual number of workers in Bengal and slight fall in Bihar and Orissa their percentage share shows a declined. This was because, the increase in the number of workers was contributed by the primary sector rather than the tertiary sector.

During 1921, the tertiary workers in Bihar and Orissa further declined, but in 1931, there was an increase in the proportionate share of tertiary workers.

Like the activities of primary and secondary sector, employment in tertiary sector was also characterized by regional variation as is revealed by figure 3.1 to 3.4. The occupational pattern of the settlements, particularly towns were dominated by the tertiary sector.

Within the natural divisions of Bengal, the maximum percentage of tertiary workers was reported from Central Bengal (31.38 % in 1901, and 32.17 % in 1931), followed by West Bengal which also accounted for 21.52 % of the tertiary workers in 1931. Due to the absence of industrial activities of large size, in East and North Bengal, 18.10 % and 15.51 % of the total workers of each natural division were enumerated as tertiary workers respectively in 1931.

In Bihar and Orissa, South Bihar was the most important centre for tertiary activities. During 1931 it employed 25.34 %



of its total workers in the tertiary sector. South Bihar was followed by Orissa (16.40 %) Chotanagpur (11.57 %) and North Bihar (10.20 %) in 1931. During 1921 numerically South Bihar engaged the maximum number of workers in the tertiary sector but in terms of percentage share it ranked second, after Orissa. Orissa which had the least number of people engaged in tertiary activities had the highest percentage of workers in 1921. This variation was due to the variation in the total number of workers in both the divisions. Prior to 1921, South Bihar (5,98,804 workers) was surpassed by Chotanagpur Plateau (9,88,635 workers) and North Bihar (6,13,875 workers). In 1901 also South Bihar's rank was third preceded by North Bihar and Chotanagpur Plateau.

North Bihar, a predominantly agricultural country, also lacked in industrial activities. Therefore the towns which supported the urban population mainly had tertiary activities. The railway works at Samastipur in the Darbhanga district was the most important tertiary activity in North Bihar.

In Chotanagpur Plateau, the development of secondary sector in some districts have also lead to the development of the tertiary sector. It means that the development of the secondary sector is positively related with the tertiary sector. Any increase in the workforce participation rate in the secondary sector has a direct effect on part of the workforce of the tertiary sector. This also indicates the linkages between the secondary and the tertiary sectors. It is in this context that the secondary sector is regarded as the foundation stone for the development of any region.

Therefore in the province as a whole, we find two probable factors for the development of tertiary sector :-

(1) Areas where secondary activities were developed, for example, Central Bengal, West Bengal, South Bihar and Chotanagapur Plateau.

(2) Areas where secondary activities had an insignificant role in the economy. For example, East Bengal, North Bengal, Orissa and North Bihar.

The natural increase in the population was very fast in large villages, where functions were of diversified nature besides agriculture. With the increase in population such large villages graduate to the status of towns. Such settlements without developing any industrial activity except small rural industries, develop the tertiary sector to cater to the needs of the growing population. Clarke<sup>31</sup> rightly observes that the disproportionate growth of tertiary sector is often considered a sign of demographic pressure. This is more true of the experience of the developing countries till date. Dominance of the tertiary activities in towns<sup>32</sup> is due to the concentration of those activities and functions, which cannot take place in isolated areas or in thinly populated regions. Secondly, the towns act as service centres for the peripheral areas. Thirdly, a large number of them in many cases serve as the administrative headquarters. In addi-

---

31. Clarke John I. Population Geography, Pergaman Press, Oxford. 1972, p.92.

32. Prbha K, Op cit, p.82.

tion to these, the diversified character of the towns adds to this excess.

The distributional pattern of workers in tertiary sector into various size classes is not given for the period of study. But there exists a close relation between the size class settlements and percentage of the tertiary workers. Large towns are characterized by larger percentages in tertiary sectors, while only small percentages occur in small towns. As a result we find that during 1931 for example, if we compare East Bengal and North Bengal the two pre-dominantly agricultural area where the number of towns were 217 and 112 respectively the tertiary workers enumerated were 9,23,868 and 4,99,360 respectively. In North Bengal the highest size class town had 2000-5000 population and the total population in four such towns was 1,01,153. In East Bengal on the other hand the largest city Dacca alone had 1,38,518 persons. It is quite obvious that the tertiary activities in Dacca were much more prominent than North Bengal. It becomes further clear when East Bengal is again compared with Central Bengal. The location of Calcutta brings out a different picture. In 217 towns in East Bengal, the number engaged in tertiary activities was 9,23,868 whereas in Central Bengal only 63 towns had 9,19,050 people engaged in tertiary activity. Calcutta city which had 11,95,860 population obviously had a greater need and attracted greater amount of tertiary workers as compared to Dacca city where the total population was 1,38,518. Thus it becomes clear that, large towns are characterized by larger amount of tertiary workers which obviously depends upon the population growth.

The forgoing analysis of primary, secondary and tertiary activities has clearly indicated their uneven distribution in the natural divisions of Bengal, Bihar and Orissa during the period 1901 to 1931. The importance of primary sector in all the natural divisions; holds the fact that, the economic structure of Bengal Bihar and Orissa was at a very low level, which also explains the low rate of urbanization in the province.

### **III.6DISTRICT-LEVEL ANALYSIS**

As stated earlier depending upon the level of urbanization the two natural divisions- West Bengal and Orissa have been selected for micro-level analysis. West Bengal during 1931 had 10.42 % of its total population living in the urban areas, whereas in Orissa only 4.17 % lived in urban areas. Therefore a clear picture of the economic structure is best revealed by the comparison of these two divisions.

For the district level analysis, 1911, 1921 and 1931 workforce data has been considered due to the uniformity of the data. In 1901, there were 79 sub-orders and 520 groups while in the next census records there were 55 orders and 169 groups.

An analysis of the total, male and female workforce distributed among the three sectors brings out the diverse economic attributes of the two areas.

#### **III.6.1 PARTICIPATION RATE:-**

The participation rate of West Bengal was higher than the provincial average in all three census years, i.e. 1911, 1921 and 1931 (Table 3.9). During 1911 West Bengal had 41.70 % of its total population participating in one or the other gainful economic activities. It declined to 40.02 % in 1921 and further to 32.95 %

Table 3.9

**PARTICIPATION RATE - 1911 - 1931**  
(Percentage Shares)

Natural Division/ Districts.	1911			1921			1931		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
BENGAL	36.38	31.55	5.13	36.06	32.46	3.60	27.66	24.44	3.22
WEST BENGAL	41.70	32.05	9.65	40.02	30.38	9.64	32.95	26.79	6.16
1. Burdwan	42.18	31.54	10.64	43.07	31.49	11.58	30.10	22.89	7.21
2. Birbhum	42.67	31.24	11.43	42.17	31.33	10.84	32.47	26.66	5.81
3. Bankura	46.35	32.14	14.21	42.13	31.00	11.13	38.38	27.29	11.09
4. Midnapore	40.65	31.89	8.76	35.21	26.37	8.84	30.45	26.21	4.24
5. Hooghly	40.23	32.79	7.44	44.16	33.87	10.29	39.11	31.85	7.26
6. Howrah	39.14	33.22	5.92	39.96	34.30	5.66	32.05	28.36	3.69
BIHAR and ORISSA	47.49	30.46	17.03	52.19	33.09	19.10	39.96	28.23	11.73
ORISSA	36.66	28.60	8.06	38.17	28.89	9.28	35.63	27.74	7.89
1. Cuttack	36.46	27.42	9.04	38.04	27.81	10.23	34.74	26.99	7.75
2. Balasore	35.29	29.10	6.19	38.91	29.80	9.11	37.00	28.27	8.73
3. Puri	38.44	30.44	7.90	37.65	30.13	7.52	36.15	28.83	7.32

Source : Same as Table 3.2, 3.3 and 3.4.

# DISTRICTWISE PARTICIPATION RATE OF MALE AND FEMALE WORKERS 1911-1931

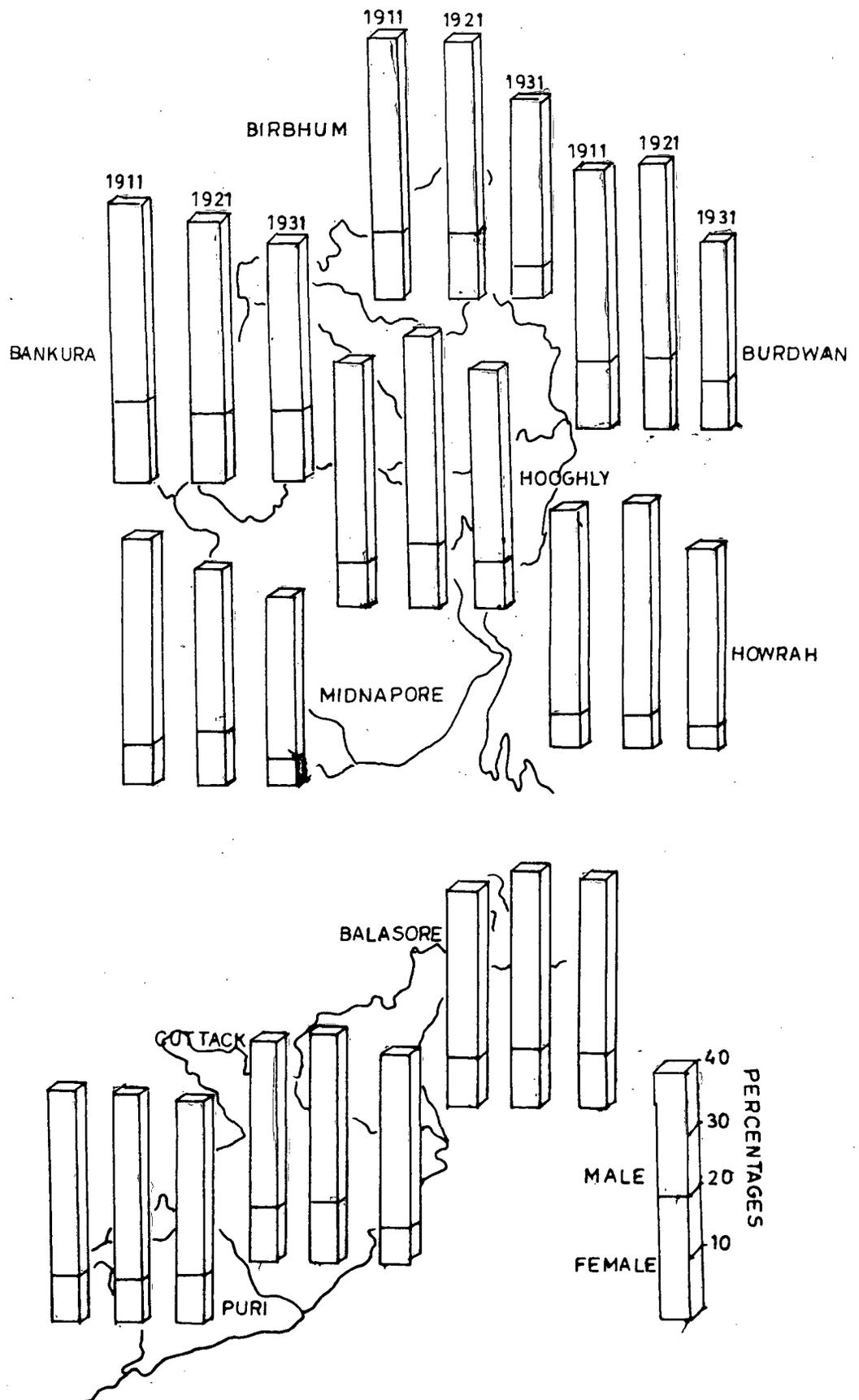


Fig. 3.5

PARTICIPATION RATE OF MALE AND FEMALE WORKERS  
 IN PRIMARY, SECONDARY AND TERTIARY SECTORS.  
 1911

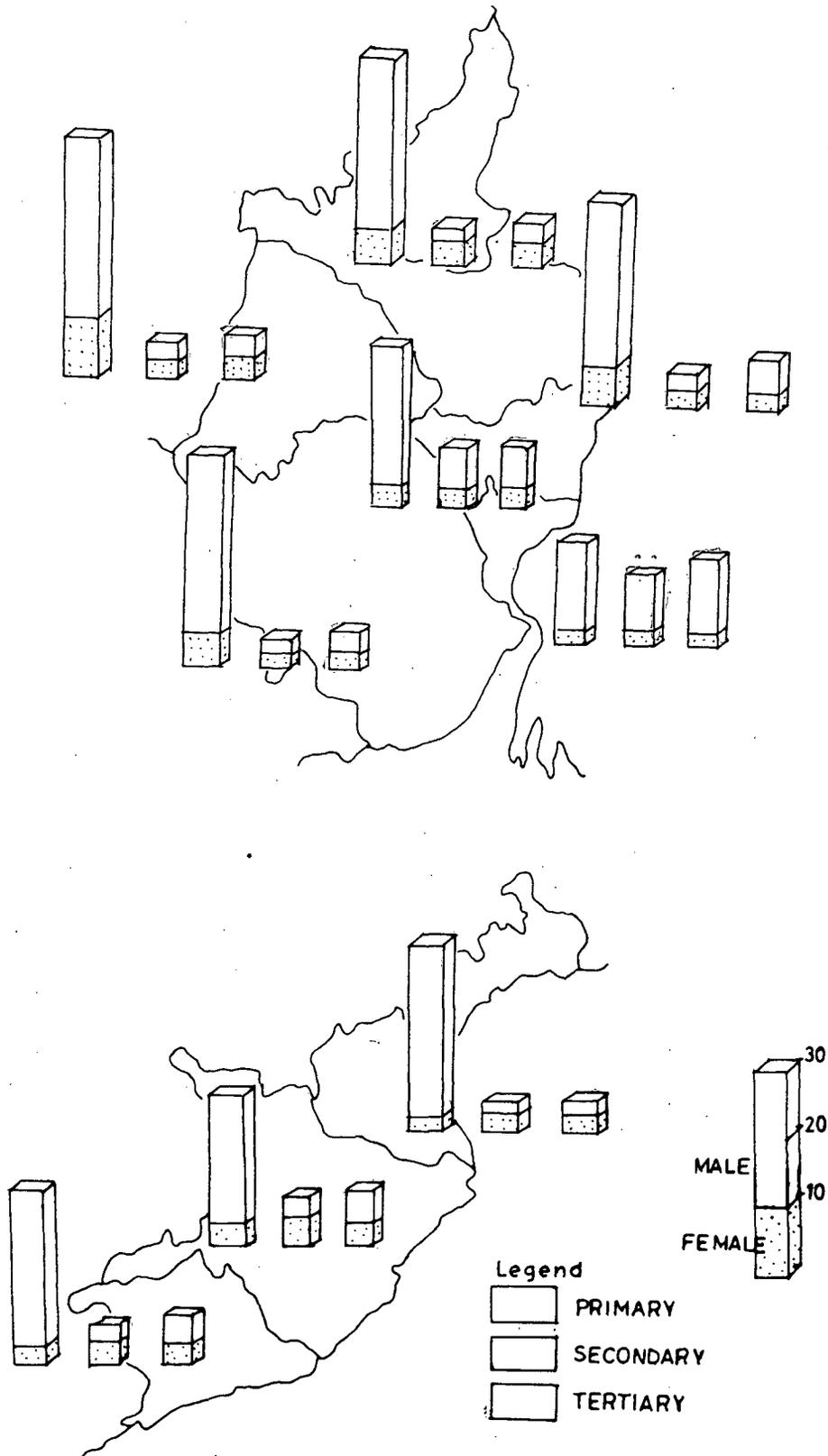


Fig 3.6

in 1931. In case of Orissa the reverse was the case. The work force participation rate in Orissa division was lower than that of Bihar and Orissa in all the years, During 1911, 36.66 % of the total population were working population. During 1921, 38.17 % of the workforce and in 1931, 35.63 % of the workforce participated in gainful economic activities.

In terms of male workers the participation rate was higher in West Bengal during 1911 and 1921 than Orissa division but the difference in the participation rate was very small. The participation rate of female workers, both in West Bengal and Orissa shows the same trend. In West Bengal 9.65 % of the female workers and in Orissa 8.06 % of the female workers were enumerated in 1911. Their share was 9.64 % and 9.28 % in 1921 for West Bengal and Orissa respectively. But during 1931 6.16 % females in West Bengal and 7.89 % females in Orissa participated in different economic activities.

In West Bengal the female labour participation was high, due to the geographical setting of the area which has gifted West Bengal with valuable mining area where proportion of female workers was very high. Due to the same natural condition, in Chotanagpur Plateau and Orissa division of Bihar and Orissa where mineral wealth is found in abundance, the participation rate of female workers was very high. Moreover the economic condition of the workers were such that both male and female labour participation were necessary to be higher.

Table 3.9 and figure 3.5 reflect the variation in the rate of participation in the districts of West Bengal and Orissa.



PARTICIPATION RATE OF MALE AND FEMALE WORKERS IN PRIMARY SECONDARY AND TERTIARY SECTORS - 1921

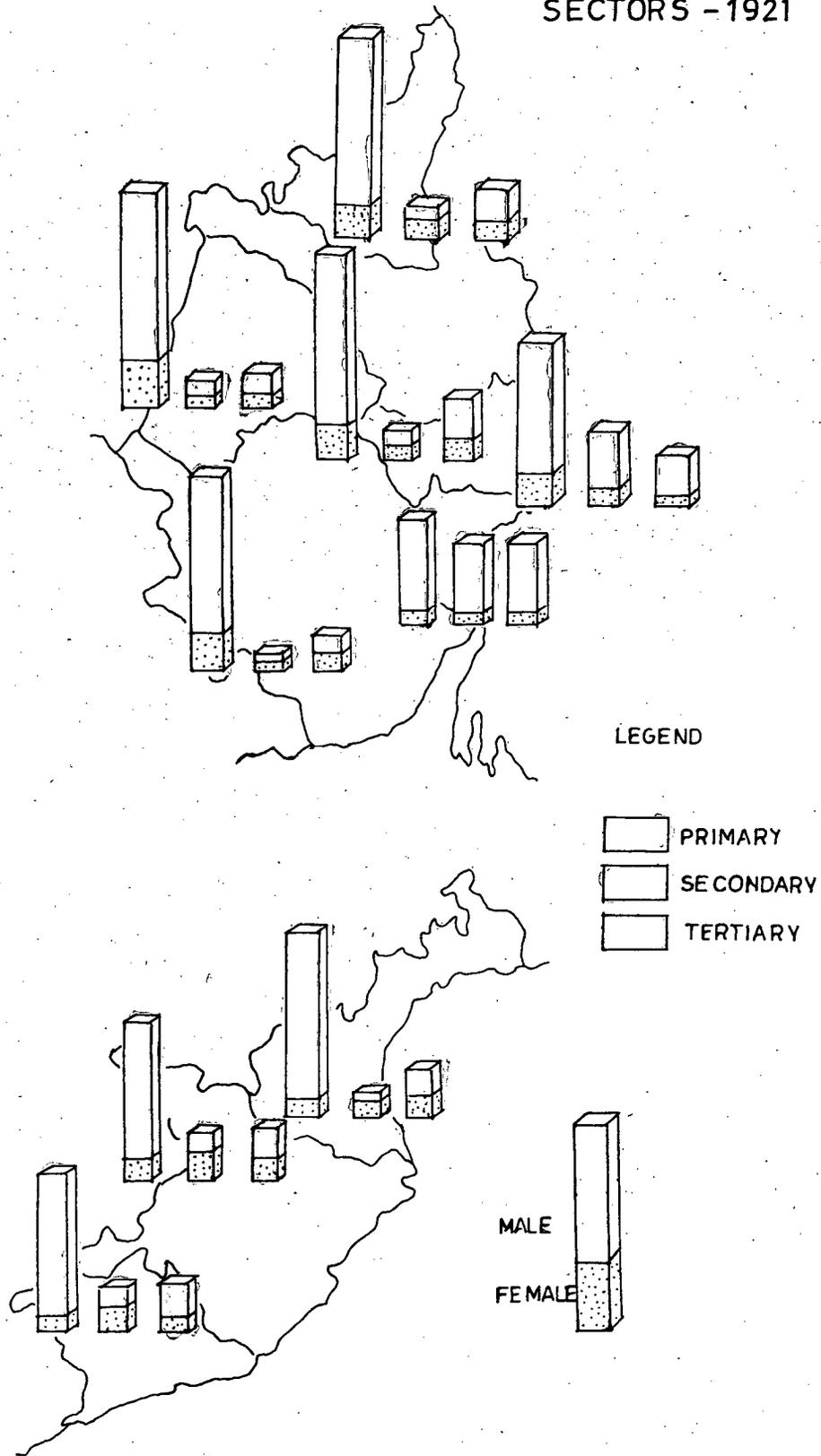


Fig 3.7

It is observed from the table and figure that the participation rate in Howrah was the lowest in 1911, followed by Hooghly, Midnapore, Burdwan, Birbhum and Bankura. During 1911 and 1921 health conditions in the West Bengal division were very adverse due to the ravages of malarial fever known as the Burdwan fever. The total population of West Bengal division declined from 84,42,663 in 1911 to 80,34,930 in 1921. This decline was shared by all the six districts of the division (Table 3.10)

**Table-3.10**

**DISTRIBUTION OF POPULATION IN WEST BENGAL AND ORISSA DIVISION**

**1911-1931**

Natural Division/ District	1911	1921	1931
<b>WEST BENGAL</b>	<b>8442663</b>	<b>8034930</b>	<b>8638677</b>
Burdwan	1529756	1435790	1574480
Birbhum	933237	844440	947357
Bankura	1138251	1019666	1111461
Midnapore	2818118	2662997	2796586
Hooghly	1088101	1077152	1113324
Howrah	935200	994885	1095469
<b>ORISSA</b>	<b>4182074</b>	<b>3995079</b>	<b>4202255</b>
Cuttack	2108048	2063605	2176707
Balasore	1054681	979516	990600
Puri	1019345	951958	1034948

PARTICIPATION RATE OF MALE AND FEMALE WORKERS IN PRIMARY SECONDARY AND TERTIARY SECTORS 1931

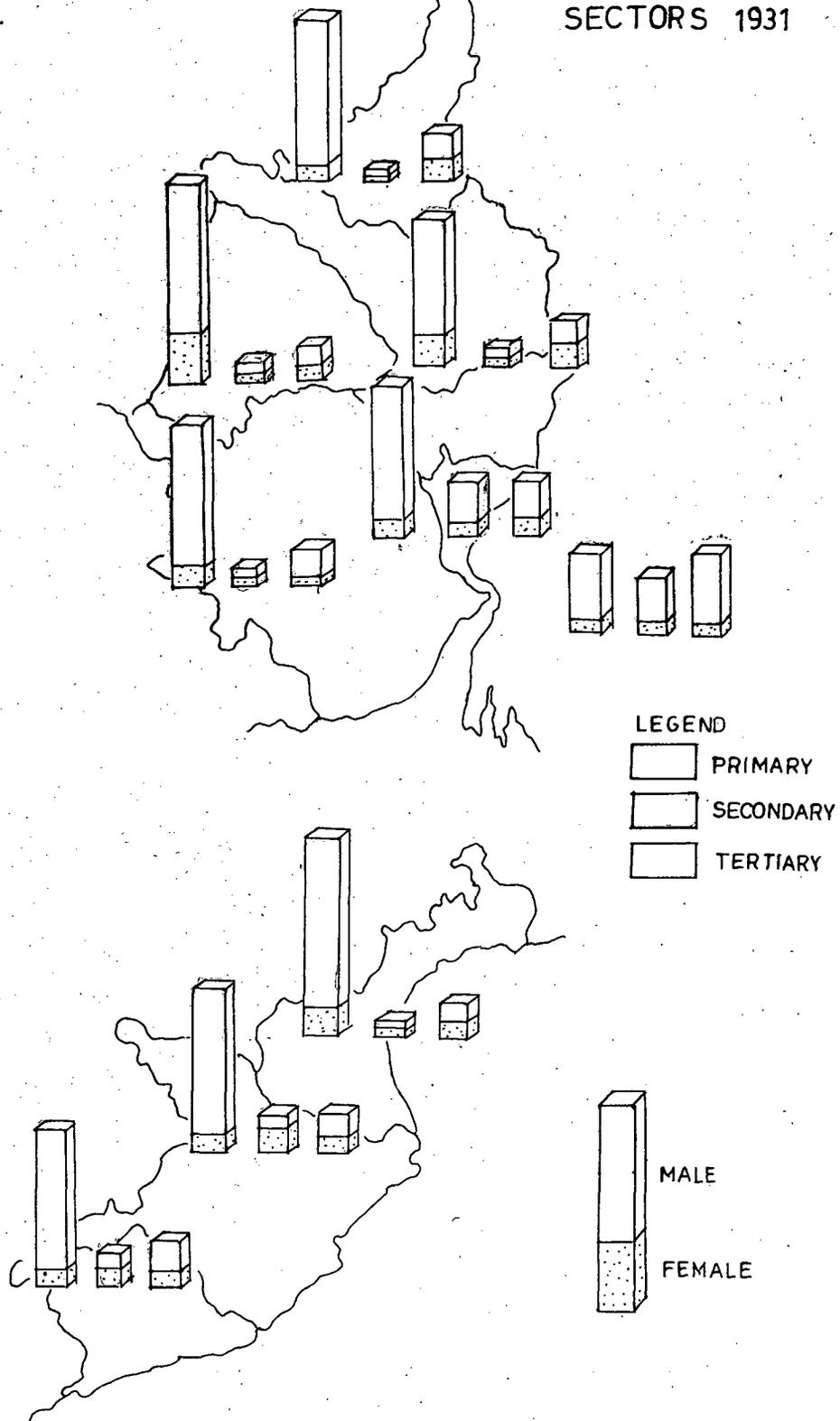


Fig 3.8

Table 3.11

**PARTICIPATION RATE - 1911**  
(Percentage Shares)

Districts	PRIMARY SECTOR			SECONDARY SECTOR			TERTIARY SECTOR		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
BENGAL	26.14	23.51	2.63	3.67	2.47	1.20	6.87	5.57	1.30
WEST BENGAL	28.64	23.68	4.96	5.60	3.32	2.28	7.46	5.05	2.41
1. Burdwan	30.05	24.47	5.58	4.29	2.08	2.21	7.84	4.99	2.85
2. Birbhum	30.62	25.51	5.11	5.44	1.82	3.62	6.61	3.91	2.70
3. Bankura	34.88	26.34	8.54	4.96	2.56	2.40	6.51	3.24	3.27
4. Midnapore	31.21	26.29	4.92	3.98	2.00	1.98	5.46	3.60	1.86
5. Hooghly	23.28	19.89	3.39	8.00	6.50	1.50	8.95	6.40	2.55
6. Howrah	15.27	13.89	1.38	10.72	8.03	2.69	13.15	11.30	1.85
BIHAR and ORISSA	37.01	24.49	12.52	3.95	2.15	1.80	6.53	3.82	2.71
ORISSA	24.22	22.01	2.12	6.00	2.59	3.41	6.44	3.91	2.53
1. Cuttack	22.08	19.86	2.22	7.22	3.19	4.03	7.16	4.37	2.79
2. Balasore	27.16	25.34	1.82	3.84	1.25	2.59	4.29	2.51	1.78
3. Puri	25.59	23.42	2.17	5.70	2.74	2.96	7.15	4.38	2.77

Source : Same as Table 3.2.

Table 3.15

**Distribution of Workers in Primary, Secondary and Tertiary  
Activities (1921)  
(Percentage Shares)**

Districts	PRIMARY SECTOR			SECONDARY SECTOR			TERTIARY SECTOR		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
BENGAL	69.26	74.92	49.57	10.39	8.59	16.46	20.35	16.49	33.97
WEST BENGAL	67.37	71.72	53.66	14.29	12.38	20.33	18.34	15.90	26.01
1. Burdwan	71.27	76.46	57.14	9.06	6.66	15.59	19.66	16.87	27.26
2. Birbhum	69.16	78.60	42.03	10.13	5.06	24.83	20.70	16.30	33.12
3. Bankura	76.45	81.28	62.99	10.52	8.58	15.93	13.02	10.12	21.07
4. Midnapore	78.96	85.07	60.75	7.74	5.48	14.49	13.28	9.44	24.74
5. Hooghly	54.73	56.83	47.82	26.23	25.33	29.22	19.02	17.83	22.95
6. Howrah	37.61	39.65	25.26	31.33	29.45	42.73	31.04	30.88	31.99
BIHAR and ORISSA	80.07	83.01	75.00	8.04	5.53	12.38	11.89	11.46	12.62
ORISSA	65.06	74.22	36.53	15.85	9.30	36.24	19.09	16.48	27.23
1. Cuttack	62.54	72.74	34.56	18.07	11.04	37.34	26.45	16.20	28.09
2. Balasore	71.90	80.74	42.98	9.76	5.34	24.22	23.93	13.41	32.79
3. Puri	63.27	70.51	34.22	17.44	9.82	48.00	24.08	19.65	17.77

Source : Same as Table 3.3

The decline in the total population by 4,07,733 also affected the total workers. As a result, between 1911-21, the total workers also declined by 3,05,614 heads. Therefore the participation rate declined but the proportionate decline was not very marked. Hooghly and Howrah the two industrial districts showed an increase in the participation rate during the period. During 1931, there was a decline in the total number of workers all over the province due to a number of interrelated factors. This reason mainly describes the decline in the participation rate of workers during 1931 in West Bengal and Orissa.

But in general, the metropolitan districts of West Bengal, viz Hooghly and Howrah had a low participation rate. In these two districts urban and semi-urban conditions prevail along the bank of Hooghly from Chinsurah on the north to Howrah on the south. In this riparian strip of land, town follows town with scarcely a break and the development of manufacturers, converted it into a busy industrial centre. Therefore the standard of living was much better and dependency ratio was high. Elsewhere in Burdwan, Birbhum and Bankura due to natural conditions the participation rate was high. The standard of living was comparatively low in these districts and women labour participation was high.

In the natural division of Orissa, like that of West Bengal no such variations occur. The economic conditions were such that, in all the three districts of Orissa, the workforce participation rate was more or less the same with greater amount of female workers participation.

Moreover, in West Bengal and in Orissa the participation of male workers in the primary, secondary and tertiary activities

Table 3.16

**Distribution of Workers in Primary, Secondary and Tertiary  
Activities (1931)  
(Percentage Shares)**

Districts	PRIMARY SECTOR			SECONDARY SECTOR			TERTIARY SECTOR		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
BENGAL	69.74	72.48	48.91	8.81	7.83	16.30	21.45	19.69	34.79
WEST BENGAL	66.92	69.49	55.70	11.56	10.60	15.76	21.52	19.91	28.54
1. Burdwan	69.98	75.35	52.02	6.87	4.70	13.79	23.35	21.68	34.17
2. Birbhum	73.40	79.88	43.69	5.15	4.44	8.44	21.43	15.67	47.86
3. Bankura	77.30	79.28	72.42	8.36	7.88	9.56	14.32	12.88	18.01
4. Midnapore	75.59	76.78	68.06	6.69	5.13	16.27	17.71	18.07	15.49
5. Hooghly	58.21	60.76	47.25	22.01	20.89	26.89	19.77	18.39	25.84
6. Howrah	34.50	37.48	11.63	26.26	26.22	26.57	39.22	36.29	61.80
BIHAR and ORISSA	78.54	80.99	72.64	6.81	5.93	8.90	14.65	13.08	18.46
ORISSA	71.20	80.36	38.94	12.40	6.18	34.29	16.40	13.46	26.77
1. Cuttack	70.79	80.60	36.66	13.97	5.72	42.66	15.23	13.67	20.67
2. Balasore	78.80	87.32	51.23	6.48	3.06	17.54	14.71	9.61	31.21
3. Puri	64.57	73.36	29.95	15.00	16.00	34.72	20.41	16.63	35.31

Source : Same as Table 3.4

was much greater than that of females. The participation of female workers in the districts of West Bengal was much greater in the primary sector and was followed by tertiary and secondary sector. In Orissa districts, on the other hand the female work-force participation was more or less equal in the three sectors during 1911, 1921 and 1931 (Table 3.11 to 3.13).

The higher participation rate, in the primary sector clearly indicates the dominance of primary activities in the region. The distribution of workers in the three sectors and their variation is brought out in the next few paragraphs to give an idea about the economic structure of the region.

#### III.5.2 DISTRIBUTION OF WORKERS IN THE PRIMARY SECTOR

West Bengal and Orissa are essentially primary sector dominant region in which the primary sector in 1911 accounted for 68.69% of the total workers in West Bengal and 66.07% in Orissa. In 1921, the percentage of primary workers in West Bengal was 67.37% and in Orissa 65.06%. During 1931, 66.92% and 71.20% of the total workers in West Bengal and Orissa respectively were engaged in the primary sector.

Table 3.14, 3.15 and 3.16, show the proportionate share of workers in the primary, secondary and tertiary sectors of West Bengal and Orissa. The district-wise distribution shows that in West Bengal in 1911, Midnapore had the maximum percentage (76.76%) of workers engaged in the primary sector. Midnapore was followed by Bankura (75.25%), Birbhum (71.76%), Burdwan (71.25%) and the lowest proportion were engaged in Hooghly (57.86%) and Howrah (39.02).

In Orissa, Balasore had the maximum percentage (76.95%) of



# DISTRIBUTION OF WORKERS IN PRIMARY, SECONDARY AND TERTIARY ACTIVITIES - 1911

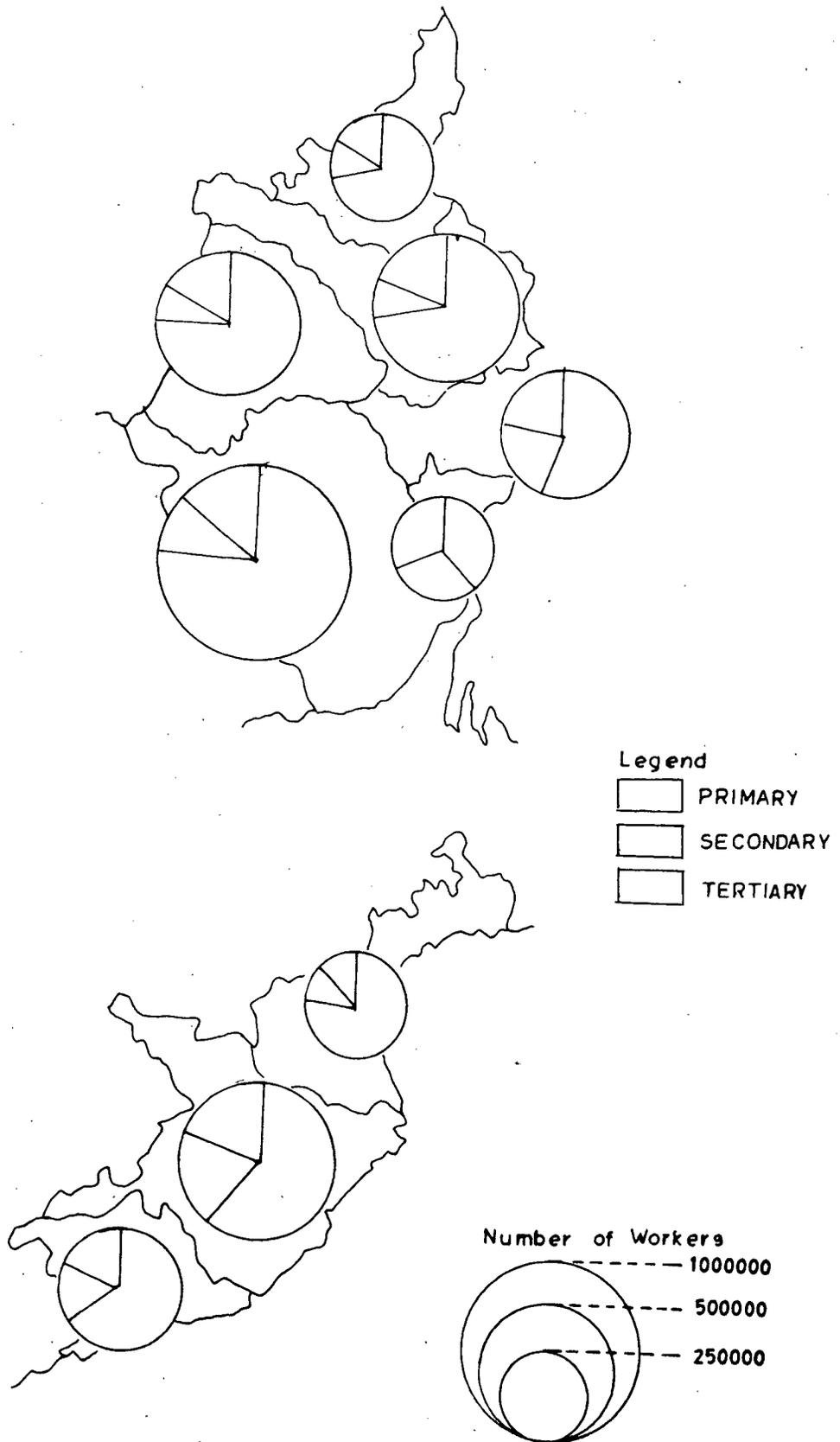


Fig 3.9

workers engaged in the primary sector followed by Puri (66.57%) and Cuttack (60.56%) in 1911.

Midnapore (78.96%) during 1921 employed the maximum number of primary workers. It was followed by Bankura (76.45%), Burdwan (71.27%) and Birbhum (69.16%). The lowest percentage was again recorded in Hooghly (54.73%) and Howrah (37.61%).

During 1931, the two districts Hooghly and Howrah retained their position with minimum proportion of workers engaged in the primary sector. But there was a decrease in the percentage of workers in Midnapore where 75.59% of the total workers were engaged in the primary sector. Bankura (77.30 %), Birbhum (73.40%) and Burdwan also had more than 70% of their total workers engaged in the primary sector.

The lower percentage of primary workers in Hooghly and Howrah was mainly due to the concentration of organized industries, in the region. The area is well served by road, rail and river transport connecting it with the great market and port city of Calcutta. Such a favourable climate for industrial development attracted the people towards the urban areas to work in the secondary and tertiary sectors and made the area highly urbanized.

In other three districts, except Burdwan, where the secondary and tertiary sectors have gained importance due to mining activities, the workers engaged in primary activities were very high. Lack of diversification of economic activities in these three districts namely Birbhum, Bankura and Midnapore is due to the non-availability of varied resources. This also explains the high proportion of primary workers in these districts.

# DISTRIBUTION OF WORKERS IN PRIMARY SECONDARY AND TERTIARY ACTIVITIES - 1921

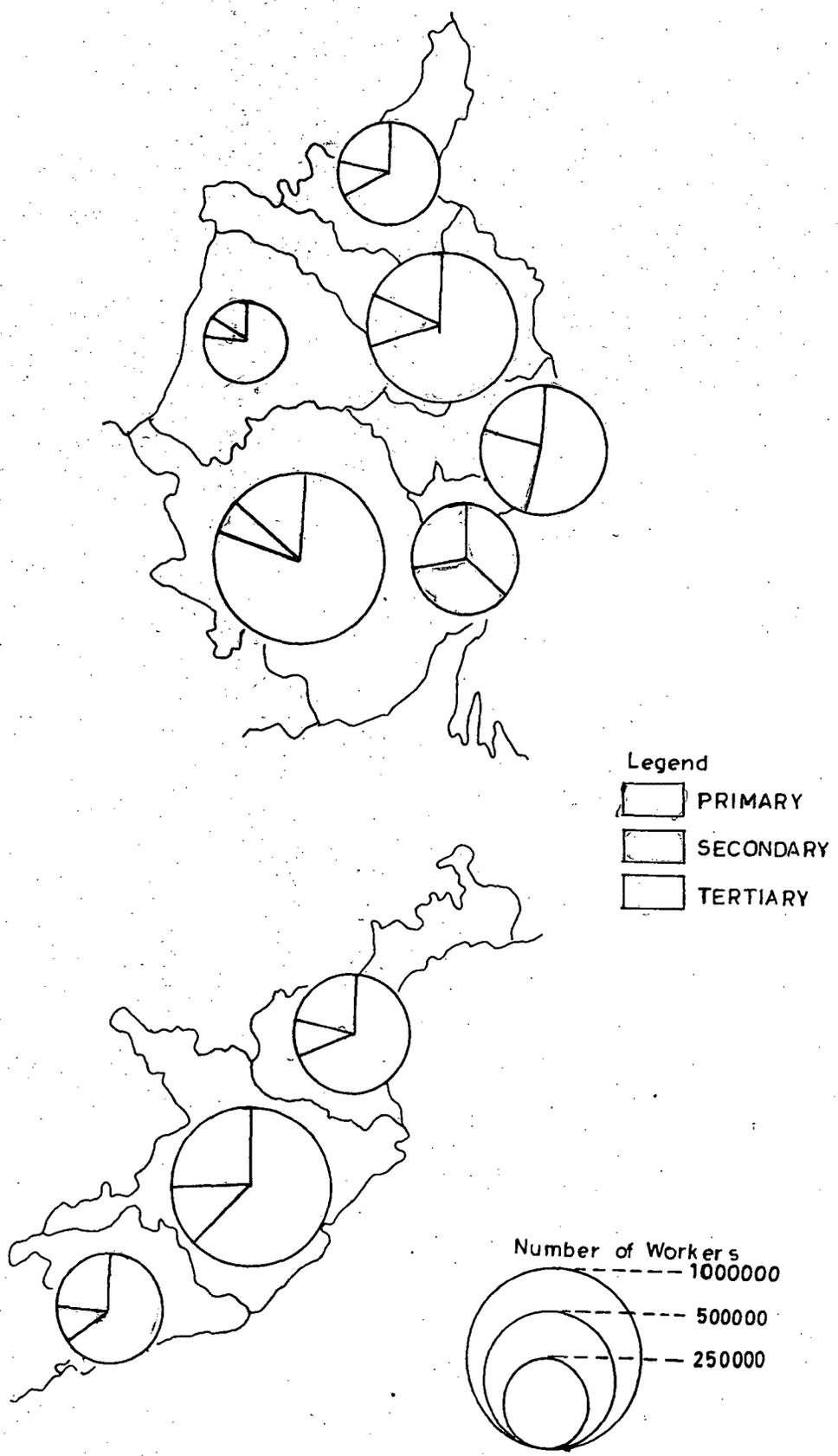


Fig 3.10

# DISTRIBUTION OF WORKERS IN PRIMARY, SECONDARY AND TERTIARY ACTIVITIES - 1931

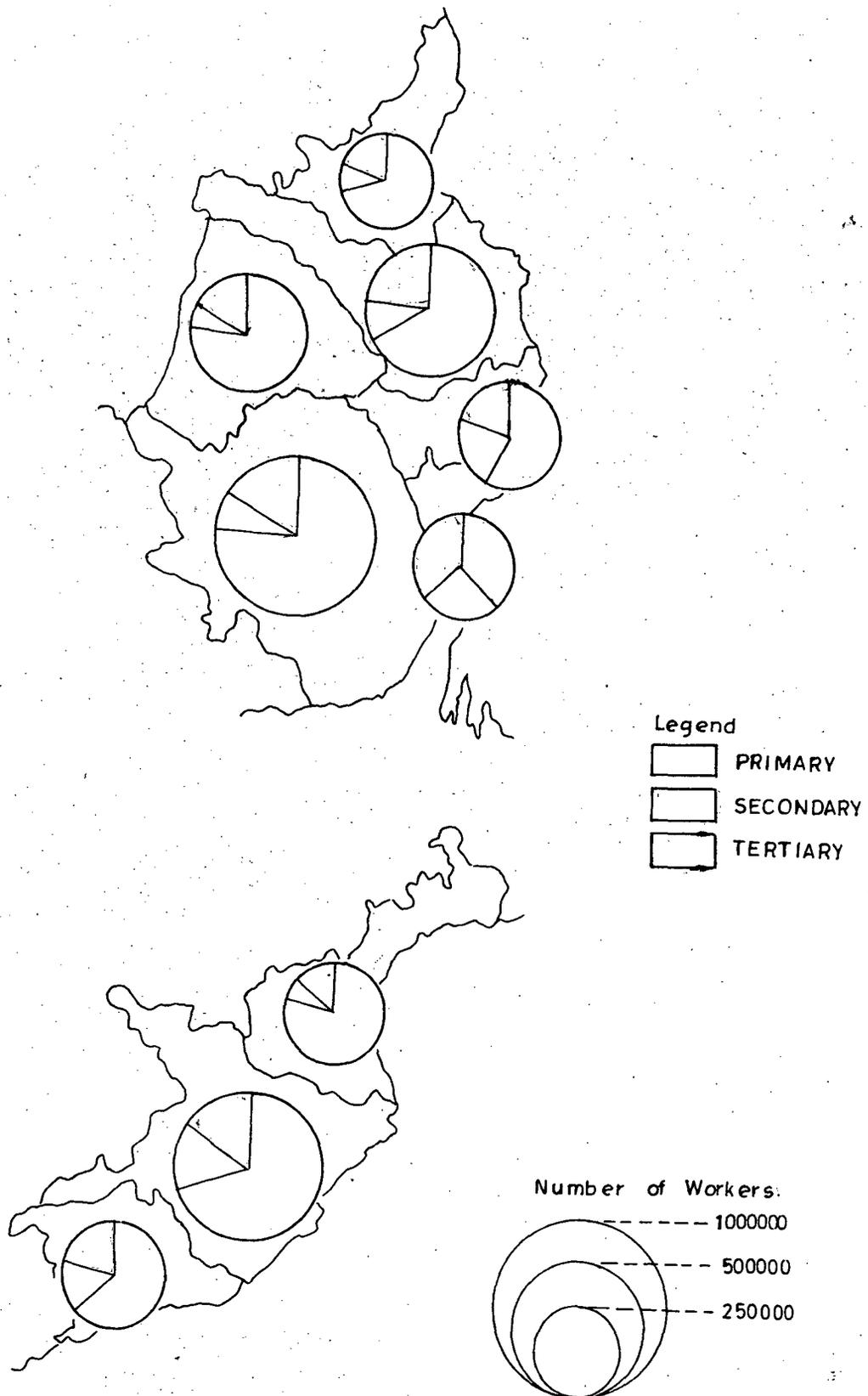


Fig 3.11

Table 3.12

**PARTICIPATION RATE - 1921**  
(Percentage Shares)

Districts	PRIMARY SECTOR			SECONDARY SECTOR			TERTIARY SECTOR		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
BENGAL	24.97	24.32	0.65	3.75	2.79	0.96	7.34	5.35	1.99
WEST BENGAL	26.96	21.79	5.17	5.72	3.76	1.96	7.34	4.83	2.51
1. Burdwan	30.70	24.08	6.62	3.90	2.10	1.80	8.47	5.31	3.16
2. Birbhum	29.17	24.63	4.54	4.27	1.59	2.68	8.73	5.11	3.62
3. Bankura	32.21	25.20	7.01	4.43	2.66	1.77	5.49	3.14	2.35
4. Midnapore	27.80	22.43	5.37	2.73	1.45	1.28	4.68	2.49	2.19
5. Hooghly	24.17	19.25	4.92	11.59	8.58	3.01	8.40	6.04	2.36
6. Howrah	15.03	13.60	1.43	12.52	10.10	2.42	12.41	10.60	1.81
BIHAR and ORISSA	41.79	27.47	14.32	4.19	1.83	2.36	6.21	3.79	2.42
ORISSA	24.83	21.44	3.39	6.05	2.69	3.36	7.29	4.76	2.53
1. Cuttack	23.79	20.28	3.51	6.88	3.01	3.87	7.37	4.52	2.85
2. Balasore	27.98	24.06	3.92	3.80	1.59	2.21	7.13	4.15	2.98
3. Puri	23.82	21.25	2.57	6.57	2.96	3.61	7.26	5.92	1.34

Source : Same as Table 3.3

Table 3.13

**PARTICIPATION RATE - 1931**  
(Percentage Shares)

Districts	<u>PRIMARY SECTOR</u>			<u>SECONDARY SECTOR</u>			<u>TERTIARY SECTOR</u>		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
BENGAL	19.29	17.72	1.57	2.44	1.91	0.53	5.93	4.81	1.12
WEST BENGAL	22.05	18.62	3.43	3.81	2.84	0.97	7.09	5.33	1.76
1. Burdwan	21.00	17.25	3.75	2.07	1.08	0.99	7.03	4.56	2.47
2. Birbhum	23.84	21.30	2.54	1.67	1.18	0.49	6.96	4.18	2.78
3. Bankura	29.67	21.64	8.03	3.21	2.15	1.06	5.50	3.50	2.00
4. Midnapore	23.02	20.12	2.90	2.04	1.35	0.69	5.39	4.74	0.65
5. Hooghly	22.77	19.33	3.44	8.61	6.66	1.95	7.73	5.86	1.87
6. Howrah	11.06	10.63	0.43	8.42	7.44	0.98	12.57	10.29	2.28
BIHAR and ORISSA	31.39	22.86	8.53	2.72	1.68	1.04	5.85	3.69	2.16
ORISSA	25.37	22.30	3.07	4.42	1.71	2.71	5.84	3.73	2.11
1. Cuttack	24.60	21.76	2.84	4.85	1.54	3.31	5.29	3.69	1.60
2. Balasore	29.16	24.68	4.48	2.40	0.87	1.53	5.44	2.72	2.72
3. Puri	23.34	21.15	2.19	5.43	2.88	2.55	7.38	4.80	2.58

Source : Same as Table 3.4.

Table 3.17

## Distribution of Workers in the Primary Sector - 1911

Districts	EXPLOITATION OF ANIMALS & VEGETATION						EXPLOITATION OF MINERALS		
	(1) Pasture and Agriculture			(2) Fishing and Hunting			Mining		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
WEST BENGAL	2291570	1938778	352792	62154	21300	40854	64480	39438	25012
1. Burdwan	380110	330389	49721	17178	5641	11537	62363	38286	24077
2. Birbhum	273166	235833	37333	12569	2246	10323	26	23	3
3. Bankura	381909	294942	86967	13095	3846	9249	1973	1052	921
4. Midnapore	869314	736244	133070	10348	4737	5611	-	-	-
5. Hooghly	247023	213481	33542	6184	2840	3344	74	74	-
6. Howrah	140048	127889	12159	2780	1990	790	14	3	11
ORISSA	991075	909534	81541	21716	15017	6699	46	45	1
1. Cuttack	455744	410841	44903	9767	7801	1966	10	10	-
2. Balasore	279199	263613	15586	7190	3603	3587	35	34	1
3. Puri	256132	235080	21052	4759	3613	1146	1	1	-

Source : Same as Table 3.2

Table 3.20

## Distribution of Workers in the Primary Sector - 1921

Districts	EXPLOITATION OF ANIMALS AND VEGETATION						EXPLOITATION OF MINERALS		
	Pasture and Agriculture			Fishing and Hunting			Mining		
	T	M	F	T	M	F	T	M	F
WEST BENGAL	2053261	1692597	360664	45422	19971	25451	67165	38150	29015
1. Burdwan	363640	305461	58179	12029	3636	8393	65118	36703	28415
2. Birbhum	238634	205930	32704	7391	1776	5615	330	303	27
3. Bankura	318934	252848	66086	8085	3218	4867	1439	913	526
4. Midnapore	731250	591842	139408	9057	5450	3607	10	2	8
5. Hooghly	255742	204693	51049	4422	2427	1995	214	190	24
6. Howrah	145061	131823	13238	4438	3464	974	54	39	15
ORISSA	972071	840761	131310	19794	15746	4048	4	4	-
1. Cuttack	481645	411899	69746	9387	6601	2786	-	-	-
2. Balasore	269663	231892	37771	4363	3805	558	1	1	-
3. Puri	220763	196970	23793	6044	5340	704	3	3	-

Source : Same as Table 3.3.



Table 3.23

## Distribution of Workers in the Primary Sector - 1931

Districts	EXPLOITATION OF ANIMALS & VEGETATION						EXPLOITATION OF MINERALS		
	(1) Pasture and Agriculture			(2) Fishing and Hunting			Mining		
	T	M	F	T	M	F	T	M	F
WEST BENGAL	1825859	1564104	261755	37119	19975	17144	41678	24342	1733
1. Burdwan	280051	244413	35638	11411	4612	6799	39269	22529	1674
2. Birbhum	221549	200291	21258	4020	1269	2751	257	200	5
3. Bankura	322982	237716	85266	5662	2278	3384	1096	577	51
4. Midnapore	634543	556124	78419	8493	6009	2484	693	693	-
5. Hooghly	250466	213347	37119	2969	1881	1088	30	19	1
6. Howrah	116268	112213	4055	4564	3926	638	333	324	
ORISSA	1049635	921626	128009	16422	15466	956	8	7	
1. Cuttack	530143	468369	61774	5418	5261	157	3	3	
2. Balasore	284411	240575	43836	4475	3969	506	1	1	
3. Puri	235081	212682	22399	6529	6236	293	4	3	

Source : Same as Table 3.4 .

Table 3.21

## Distribution of Workers in the Secondary Sector - 1921

Districts	Textiles			Hides, Skins			Wood			Metals		
	T	M	F	T	M	F	T	M	F	T	M	F
WEST BENGAL	170359	138601	31758	1692	1405	287	37467	21368	16099	31157	28909	2248
1. Burdwan	4213	3377	836	174	162	12	5010	3036	1974	10478	9227	1251
2. Birbhum	5443	4226	1217	202	201	1	4938	2414	2524	1190	1129	61
3. Bankura	10999	8601	2398	780	513	267	6359	3471	2888	4174	4020	154
4. Midnapore	11319	7695	3624	59	53	6	10305	4152	6153	4668	4134	534
5. Hooghly	74271	59828	14443	71	70	1	4369	2738	1631	2566	2466	100
6. Howrah	64114	54874	9240	406	406	-	6486	5557	929	8079	7933	146
ORISSA	40513	22027	18486	253	248	5	25322	12340	12982	8460	7839	621
1. Cuttack	24244	13776	10468	239	239	-	15282	7268	8014	4480	4139	341
2. Balasore	6092	3887	2205	2	2	-	3792	1527	2265	1357	1116	241
3. Puri	10177	4364	5813	12	7	5	6248	3545	2703	2623	2530	93

	Ceramics			Chemical Products			Food Industries		
	T	M	F	T	M	F	T	M	F
WEST BENGAL	38034	29651	8383	8684	6856	1828	91686	12065	79621
1. Burdwan	4397	3052	1345	1285	1073	212	19547	1552	17995
2. Birbhum	1675	749	926	503	402	101	17873	707	17166
3. Bankura	2931	1889	1042	1843	1333	510	9942	1279	8663
4. Midnapore	6348	4236	2112	3009	2691	318	17132	1564	15568
5. Hooghly	16155	14453	1702	1178	647	531	13702	2571	11131
6. Howrah	6528	5272	1257	864	710	154	13805	4392	9413
ORISSA	15716	9651	6065	2973	2013	960	81409	11187	70222
1. Cuttack	8861	5579	3282	1399	1006	393	49565	7468	42097
2. Balasore	2774	1418	1356	643	372	271	12189	1237	10950
3. Puri	4081	2654	1427	931	635	296	19655	2482	17173

	Industries of Dress & Toilet			Furniture Industries			Building Industries			Construction of Transport			Means Production & Transmissions of Physical Forces			Other Mis & Undefin Industrie	
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M
WEST BENGAL	44762	34608	10154	8	8	-	14833	12988	1845	312	312	-	206	206	-	19920	16135
1. Burdwan	4881	3744	1137	7	7	-	2592	2229	363	4	4	-	48	48	-	3399	2608
2. Birbhum	1998	1615	383	-	-	-	725	616	109	5	5	-	1	1	-	1555	1384
3. Bankura	3878	2747	1131	-	-	-	700	612	88	-	-	-	-	-	-	3620	2682
4. Midnapore	14503	9718	4785	1	1	-	1871	1665	206	-	-	-	72	72	-	3318	2600
5. Hooghly	5569	4520	1049	-	-	-	3547	2932	615	13	13	-	5	5	-	3387	3064
6. Howrah	13933	12262	1671	-	-	-	5398	4934	464	290	290	-	80	80	-	4586	3797
ORISSA	50905	28757	22148	-	-	-	2510	2275	235	4	4	-	11	4	7	13555	11061
1. Cuttack	28171	16060	12111	-	-	-	1293	1153	140	2	2	-	10	3	7	8331	6781
2. Balasore	8421	4493	3928	-	-	-	245	203	42	2	2	-	-	-	-	1687	1423
3. Puri	14313	8204	6109	-	-	-	972	919	53	-	-	-	1	1	-	3537	2857

Source : Same as Table 3.4.

The same holds true for the districts of Orissa division. All three districts of Orissa have three zones, the first being an unproductive maritime strip and the third being the broken hilly region on the west. Agricultural activities were restricted to the central plain formed of rich alluvium. Agriculture was the main primary activity of the people of Orissa. During 1931, 78.8% of the total workers in Balasore, 70.79% in Cuttack and 64.57% in Puri were engaged in the primary sector. (Table 3.16)

In all the districts, majority of the primary workers, more than 85% constituted of male workers. The remaining 15% were female workers.

If we analyse the relative significance of the sub-orders included in the primary sector it can be seen that pasture and agriculture engaged a major chunk of the primary workers followed by fishing and hunting and mining activities. (Table 3.17). Ordinary cultivators and field labourers formed the majority of the people engaged in pasture and agriculture. All the districts of West Bengal and Orissa except Burdwan had more than 95% of the primary workers engaged in pasture and agriculture. In Burdwan exploitation of minerals formed an important economic activity which engaged more than 10% of the primary workers in such activities.

In terms of size class, lower the size class, higher is the proportion of the workers and larger the size class, higher is the proportion of the workers and larger the size of settlement lower is the proportion of workers engaged in the primary sector. In the present study we can highlight this fact by the total number of small villages in one district. Thus a district having

Table 3.18

## Distribution of workers in the Secondary Sector - 1911

Districts	TEXTILES			HIDES,SKINS, etc.			WOOD			METALS		
	T	M	F	T	M	F	T	M	F	T	M	F
WEST BENGAL	141379	113282	28097	1285	992	293	48117	25020	23097	23640	22778	862
1. Burdwan	6470	5353	1117	46	30	16	7644	4693	2951	3281	3175	106
2. Birbhum	7266	5342	1924	195	111	84	7071	3066	4005	1396	1376	20
3. Bankura	11880	9170	2710	624	482	142	8773	3620	5153	4807	4618	189
4. Midnapore	20310	14147	6163	131	118	13	14865	5804	9061	9226	8774	452
5. Hooghly	43662	35385	8277	238	206	32	4161	2873	1288	2348	2280	68
6. Howrah	51791	43885	7906	51	45	6	5603	4964	639	2582	2555	27
ORISSA	52126	26093	26033	117	111	6	22119	11968	10151	9372	8998	374
1. Cuttack	30726	17181	13545	93	93	-	13925	7537	6388	5385	5136	249
2. Balasore	8906	3643	5263	8	2	6	2481	1032	1449	1302	1243	59
3. Puri	12494	5269	7225	16	16	-	5713	3399	2314	2685	2619	66

	CERAMICS			CHEMICAL PRODUCTS			FOOD INDUSTRIES		
	T	M	F	T	M	F	T	M	F
WEST BENGAL	25575	17912	7663	8146	6466	1680	127585	7471	120114
1. Burdwan	4831	3338	1493	2034	1706	328	26421	1182	25239
2. Birbhum	2353	1124	1229	539	374	165	25411	703	24708
3. Bankura	2758	1923	835	1798	1232	566	14894	991	13903
4. Midnapore	6270	4427	1843	1786	1376	410	30518	1784	28734
5. Hooghly	5541	3907	1634	807	643	164	14942	1292	13650
6. Howrah	3822	3193	629	1182	1135	47	15399	1519	13880
ORISSA	13963	9382	4581	5177	3423	1754	75289	8765	66524
1. Cuttack	7643	5704	1939	2749	1803	946	47597	5662	41935
2. Balasore	2633	1153	1480	764	232	532	12722	804	11918
3. Puri	3687	2525	1162	1664	1388	276	14970	2299	12671

Source : Same as Table 3.2

	INDUSTRIES OF DRESS AND TOILET			FURNITURE INDUSTRIES			BUILDING INDUSTRIES			CONSTRUCTION OF MEANS OF TRANSPORT		
	T	M	F	T	M	F	T	M	F	T	M	F
WEST BENGAL	48922	35052	13870	302	264	38	22654	19308	3346	641	641	-
1. Burdwan	6877	5165	1712	11	5	6	4055	3556	499	72	72	-
2. Birbhum	2546	1863	683	8	8	-	1264	738	526	54	54	-
3. Bankura	4658	3053	1605	-	-	-	1596	1309	287	46	46	-
4. Midnapore	19789	12305	7484	71	46	25	3832	3115	717	137	137	-
5. Hooghly	5657	4503	1154	23	22	1	6453	5518	935	114	114	-
6. Howrah	9395	8163	1232	189	183	6	5454	5072	382	218	218	-
ORISSA	51665	25797	25868	50	49	1	3319	2922	397	16	16	-
1. Cuttack	31804	15924	15880	28	28	-	1815	1540	275	13	13	-
2. Balasore	7601	2927	4674	18	18	-	593	503	90	3	3	-
3. Puri	12260	6946	5314	4	3	1	911	879	32	-	-	-



	PRODUCTION & TRANSMISSION			INDUSTRIES OF LUXURY & THOSE TO LIT. ARTS & SCIENCE			INDUSTRIES CONCERNED WITH REFUSE MATTER.		
	T	M	F	T	M	F	T	M	F
WEST BENGAL	139	139	-	19767	16971	2796	4734	2595	2139
1. Burdwan	5	5	-	2953	2909	44	940	593	347
2. Birbhum	-	-	-	2330	2074	256	357	106	251
3. Bankura	-	-	-	3942	2553	1389	664	85	579
4. Midnapore	5	5	-	4712	4122	590	677	337	340
5. Hooghly	5	5	-	2481	2409	72	605	369	236
6. Howrah	124	124	-	2953	2904	49	1491	1105	386
ORISSA	14	12	2	11400	9376	2024	6241	1537	4704
1. Cuttack	13	11	2	7286	6019	1267	3122	686	2436
2. Balasore	1	1	-	1564	1289	275	1960	306	1654
3. Puri	-	-	-	2550	2068	482	1159	545	614

Source : Same as Table 3.2.

larger number of small villages have larger proportion of primary workers. Midnapore and Bankura which had the maximum number of small villages in all the three years, also had the maximum number of primary workers. On the other hand, Burdwan which had lesser number of small villages had less proportion in the primary sector. In 1931, the number of small villages in Midnapore was 9,273 and medium and large sized villages together numbered 1,312. The proportion of primary workers in 1931 was 75.59% in Midnapore. In Bankura, 77.30% of the workers were engaged in the primary sector and the number of small villages was 2,942, and medium and large sized villages accounted for 535. In Orissa division also, the total number of small villages accounted for the majority of settlements, where during 1931, more than 70% of the workers were engaged in the primary sector. Thus there is a direct relationship between the small sized settlement and the primary sector. Deviation from the concentration of primary activities is seen in large villages and towns, where secondary and tertiary sector dominates over the primary activities.

### III.6.3 DISTRIBUTION OF WORKERS IN THE SECONDARY SECTOR

The secondary sector had little economic significance in the life of the people of Bengal which is reflected in the number of workers engaged in the secondary sector. In 1911, 4,72,491 (13.42%) people were engaged in the secondary sector of West Bengal and 2,50,868 (16.37%) people in Orissa division. Different proportion of males and females were engaged in the different activities of the secondary sector. Numerically though the males dominated the pattern in terms of proportionate share, their number was quite low. The proportion of the female workers to the

total female workers was quite high.

Within the districts of West Bengal it is quite obvious that Howrah (27.39%) and Hooghly (19.88%) had the maximum percentage of total secondary workers in 1911 and the years following it. These two districts were followed by Birbhum, Bankura Burdwan and Midnapore in terms of percentage share, but in terms of actual number of workers engaged in the secondary sector Midnapore had the maximum followed by Howrah, Hooghly, Burdwan, Bankura and Birbhum in 1911. The most important industrial activity of Howrah and Hooghly was textile industry. During 1911, 51.66% and 50.16% of the total industrial workers of the two districts Howrah and Hooghly respectively were engaged in textile industries. The next important industry was food industry where 17.17 % of Hooghly and 15.36 % of Howrah's total secondary workers were engaged. Other important industries of both the districts were wood, metals, ceramics, industries of dress and toilet, industries of luxury and building industries, where considerable number of workers were engaged. Other industrial activities of small scale also employed a small proportion of secondary workers.

Burdwan, the other important district, in terms of industrial activity had the maximum proportion of industrial workers in the food industry where during 1911, 40.25% of the total secondary workers of the district were engaged. Textile industry employed only 9.86% in 1911. Secondary workers engaged in wood, metals, ceramics, chemical products and industries of dress and toilet were also considerable.

In Birbhum also in 1911, 50.03% of the total secondary

# DISTRIBUTION OF WORKERS IN THE PRIMARY SECTOR - 1911

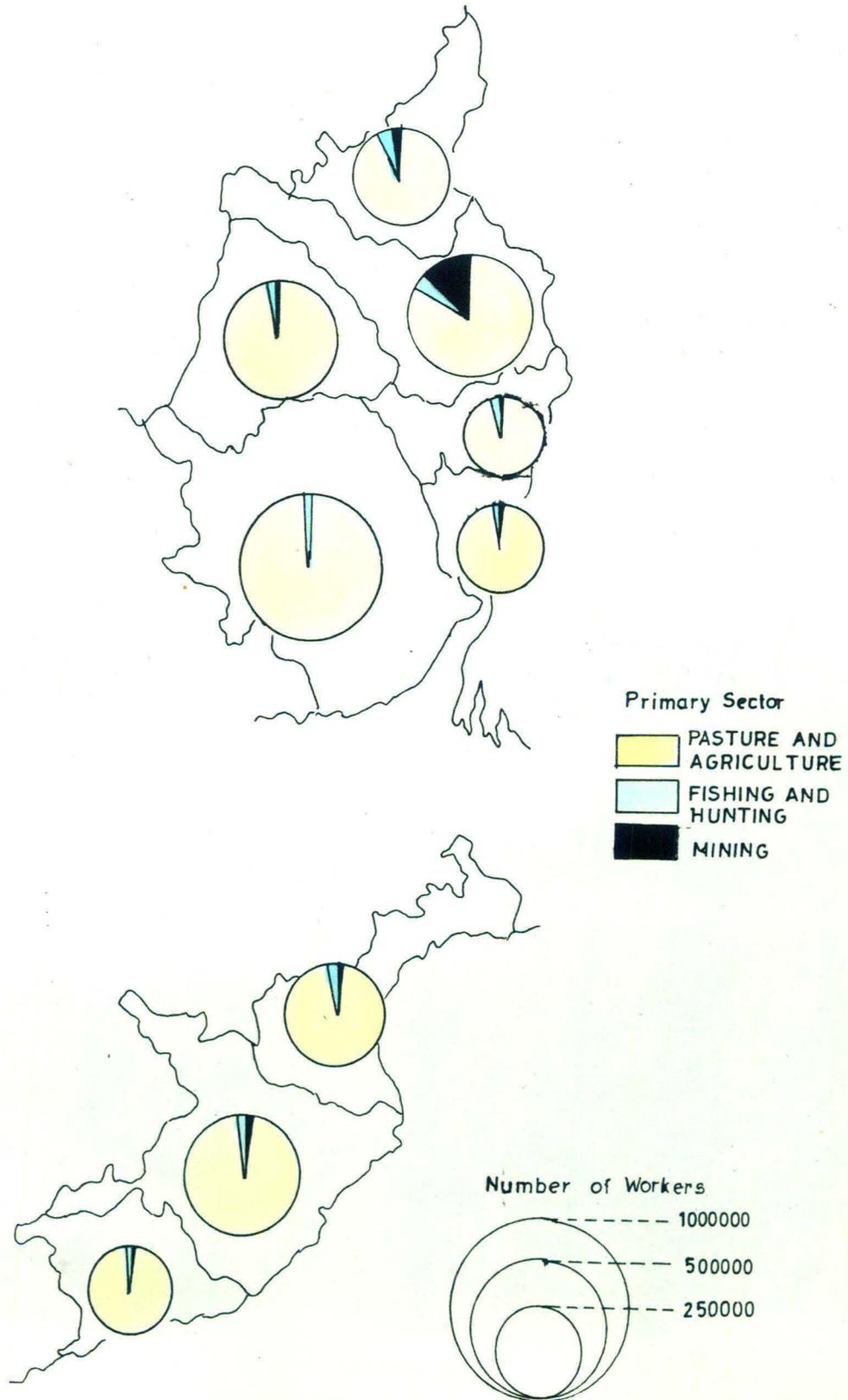


Fig 3.12

Table 3.24

## Distribution of Workers in the Secondary Sector 1931

Districts	Textiles			Hides, Skins			Wood			Metals		
	T	M	F	T	M	F	T	M	F	T	M	F
WEST BENGAL	142441	124941	17500	1380	1253	127	26004	19693	6311	16074	15386	688
1. Burdwan	3381	2762	619	151	143	8	3333	2324	1009	2420	1989	431
2. Birbhum	3601	3280	321	85	85	-	2412	1757	655	1265	1259	6
3. Bankura	8760	8033	727	408	340	68	4460	2491	1469	3555	3484	71
4. Midnapore	10514	9102	1412	291	243	48	7313	5119	2194	3735	3641	94
5. Hooghly	60859	50800	9895	330	330	-	3708	3136	572	2181	2157	24
6. Howrah	55326	50964	4362	115	112	3	4778	4366	412	2938	2856	82
ORISSA	32138	22027	10111	547	397	150	22437	12275	10162	7571	7167	404
1. Cuttack	20152	13776	6376	473	340	33	12397	7110	5287	4350	4293	57
2. Balasore	4466	3887	579	58	56	2	3099	963	2136	1128	849	279
3. Puri	7520	4364	3156	16	1	15	6941	4202	2739	2093	2025	68

	Ceramics			Chemical Products			Food Industries		
	T	M	F	T	M	F	T	M	F
WEST BENGAL	23140	18926	4214	2191	1976	215	55266	10963	44303
1. Burdwan	2082	1379	703	89	81	8	13368	1913	11455
2. Birbhum	1201	755	446	80	70	10	3665	1381	2284
3. Bankura	2436	2039	397	502	395	107	8702	1230	7072
4. Midnapore	3608	3015	593	471	421	50	13778	1893	11885
5. Hooghly	8486	7099	1387	379	362	17	10454	3194	7260
6. Howrah	5327	4639	688	664	641	23	5299	1352	3947
ORISSA	13888	7896	5992	2628	2206	422	64096	6381	57715
1. Cuttack	8699	5027	3672	1122	1061	61	36759	3657	33102
2. Balasore	2077	711	1366	377	201	176	7073	475	6666
3. Puri	3112	2158	954	1129	944	185	20264	2249	18015

Source : Same as Table : 3.4 .

	Industries of Dress And Toilet			Furniture Industries			Building Industries			Construction of Means of Transport			Production & Transmission of Physical Forces			Other Misc. Undefined Industries		
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
WEST BENGAL	34197	29437	4760	58	47	11	12657	11270	1387	580	580	-	671	670	1	14436	11742	2694
1. Burdwan	3489	2881	608	1	1	-	1942	1679	263	143	143	-	87	87	-	2074	1575	499
2. Birbhum	1777	1664	113	7	2	5	585	554	31	11	11	-	2	2	-	1177	1079	98
3. Bankura	3230	2675	555	6	1	5	807	608	199	60	60	-	2	1	1	2770	2065	705
4. Midnapore	10064	7844	2220	36	36	-	3249	3053	196	103	103	-	29	29	-	3747	3145	602
5. Hooghly	4524	3973	551	1	-	1	2991	2367	624	112	112	-	78	78	-	1739	1487	252
6. Howrah	11113	10500	613	7	7	-	3083	3009	74	151	151	-	473	473	-	2929	2391	538
ORISSA	38985	23219	15766	5	5	-	1708	1654	54	191	191	-	19	19	-	12796	11586	1210
1. Cuttack	20895	11850	9045	3	3	-	160	160	-	171	171	-	18	18	-	7135	6675	460
2. Balasore	5157	2182	2975	2	2	-	135	112	23	7	7	-	1	1	-	1337	1194	143
3. Puri	12933	9187	3746	-	-	-	1413	1382	31	13	13	-	-	-	-	4324	3717	607

Source : Same as Table 3.4

# DISTRIBUTION OF WORKERS IN THE PRIMARY SECTOR - 1921

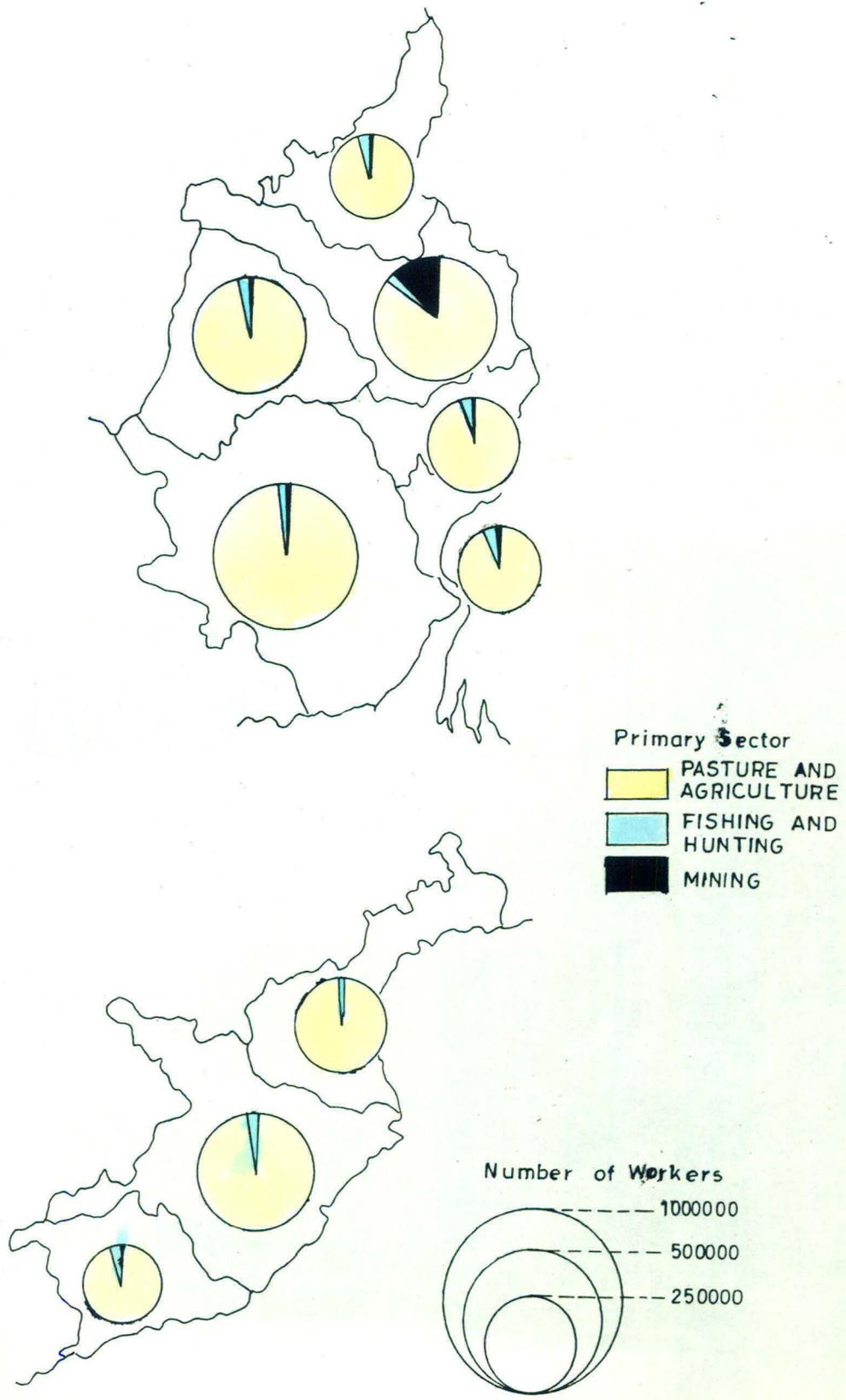


Fig 3.13



DISTRIBUTION OF WORKERS IN THE PRIMARY SECTOR 1931

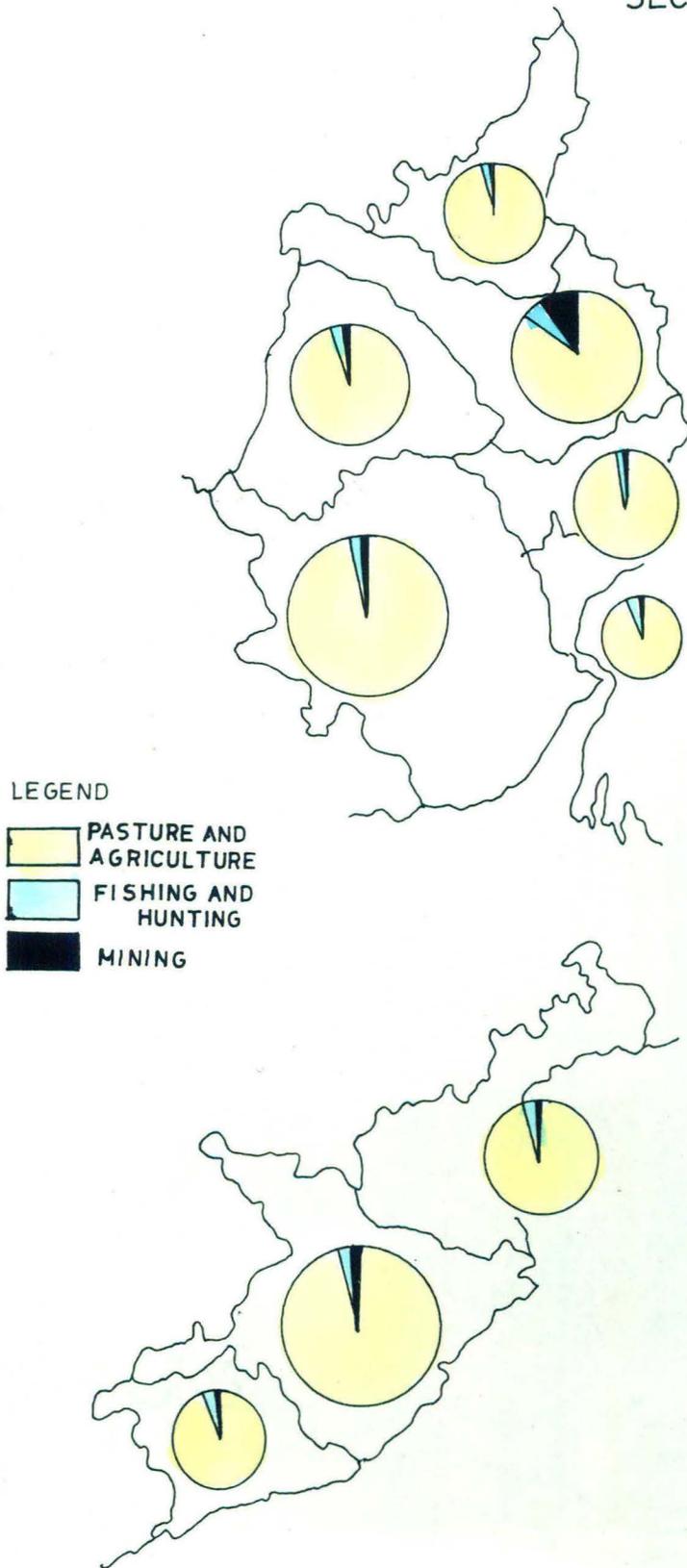


Fig 3.14

Table 3.19

## Distribution of Workers in the Tertiary Sector 1911

Districts	Transport			Trade			Public Force			Public Administration			Profession & Liberal Arts		
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
WEST BENGAL	114609	93317	21292	210143	129453	80690	18746	14499	4247	7031	6809	222	83285	66262	1
1. Burdwan	18723	14311	4412	41507	32343	9164	3406	2793	613	1103	1103	-	14721	11026	
2. Birbhum	10591	6882	3709	19971	8961	11010	2644	2161	483	370	370	-	7622	4596	
3. Bankura	10906	6663	4243	34958	12626	22329	2412	1872	540	477	477	-	8627	6844	
4. Midnapore	27266	22250	5016	46048	25228	20820	4933	3419	1514	1542	1541	1	29934	24160	
5. Hooghly	17970	15094	2876	33735	22426	11309	3196	2467	729	1716	1623	93	12717	10954	
6. Howrah	29153	28117	1036	33927	27869	6058	2155	1787	368	1823	1695	128	9664	8682	
ORISSA	16508	14070	2438	135172	53032	82140	6192	6192	-	4811	4792	19	35925	34998	
1. Cuttack	10394	8807	1587	75030	27899	47131	3133	3133	-	3609	3605	4	17163	17287	
2. Balasore	2952	2504	448	18381	6549	11832	1144	1144	-	1012	999	13	6279	5609	
3. Puri	3162	2759	403	41761	18584	23177	1915	1915	-	190	188	2	12483	12102	

	Personal Living on their Income			Domestic Service			Sufficiently Described Occupation			Unproductive		
	T	M	F	T	M	F	T	M	F	T	M	F
WEST BENGAL	4735	3401	1334	106453	63595	42858	53498	45502	7996	31308	13663	17645
1. Burdwan	992	744	248	24441	16026	8415	9893	5375	4518	5089	2627	2462
2. Birbhum	89	72	17	15773	10701	5072	1479	995	484	3086	1737	1349
3. Bankura	167	144	23	11739	5811	5928	1859	1087	772	2878	1392	1486
4. Midnapore	1051	751	300	27867	15218	12649	4834	4039	795	10458	4796	5662
5. Hooghly	1111	822	289	14918	7791	7127	7401	6762	639	4647	1735	2912
6. Howrah	1325	868	457	11715	8048	3667	28032	27244	788	5150	1376	3774
ORISSA	594	503	91	25546	18882	6664	28603	22838	5765	15816	8006	10510
1. Cuttack	365	286	79	13743	10662	3081	19505	16143	3362	8049	4404	3645
2. Balasore	134	127	7	5887	4091	1796	4927	3539	1388	4546	1857	2689
3. Puri	95	90	5	5916	4129	1787	4171	3156	1015	3221	1745	1476

Source : Same as Table 3.2.

workers were engaged in food industries. Textile industries employed 14.30%, wood 13.92% and other industries lesser percentages. Bankura and Midnapore had more than 25% of the secondary workers engaged in food industries. Textile industry also employed 21.05% in Bankura and 18.08 % in Midnapore.

During 1921, Howrah (31.33%) and Hooghly (26.23%) were followed by Bankura, Birbhum (10.13%), Burdwan (9.06%) and Midnapore (7.74%). The two most developed districts had maximum proportion of their secondary workers engaged in textile industries. Howrah had 51.48% and Hooghly had 59.50% of the total secondary workers engaged in textile industries. In Howrah, food industries and industries of dress and toilet engaged more than 10% workers, while in Hooghly food industries and ceramics were more important. Other industries had less than 5% of the secondary workers except the manufacturers of hides, skins etc., chemical products, construction of means of transport where less than 1% of the secondary workers were engaged.

In the other districts except Burdwan though more than 15% of the workers were engaged in textiles, food industries, industries of dress and toilet, wood, metals and so on had a considerable amount of secondary workers.

In 1931, textile industries emerged as the most important industrial activity of Hooghly and Howrah employing 60% of secondary workforce. In Burdwan on the other hand the proportion of workers increased from 34.88% in 1921 to 41.06% in 1931 in food industries. In Birbhum there was a decline in the workers engaged in food industries during 1921 and 1931. Other industries gained a proportionate share of industrial workers during the period.

Thus in West Bengal, the most important industrial activity was textiles, food industries and industries of dress and toilet, which had the maximum share of secondary workers during 1911, 1921 and 1931. Textile industries during the period 1911-1931 emerged as the most important industrial activity of West Bengal employing 29.92% in 1911, 37.08% in 1921 and 43.28% in 1931. On the other hand food industries lost their proportionate share as well as the actual number of secondary workers. During 1911, 27%, during 1921 19.96% and during 1931 16.79% of the workers were engaged in the food industries. Other important industries of West Bengal beside these, were manufacturing concerned with wood, metals and ceramics.

**ORISSA:** The division of Orissa comprising the three districts of Cuttack, Balasore and Puri had greater proportion of secondary workers as compared to West Bengal due to the small amount of total workforce in 1911, 1921 and 1931. During 1911 West Bengal had 13.42% and Orissa had 16.37% of the secondary workers. In West Bengal it was 14.29% in 1921 and in Orissa it was 15.85%. The proportionate share in both the natural divisions further declined to 11.56% in West Bengal and 12.40% in Orissa. The decline in the proportionate share of secondary workers was due to the increase in the tertiary sector.

The three districts of Orissa contributed to this changing pattern of occupation between 1911 and 1931.

Cuttack, the largest district of the Orissa division was the most industrially developed district during 1911, where 19.8% of the total workers were engaged in the secondary sector. Cuttack was followed by Puri (14.83%) and Balasore (10.90 %).

Table 3.22

## Distribution of Workers in the Tertiary Sector 1921

	Transport			Trade			Public Force			Public Administration			Profession & Liberal Arts		
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
WEST BENGAL	67583	55810	11773	163693	88841	74852	13333	13333	-	7439	7411	28	43871	40088	37
1. Burdwan	13206	9083	4125	26788	16848	11940	2669	2669	-	780	779	1	6224	5222	10
2. Birbhum	9347	5804	3543	16921	7147	9774	1978	1978	-	615	602	13	3367	2630	7
3. Bankura	3699	2957	742	21003	9168	11835	1967	1967	-	1069	1063	6	4247	3720	5
4. Midnapore	14774	13191	1583	37073	11736	25337	2517	2517	-	1247	1240	7	13232	12602	6
5. Hooghly	10206	9215	991	28527	19260	9267	1984	1984	-	1797	1796	1	7159	6619	5
6. Howrah	16349	15560	789	31381	24682	6699	2218	2218	-	1931	1931	-	9642	9295	3
ORISSA	10611	8999	1612	130492	58490	72002	5804	5804	-	5712	5519	193	33516	31009	25
1. Cuttack	6553	5416	1137	66917	27589	39328	3097	3097	-	3059	3039	20	16637	15591	10
2. Balasore	1863	1635	228	28990	10934	18056	753	753	-	1366	1317	49	4998	4388	6
3. Puri	2195	1948	247	34585	19967	14618	1954	1954	-	1287	11030	851	11881	1163	2

Table 3.21 Contd..

	Persons Living on their Income			Domestic Service			Insufficiently Described Occupation			Unproductive		
	T	M	F	T	M	F	T	M	F	T	M	F
WEST BENGAL	4670	3565	1105	110536	66639	43897	135146	89450	45696	44195	23478	20717
1. Burdwan	1693	1147	546	25177	14537	10640	36126	22309	13817	6948	3704	3244
2. Birbhum	78	68	10	24021	16173	7848	12392	6046	6346	5216	2709	2507
3. Bankura	232	193	39	11097	6140	4957	7152	3711	3441	5642	3102	2540
4. Midnapore	362	331	31	22921	12909	10012	18212	3980	14232	14221	8091	6130
5. Hooghly	1053	887	166	15142	7737	7405	18893	14653	4240	6068	2902	3166
6. Howrah	1252	939	313	12178	9143	3035	42371	38751	3620	6100	2970	3130
ORISSA	359	325	34	33993	22910	11083	58062	43814	14248	23848	13477	10371
1. Cuttack	265	239	26	18549	12272	6277	24439	18516	5923	12634	7464	5170
2. Balasore	24	22	2	7314	5056	2258	18474	13561	4913	6082	3070	3012
3. Puri	70	64	6	8130	5582	2548	15149	11737	3412	5132	2943	2189

Source : Same as Table 3.3 .

In 1921, though Cuttack had the maximum proportion of workers engaged in the secondary sector, the margin between Cuttack and Puri was very small. Cuttack had 18.07% and Puri had 17.44% of their total workers engaged in the secondary sector. Balasore had 9.76% of the workers engaged in the secondary sector in 1921.

In 1931, Puri surpassed Cuttack with 15% of the secondary workers whereas in Cuttack 13.97% of the workforce was engaged in the secondary sector. In terms of actual number Cuttack had the maximum number of secondary workers.

In terms of relative importance, food industries were the most important industry employing more than 30% of the workers in each district. It was followed by the textile industry and industries of dress and tiolet. Other important industries were wood, ceramics and metals. The relative importance of industrial categories included in the secondary sector is depicted in Tables 3.18, 3.21 and 3.24 and figures 3.15, 3.16 and 3.17.

#### **III.6.4 DISTRIBUTION OF WORKERS IN THE TERTIARY SECTOR**

The workers in the tertiary sector though much less forms the second rank in terms of workers employed, both in West Bengal and Orissa.

In 1911, 17.89 % of the workers in West Bengal were engaged in the tertiary sector. It was lower than the provincial average by 0.85 %. The percentage of workers increased to 18.34 % in 1921 and 21.52 % in 1931. In Orissa also the percentages of workers engaged in the tertiary sector increased from 17.56 % in 1911 to 19.09 % in 1921. In 1931 the proportion was 16.40 % of the total workers. Cuttack and Puri had the highest percentages followed by Balasore. Puri, being a temple town emerged as the most important



Table 3.25

## Distribution of workers in the Tertiary Sector - 1931

	Transport			Trade			Public Force			Public Adminis- -tration			Profession and Liberal Arts			Persons Living on Their Income		
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
WEST BENGAL	63087	54326	8761	163641	111632	52009	11148	11129	19	5351	3195	2136	44939	4023	4616	4540	3720	820
1. Burdwan	14040	10544	3496	29330	20417	8913	1485	1485	-	513	504	9	6461	5221	1240	693	510	183
2. Birbhum	2776	2574	202	14637	9357	5280	2027	2027	-	391	373	18	4111	3502	609	145	120	25
3. Bankura	6692	4461	2231	22167	12360	9807	1694	1693	1	398	396	2	5473	5016	457	338	299	39
4. Midnapore	13003	11489	1514	22442	16652	5790	3295	3278	17	921	917	4	11448	10526	922	296	255	41
5. Hooghly	9984	9244	740	25473	19673	5800	1647	1647	-	2514	462	2052	9526	8678	848	1624	1382	242
6. Howrah	16592	16014	578	49592	33173	16419	1000	999	1	594	543	51	7920	7380	540	1444	1154	290
ORISSA	9594	9331	263	99875	42761	57114	4637	4637	-	5019	4903	116	29156	26772	2384	509	457	52
1. Cuttack	5192	5185	7	44686	21727	22959	2337	2337	-	2706	2689	17	13083	11991	1092	389	349	40
2. Balasore	1999	1842	157	21115	5914	15201	402	402	-	803	803	-	4995	4565	430	23	23	-
3. Puri	2403	2304	99	34074	15120	18954	1898	1898	-	1510	1411	99	11078	10216	862	97	85	12

	Domestic service			Insufficiently Described Occupation			Unproductive		
	T	M	F	T	M	F	T	M	F
WEST BENGAL	93899	43766	41133	201714	169125	32589	24230	13352	10878
1. Burdwan	21584	10387	11197	32184	20492	11692	4438	2292	2146
2. Birbhum	19838	12285	7553	18351	7297	11054	3671	2050	1621
3. Bankura	12653	6038	6615	8342	6339	2003	3499	2328	1171
4. Midnapore	11567	5931	5636	82739	80249	2490	5041	3209	1832
5. Hooghly	14325	7502	6823	16959	14833	2126	4073	1800	2273
6. Howrah	13932	10623	3309	43139	39915	3224	3508	1673	1835
ORISSA	22002	17201	4801	48608	33400	15208	26139	13900	12239
1. Cuttack	9185	7763	1422	23496	16864	6632	14176	8010	6166
2. Balasore	6447	3919	2528	12564	7467	5097	5582	1859	3723
3. Puri	6370	5519	851	12548	9069	3479	6381	4031	2350

Source : Same as Table 3.4 .

# DISTRIBUTION OF WORKERS IN THE TERTIARY SECTOR - 1911

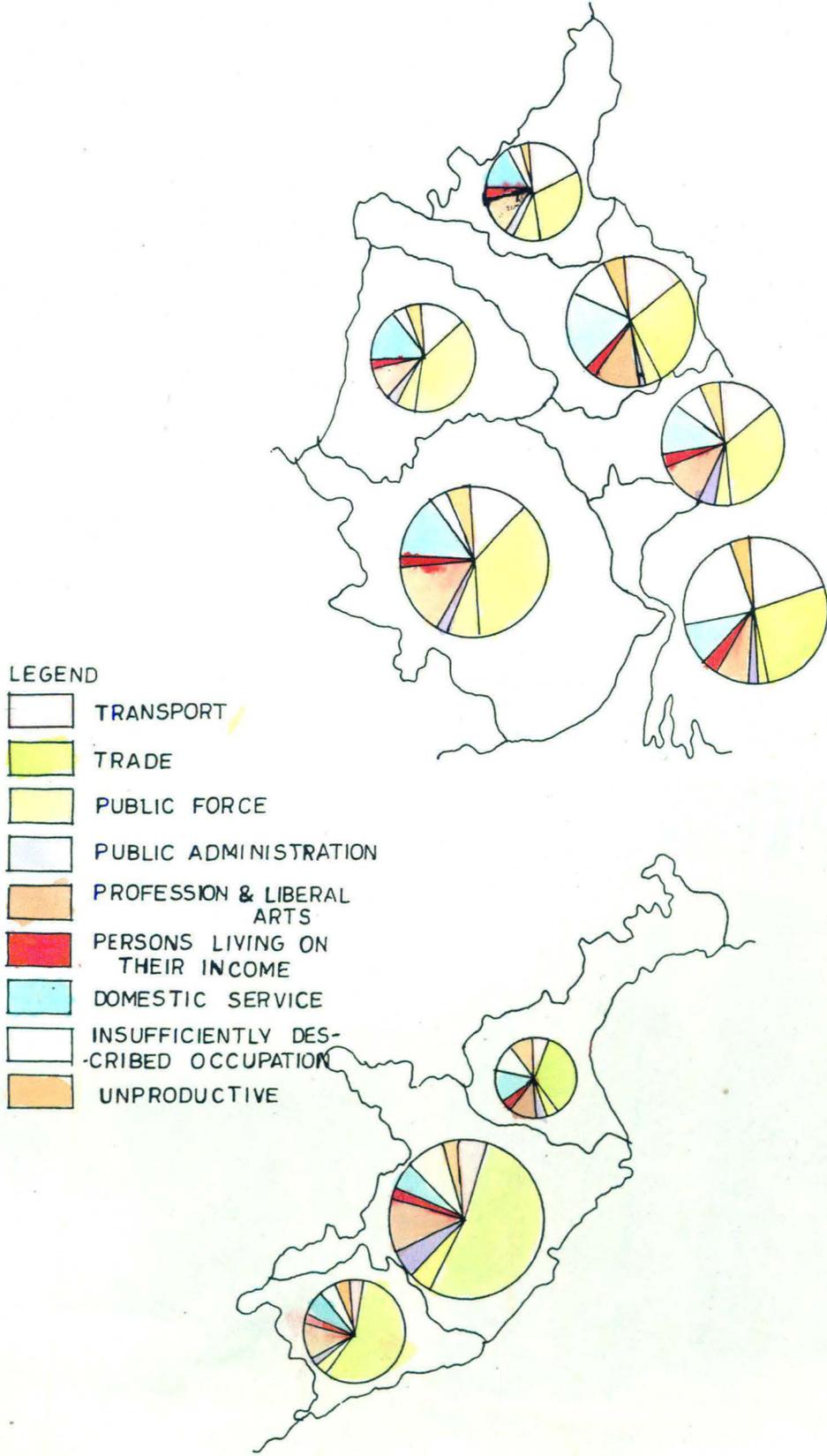


Fig. 3.18

DISTRIBUTION OF WORKERS IN THE TERTIARY SECTOR  
1921

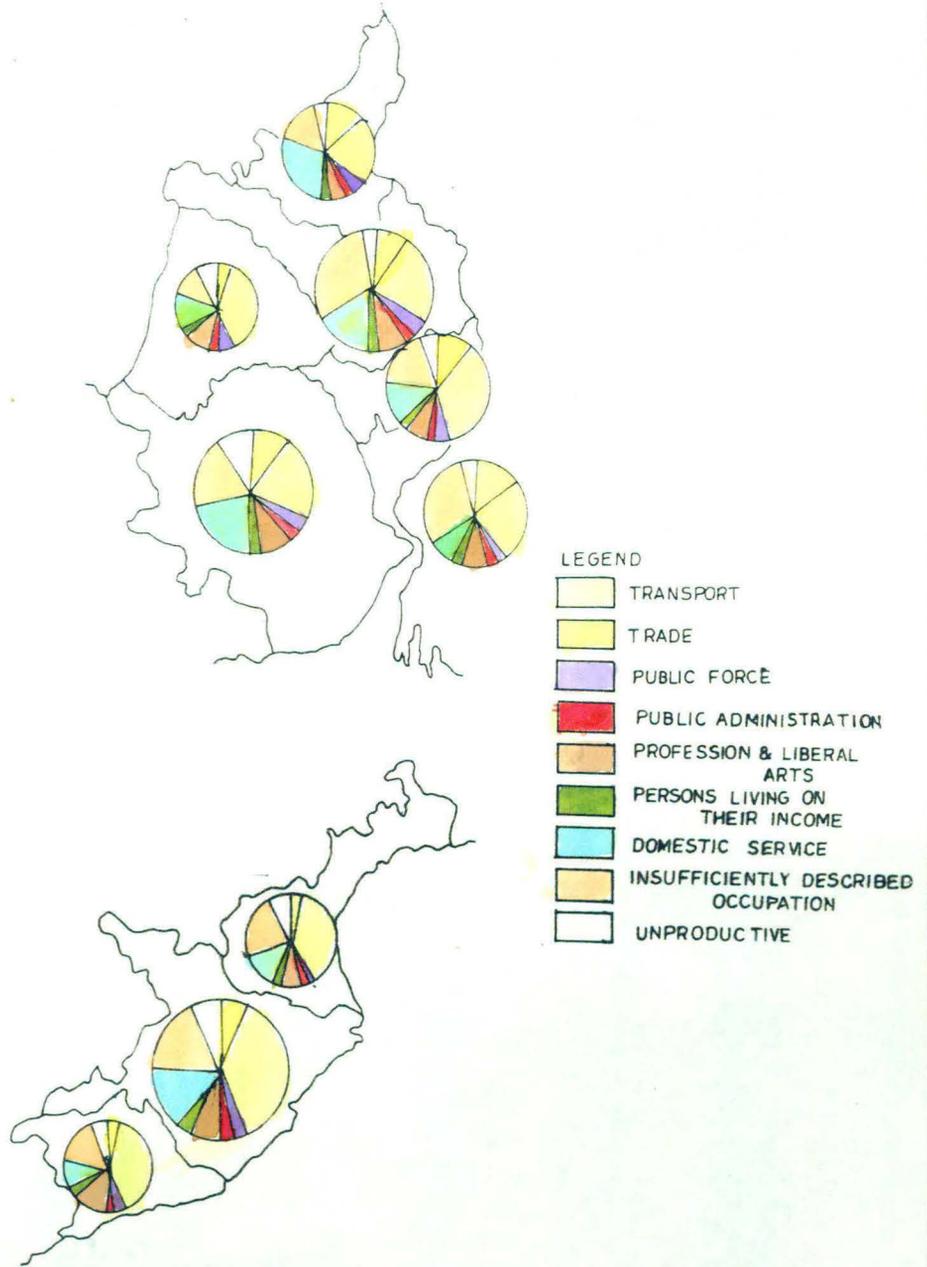


Fig 3.19

# DISTRIBUTION OF WORKERS IN THE TERTIARY SECTOR - 1931

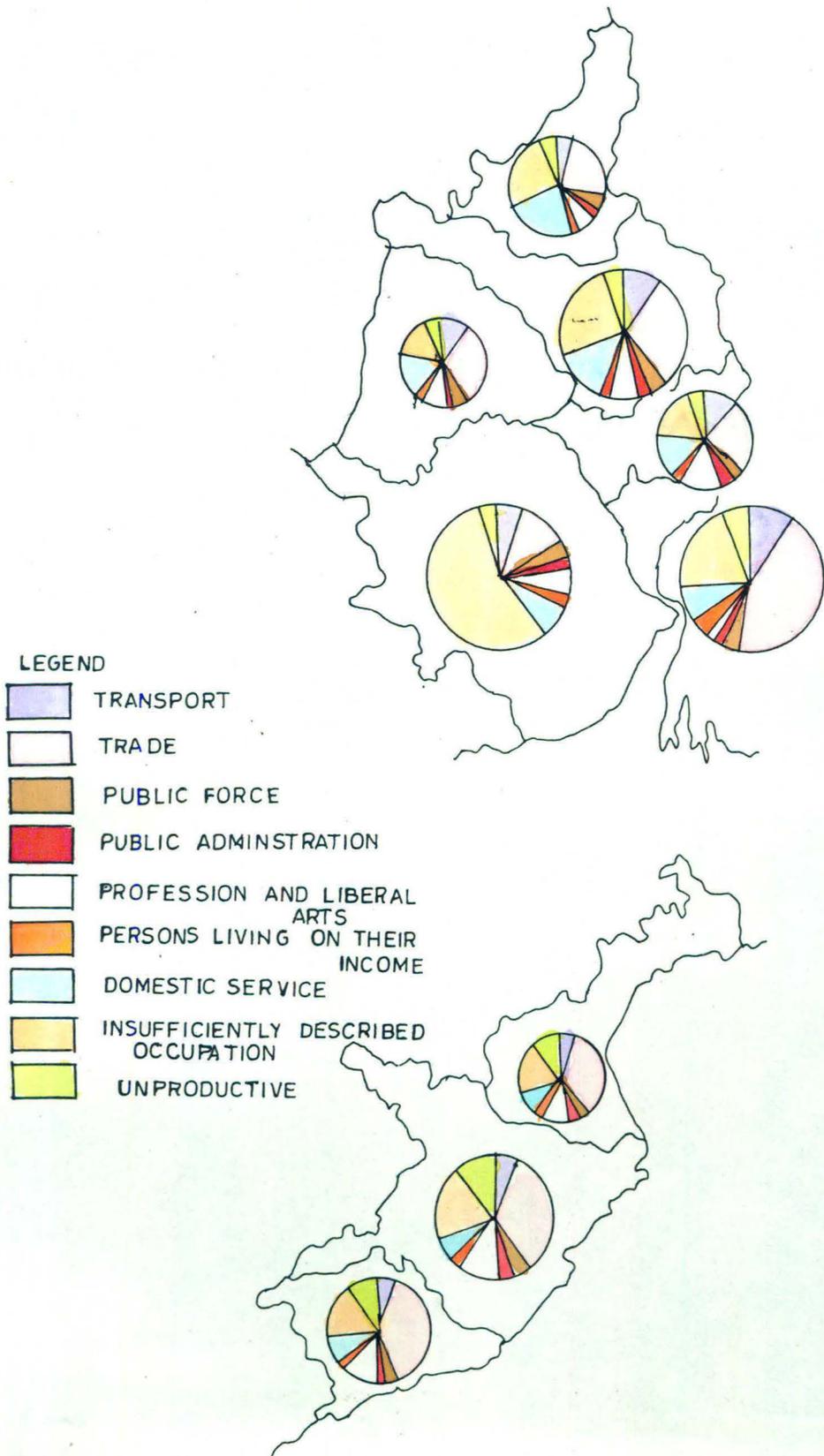


Fig 3.20

DISTRIBUTION OF WORKERS IN THE SECONDARY SECTOR  
1911

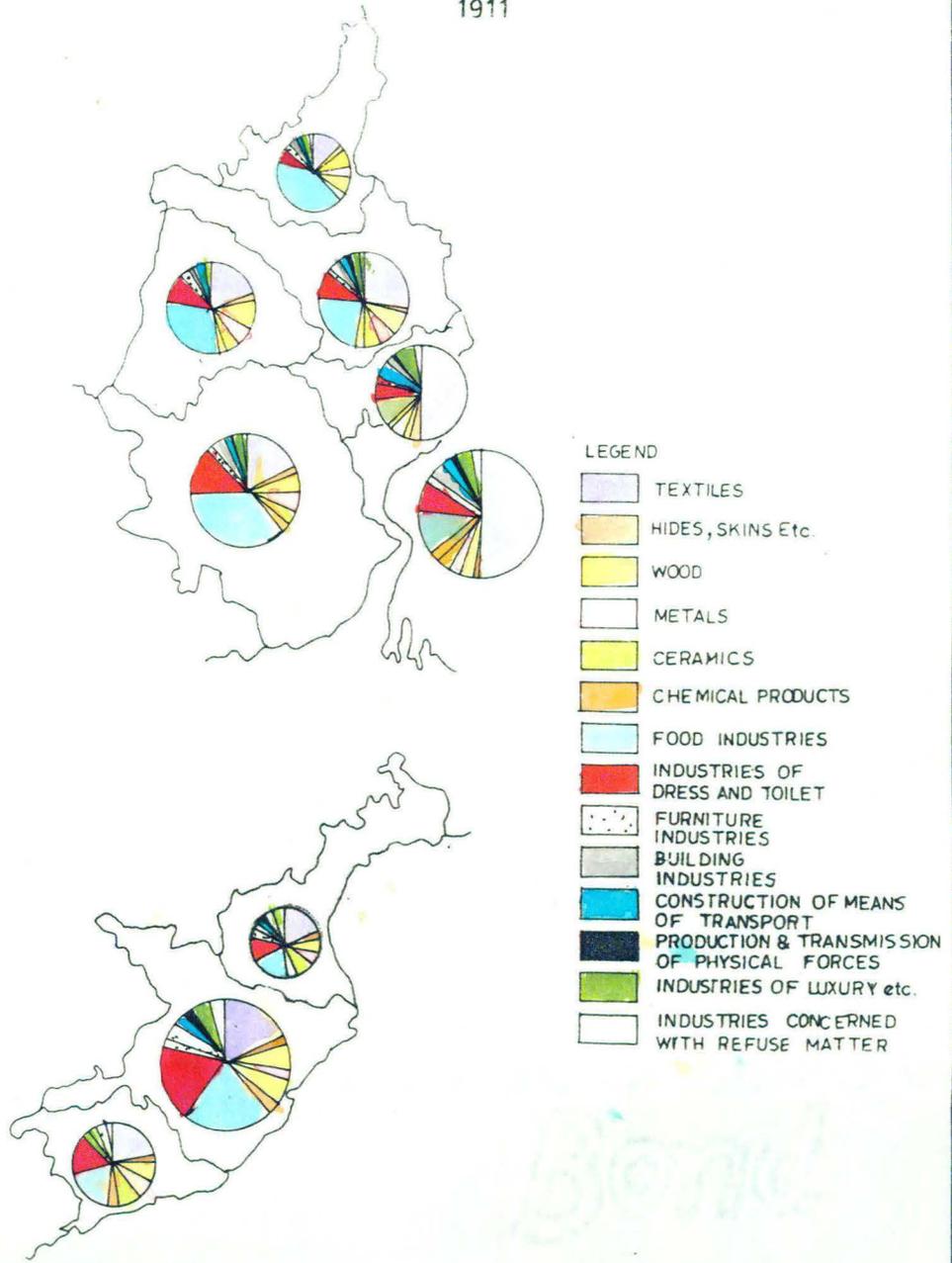
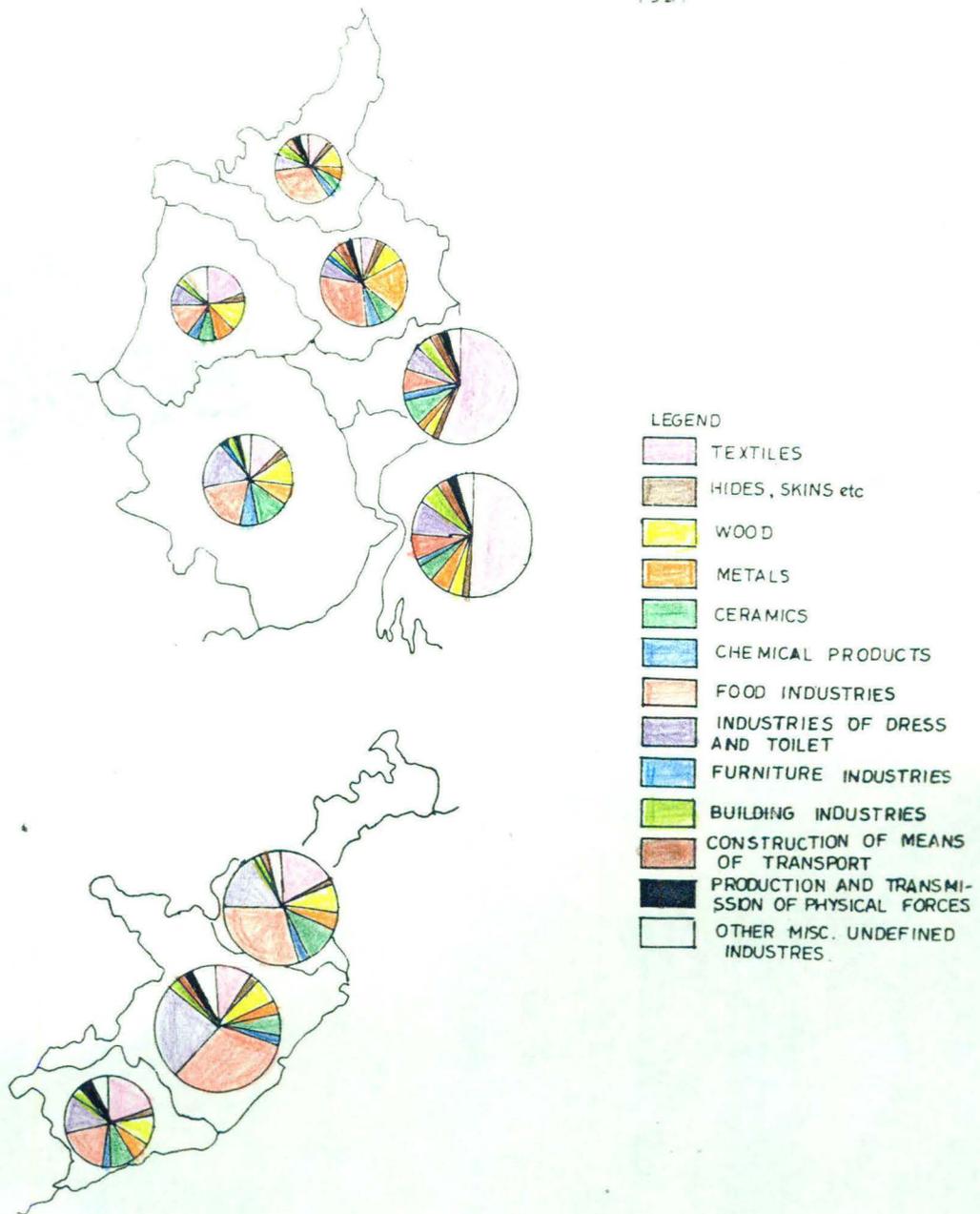


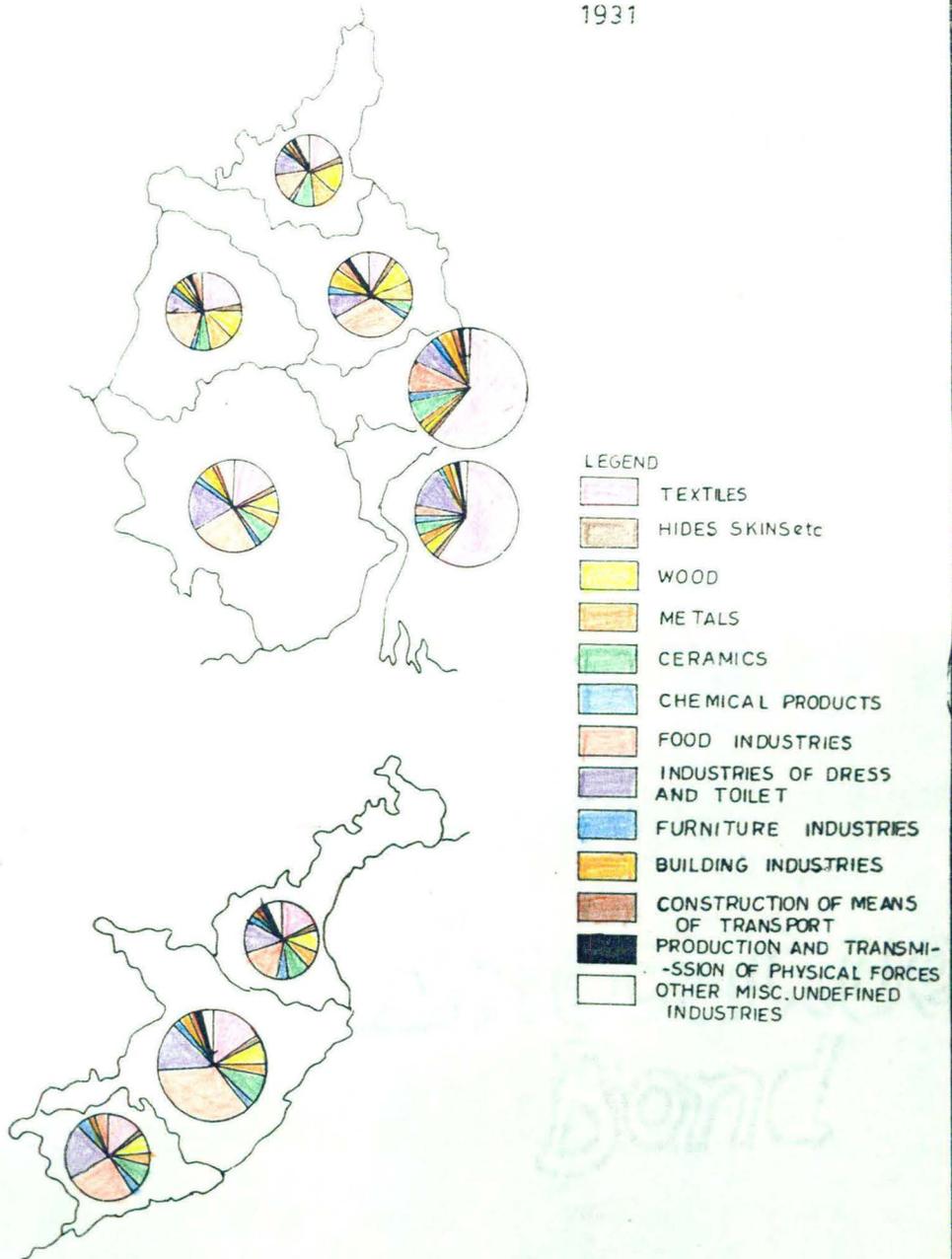
Fig. 3.15

DISTRIBUTION OF WORKERS IN THE SECONDARY SECTOR  
1921



# DISTRIBUTION OF WORKERS IN THE SECONDARY SECTOR

1931





centre for tertiary activities followed by Cuttack and Balasore where trading activities were important.

Within the districts of Bengal, Howrah and Hooghly again had the maximum percentages of workers engaged in the tertiary sector. These two districts being developed in secondary activities had a direct link with tertiary activities. Therefore the percentage of tertiary workers was also high. Burdwan district with the coal mines at Ranigang in the Asansol subdivision had also developed the secondary as well as the tertiary sectors. A number of small towns developed to cater to the needs of the secondary sector by employing workers in the tertiary sector.

Tables 3.19, 3.22, and 3.25 and figures 3.18, 3.19 and 3.20 which shows the different sub-classes of the tertiary sector shows the variation between the districts of West Bengal and Orissa.

The most important tertiary activity both in West Bengal and Orissa was trade which engaged 33.37 % of the tertiary workers in West Bengal and 50.22 % in Orissa in 1911. But in terms of the variety of trading items, the proportion of workers engaged was very small. It declined over the years and in 1931 West Bengal had 26.72 % and Orissa had 40.68 % of the tertiary workers engaged in trading activities. Transport was important in the districts of West Bengal but the proportion of workers declined between 1911 to 1931 considerably. Profession and liberal arts, domestic services and insufficiently described occupations absorbed much of the tertiary workers.

In Orissa transport was not developed and the proportion of workers engaged was very small. Domestic services, insufficiently

described occupations and professions and liberal arts were important as the percentage of tertiary workers in these sectors was considerable.

It has been stated earlier that, large sized settlements have larger proportion of secondary and tertiary workers. It is best revealed from the two metropolitan districts of Howrah and Hooghly where the secondary and tertiary workers were the maximum. The larger sized settlements and the maximum concentration of population was found in the Howrah city and few other large towns having more than 20,000 population. In Orissa, Cuttack and Puri the two most developed districts also had the town of Cuttack and Puri as the major urban concentration where secondary and tertiary activities were maximum.

The concentration of population in the large towns was due to migration of workers both skilled and unskilled from the neighbouring areas. The distance factor played a crucial role in the participation of migrant workers in different sectors. In Howrah and Hooghly particularly, long distance migrants from Bihar and U.P were also found working in the secondary and tertiary sectors. Therefore it can be said that large towns were characterized mainly by secondary and tertiary activities and smaller villages were predominantly agricultural ones.

### **III.7- CONCLUSIONS**

Having discussed the participation rate and the distribution of workers into primary, secondary and tertiary sectors in the districts of West Bengal and Orissa and also between the natural divisions of Bengal, Bihar and Orissa it can be concluded that,

1. The participation rate of male and female workers was in general quite low both in Bengal and in Bihar and Orissa, due to high natural increase and prejudices against female participation.

2. The workforce participation rate was different from one natural division to another and from one district to another. The participation rate of males was higher than that of females but in the natural divisions and districts where economic pressure necessitated their participation the females were more number.

3. The economic base of the two provinces as depicted by the three broad industrial groups, was dominated by primary activities. Therefore, the participation rate was maximum in the primary activities followed by tertiary and secondary activities.

4. Though the participation rate of males was higher in all the industrial categories than that of females, but due to the lower number of total female labour force, the proportionate shares of females were higher mainly in secondary and tertiary activities.

5. All the natural divisions of Bengal, Bihar and Orissa and the districts of West Bengal and Orissa division had very low percentage share of secondary workers reflecting the weak industrial base. Industrial activities were concentrated mainly in large towns and cities and the rural areas were devoid of any industries. Same was true for the tertiary sector. Most of the people in the tertiary sector were also found in areas of maximum population concentration specially in the urban areas.

## CHAPTER IV

### MIGRATION

#### IV.1 INTRODUCTION

The present chapter is an attempt to understand the pattern and trend of migration in order to analyse the differences in the density of population and settlement growth. It is intimately related to the population distribution and particularly to the process of urbanisation.<sup>1</sup> It occupies a pivotal position in the studies on demography because it determines along with fertility and mortality, the size and the rate of population growth as well as the structure of population. Migration is often defined as a form of spatial mobility between one geographical unit and another involving a permanent change of residence.<sup>2</sup> It is therefore important to see the pattern of migration in a region as its detailed study provides useful information about the unprecedented growth of population and also the nature of economy.<sup>3</sup>

The present study utilizes the census data, the main source of information for studies of internal migration. These data have several limitations, because it were collected with reference to birth place alone. It fails to differentiate between types of migration such as economic, matrimonial, natal, administrative,

---

1. Mandal R.B, Frontiers in Migration Analysis, Concept Publishing, Delhi 1982, p.1.

2. United Nation, Multilingual Demographic Dictionary 1958, p.46-3.

3. United Nation, Determinants and Consequence of Population Trends Population Studies no.40, 1973 p.173.

political and causal.<sup>4</sup> Limitation in the statistical information has limited the scope of migration analysis in the present chapter. Moreover, due to non-availability of census volume for the year 1901, the study confines itself to 1911 and 1921 only. The 1931 census did not tabulate the returns of birth place, district by district due to "the necessity for economy"<sup>5</sup> which prevailed upon the census department hence it has not been possible to give a detailed analysis of immigration and emigration during the period. However, some trends about the movement of the people in the province have been traced.

Before preceeding to discuss the statistics, it is relevant to distinguish between five different types of migration-casual, temporary, periodic, semi-permanent and permanent.<sup>6</sup> A close examination of the census figures, however, should keep the distinctions between the different types of migration in view.

---

4. Yadava, K.N.S. Rural urban migration in India Determinants, pattern and consequence, Independent Pub. Company Delhi, 1989, p.9.

5. Chattopadhyaya, H., Internal Migration in India A Case Study of Bengal, K.P. Baglhi and Comapny, Calcutta, 1987 p.55.

6. 1. **Casual Migration** or the minor movement between adjustment villages-these affect the returns only when the villages in questions happen to lie in different districts, being separated by some natural or artificial boundary there is generally an excess of females in such cases owing to the fact that it is the common practices for indus to take a wife from another village, and that young married women after go to their parents' home for

## IV.2 MIGRATION IN BENGAL

During the 19th century there had been an internal movement of people with a traditional agricultural background from village to village, from village to town or city, from district to district and from one province to the other, besides overseas migration. Such movements continued in the present century.

The socio-economic (and also geographic) condition of two different areas are responsible for migration, particularly

---

6. **2. Temporary Migration**, due to journeys on business, visit to fairs and places of pilgrimage, and the temporary demand for labour created by the construction of new roads and railways.

**3. Periodic Migration**, Such as the annual migration which takes place in Bihar and Orissa.

**4. Semi-permanent Migration**, The people of one place reside and earn their living in another, but retain their connection with their own homes, where they leave their families and to which they return in their old age and at more or less regular intervals in the mean time. This kind of migration is evidenced by the excess of males in the emigrants population and is becoming more common as commerce and industry extend and the avenues open to labour or clerical employment grow wider.

**5. Permanent Migration** i.e. where overcrowding drives people away, or the superior attractions of some other locality induce people to settle there. In this case, the sexes are more or less equally represented.---- Census of India 1991, vol v, Bengal, Bihar and Orissa and Sikkim Part I, Report, pp.166-167.

**Table 4.1**  
**Rate of Migration (1911)**

Natural Division	Total Population	Immigrants	Emigrants	Rate
West Bengal	8442663	83431	243955	-1.90
Central Bengal	8058007	346825	230030	1.45
North Bengal	10699173	200564	53539	1.37
East Bengal	18494740	90417	179669	-0.48
North Behar	14091622	169312	128194	0.29
South Bihar	7754797	105897	246150	-1.81
Orissa	3780074	20806	71899	-1.35
Chotanagapur Plateau	12193530	232290	81406	1.24

Note : Rate of Migration:- 
$$\frac{\text{Immigrants} - \text{Emigrants}}{\text{Total Population}} \times 100$$

Source : Figures taken from Table 4.3

internal migration. The opening up of the interior country with the construction of railways and vehicular roads also facilitates the movement of the people. During 1901 and 1910, the extension and opening up of a network of railways linking a large number of stations within Bengal and also connecting Bengal with the contiguous provinces of Bihar, Orissa and Assam facilitated the movement within Bengal and also between the provinces.

The movement of people was not the characteristic of any particular district of Bengal but presented a feature common to the rural life of the province as a whole. During the period of the present study, almost all the districts mutually received, and sent out labourers from and to different areas.

The characteristic feature of inter-district migration for the districts of West Bengal and Orissa division has been dealt with in the later part of this chapter.

An attempt has been made here to analyse the movement of people between the natural divisions, to give a broad idea of the pattern of migration in Bengal. Table 4.1 and 4.2 which represents the rate of migration for the years 1911 and 1921 shows that, in Bengal, the two natural divisions namely West Bengal and East Bengal was dominated by outmigration, and Central Bengal and North Bengal gained by immigration. The rate of immigration in North Bengal was same (1.37 %) during 1911 and 1921, while in Central Bengal the rate increased from 1.45 % to 1.81 % during the same period.

In West Bengal the emigrants outnumbered the immigrants due to a number of factors. Firstly, between 1905 to 1908 crops were not good and unhealthy conditions prevailed. Secondly in 1911,



**Table 4.2**  
**Rate of Migration (1921)**

Natural Division	Total Population	Immigrants	Emigrants	Rate
West Bengal	5009930	80271	239417	-3.18
Central Bengal	7999905	360684	215668	1.81
North Bengal	10929592	197563	48249	1.37
East Bengal	20733489	85739	220628	-0.65
North Bihar	13976316	131006	95540	0.25
South Bihar	5761716	87456	213992	-2.20
Orissa	3994079	23171	73925	-1.27
Chotanagapur Plateau	12247258	212557	86591	1.03

Source : Figures taken from Table 4.4

floods caused damage in the Sadar sub-division of Birbhum.

During 1913, disastrous Damodar flood breached the embankments and spread over a large area on either side. The Bankura famine of 1915-16 prevailed for a long time and the district lost its population heavily by emigrations. The number of persons born in the district but enumerated outside was 20 % in 1911.<sup>7</sup> Famine conditions again appeared in Bankura and did not disappear until the winter harvest of 1919.<sup>8</sup> Overshadowing everything was the influenza epidemic which occurred in July, 1918 causing emigration of the people to the different districts of other natural divisions. The famous 'Burdwan Fever' which occurred as early as 1867 lasted till the Census of 1921. The ravages of this malarial fever caused a high flow of exodus from the affected districts to other areas. No wonder, such movements to other areas were of temporary nature. These migrants sought employment in the fields or on the railways, in the mills and factories.

The emigrants from West Bengal to the other natural divisions increased from 2.89 % in 1911 to 4.78 % in 1921. But most of the emigrants from West Bengal were found in Central Bengal during 1911 and 1921. Out of 2,43,955 emigrants from West Bengal in 1911, 2,33,041 (95.53 %) [Table 4.3] were found in Central Bengal and only 6,541 in North Bengal and the least in East

---

7. Census of India 1911, Ibid, p.151.

8. Census of India 1921, Vol VII Bihar and Orissa Part I, Report, p.33

Table 4.3

**Immigration and Emigration (1911)**  
(Percentage Shares are give in Parenthesis)

Natural Divisions	Immigrants Into				Emigrants From			
	W.B	C.B	N.B	E.B	W.B	C.B	N.B	E.B
West Bengal (WB)	-	232441 (67.02)	6540 (3.26)	4805 (5.3)	-	75275 (32.72)	1716 (3.20)	6313 (3.51)
Central Bengal (CB)	75275 (90.22)	-	95690 (47.71)	53127 (58.76)	233041 (95.53)	-	19662 (36.72)	94573 (52.64)
North Bengal (NB)	1844 (2.21)	19807 (5.71)	-	32485 (35.93)	6541 (2.68)	95696 (41.60)	-	78783 (43.85)
East Bengal (EB)	6312 (7.57)	94577 (27.27)	98334 (49.03)	-	4373 (1.79)	59059 (25.68)	32161 (60.08)	-
<b>Total</b>	<b>83431</b>	<b>346825</b>	<b>200564</b>	<b>90417</b>	<b>243955</b>	<b>230030</b>	<b>53539</b>	<b>179669</b>

Natural Divisions	Immigrants Into				Emigrants From			
	N.B	S.B	Orissa	C.P.	N.B	S.B	Orissa	C.P.
North Bihar (NB)	-	89016 (84.06)	503 (2.42)	38670 (16.65)	-	128798 (52.33)	152 (0.21)	38092 (46.79)
South Bihar (SB)	131068 (77.41)	-	775 (3.72)	121997 (52.52)	89026 (69.45)	-	141 (0.20)	17240 (21.18)
Orissa	153 (0.09)	141 (0.13)	-	71623 (30.83)	503 (0.39)	775 (0.31)	-	26074 (32.03)
Chotanagpur Plateau (CP)	38091 (22.50)	16740 (15.81)	19528 (3.86)	-	38665 (0.16)	116577 (47.36)	71606 (99.59)	-
<b>Total</b>	<b>169312</b>	<b>105897</b>	<b>20806</b>	<b>232290</b>	<b>128194</b>	<b>246150</b>	<b>71899</b>	<b>81406</b>

Source : Based on (1) Census of India 1911  
Vol I, Part II, Table XI, Part A.

(2) Census of India 1911  
Vol V, Part III, Table XI, Part A

Bengal (4,373 persons). The same situation also prevailed during the next census.

Though the emigrants outnumbered the immigrants in West Bengal division, the rate of immigration increased from 0.99 % in 1911 to 1.60 % in 1921. The immigrants were attracted by the coal mines of the Asansol subdivision in Burdwan district, and by the prospects of employment in various industrial concerns of Hooghly and Howrah district. The large number of immigrants in West Bengal came from Central Bengal and was followed by East Bengal and North Bengal during 1911 and 1921. The number of immigrants from East Bengal to West Bengal increased from 7.57 % in 1911 to 14.05% in 1921.

In East Bengal, though the emigrants outnumbered the immigrants, during 1911 and 1921, the East Bengal people were usually a "stay at home" people.<sup>9</sup> The area was generally free from epidemics and diseases, owing to its physiographic character<sup>10</sup>, and steady growth of population was the characteristic of East Bengal districts. But rapidly increasing population and lack of occupations at home, prompted an outward movement.<sup>11</sup> It is a fact that, as population grows, unless rural non-crop husbandry sectors (dairying, poultry and fisheries) or cottage or small scale industries expand to absorb the surplus, increasing numbers of people

---

9. Ahmad Nafis, *An Economic geography of East Pakistan*, London, Oxford University Press, 1958, p.296.

10. Ahmad N, *Ibid*, p.293

11. Ahmad N, *Ibid*, p.296

must move out to find some employment.<sup>12</sup> But not only the pressure on land and the consequent unremunerativeness of agricultural pursuits supplied the motive power behind the movement of persons permanently, grinding poverty and the resultant indebtedness also pressed the ordinary rural folk to move from one mauza to another or from one district town to another in search of sustenance only temporarily.<sup>13</sup>

Besides rural indebtedness, the cultivators were required to meet the illegal demands of powerful local landlords, known as abwabs, both routine and ceremonial, which were to the cultivators, like "an engine not merely of financial extortion but of physical oppression and which consequently strained their relations with the landlords".<sup>14</sup> The matter of abwabs reached the climax in Backergunj where no rent, but abwab was considered by the Backergunj landlords, as the main source of their revenue and power. In protest against the "inhuman" demand of abwabs the tenants were suppressed by "vindictive" landlords with the help of "lathials". Some of the tenants were evicted from their villages and some left their ancestral property to escape persecution.<sup>15</sup>

Under such circumstances, it was quite obvious that people emigrated in large numbers to surrounding areas. The emigrants

---

12. Yadava K.N.S, Op,cit, p.27.

13. Chattopadhyaya. H., Op,cit, p.33.

14. Chattopadhyaya. H., Op,cit, p.36.

15. Chattopadhyaya. H., Op,cit, p.36-37.

from Dacca and Mymensingh were attracted by the fertile alluvial "chars" of the Brahmaputra in Rangpur and Goalpara in Assam. Labourers were also attracted to the growing tea estates of Darjeeling and Jalpaiguri in the North Bengal division. There were currents of emigration from Chittagong both periodic and permanent to the adjoining parts of Arakan in Burma. The emigrants from Tipperah and Noakhali and also from Chittagong sought employment in the port of Calcutta and on steamers and boats on all big rivers of Bengal.<sup>16</sup> The plainsmen of Bengal districts, particularly Muhamedans from Tipperah district emigrated into the plains of Tripura state. The increasing outward movement of East Bengal people during 1911 and 1921 can be viewed from the rate of migration, shown in Tables 4.1 and 4.2 which was -0.48 in 1911 and -0.65 in 1921. The increasing rate of emigration increased from, 0.97% in 1911 to 1.06 % in 1921..Most of the emigrants from East Bengal found their way to Central Bengal followed by North Bengal and West Bengal.

In East Bengal, very few permanent settlers immigrated from outside, particularly in the densely populated "core land area." The dry season occupations of raising earthworks, digging tanks and road repairs etc, drew people from outside but these were periodic migrations.

Having discussed the reasons for the outflow of people from

---

16. Chatttopadhyaya H, Op,cit, p.78.

West Bengal and East Bengal to other areas, let us divert our attention to the areas receiving migrants namely Central Bengal and North Bengal.

There was an increase of 13,859 people during 1911 and 1921 in Central Bengal. This increase in the immigrant population was entirely due to the accession of population in the districts of 24 Parganas and Calcutta, where large industrial concerns attracted labourers from outside. Murshidabad also added a small amount of immigrants. Nadia and Jessore the two unhealthy districts, lying entirely in the deltaic rice plain had no manufactures to attract immigrants. In spite of their proximity to the industrial area of Calcutta, the outflow from Murshidabad, Jessore and Nadia was comparatively small. The maximum number of immigrants into Central Bengal was from West Bengal, followed by East Bengal and North Bengal [Table 4.3]. The increasing influx of immigrant population into Central Bengal was due to the fact that, firstly migrants proceed along some well defined routes of destination where opportunities tend to be highly localized and secondly because migrants must usually follow established routes of transportation.<sup>17</sup> Central Bengal, particularly Calcutta being the epitome of India had the above mentioned characteristics and drew heterogeneous population from all over the province and from other parts though in varying degrees.

North Bengal, also had a larger immigrant population than the emigrants and most of the immigrants were from distant places

---

17. Yadava K.N.S, Op-cit, p.47.

than from the contiguous localities. The chief factors for the influx of immigrants into Northern Bengal division were briefly as follows:-<sup>18</sup>

1. There were extensive cultivable wastes in the Barind, an elevated tract which comprised of a considerable area on the confines of Dinajpur, Malda, Rajshahi and Bogra. These wastes were steadily being reclaimed and demanded labourers from outside.

2. The rich alluvial chars of the Brahmaputra in Rangpur and Goalpara in Assam attracted Musalman cultivators from the more congested tracts along the lower reaches of the same river, where the land was subject to dilluvion.

3. Lastly, the tea industry in Darjeeling and Jalpaiguri and the development of jute and tobacco trade created demand for labour which was not fully met from local sources.

Within Bengal, the maximum number of immigrants into North Bengal was from East Bengal followed by the northern districts of Central Bengal and a lesser proportion from West Bengal. The emigrant population declined between 1911 and 1921 from 0.50% to 0.44% showing that the cultivators and agricultural labourers were not really interested to leave their homes for other places.

During the decade 1921-31, there was an increased flow of migration from East Bengal to Central Bengal and North Bengal. The industrial area of Calcutta and 24 Parganas, and the dockyard of Calcutta provided employment to a number of immigrants who

---

18. Census of India 1911, Op-cit, p.180.



came from East Bengal and other places. Both Jalpaiguri and Darjeeling in North Bengal, saw the immigration of labourers in connection with the tea cultivation. A considerable number of migrants from Mymensingh, and other districts of East Bengal were attracted to the "char" areas of Rangpur district. The erosion of river Padma led to a migration of the affected persons from Faridpur into other districts,<sup>19</sup> Though a small amount of immigration also took place, it was of less importance.

There was a decrease in emigration from West Bengal though a number of skilled and unskilled workers were engaged in the industrial concerns of Central Bengal. The construction of Damodar canal, the prosperity of iron industry, establishment of a railway settlement at Rampurhat, expansion of the railway settlement at Kharagpur - all led to the immigration of labourers into the districts of West Bengal. There was also a gain of population by immigration from outside the province.

Therefore the picture which emerged during 1921-31, for Bengal is that, increased emigration from East Bengal and increased immigration in West Bengal, the other two areas Central Bengal and North Bengal having a balance between the two.

#### IV.3 MIGRATION IN BIHAR AND ORISSA

Migrations were of particular importance in the province of Bihar and Orissa. The enterprising rural population of Bihar supplied greater labour force in different parts of India.

Within the province itself, migration between different

---

19. Chattopadhyaya H, Op-cit, p.82.

natural divisions was guided by the geographical background of the areas.

The Ganga plain of Bihar is an alluvial country lacking in non-agricultural industrial resource with negligible industrial development and the economy was dominated by subsistence agriculture. The Ganga river acted as a physical barrier to migration particularly between North and South Bihar plains.

But availability of better opportunities created the impulse for migratory movement between the different natural divisions.

North Bihar as is observed from Table 4.1 and 4.2 had excess of immigrants, over emigrants though the rate of migration was at a very low level. It was 0.29% in 1911 and 0.25% in 1921. This rate of migration in favour of North Bihar was mainly contributed by Champaran and Purnea the two sparsely peopled districts, where large areas awaiting reclamation or further development attracted migrants from other districts. The immigrants were mainly from South Bihar.

North Bihar also lost a considerable amount of labourers by emigration. But this loss by migration was not a permanent one. The periodic type of migration adjusted to the seasons of the agricultural year was of great volume and importance in Bihar and Orissa.<sup>20</sup> In North Bihar the greatest exodus of people occurred in the month of November when the poorer agriculturists and labourers mostly from the lower castes,<sup>21</sup> migrated to other areas in

---

20. Census of India 1921, Op-cit, p.103.

21. Census of India 1921, Op-cit, p.109.

search of employment. But, in March when the census was taken both in 1911 and 1921, the labourers started returning to their homes. Therefore, the census returns though nearly show the outflow of labourers, the full range of the normal tide of emigration was not shown.

In 1911, the number of emigrants from North Bihar was 1,28194 (0.91%) while in 1921, it was 95,540 (0.68%). This was because the census day in 1911 was earlier in March than in 1921. Due to a little delay compared to the former year many of these seasonal migrants in 1921 had returned home so that their numbers were less in 1921 than in 1911.

In South Bihar emigration was also regulated by the agricultural seasons and emigrants outnumbered the immigrants in South Bihar both during 1911 and 1921. The volume of emigration in South Bihar was higher, than in North Bihar.<sup>22</sup> The emigrants from South Bihar within the province found their way to Chotanagpur. Their proportion increased from 43.36% in 1911 to 52.42% in 1921 while the flow of emigrants to North Bihar declined from 52.33% in 1911 to 47.35% in 1921. [Table 4.3.]

Immigration in South Bihar was unimportant. Moreover, the immigrant population declined from 1,05,897 in 1911 to 87,456 in 1921. The immigrant population in South Bihar were mainly agricultural labourers who came to the region to cut the spring crops and paddy at different times of the year.

Chotanagpur region is different from the Ganga plain in its

---

22. Census of India 1921, Op-cit, p.111.

Table 4.4

**Immigration and Emigration (1921)**  
(Percentage Shares are given in Parenthesis)

Natural Divisions	Immigrants Into				Emigrants From			
	W.B	C.B	N.B	E.B	W.B	C.B	N.B	E.B
West Bengal (WB)	-	228518 (63.36)	6597 (3.34)	4301 (5.02)	-	66870 (31.01)	2114 (4.38)	11279 (5.11)
Central Bengal (CB)	66870 (83.31)	-	93867 (47.51)	54931 (64.07)	228518 (95.45)	-	19786 (41.01)	112245 (50.87)
North Bengal (NB)	2116 (2.64)	19921 (5.52)	-	26507 (30.91)	6597 (2.75)	93867 (43.52)	-	97104 (44.02)
East Bengal (EB)	11285 (14.05)	112245 (31.12)	97099 (49.15)	-	4302 (1.80)	54931 (25.47)	26349 (54.61)	-
<b>Total</b>	<b>80271</b>	<b>360684</b>	<b>197563</b>	<b>85739</b>	<b>239417</b>	<b>215668</b>	<b>48249</b>	<b>220628</b>

Natural Divisions	Immigrants Into				Emigrants From			
	N.B	S.B	Orissa	C.P	N.B	S.B	Orissa	C.P
North Bihar (NB)	-	68065 (77.83)	327 (1.41)	27148 (12.77)	-	101315 (47.35)	184 (0.25)	45365 (52.39)
South Bihar (SB)	85131 (64.98)	-	495 (2.14)	112182 (52.78)	68065 (71.24)	-	515 (0.70)	18876 (21.80)
Orissa	264 (0.20)	515 (0.59)	-	73227 (34.45)	327 (0.34)	495 (0.23)	-	22350 (25.81)
Chotanagpur Plateau (CP)	45611 (34.82)	18876 (21.58)	22349 (96.45)	-	27148 (28.42)	112182 (52.42)	73226 (99.05)	-
<b>Total</b>	<b>131006</b>	<b>87456</b>	<b>23171</b>	<b>212557</b>	<b>95540</b>	<b>213992</b>	<b>73925</b>	<b>86591</b>

Source : Based on (1) Census of India, 1911.  
Vol V, Part II, Table XI, Part A.

(2) Census of India, 1911.  
Vol V, Part III, Table XI, Part A.

geographical character. While the plains of Bihar were mainly emigrating zones, Chotanagpur region was at the same time an emigrating and immigrating zone.<sup>23</sup> The rate of migration was dominated by the immigration of labourers mainly into work in coal mines and in industrial concerns. The areas being readily accessible by rail drew, both skilled as well as unskilled workers from other areas.

But emigration from the districts of Chotanagpur was also a remarkable feature. As the census report of 1911 describes "The readiness of the people of the Chotanagpur plateau" to migrate is explained by three factors viz, 1. that the aboriginal inhabitants are multiplying rapidly, 2. they pursue an economy system of cultivation and 3. they have thriftless habits.<sup>24</sup>

All these factors lead to an increased rate of emigration between 1911 and 1921. In 1911, 81,406 people emigrated from Chotanagpur while in 1921 the figure was somewhat greater and 86,591 people emigrated from the plateau to other areas of the province. But in general, the emigrants from Chotanagpur as well as from the plains of Bihar migrated to the tea gardens in Assam, in North Bengal and in the industrial area of Calcutta.

Orissa division experienced an increased rate of emigration during the years from all the three districts of the division.

---

23. Ahmed E, Bihar, A Physical, Economic and Regional Geography, Ranchi University, Ranchi, 1965.

24. Census of India 1911, Op-cit, p.171.

The maximum number of emigrants from Orissa were engaged in some sort of job in the mining and industrial concerns of Chotanagpur plateau. The number of emigrants increased from 71,899 in 1911 to 73,925 in 1921. The great development of emigration during the period was an indication of the hard times that Orissa had passed through since 1918 and also shows how it was that a repetition of the tragedy of 1866 was avoided.<sup>25</sup> Owing to the facilities afforded by the railway the exodus of the districts population in search of more remunerative employment became an annual occurrence, and the number of emigrants rose rapidly.

Though there was an increase in the number of immigrants the increase was very small. Only 2,365 people immigrated into the division during 1911 and 1921. In general, immigration into the division was stationary due to unfavourable natural and economic conditions.

During the next decade, i.e. 1921-31 the trends was more or less, the same in the all the four natural divisions of Bihar and Orissa, mainly dominated by emigration, though the emigrants decreased in number during the ten years period. There was an increase in the number of immigrants in the urban and industrial areas of Chotanagpur plateau mainly from the other areas. Manbhum and Singhbhum attracted a plenty of immigrants from the South Bihar districts as well as from the districts of North Bihar though to a limited extent. In North Bihar the influx of immigrants was largely to the district of Purnea for the purpose of taking up land. Migration between the coastal districts of Orissa

---

25. Census of India 1921, Op-cit, p.113.

and other British districts of the province was practically non-existent, apart from a minor current flowing from Cuttack to Singhbhum.<sup>26</sup> The main stream of migration from Orissa was to the district of Calcutta and its neighbourhood.

#### IV.4 MIGRATION BETWEEN THE PROVINCES-BENGAL, BIHAR AND ORISSA

It is quite natural that when people move away from their home in search of better employment opportunities, their movement does not necessarily remain confined to their district or state boundaries alone but crosses beyond. Obviously, therefore during the period of the present study the people of Bengal, Bihar and Orissa not only migrated within the province but also outside it. In the present analysis, migration between Bengal and Bihar-Orissa has only been considered though people also migrated to other provinces as well.

The movement of people in the two province dealt with, presents a sharp contrast, for Bengal during the period of study gained largely by immigration whereas emigration caused a heavy though temporary drain on Bihar and Orissa.

The differences between the two provinces<sup>27</sup> was partly due to racial characteristics, partly to climate and partly to economic and industrial conditions.

The Bengali people have a very different character from that of the Bihari and in particular of the Bhojpuri people who had

---

26. Census of India 1931, Vol VII Bihar and Orissa Part I, Report, p.109.

27. Census of India 1911, Op-cit, p.168.

migrated in thousands to the British colonies, to seek employment either honestly as paliki-bearers or otherwise as dacoits. Every Bengal Zamindar kept a posse of these men, euphemistically termed "darwan" to keep his tenants in order.

The second great cause of difference was the higher standard of prosperity attained by the Bengali.

Third factor was the climate which had some weakening effects on the availability of labourers. The harvesting of the winter crops in Bengal during the period under study, took place at the height of the fever season. In some districts the ravages of fever were so widespread that it was difficult to procure enough local labour for the harvesting of crops.<sup>28</sup> As recorded in the District Gazetteer, Hooghly: "There is a general complaint of the insufficiency of the supply of labour. During the winter months, the labour question often becomes acute and instances have been known of crops rotting on the fields and looms stopping for want of workers. The difficulties caused by the deficiency of labour are further aggravated by epidemics of malarial fever that break out from November to February, reducing the number of workers and diminishing the working capacity of those who survive."<sup>29</sup> The adverse impact of fever is also evident from the Jessore District Gazetteer from which we can quote the following:- "It is said that owing to the unhealthiness of the district

---

28. Chattopadhyaya H, Op-cit, p.252.

29. Bengal District Gazetteers, Hooghly L.S.S.O Malley 1912, p.170.



there has been a decline in the number of skilled labourers for some years past, and that the supply of agricultural labourers is unequal to the demand, especially during the fever season, so much so that land sometimes remains uncultivated for want of men to till it.<sup>30</sup>

Besides the ravages of fever, there was the general disinclination of the labouring class in Bengal towards undertaking labour, involving much physical strength and exertion and also such labour as well was looked upon as degrading. The immigrants therefore, were largely recruited in these types of jobs. The "big-boned" Bihari and the small but wiry aboriginal were consequently being employed more and more as earth workers, palki-bearers, scavenger and leather workers. Besides this, the upcountry men was preferred for posts in which some power of control and physical strength were necessary, such as that of darwan, chaprasi, railway servant etc.<sup>31</sup>

Lastly, the industrial development of Bengal naturally created a great demand for labour which could hardly be met by local recruitment. For instance, in Bengal, industrial concerns employing twenty hands or more had a total labour force of over 606,000 whereas in Bihar and Orissa the number was only 180,000. Coal mining was in fact, the only industry of great importance in Bihar and Orissa. If the coal mining industry is excluded the number employed in industrial concerns was only 94,000. There-

---

30. Bengal District Gazetteers, Jessore, L.S.S.O' Malley 1912, p.84.

31. Census of India 1911, Op-cit, p.169.

**Table 4.5**  
**Migration Pattern Bengal, Bihar and Orissa (1911)**

Natural Division	Number per 100,000 Population					
	Immigrants From			Emigrants To		
	Total	Contiguous Districts	Other Places	Total	Contiguous Districts	Other Places
BENGAL	43	8	35	13	7	6
West Bengal	52	21	31	49	37	12
Central Bengal	125	39	86	37	25	12
North Bengal	86	34	52	12	10	2
East Bengal	16	7	9	20	10	10
BIHAR and ORISSA	12	7	5	49	18	31
North Bihar	22	16	6	41	19	22
South Bihar	20	17	3	83	24	59
Orissa	14	8	6	56	19	37
Chotanagapur Plateau	35	28	7	77	24	53

Source : Census of India 1911  
Vol V, Bengal, Bihar and Orissa and Sikkim  
Part I, Report.  
p. 169

fore, it is quite clear that the emigrants from Bihar and Orissa were readily absorbed in the industries of Bengal and there was an increased demand for them.

Table 4.5 reveals the fact regarding the contrast between the two provinces, which is applicable to every division. It is observed from the table that, Bengal gained more from the distant places than the contiguous district by immigration. For example, while 39 immigrants per 100,000 of actual population into Central Bengal were from contiguous district, more than double were from other places. The same is the case for the other three divisions. But in Bihar and Orissa reverse was the case. Persons coming from the contiguous districts in the province to each natural division outnumbered those who came from distant places. The number of emigrants from Bengal were more to the contiguous districts than other places with the exceptional position of East Bengal. This exceptional position of East Bengal was due to Dacca, the inhabitants of which supply fresh recruits year after year to the rank of the professional classes in distant parts of the country.<sup>32</sup> In Bihar and Orissa on the other hand, every division contributed more emigrants to remote areas than to adjoining districts.

The volume of movement between Bengal proper and Bihar and Orissa as recorded in the census of different decennial years, as included in the present study will be evident from the following few paragraphs and figures, illustratively, if not exhaustively.

Emigration from Bihar and Orissa into Bengal proper and from Bengal into Bihar and Orissa in 1911 has been shown in Tables

---

32. Census of India 1911, Op-cit, p.169-170.

Table 4.6

Emigration From Bihar and Orissa into Bengal (1911)

Born in	Enumerated in				
	Bengal	West Bengal	Central Bengal	North Bengal	East Bengal
BIHAR AND ORISSA	1252371	250294 (19.98)	386666 (30.87)	541395 (43.23)	74016 (5.92)
North Bihar	353746 (28.25)	34686 (9.80)	94408 (26.69)	183042 (51.74)	41610 (11.77)
South Bihar	298468 (23.83)	66383 (22.24)	174806 (58.57)	33446 (11.20)	23833 (7.99)
Orissa	123750 (9.88)	37318 (30.16)	77206 (62.39)	5149 (4.16)	4077 (8.29)
Chotanagapur Plateau	476407 (38.04)	111907 (23.49)	40246 (8.45)	319758 (67.12)	4496 (0.94)

Source : Census of India 1911  
 Vol V, Bengal  
 Part I, Report, p. 168.

4.7, 4.8 and 4.9. These tables show that the balance of migration was in favour of Bengal in 1911.

Bengal gained by immigration 12,52,371 people from Bihar and Orissa in 1911. The maximum flow was towards the tea plantations of North Bengal. Therefore 43.23 % (Table 4.7) of the immigrants were found in North Bengal. This was followed by Central Bengal (30.87% ), West Bengal (19.98 %) and the least into East Bengal (5.92%).

In Bihar and Orissa, emigration caused the heaviest drain on the Chotanagpur plateau (38.04 %) [Table 4.6]. North Bihar though had less emigrants than Chotanagpur plateau, surpassed South Bihar by 55,278 emigrants. Orissa had the minimum number of emigrants.

One noticeable fact about the emigrants from Bihar and Orissa into Bengal proper is that, the migrants from North Bihar and Chotanagpur plateau (mainly tribals) were largely employed in the growing tea-estates of Darjeeling and Jalpaiguri. From North Bihar 51.74 % [Table 4.6] of the migrants were found in North Bengal. The Chotanagpur tribals were much more in number than that of North Bihar. Out of 4,76,407 immigrants to Bengal from Chotanagpur, 3,10,758 (67.12 %) [Table 4.6] were found in North Bengal. The tribals of Chotanagpur plateau preferred migrants to the plantations, because " the direction of the stream depends not only on the value placed on the opportunities at the destination, but also on the nature of ecological compatibility that may exist between the places of origin and destination of

migration.<sup>33</sup> The tea gardens of North Bengal in the midst of a forest environment and possibility of owning land after retirement, added strength to the decision of the tribals to migrate there. Moreover, absence of sex selectivity in the tea gardens caused migration in drift to those areas.

Unlike Chotanagpur plateau and North Bihar the emigrants from South Bihar and Orissa mainly flocked to the industrial area of Calcutta for search of better opportunities. Most of the Oriya migrants to Bengal were "employed as cooks, domestic servants, palanquin bearers, ordinary labourers and as helping hands in the cultivation of land in the Sundarbans area."<sup>34</sup>

In contrast to the migrants from Bihar and Orissa who moved to distant places, the Bengali migrants avoided moving as far as possible to distant districts or far-off provinces. This can be borne out from the fact that in 1911, only 1,65,333 people from Bengal were enumerated in the province of Bihar and Orissa, the majority being engaged in the white-collared activities in the industrial area of Chotanagapur in contrast to the migrants from Bihar and Orissa which consisted mostly of the labour class, skilled and unskilled.

In 1921, the immigrants into Bengal from Bihar and Orissa numbered 12,32,424 (Table 4.7) there was a decrease in the number of immigrants to Bengal in 1921 from 1911. Even during 1921,

---

33. Rao, M.S.A (ED) Studies in Migration- Internal and International Migration in India, Manohar 1986, p.340.

34. Chattopadhyaya H, Op.cit, p.286.

**Table 4.7**  
**Emigration from Bihar and Orissa into Bengal**  
**(1911-1931)**

Born in Bihar & Orissa Enumerated in	1911	1921	1931
BENGAL	1252371	1232424	1127102
WEST BENGAL	250294 (19.98)	273258 (22.17)	300101 (26.63)
CENTRAL BENGAL	386666 (30.87)	394490 (32.01)	415433 (36.86)
NORTH BENGAL	541395 (43.23)	488845 (39.67)	364370 (32.33)
EAST BENGAL	74016 (5.92)	75831 (6.15)	47198 (4.18)

Source : 1. Same as in Table 4.6.  
2. Census of India 1921  
Vol V, Part II, Table XI, Part A  
3. Census of India 1931  
Vol V, Part II, Table VI, Part A

the bulk of the labourers from Bihar and Orissa were mainly employed in the tea estates of North Bengal which is borne out from the fact that nearly 40 % [Table 4.7] of the total emigrants from Bihar and Orissa were found in North Bengal. While the proportion of the labourers to the tea gardens decreased between 1911 and 1921, the immigrants to Central Bengal and West Bengal increased considerably. Many were employed in the collieries and iron foundries of West Bengal, in the Asansol and Raniganj area. Besides the tea gardens and the industrial area of Burdwan, the principal destination of the migrants from Bihar and Orissa were Calcutta and the neighbouring industrial districts, which is evident from Table 4.8, which represents the number of immigrants from North Bihar and South Bihar to the Industrial districts of Calcutta, 24 Parganas, Howrah and Hooghly. The following districts which were highlighted in 1921 census shows that the maximum number of immigrants were enumerated in Calcutta from these districts and the maximum number of emigrants were from Gaya. Trade, domestic service, work in mills and factories, as day labourers or carters were the occupations of the majority in the industrial area.<sup>35</sup> Another fact which the table indicates is that the number of emigrants from South Bihar districts were larger than that of North Bihar. This is due to the fact that, South Bihar is traversed by the East Indian Railway and the call of Calcutta and the other industrial centres of Bengal and the coal-field was more clearly heard than in North Bihar <sup>36</sup>

---

35. Census of India 1921, Op-cit, p.110

36. Census of India 1921, Op-cit, p.111



Table 4.8

Emigrants from North Bihar and South Bihar (1921)

Emigration From	Immigration Into				
	Total	Calcutta	24 Parganas	Howrah	Hoogly
NORTH BIHAR	104880	32780	41886	13152	17062
Saran	41661	10331	24768	6522	-
Champaran	10477	-	-	-	10477
Muzaffapur	30356	14656	11682	4018	-
Darbhanga	20478	7793	5436	2572	4677
Bhagalpur	1908	-	-	-	1908
Purnea	-	-	-	-	-
SOUTH BIHAR	192164	90087	62451	22898	16728
Patna	43497	19989	12335	6160	5013
Gaya	62483	38083	13986	5612	4802
Shahabad	47471	16068	20672	7324	3407
Monghyr	38713	15947	15458	3902	3506

Source : Census of India 1921.  
 Vol VII, Bihar and Orissa  
 Part I, Report  
 pp - 110, 111.

Emigration from Bengal into Bihar and Orissa was much lower in 1921 than in 1911 (Table 4.9). Most of the migrants from Bengal were enumerated in the industrial area of Chotanagpur plateau as is revealed from the table.

During the next decade, 1921-31, the same trend of migrants from Bengal continued. The greater volume (58.16 %) was attracted to the plateau area and the rest was scattered along the whole province. North Bihar received 23.78 % of the immigrants from Bengal. While the emigrants from Bengal show an increase during the period (Table 4.9) the emigrants from Bihar and Orissa decreased considerably. Central Bengal attracted the bulk of the immigrants from the sister province followed by North Bengal, West Bengal and East Bengal. The decrease in the number of emigrants from Bihar was due to the return of a number of migrants to their native places.

This was due to the industrial depression of Calcutta and its neighbourhood which had driven back a number of migrants to their homes.

#### **IV.5 DISTRICT-LEVEL MIGRATION -- WEST BENGAL AND ORISSA.**

Having analysed the inter-division and inter-provincial migration, we now divert our attention to the district level migration for the two selected divisions, West Bengal and Orissa, which has been discussed separately, so that we may have a detailed idea about the movement of people between the districts as well as between Orissa and West Bengal.

The inter-district migration in West Bengal during 1911 and 1921 presents certain characteristic features.

The noticeable fact is that, the districts of West Bengal,

**Table 4.9**

**Emigration From Bengal Into Bihar and Orissa  
(1911-1931)**  
(Percentage shares are given in Parenthesis)

Born in Bengal Enumerated in	1911	1921	1931
BIHAR and ORISSA	165333	116860	157022
NORTH BIHAR	26357 (15.94)	24169 (20.68)	37336 (23.78)
SOUTH BIHAR	6660 (4.03)	9707 (8.31)	12712 (8.10)
ORISSA	13822 (8.36)	11724 (10.03)	91326 (9.96)
CHOTANAGAPUR PLATEAU	118494 (71.67)	71260 (60.98)	91326 (58.16)

Source : (1) Same as No. 2 in Table 4.3.  
(2) Same as No. 2 in Table 4.4.  
(3) Census of India 1931  
Vol VII, Part II, Table VI.

**Table 4.10**  
**Characteristics of Migration Pattern (1911)**

Districts	Highest Immigration into the District from	Lowest Immigration into the District from	Highest Emigration from the District into	Lowest Emigration from the District into	Highest Female Immigration into the District from	Lowest Female Immigration into the District from	Highest Female Emigration from the District into	Lowest Female Emigration from the District into
Burdwan	Bankura	Cooch Behar and Hill Tippera	Calcutta	Hill Tippera	Bankura	Cooch Behar Noakhali Hill Tippera	Bankura	Hill Tippera
Birbhum	Burdwan	Chittagong	Burdwan	Backergunge Noakhali	Burdwan	Darjeeling	Burdwan	Backergunge Khuina
Bankura	Burdwan	Rajshahi Tippera	Hooghly	Noakhali	Burdwan	Dinajpur Noakhali	Burdwan	Tippera Noakhali Darjeeling
Midnapore	Bankura	Jalpaiguri	24 Parganas	Cooch Behar	Bankura	Rajshahi Rangpur, Malda, Noakhali	24 Parganas	Darjeeling
Hooghly	Bankura	Cooch Behar Chittagong Hill Tract Hill Tippera	Calcutta	Chittagong Hill Tract	Bankura	Cooch Behar, Hill Tippera Chittagong	Howrah	Chittagong Hill Tract
Howrah	Hooghly	Tippera	Calcutta	Noakhali	Hooghly	Noakhali	Calcutta	Tippera Mymensingh
Cuttack	Puri	Palamau	Puri	Palamau	Puri	Purnea	Puri	Muzaffarpur.
Balasore	Cuttack	Patna, Santal Paraganas Tributary State Chota-nagpur	Tributary State Orissa	Patna	Cuttack	Manbhum	Tributary State Orissa	Santal Paraganas Patna Orissa
Puri	Cuttack	Tributary State Chota-nagpur	Tributary State Orissa	Muzaffarpur Patna Plateau	Cuttack	Palamau Tributary State Chota-nagpur	Tributary State Orissa	Muzaffarpur

Source : Based on (1) Census of India, 1911, Vol V, Part II Table XI Part A  
(2) Census of India 1911, Vol V, Pat III Table XI Part A

Table 4.11: Characteristics of Migration Pattern (1921)

Districts	Highest Immigration into the District from	Lowest Immigration into the District from	Highest Emigration from the District into	Lowest Emigration from the District into	Highest Female Immigration into the District from	Lowest Female Immigration into the District from	Highest Female Emigration from the District into	Lowest Female Emigration from the District into
Burdwan	Bankura	Cooch Behar	Calcutta	Chittagon Hill Tract	Bankura	Cooch Behar	Birbhum	Noakhali
Birbhum	Burdwan	Jalpaigiri Bogra, Cooch Behar, Noakhali, Chittagong	Burdwan	Noakhali	Burdwan	Noakhali	Burdwan	Noakhali
Bankura	Midnapore	Dinajpur	Hooghly Chittagong Hill Tract	Noakhali	Midnapore	Chittagong	Hooghly	Darjeeling Noakhali
Midnapore	Bankura	Jalpaiguri	24 Parganas	Noakhali	Bankura	Darjeeling Tippera	24 Parganas	Darjeeling Bogra
Hooghly	Bankura	Cooch Behar	Calcutta	Chittagong Hill Tract	Bankura	Bogra	Calcutta	Noakhali Chittagong Hill Tract
Howrah	Hooghly	Jalpaiguri	Calcutta	Chittagong	Hooghly	Noakhali	Hooghly	Cooch Behar
Cuttack	Puri	Purnea Palamau	Tributary State Orissa	Darbhangha	Puri	Purnea Palamau	Tributary State Orissa	Purnea
Balasore	Cuttack	Ranchi	Tributary State Orissa	Purnea Ranchi	Cuttack	Purnea Ranchi	Tributary State Orissa	Saran Ranchi
Puri	Cuttack	Purnea Tributary State Chota- nagpur	Tributary State Orissa	Champaran	Cuttack	Santal Parganas	Tributary State Orissa	Saran Muzaffarpur Shahabad Monghyr Hazaribagh

Source : Based on (1) Census of India, 1921, Vol. V, Part II Table XI Part A.  
(2) Census of India 1921, Vol. VII, Part II Table XI Part A.

mainly received and sent out their migrants from and to the contiguous districts. Table 4.12 which represents the immigrants into each district of West Bengal shows that the maximum number of immigrants were from the contiguous district. Out of 97,063 persons immigrating into Burdwan from different districts of Bengal, 76,619 ( 78.94 % ) were from the five districts of the division itself. Among the five, highest immigration into the district was from Bankura where 44,958 people ( 20,583 males and 24,015 females ) immigrated to Burdwan in 1911. Next was Birbhum which added 13,535 immigrants to Burdwan. The lowest immigration into the district was from Cooch Behar and Hill Tippera. Only three female immigrants in each case, was enumerated in Burdwan. Central Bengal also sent out a considerable number of migrants to Burdwan, but compared to the contiguous districts the number was very low. Between 1901-1911, only 19,252 (9.83 %) [Table 4.12] people from Central Bengal, mainly from Nadia (10,161) migrated to Burdwan. Very few from North Bengal (0.23 %) and East Bengal (1.0 %) were enumerated in Burdwan.

In the case of male and female immigrants also, the people from the surrounding districts moved in much larger volumes than from the other districts of the Province. Out of 42,906 (5.57 % of the total male population ) male immigrants ( Table 4.16 ) into Burdwan 34,036 (79.33 %) were from the districts of West Bengal itself (except Burdwan), followed by Central Bengal (8,128), East Bengal (649) and North Bengal (93).

The number of female immigrants also showed the same trend with 42,583 immigrants out of 54,157, pouring into Burdwan, from

Table 4.12

**Immigrants into West Bengal (1911)**  
**(Percentage shares are in parenthesis)**

Districts	Total Immigrants	From Contiguous Districts	From Central Bengal	From North Bengal	From East Bengal
Burdwan	97063	76619 (78.94)	19252 (19.83)	220 (6.23)	972 (1.00)
Birbhum	29314	15349 (52.36)	13358 (45.57)	315 (1.07)	292 (1.00)
Bankura	32234	31428 (97.50)	604 (1.87)	100 (0.31)	102 (0.32)
Midnapore	27030	23458 (86.78)	2898 (10.72)	79 (0.29)	595 (2.21)
Hooghly	117278	98201 (83.73)	16416 (14.00)	689 (0.59)	1972 (1.68)
Howrah	80670	55148 (68.36)	22747 (28.20)	396 (0.49)	2379 (2.95)

Source : Based on Census of India 1911.  
 Vol V, Part II, Tables.

Table 4.13

Immigrants into Orissa (1911)  
(percentage shares are in parenthesis)

Districts	Total Immigrants	From Contiguous Districts	From North Bihar	From South Bihar	From Chota-nagpur Plateau
Cuttack	26342	17045 (64.71)	132 (0.50)	250 (0.95)	8915 (33.84)
Balasore	21706	12509 (57.63)	91 (0.42)	166 (0.76)	8940 (41.12)
Puri	28472	19614 (68.89)	280 (0.98)	359 (1.26)	8219 (28.87)

Source: Based on Census of India 1911

Vol V, Part III, Tables.



Birbhum, Bankura, Midnapore, Hooghly and Howrah. The number of female immigrants into Burdwan was greater than the male migrants (Table 4.16) Bankura contributed the highest number of female migrants to Burdwan and the lowest immigration of females was from Cooch Behar, Noakhali and Hill Tippera. The large volume of immigration into the district was due to the coal mines of Asansol subdivision.

As the people of Bengal avoided moving to distant places, the number of emigrants from Burdwan into contiguous districts outnumbered those, enumerated in the districts of Central Bengal, North Bengal and East Bengal. Out of 97,028 emigrants from Burdwan between 1901-1911, 54,697 [Table 4.18] went to the contiguous districts, 38,316 went to Central Bengal (21,368 to Calcutta ) 2,583 to North Bengal and only 1,432 to East Bengal. The male emigrants (40,863) were mainly attracted to Calcutta and Hooghly. Highest emigration from the district was to Calcutta, while the lowest emigration was to Hill Tippera.

In case of total and male migrants, Burdwan witnessed more immigration than emigration but female migration was not in favour of Burdwan. Female emigrants outnumbered the immigrants. This was due to marriages across the district border which commonly accounted for more migration of females than of males.

In 1921, the increased volume of immigration was the characteristic feature of Burdwan district with 99,429 immigrants mainly attracted by the coal mines. Out of them 45,166 were males and 54,263 were females. (Table 4.17). The main flow of migrants was as usual from the contiguous districts which increased from 76,619 in 1911 to 78,240 in 1921, though their percentages were

**Table 4.14**

**Immigrants into West Bengal (1921)**  
**(Percentage shares are in parenthesis)**

Districts	Total Immigrants	From Contiguous Districts	From Central Bengal	From North Bengal	From East Bengal
Burdwan	99429	78240 (78.69)	18770 (18.89)	469 (0.47)	1950 (1.95)
Birbhum	25598	13000 (50.78)	11874 (46.39)	373 (1.46)	351 (1.37)
Bankura	17827	16159 (90.64)	741 (4.16)	69 (0.39)	858 (4.81)
Midnapore	23156	19337 (83.51)	2385 (10.30)	237 (1.02)	1197 (5.17)
Hooghly	125273	104236 (83.21)	16950 (13.53)	433 (0.34)	3654 (2.92)
Howrah	52672	32712 (62.10)	16150 (30.66)	535 (1.02)	3275 (6.22)

Source : Based on Census of India 1921.  
 Vol V, Part II Tables.

almost the same. There was a decrease in the number of immigrants from Central Bengal while the number of immigrants increased from North Bengal and East Bengal. In 1911, 19,252 (19.83%) people from Central Bengal were enumerated in Burdwan, and in 1921, 18,770 (18.89%) people were enumerated. In 1921, 0.47% from North Bengal and 1.96% from East Bengal were enumerated in Burdwan as against 0.23% and 1% in 1911. Maximum immigration into the district was from Bankura. The lowest immigration into the district was from Cooch Behar, as there were no migrants from Hill Tippera in 1921. The number of female immigrants was more than that of males in 1921. The number of emigrants from Burdwan into the other districts decreased between 1911 and 1921. In 1911, the total number of emigrants from the district was 97,028 while in 1921, it was 70,328. The decline was contributed mainly by the female emigration, between 1911 and 1921. There was a decline of 18,236 female emigrants from the district and only 8,464 males from the district.

The ravages of "Burdwan Fever" were very prominent in the district and it had its impact on the emigrants also. The decrease in the number of emigrants was due to the effect of relaxation of the pressure of the population on the soil.<sup>37</sup> Therefore in 1921, immigration was in favour of Burdwan which added to its population.

The number of people who emigrated from Burdwan to Central Bengal was greater in 1921 (46.24%) than in 1911 (39.49%). This

---

37. Census of India 1921, Vol V, Bengal Part I Report, p.44

was mainly due to the malarial fever which caused a great loss to human life (93,966) people, during the period.

In 1931, the collieries and other industrial concerns in the Asansol sub-division attracted an increasingly large number of immigrants as before. Moreover, the construction of the Darmodar canal attracted a number of labourers temporarily though, from the neighbouring areas. Emigration though less, was mainly directed towards Calcutta.

Birbhum, the purely agricultural district except the south west portion falling under Raniganj coalfield, witnessed more emigration than immigration, between 1911 and 1921. Immigrants, like that in the neighbouring district of Burdwan was primarily from the contiguous districts though immigrants came from Central Bengal also and accounted for a considerable proportion (Table 4.12). Negligible numbers were enumerated from North Bengal and East Bengal into Birbhum. In 1911, highest immigration into the district took place from Burdwan while the lowest was from Chittagong. In 1921, the rate of migration was against Birbhum so that the number of immigrants also declined. Burdwan sent out the largest number of immigrants to Birbhum ( mainly females ) even in 1921, but along with Chittagong the districts from which the lowest immigration took place in 1921 was Jalpaiguri, Bogra, Cooch Behar and Noakhali.

Though the female immigrants and emigrants outnumbered their male counterpart, the balance of migration with the neighbouring districts in Bengal was somewhat against Birbhum both during 1911 and 1921. The emigrants from Birbhum were mainly found in Burdwan (13,833 in 1911) and Murshidabad (12,326 in 1911), both being the

nearest neighbours. Hence the numerical as well as the proportionate share of emigrants to contiguous districts (47.40 %) and Central Bengal (46.76%) was almost the same in 1911 (Table 4.18).

In 1921, the proportionate share of emigrants to Central Bengal increased to 47.78 % while it was 46.14 % to the contiguous district (Table 4.20). The number of male and female emigrants increased between 1911 and 1921. The male emigrants to Burdwan were attracted that by the coal-fields while that to Murshidabad by the agricultural land. In case of female migration as stated earlier, the emigration from the district was primarily due to marriages across the district borders.

In 1931, Birbhum attracted emigrants to the railway settlements at Rampurhat, the development of Sainthia and Ahmadpur as trading centres and as mill areas also invited immigrants from the neighbouring localities.

While Burdwan is a district which attracted more immigrants than the emigrants and Birbhum is a district which had no very strong tendency in this or in the reverse direction, Bankura sent out a large proportion of its population elsewhere to earn their living.<sup>38</sup> The people who emigrated to other district in Bengal, outnumbered the emigrants of Bankura both in 1911 and 1921.

---

38. Census of India 1921, Bengal Op-cit, p.46.

**Table 4.15**

**Immigrants into Orissa (1921)  
(Percentage shares are in parenthesis)**

Districts	Total Immigrants	From Contiguous Districts	From North Bihar	From South Bihar	From Chota- nagpur Plateau
Cuttack	27873	16622 (59.63)	121 (0.43)	155 (0.56)	10975 (39.38)
Balasore	18775	11969 (63.75)	62 (0.33)	94 (0.50)	6650 (35.42)
Puri	23045	17942 (77.86)	144 (0.62)	243 (1.05)	4716 (20.47)

Source : Based on Census of India 1921  
Vol VII, Part II, Tables

Bankura lost heavily by immigration (10.54 % in 1911) compared to the other West Bengal districts, (Table 4.16). In 1921, the emigrant people increased to 11.95 % (Table 4.17). Both the male as well as the female migration stream was also against Bankura in 1911 and 1921 and increased during the period. Emigration from Bankura was mainly to the contiguous districts of Hooghly and Burdwan where in 1911, 47,990 and 44,598 persons were enumerated respectively. In 1921, 47,547 and 49,476 people from Bankura emigrated to Burdwan and Hooghly respectively. Very few people emigrated to Central Bengal (even to Calcutta), North Bengal and East Bengal. Among the emigrants as well as the immigrants the females were in excess both during 1911 and 1921 (Table 4.16 and 4.17).

The Bankura people were not attracted to the industrial area in the neighbourhood of Calcutta, for Bankura sent only 6262 emigrants to Calcutta, 1647 to Howrah and 2335 to the 24 Parganas in 1921. The number of emigrants in 1911 was 6454 to Calcutta, 2097 to Howrah and 2957 to 24 Parganas. Those who emigrated from Bankura preferred agriculture as a means of livelihood, although a considerable number of its aborigines were attracted to the Raniganj coal-fields. Therefore, the bulk of the emigrants sought employment in rural parts of Burdwan and Hooghly and to a less extent in rural areas in Midnapore. The steady flow into Burdwan and Hooghly is clear from the increased volume of emigration, from Bankura during the period.

The lowest rate of emigration from the district was into Noakhali during 1911 and into Noakhali and Chittagong Hill Tracts during 1921. The highest female emigration from the district was

Table 4.16

Immigration and Emigration (1911) (share of migrants to total, male and female population is given in parenthesis)

Districts	Total Immigrants			Total Emigrants		
	Persons	Male	Female	Persons	Male	Female
Burdwan	97063 (6.34)	42906 (5.57)	54157 (7.13)	97028 (6.34)	40863 (5.30)	56165 (7.40)
Birbhum	29314 (3.14)	11464 (2.47)	17850 (3.80)	33370 (3.57)	14656 (3.16)	18714 (3.99)
Bankura	32234 (2.83)	7522 (1.34)	24712 (4.29)	120014 (10.54)	59071 (10.50)	60943 (10.59)
Midnapore	27030 (0.96)	12705 (0.90)	14325 (1.02)	126161 (4.48)	71792 (5.09)	54369 (3.86)
Hooghly	117278 (10.79)	54971 (9.89)	62307 (11.70)	135266 (12.43)	78079 (14.05)	57187 (10.74)
Howrah	80670 (8.62)	45772 (9.18)	34898 (7.99)	32317 (3.45)	18371 (3.68)	13946 (3.19)
Cuttack	26342 (1.25)	6613 (0.66)	19729 (1.78)	65299 (3.10)	30641 (3.06)	34658 (3.13)
Balasore	21706 (2.06)	7667 (1.52)	14039 (2.55)	29983 (2.84)	10092 (2.00)	19891 (3.62)
Puri	28472 (2.79)	9570 (1.89)	18902 (3.69)	25802 (2.53)	8088 (1.60)	1714 (3.45)

Source: Same as in Table 4.12 and 4.13



Table 4.17

Immigration and Emigration (1921) (share of migrants to total, male and female population is given in parenthesis)

Districts	Total Immigrants			Total Emigrants		
	Persons	Male	Female	Persons	Male	Female
Burdwan	99429 (6.93)	45166 (6.17)	54263 (7.71)	70328 (4.90)	32399 (4.42)	37929 (5.39)
Birbhum	25598 (3.50)	9039 (2.14)	16559 (3.93)	34372 (4.07)	14981 (3.54)	19391 (4.60)
Bankura	17827 (1.75)	6407 (1.26)	11420 (2.24)	121869 (11.95)	58491 (11.48)	63378 (12.42)
Midnapure	23156 (0.87)	9935 (0.74)	13221 (1.00)	141044 (5.30)	80929 (6.04)	60115 (4.54)
Hooghly	125273 (11.63)	57549 (10.25)	67224 (13.13)	82756 (7.68)	46444 (8.27)	36312 (7.04)
Howrah	52672 (5.29)	28674 (5.36)	23998 (5.22)	52731 (5.30)	31982 (5.98)	20749 (4.51)
Cuttack	27873 (1.35)	7086 (0.74)	20787 (1.87)	65082 (3.15)	29405 (3.09)	35677 (3.21)
Balasore	18775 (1.92)	7020 (1.51)	11755 (2.29)	29830 (3.04)	9301 (2.00)	20529 (4.00)
Puri	23045 (2.42)	6807 (1.49)	16238 (3.27)	25626 (2.69)	7709 (1.69)	17917 (3.61)

Source : Same as in Tables 4.14 and 4.15.

to Burdwan in 1911 and to Hooghly in 1921, while the lowest female emigration was to Tippera, Noakhali and Darjeeling in 1911, and Darjeeling and Noakhali in 1921.

Like the emigrants, the immigrants into Bankura were largely from the contiguous districts. Out of 32,234 immigrants in 1911, 31,428 (97.5%) were from the contiguous districts and 28,198 were from Burdwan and Midnapore itself (Burdwan distributing the larger share). In 1911, Burdwan sent out the maximum number of immigrants to Bankura, while in 1921, Midnapore took the position of Burdwan. The total number of immigrants decreased from 32,234 in 1911 to 17,827 in 1921. The decrease in the total number of immigrants was mainly due to the decrease in the number of immigrants from Burdwan which was 18,620 in 1911 and the only 6,709 in 1921. though Central Bengal and East Bengal added to the number of immigrants during 1921, the decrease in the division itself was mainly responsible for the decline. Rajshahi and Tippera contributed the least number of immigrants to the district in 1911 and Dinajpur in 1921. In 1931, the opening up of mills and the manufacture of bell-metal in Bankura attracted labourers from outside.<sup>39</sup>

The district of Midnapore, sent out a large number of its people to other parts, both in 1911 and in 1921 which is also evident from Tables 4.16 and 4.17. The number of immigrants to Midnapore shows a decrease from 0.96% to 0.87% between 1911 and 1921 but the emigrants continued to show a distinct increase

---

39. Chattopadhyaya H., Op.cit, p.79.

during the same period. While 4.48% (Table 4.16) people emigrated from Midnapore in 1911 to the other districts of Bengal, it was 5.30% (Table 4.17) in 1921. There was also a distinct increase in the proportionate share of male and female emigrants during the period. Highest emigration from Midnapore was into the industrial district of 24 Parganas followed by Calcutta and Hooghly in 1911 and 1921. Therefore the proportionate share of emigrants from Central Bengal was 58.09% in 1911 and 62.10% in 1921 exceeding the share from the contiguous districts [Table 4.18 and 4.20]. Emigrants from Midnapore moved in large numbers to the industrial areas in the neighbourhood of Calcutta as they were easily absorbed as unskilled labourers in mills and factories.

Besides, the industrial area, emigrants from Midnapore moved in large numbers (mainly females) to Bankura. The balance of migration between Bankura and Midnapore was in favour of the later. Migration between the two districts was mainly in marriages and short moves which meant only to cross the border.

The fact that inspite of a decrease in population (from 28,18,118 in 1911 to 26,62,997 in 1921) emigration increased during the period, indicates that the capacity of the soil in some parts of the district deteriorated. But very few people moved to the north or to the east. That is why in 1911, the lowest emigration from the district was into Cooch Behar and in 1921 into Noakhali. Unlike the other three districts of Burdwan, Birbhum and Bankura, the female emigrants were less in number than the males though it was greater in case of immigration.

Immigration into the district was mainly from the neighbour-

ing districts than from the distant parts. In 1911, 86.78% of the immigrants (Table 4.12) and in 1921, 83.51% (Table 4.14) were from the contiguous districts. Among them, the major part of the immigrants was from Bankura and mainly females. Employment on the railway and in the railway settlements and works at Kharagpur<sup>40</sup> were mainly responsible for attracting the migrants to Midnapore. With the development in economic activities migrants from Central Bengal and contiguous districts decreased in number during the period 1911-21 while that from North Bengal and East Bengal increased considerably due to the pressure of population on land and lack of remunerative jobs in those areas.

In 1931, the Santals and other aboriginal tribes immigrated into Midnapore as agricultural labourers. The expansion of the railway settlement at of Kharagpur caused the immigration of workers for employment in the railway workshops and also led to an influx of their unemployed relatives from outside.<sup>41</sup>

The movement of persons from and into Hooghly, in 1911 was somewhat against Hooghly as the emigrants outnumbered immigrants (Table 4.16). The number of emigrants was 1,35,266 (78,079 males and 57,187 females) in 1911 while that of the immigrants was 1,17,278 people. The immigrants into the district were mainly from Bankura (47,990), Midnapore (25,216) and Burdwan (17377)- the contiguous districts of Hooghly together accounted for 83.73% (Table 4.12) of the total immigrants in 1911. Central Bengal

---

40. Census of India 1921, Bengal, Op.cit. p.49.

41. Chattopadhyaya H, Op.cit, p.79.

followed next with 14% of the immigrants, mainly from 24 parganas (6,536) and Nadia (6,033). After Central Bengal, mainly Dacca, Faridpur and Backergunge of East Bengal contributed to the immigrants of the district. Bankura immigrants were the largest in the rural areas of the district. Highest female immigration into the district was also from Bankura. Cooch Behar, Hill Tippera and Chittagong sent out the least number of people to Hooghly in 1911. In 1921, there was an increase in the number of immigrants to 1,25,273 (Table 4.14) from 1,17,278 in 1911 (Table 4.12). Major share was again from Bankura (49,476), Midnapore (27,248) and Burdwan (13,520). Howrah also sent out 12,640 people to Hooghly in 1921. The number of immigrants from East Bengal districts increased from 1,972 (1.68%) in 1911 to 3,654 (2.92%) in 1921. Dacca, Faridpur, Backergunge, Khulna and Tippera sent out more migrants to Hooghly in 1921 as compared to 1911. The increased immigration into the district between 1911 and 1921, was attracted by the growth of jute industry established on the banks of the Hooghly. The proportion of immigrants was double in Hooghly as compared with Howrah (Table 4.14) in 1921. The balance of migration between Hooghly and Midnapore was in favour of Hooghly and in a lesser degree to that of Burdwan and Nadia. The bulk of the rural immigrants from Midnapore into Hooghly found employment in mills and factories and therefore increased during the period.

While there was an increase in the number of immigrants between 1911 and 1921, the number of emigrants declined considerably during the same period. In 1911, the number of emigrants from Hooghly was 1,35,266 (12.43%) [Table 4.16] while in 1921 the

Table 4.18

Emmigrants from West Bengal (1911)  
(Percentage shares are in parenthesis)

Districts	Total Emigrants	From Contiguous Districts	Into Central Bengal	Into North Bengal	Into East Bengal
Burdwan	97028	54697 (56.37)	38316 (39.49)	2583 (2.66)	1432 (1.48)
Birbhum	33370	15819 (47.40)	15603 (46.76)	1648 (4.94)	300 (0.90)
Bankura	120014	107555 (89.62)	10916 (9.09)	562 (0.47)	983 (0.82)
Midnapor	126161	51966 (41.19)	73292 (58.09)	331 (0.26)	572 (0.46)
Hooghly	135266	61277 (45.30)	72014 (53.24)	1197 (0.88)	778 (0.58)
Howrah	32317	8889 (27.50)	22900 (70.86)	220 (0.68)	308 (0.96)

Source: Same as in Table 4.12

number decreased to 82,756 (7.68%) [Table 4.17]. Highest emigration from the district was into Calcutta followed by Howrah both in 1911 and in 1921. However, there was a great reduction in the migration from Hooghly to Calcutta and Howrah. This was due to the development of the jute industry in Hooghly because of which the number of persons born in Hooghly but enumerated in Howrah declined from 39,383 in 1911 to 19,090 in 1921. Hooghly used to supply most of the clerical labour required in Howrah and much of that required in Calcutta. In 1921 it still supplied the same but the migration from Hooghly to Calcutta declined from 48,032 in 1911 to 32,492 in 1921, the explanation being the remarkable development of the daily passenger service on the East Indian Railway.

Numerically though there has been a considerable decrease in the number of emigrants from Hooghly to the neighbouring districts and to the districts of Central Bengal, North Bengal and East Bengal in 1921, the proportionate share of emigrants from Hooghly shows an increase in Central Bengal, North Bengal and East Bengal [Table 4.18 and 4.20]. This was due to the decline in the total number of emigrants from the districts. Since a large proportion both immigrants and emigrants had left their homes in search of work, it is not surprising in the instance of this district to find an excess of males over females in both classes.<sup>42</sup>

In 1931, the increased volume of immigration into the dis-

---

42. Census of India 1921, Bengal, Op.cit, p.50.

Table 4.19

Emmigrants from Orissa (1911)  
(Percentage shares are in parenthesis)

Districts	Total Emigrants	Into Contiguous Districts	Into North Bihar	Into South Bihar	Into Chota- nagpur Plateau
Cuttack	65299	31418 (48.11)	91 (0.14)	92 (0.14)	33698 (51.61)
Balsore	29983	5777 (19.27)	40 (0.13)	9 (0.03)	24157 (80.57)
Puri	25802	11973 (46.40)	21 (0.08)	40 (0.16)	13768 (53.36)

Source : Same as in Table 4.13 .



Table 4.20

Emigrants From West Bengal (1921)  
(Percentage shares are in parenthesis)

Districts	Total Immigrants	Into Contiguous Districts	Into Central Bengal	Into North Bengal	Into East Bengal
Burdwan	70328	34317 (48.79)	32522 (46.24)	2353 (3.35)	1136 (1.62)
Birbhum	34372	15858 (46.14)	16424 (47.78)	1947 (5.66)	143 (0.42)
Bankura	121869	109742 (90.05)	10252 (8.41)	631 (0.52)	1244 (1.02)
Midnapore	141044	52354 (37.12)	87593 (62.10)	386 (0.27)	711 (0.50)
Hooghly	82756	34957 (42.24)	46085 (55.69)	1017 (1.23)	697 (0.84)
Howrah	52731	16456 (31.21)	35642 (67.59)	263 (0.50)	370 (0.70)

Source : Same as in Table 4.14.

tract continued, as there was an increase in the number of rice mills which attracted the Santals and other aboriginals to work not only in rice mills but also as agricultural labourers to bring waste land under cultivation. The establishment of brickfields in Uttarpara also caused an immigration of labourers from outside the district.

Migration to Howrah from other parts of the province or from elsewhere followed the pattern of Hooghly. A comparative study of Table 4.16 and 4.17 shows that in 1911, Howrah witnessed more immigration than emigration while in 1921 reverse was the case. But this does not necessarily mean that the foreign elements in Howrah were less in 1921 than in the former census year. As far as the statistics of migration for the town of Howrah is concerned, immigration dominated the statistics for the district and had reached the point when the descendants of the immigrants were taking the place of the original settlers and swelling the number of the native-born. Immigrants into Howrah were mainly from the contiguous districts as well as from other parts of the province. They were attracted by the prospects of employment in its various industrial concerns such as jute mills, cotton mills, jute presses, iron foundries, machinery and engineering works, brickfields, railway workshops, oil mills, flour mills and the like.<sup>43</sup> Highest immigration into the district was from Hooghly though there was a decline in the number of immigrants due to the development of jute industry in Hooghly.

---

43. Census of India 1921, Ibid, p.51.

As far as the emigrants from the district is concerned, there has been an increase in the number of emigrants from 32,317 (3.45 %) [Table 4.16] in 1911 to 52,731 (5.30%) [Table 4.17] in 1921. But as is stated in the Census of 1921, " increased emigration from Howrah does not necessarily prove that Howrah people are going out elsewhere. It is probable that the bulk of those born in Howrah but found elsewhere only happened to have been born while their parents were temporary sojourners in Howrah , and afterwards went back with them to their native country".<sup>44</sup> Emigrants from Howrah were mainly employed in office work in Calcutta which is observed from the fact that in 1911 while 15,451 (10,439 males) people emigrated from Howrah to Calcutta, in 1921 it was more than double and 22,666 people (16,429 males) migrated to Calcutta. This also explains the fact that there were greater proportion of emigrants in Central Bengal than in West Bengal. Except Calcutta, the balance of migration in all directions from neighbouring districts was in favour of Howrah. As is expected, there was a large excess of males over females among the immigrants and also among the emigrants.

Like the movement of people between the districts of West Bengal and other parts of the province, the migration of people between the districts of Orissa was also very important. But in general, apart from the Manbhum coal-field, the developing industries of Singhbhum and the vacant spaces in the Orissa states and

---

44. Census of India 1921, Ibid, p.51.

in a lesser degree in Purnea (North Bihar) there was nothing in the province of Bihar and Orissa to attract immigrants from outside as well as from within the province. Immigration therefore was unimportant for the province as a whole and the coastal districts of Orissa was no exception to the rule.

The immigrants to the districts were primarily from the contiguous districts and a large part of the immigrants were females (Table 4.16 and 4.17) which shows that a great deal of it was purely casual.

In 1911, out of 26,342 immigrants to Cuttack 17,045 (64.71%) (Table 4.12) were from the neighbouring two districts of Balasore and Puri contributed the greater share (11,567). Immigrants into the district from Chotanagpur Plateau constituted 33.84% in 1911. A negligible proportion from North Bihar and South Bihar was enumerated in the district both in 1911 and 1921. The number of immigrants to Cuttack increased marginally from 26,342 in 1911 (Table 4.12) to 27,873 in 1921 with the same pattern of migration. As stated earlier, females outnumbered the males both in case of immigrants and emigrants due to marriages which meant crossing the district borders and necessarily were of casual type.

Highest emigration from the district took place into the Tributary States of Orissa where the land was available for cultivation on cheap terms. Therefore the number of emigrants to Chotanagpur Plateau outnumbered those who migrated to the contiguous districts in 1911 and in 1921. In 1911, 51.61% emigrated from Cuttack to Chotanagpur out of which 83.18% emigrated to the

**Table 4.21**

**Emigrants from Orissa (1921)**  
**(Percentage shares are given in parenthesis)**

Districts	Total Emigrants	Into Contiguous Districts	Into North Bihar	Into South Bihar	Into Chota-nagpur Platea
Cuttack	65082	29139 (44.77)	180 (0.28)	349 (0.54)	35414 (54.41)
Balsore	29830	5987 (20.07)	38 (0.13)	76 (0.25)	23729 (79.55)
Puri	25626	11407 (44.51)	46 (0.18)	90 (0.35)	14083 (54.96)

Source : Same as in Table 4.15.

tributary states of Orissa. In 1921, out of 35,444 (54.41%) emigrants from Cuttack to Chotanagpur 27,375 (77.30%) migrated to Orissa states only. Very few people migrated to the other parts of the province in 1911 and 1921.

The same characteristic feature of inter-district migration between Balasore and Puri was also noted between 1911 and 1921. This is presented in the statistical tables. Both Balasore and Puri received the highest number of immigrants from Cuttack and sent out highest number of emigrants to the Tributary states of Orissa. Female migration was in excess over males in both the districts. The emigrants increased in number during the period because the potential of the resources of these three coastal districts could not be exploited further due to the small amount of fertile tract which lies between the hills of the interior and the marshes of the sea coast. But generally this emigration was of a temporary nature and was not a permanent loss to the district. Migration from Orissa to Bengal proper, in favour of the later was much more important during the period. During the decade 1901-11, 1,23,750 Oriya people immigrated into Bengal, as will be borne out from Table 4.22.

**Table 4.22**  
**Emigrants From Orissa-1911**  
(Percentage Shares are in Parenthesis)

Born in	Total	Enumerated in			
		West Bengal	Central Bengal	North Bengal	East Bengal
Orissa	1,23,750	37,318 (30.16)	77,206 (62.39)	5,149 (4.16)	4,077 (3.29)

**Source :-** Census of India 1911, Vol V Bengal, Bihar and Orissa and Sikkim, Part I, Report. p.168.

Out of the total immigrants of 1,23,750 people to Bengal 62.39 % were enumerated in the industrial districts of Central Bengal, mainly in Calcutta and 24 Parganas.

In 1921, emigrants from the districts of Cuttack and Balasore moved in large volumes into the industrial districts of West and Central Bengal which is revealed in the following table:-

**Table 4.23**  
**Emigrants From Orissa-1921**

Born in	Enumerated in				
	Total	Calcutta	24 Parganas	Howrah	Hooghly
Cuttack	11,4390	31,720	37,472	16,571	8,995
Balasore	4,7015	12,131	13,785	6,134	3,864
Puri	-	-	-	-	-

**Source** :- Census of India 1921 Vol VII, Bihar and Orissa Part I Report, p.112.

They also migrated to other places in Bengal but most of the Orissa emigrants to Bengal found their way to Calcutta, or its neighbourhood, where in addition to industrial occupations they took up work in large numbers as day labourers or in domestic services.<sup>45</sup> The emigration was due to the distress of the people because of the occurrence of a series of floods and shortage of rainfall and also due to the development of Bengal-Nagpur Railway which made communication easier.

During the next decade of 1921-31, the emigration from Bihar

---

45. Census of India 1921, Ibid, p.113.

and Orissa was 11,27,102 (Table 4.7) to Bengal proper. But due to the fact that Bihar and Orissa was counted as a single unit even in 1931, separate figures for Orissa are not available. But it is natural that, if the total number of emigrants from Bihar and Orissa to Bengal declined over the years (12,52,371 in 1911, 12,32,424 in 1921 and 11,27,102 in 1931) the number of emigrants from Orissa had also surely decreased. Many people who left the district, returned in course of time. Many were driven back by the industrial depression in Calcutta and elsewhere.<sup>46</sup>

From the foregoing discussion of the pattern of migration between the districts of Bengal and from the districts of Orissa to Bengal it is evident that the prior number migrants from any district is positively related with the rate of current migration from the same area. It has been observed from the present analysis that most of emigrants from the rural areas of the relatively backward district of the division, mainly migrated to the industrial areas of Hooghly, Howrah and Calcutta and also to Burdwan. In case of Orissa the emigrants in large numbers flocked to the industrial area of Calcutta and its neighbourhood. Besides the lack of opportunities one of the reason for this type of movement may be that it is mostly chain type in which most of the migrants revisit their native places at regular intervals. Those that initially remain behind are, in this way, persuaded and motivated by prior migrants to seek out urban ways of life which are generally taken to be superior to rural life styles. Thus prior migrants become important sources of information for potential

-----

46. Census of India 1931, Bihar and Orissa, Op.cit, p.43.



migrants at their place of origin.<sup>47</sup> This positive relationship between the prior and current migrants is confirmed by the simple correlation value of +0.76 for West Bengal and +0.97 for Orissa. The positive sign of the coefficient of the variable indicates that, the propensity to migrate in the same direction was greater in Orissa than in Bengal where agricultural distress of the three districts for a long time forced the migrants to move out in areas of better opportunities.

Another fact, which emerges out from the foregoing discussion is that, the rate of female migration was much higher than the male migration in most of the cases during the period under study. But it is expected that the migration rate should be higher from areas where man power or labour force in terms of males is greater compared to other areas provided other conditions such as the area of land, job and educational opportunities and socio-economic conditions remain the same. Thus migration from a district in general is negatively related with the sex ratio. But in case of rural Bengal or Bihar and Orissa reverse was the case. There were more females than males in most of the districts under study. Therefore the coefficient of sex ratio was positive (+0.28 in W.B. and +0.99 in Orissa ) indicating that the rate of migration was higher when there were relatively more females. Though the migration of females from rural to urban areas were less than that of males, an obvious explanation of the fact is that, the crossing of district boundaries due to marriages.

---

47. Yadava K.N.S, Op.cit, p.100

Table 4.24

**Districtwise Density of Population (1911-1931)**  
(Persons per square kilometre)

Districts	1911			1921			1931		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Burdwan	914	856	58	855	789	66	937	856	81
Birbhum	858	832	26	776	747	29	898	852	46
Bankura	699	660	39	625	588	37	681	644	37
Midnapore	874	845	29	848	818	30	858	819	39
Hooghly	1475	1262	213	1460	1212	248	1508	1225	283
Howrah	2953	2325	628	3022	2172	850	3378	2399	979
Cuttack	929	890	39	910	869	41	959	916	43
Balasore	815	784	31	757	729	28	776	747	29
Puri	657	629	28	615	589	26	668	641	27

Source : Same as in Table 4.25.

It is quite obvious that movement of people from one place to another would reflect the density of population of an area which differs according to the rate of economic development. Again, the movement of people also exercises its impact on the growth of settlement of a particular area. Both density and growth of settlement is mainly affected by the immigration of population.

Table 4.24 depicts the density of the population for the districts of West Bengal and Orissa. It is observed from the table that, Hooghly and Howrah the two most industrially developed districts had the maximum density during the period. Due to the prospects for employment, immigrants also outnumbered the emigrants in these two districts (Table 4.16 and 4.17), in the whole division of West Bengal. The district of Burdwan with its increasing rate of development also attracted immigrants especially in the urban areas of Raniganj and its neighbourhood. As a result we see that, though the total density for Burdwan declined during the period its urban density increased from 6/ sq. kilometre in 1911 to 7/sq. kilometre in 1921 and to 11/sq. kilometre in 1931. Hooghly also experienced the same pattern, in its urban density increasing over the years. Thus it can be said that, the rate of immigration has a positive relation with density while emigration has a negative relationship. The large volume of emigration from the districts of Bankura, Birbhum, Midnapore, and Cuttack, Balasore and Puri indicates the fact. In these districts while the urban density remained almost the same during the period, the rural density experienced a decline. This is largely due to the migration of the rural folks from their villages, to

Table 4.25

## Distribution of Urban and Rural Population (1901-1931)

Natural Division	Total	1901			1911			% of Urban to Total Population
		Rural	Urban	% of Urban to Total Population	Total	Rural	Urban	
Bengal	42389131	39473470	2915661	6.88	45694583	41818784	3875799	8.48
West Bengal	8218300	7674850	543450	6.61	8442633	7799035	643628	7.62
Central Bengal	7635677	6228145	1407532	18.43	8058007	6212010	1845997	22.91
North Bengal	9896760	9539371	357389	3.61	10699173	10316023	383150	3.58
East Bengal	16638394	16031104	607290	3.65	18494740	17491716	1003024	5.43
Bihar and Orissa	35417864	33518519	1899345	5.36	37820023	35988632	1831391	4.84
North Bihar	13895800	12902520	993280	7.15	14091622	13287298	804324	5.71
South Bihar	7577968	7003446	574522	7.58	7754797	7114054	640743	8.26
Orissa	3901328	3720920	180408	4.62	3780074	3610317	169757	4.49
Chotanagpur Plateau	10045768	9894633	151135	1.50	12193530	11976963	216567	1.78

Natural Divisions	Total	1921			1931			% of Urban to Total Population
		Rural	Urban	% of Urban to Total Population	Total	Rural	Urban	
Bengal	44672916	38915405	5757511	12.89	50970492	45155781	5814711	11.41
West Bengal	5009930	4252641	757289	15.11	8638677	7738062	900615	10.42
Central Bengal	7999905	6068933	1930972	24.14	8480437	6411015	2069422	24.40
North Bengal	10929592	10109423	820169	7.50	11243642	10308625	935017	8.31
East Bengal	20733489	18484408	2249081	10.85	22607736	20698079	1909657	8.45
Bihar and Orissa	35979369	34219459	1759910	4.89	42312270	39546803	2765467	6.53
North Bihar	13976316	13173149	803167	5.75	15160086	13934284	1225802	8.08
South Bihar	5761716	5186455	575261	9.98	8504513	7663801	840712	9.88
Orissa	3994079	3831051	163028	4.08	4202255	4027007	175248	4.17
Chotanagpur Plateau	12247258	12028804	218454	1.78	14445416	13921711	523705	3.62

Source : Based on 1. Census of India 1901  
Vol. VI A, Part II, The Imperial Tables.

2. Census of India 1911.  
Vol. V, Part II, Tables.

3. Census of India 1911.  
Vol. V Part III, Tables.

4. Census of India 1921.  
Vol. V, Part II, Tables.

5. Census of India 1921.  
Vol. VII, Part II, Tables.

6. Census of India 1931.  
Vol. V, Part II, Tables.

7. Census of India 1931.  
Vol. VII, Part II, Tables.

the nearby urban centres as well as to Calcutta and its neighbourhood for better job opportunities.

The migration of the rural people to the urban areas or to larger villages increases the population of that particular settlement, and pushes up the large village to the position of a small town and a small town to a little larger one along the hierarchical ladder. Thus pressure of rural push and urban pull contributes to a cumulative process of growth. Internal migration and urbanization are in fact inter-related phenomena, because the general pattern of internal migration is characterized by a movement directed towards urban centres, towns or cities. Historically, internal migration has been a significant factor in the growth of urban areas.

In Bengal, during the period under study the movement of the people was directed towards the nearby towns which developed as centres of trade, commerce and administration, such as those in the districts of Murshidabad, Malda, Dinajpur, Dacca and Hooghly. They moved also into the old industrial city of Calcutta and into the new industrial towns like Asansol and Raniganj. Migrants from rural areas moved primarily into industrial towns as they promised them ample opportunities for immediate employment.<sup>48</sup>

As a result Bengal, Bihar and Orissa witnessed a gradual increase of urban population during the years. Table 4.25, represents the increase in urban population in the natural divisions of Bengal, Bihar and Orissa from 1901 to 1931.

It is observed from the table that the urban population of

---

48. Chattopadhyaya H., *Op.it*, P.379.

**Table 4.26**  
**Number of Towns (1901-1931)**

Natural Division	Number of towns			
	1901	1911	1921	1931
West Bengal	27	33	45	47
Central Bengal	37	73	72	63
North Bengal	35	40	102	112
East Bengal	59	102	267	217
North Bihar	106	82	84	137
South Bihar	41	43	31	55
Orissa	8	8	8	8
Chotangpur Plateau	16	24	30	42
<b>Bengal (Total)</b>	<b>158</b>	<b>248</b>	<b>486</b>	<b>439</b>
<b>Bihar and Orissa (Total)</b>	<b>171</b>	<b>157</b>	<b>153</b>	<b>242</b>
<b>Grand Total</b>	<b>329</b>	<b>405</b>	<b>639</b>	<b>681</b>

Source : Same as in Table 4.25.

Bengal increase from 29,15,661 in 1901 to 58,14,711 in 1931 and that of Bihar and Orissa from 18,99,345 in 1901 to 27,65,467 in 1931. The table further indicates the division having the highest urban population and the lowest as also the highest percentage of urban population to total population and the lowest during the period between 1901 and 1931.

Paralleling the progressive increase of urban population, the number of towns also increased during the period. This is depicted in Table 4.26.

It is observed from the table that the number of towns increased from 158 in 1901 to 439 in 1931 in Bengal and from 171 in 1901 to 242 in 1931 in the province of Bihar and Orissa.

The increase in the number of towns and urban population was mainly contributed by the migrants during the period under study because natural increase was less on account of the death rate having been higher than the birth rate in urban areas between 1901 and 1931. This will be evident from Table 4.27 showing birth and death rates in Calcutta with suburbs and Howrah from 1911 to 1920.

Ashok Mitra<sup>49</sup> also speaks of the low rate of natural growth in the towns, such low rate of urban growth constantly demanded an inflow of labour from the rural areas to man the growing industries. That the migration of the persons from rural areas led to the growth of the urban population in Bengal till 1931,

---

49. Mitra, Ashok, Problems of Internal Migration and Urbanisation in India, Demographic Bulletin, Vol I, No.1, 1968, p.394 in Chattopadhyaya, Op.cit.



**Table 4.27:****Birth Rates and Death Rates in Calcutta  
with Suburbs and Howrah**

	Birth Rate per 1000 of Total Population		Death Rate per 1000 of the Total Population	
	Calcutta with Suburbs	Howrah	Calcutta with Suburbs	Howrah
1911	21.6	22.3	26.9	24.2
1912	20.8	20.1	28.1	25.2
1913	19.9	20.1	29.5	30.6
1914	19.4	21.6	29.2	35.8
1915	18.7	22.1	29.3	33.1
1916	21.3	26.1	24.9	26.6
1917	21.9	26.4	24.5	28.2
1918	21.2	25.2	35.6	40.5
1919	19.1	23.2	43.0	55.2
1920	17.2	18.3	39.9	48.6

Source : Census of India 1921.  
Vol. VI City of Calcutta  
Part I Report, p.54.

Table : 4.28

**Growth Rate of Urban and Rural Population  
(1901-1931)**

Districts with High Urban growth	Population			Growth Rate	
	Total	Rural	Urban	Rural	Urban
<b>24 Parganas</b>					
1901	2078359	1680223	398136	29.46	35.28
1931	2713874	2175265	538609		
<b>Howrah</b>					
1901	850514	674258	176256	25.12	44.80
1931	1098867	843647	255220		
<b>Dacca</b>					
1901	2640522	2525508	115014	29.08	50.16
1931	3432577	3259870	172707		
<b>Districts with Low Urban growth</b>					
<b>Dinajpur</b>					
1901	1567080	1553650	13430	11.75	42.64
1931	1755432	1736276	19156		
<b>Jalpaiguri</b>					
1901	787380	777091	10289	24.10	84.29
1931	983357	964395	18962		
<b>Bogra</b>					
1901	854533	843335	11198	26.56	70.55
1931	1086419	1067321	19098		

Source : Same as in Table 4.25.

may be established by showing that the urban population growth rate was higher than the rural population growth rate of a district during the period. Table 4.28 which represents the percentages of growth of urban and rural population during the period 1901-31 for some selected districts, indicates that the high urban population growth rate in each district was the result of the migration from the rural areas into the urban areas.

Therefore, migration can be regarded as the contributing factor to the growth of towns and urban population and also for the increasing density of urban centres during the period under study.

#### IV.6 CONCLUSIONS

The following conclusions emerge from the chapter.

1. Migration was not the characteristic of any particular division or district because all the districts and divisions received and sent out labourers from and to different areas during the period under study.
2. North Bengal and Central Bengal primarily received migrants from other places while West Bengal and East Bengal sent out their migrants to other areas.
3. The migrants into North Bengal and Central Bengal were from distant places than from the contiguous localities.
4. In Bihar and Orissa, migration within the province, between different natural divisions was less important than inter-provincial migration. Emigration from North Bengal, South Bihar and Orissa was mainly of periodic type and immigration into the divisions was less important.

5. Chotanagpur was different from the Ganga plain in its geographical character and was at the same time an emigrating and immigrating Zone.
6. In case of inter-provincial migration between Bengal, Bihar and Orissa the balance of migration was in favour of Bengal.
7. Emigration caused the heaviest drain on Chotanagpur Plateau though other divisions also contributed significantly to this stream.
8. Emigrant from Bengal into Bihar and Orissa were mainly white collared labourers and were employed in large number in the industrial area of Chotanagpur plateau.
9. In case of inter-district migration in West Bengal and Orissa, people generally moved to the contiguous districts. Migration between West Bengal and Orissa was in favour of the former.
10. The females outnumbered the males in the balance of migration due to inter-district marriages which in most cases, meant only the crossing of the district borders.
11. Immigration of rural people to urban areas increased the urban population over time, thereby increasing the density, and the growth of the towns.

## CHAPTER V

### CONCLUSION

The present study is an attempt to analyse the characteristic of settlement structure of the provinces of Bengal, Bihar and Orissa during 1901-1931. On the basis of physical and ethnical affinities the provinces has been divided into eight natural divisions and for the administrative purpose into ten divisions. The natural divisions have been taken as the basis unit of analysis in this study and the settlement structure, the occupational structure and the pattern of migration have been analyzed at length for these eight natural divisions. For micro level analysis nine districts have been selected from the most developed and the most backward regions. From the analysis of the available secondary data, the following conclusions emerge.

1. There are significant spatial variations between natural divisions and districts in the growth, density and distribution of population. The growth of population in Bengal, Bihar and Orissa was the consequence both of high natural increase and the movements of population. Immigration was partly responsible for the growth of population in Bengal especially in Central Bengal where industrial and commercial development attracted migrants from far off places. Elsewhere, natural increase was mainly responsible for the growth of population, particularly in areas where muslims were predominant, for example, East Bengal which had the maximum Muslim population as well as the maximum growth rate (11.97 % in 1931) among the natural divisions of Bengal. In Bihar and Orissa the natural growth among the Chotanagpur tribals

was responsible for the growth of population. However, between 1911 and 1921, there was a decline in the growth of population due to epidemic and endemic diseases. After 1921, improvement in public health led to the increase in population. The real spurt in growth was from 1930's. The growth of population came, however, uneven and confined in few pockets in both the provinces where physical and economic conditions were favourable.

2. Not only the growth, the density and distribution of population was also very uneven in Bengal, Bihar and Orissa. In general, the plain areas of Bengal and the north and south Bihar plains were densely populated. The population pressure on land was however, much greater in Bengal than in Bihar and Orissa. Except in Central Bengal where industrial and commercial activities attracted migrants from far off places in the city of Calcutta and its neighbourhood, rural density in the other natural divisions of Bengal was considerably higher. In Bihar and Orissa, the Ganga plain north of the river, supported a fairly dense rural population due to its agricultural economy. In South Bihar the density of rural population was comparatively lower as the percentage share of net cultivated area was lower than in north Bihar. In Chotanagpur, the poor quality of the soil and forest cover prohibited rural density. Only 81 persons per sq. km lived in Chotanagpur in 1931. In terms of urban density, Central Bengal was well apart from the other natural divisions. Due to the location of Calcutta city. West Bengal followed Central Bengal in terms of urban density. In Bihar and Orissa, both north Bihar and south Bihar had the same urban density, but in terms of urbaniza-

tion level south Bihar was ahead of North Bihar, Orissa and Chotanagpur had a very low urban density.

3. In terms of size class concentration of population, the region on the whole shows a high degree of imbalance with most of the people having a tendency to congregate in fewer number of large sized settlements. This high degree of imbalance can be attributed to the economic backwardness of the rural areas in most of the natural divisions. The Lorenz curves drawn in Chapter II, reveal that in all the census years Central Bengal, West Bengal and South Bihar, which had prospects of providing better avenues of employment, had the maximum concentration of people in one or two urban centres. For example, in Central Bengal, while more than 50% of the population was concentrated in Calcutta and its conurbation, only a little over 10% population resided in small towns having 5000-10000 population. This was true for the rural areas as well, where people tended to agglomerate in the larger villages where essential services were available to some extent.

4. The analysis of the labour force distribution and labour participation in different sectors shows that, the participation rate of male and female workers was in general, quite low, both in Bengal and in Bihar and Orissa due to high natural increased and prejudices against female participation. It is quite obvious therefore, that participation rate of males was higher than that of females. But in the natural divisions and districts (particularly in Bihar and Orissa) where economic pressure necessitated their participation the females were more in number.

5. The economic base of the two provinces was dominated by primary activities. Therefore the maximum participation was in primary activities followed by tertiary and secondary activities.
6. Though the participation rate of males was higher in all the industrial categories than that of females, but due to the lower number of total female labour force, the proportionate share of females were higher mainly in secondary and tertiary activities.
7. All the natural divisions of Bengal, Bihar and Orissa had a large percentage of workers in primary activities and very low percentage share in secondary activities reflecting the weak industrial base of the settlements. Most of the industrial activities were concentrated in large towns and cities particularly in Calcutta-Hooghly industrial area. Calcutta dominated in urban population and occupied the primate city position as the population of all the other towns put together was much less than that of Calcutta city alone. Central Bengal due to the presence of Calcutta developed as the core region which was industrially developed and had greater interaction with the rest of the region. Same was true for the tertiary sector. Most of the people in the tertiary sector were also found in areas of maximum population concentration and therefore were concentrated mainly in the urban areas.
8. Migration was not the exclusive characteristic of any particular division or district but was a phenomena common to every district of Bengal, Bihar and Orissa. In case of intra-provincial migration the balance of migration was in favour of Bengal.
9. North Bengal and Central Bengal primarily received migrants from other places while West Bengal and East Bengal sent out



their migrants to other areas within the province. The industrial city of Calcutta in Central Bengal and the tea gardens in North Bengal attracted migrants mainly from distant places rather than from the contiguous localities. This is why Chotanagpur tribals were mainly found working in the tea gardens and Bihari labourers in the industrial areas of Calcutta.

10. Emigration was more important than immigration in Bihar and Orissa and the heaviest drain from the province took place from Chotanagpur plateau though other divisions also contributed significantly to the stream.

11. While most of the immigrants from Bihar and Orissa into Bengal were unskilled labourers, the emigrants from Bengal were mainly blue collar workers and were employed in the industrial areas of Chotanagpur.

12. The females outnumbered the males in the balance of migration due to inter-district marriages which in most cases meant the crossing of district borders only. Male migration was mainly due to work and kinship ties .

13. Immigration of rural people to urban areas increased the urban population over time, thereby increasing the density, and the growth of the towns.

From the foregoing discussion, it can be said that, the settlement structure of the province of Bengal, Bihar and Orissa was governed by British economic and administrative policies. While Calcutta, the port city and administrative centre, grew, as also certain other cities like Dacca, Howrah, Patna and towns which had their origin in colonial industrial activities, the rest of the province remained backward, agriculturally based and

neglected. There was no harmonious hierarchical distribution of towns and villages by size categories in which , each size group plays its part in the system of distribution of goods and services and has an areal jurisdiction of its own. This could be have emerged, had the urban and the rural settlement, the development been autonomous and closely linked with the local economy.

## B I B L I O G R A P H Y

### BOOKS :

- Ahmed, E ( 1965 ) Bihar- A Physical, Economic and Regional Geography, Ranchi University, Ranchi.
- Ahmed, N ( 1958 ) An Economic Geography of East Pakistan, Oxford University Press, London.
- Ahmed, N ( 1976 ) A New Economic Geography of Bangladesh, Vikash Publishing House Ltd. New Delhi.
- Batutah, Ibn ( 1978 ) Account of Bengal, Translated by Harinath De, Ed. by Prana-bendra Nath Ghosh, Prajna, Calcutta.
- Bose, S.C ( 1978 ) Geography of West Bengal, National Book Trust, New Delhi.
- Bose, A ( 1980 ) India's Urbanisation 1901-2001 Revised second Edition, Tata Mc Graw Hill, New Delhi.
- Clarke, John.I ( 1972 ) Population Geography, Pergamon Press, Oxford.
- Chattopadhyaya, H ( 1987 ) Internal Migration in India, A Case Study of Bengal, K.P. Bagchi and Company, Calcutta.

- Chandna, R. C ( 1992 ) A Geography of Population-Concepts, Determinants and Patterns, Second Edition, Kalyani Publishers, New Delhi.
- Daniel, P and Micheal, H ( 1979 ) The Geography of Settlement, Conceptual Framework in Geography, Oliver and Boyd.
- Dasgupta, B. [Ed] (1987 ) Urbanisation, Migration and Rural Change- A Study of West Bengal, A Mukherjee and Co. Ltd, Calcutta.
- Hunter, W. W ( 1965 ) Annals of Rural Bengal, Indian Studies, Calcutta.
- Leong, G. C and Morgan, G. C (1986) Human and Economic Geography, Second Edition, Oxford University Press, London.
- Lal, K. M ( 1988 ) Population-Settlements Development and Planning, Chugh Publications, Allahabad.
- Mukherjee, Radhakamal ( 1938 ) The Changing Face of Bengal: A Study in Riverine Economy, Calcutta University, Calcutta.
- Murakani, Makoto "The Cottage Handloom Industry in the Middle and Lower Ganga Plains", in R. L. Singh and K. N. Singh (Ed) Readings in

- Rural Settlement Geography,  
Varanasi, National Geographical Society of India ( 1975 ).
- Mandal, R.B, ( 1982 ) Frontiers in Migration Analysis, Concept Publishing, Delhi.
- Munsi, S.K "Economic Development of West Bengal prior to Indian Independence" in Population and Settlement Geography, Part I 21st I.G.C.
- Mandal, R.B. and Sinha, V.N.P (1988) Recent Trends and Concepts in Geography Vol.3., Concept Publishing Company, New Delhi.
- Markandey, K. ( 1990 ) Spatio Temporal Urbanisation, Rawat Publications, Jaipur.
- Prasad, A. ( 1973 ) Chotanagpur: Geography of Rural Settlements, Ranchi University, Ranchi.
- Prabha, K ( 1979 ) Towns : A Structural Analysis, A Case Study of Punjab, Inter India Publications, Delhi.
- Rashid, H.R. ( 1977 ) Geography of Bangladesh, University Press, Dacca.
- Rao, M.S.A. [Ed] ( 1986 ) Studies in Migration-Internal and International Migration in India. Manohar.

- Saha, K.B. ( 1930 ) Economics of Rural Bengal,  
Chuckervertty Chatterjee,  
Calcutta.
- Spate, O.H.K, Learmonth, A.T.A  
and Farmer, B. H. (1967) India, Pakistan and Ceylon-  
The Regions, Methuen and Co.  
Ltd. London.
- Sinha, B. N ( 1971 ) Geography of Orissa, Naitonal  
Book Trust India, New Delhi.
- Sharma, R. C ( 1972 ) Settlement Geography of the  
Indian Desert, Kumar Brothers,  
New Delhi.
- Sinha, V. N. P (1973 ) Settlement Geography of Chota  
nagpur, Rajesh Publishers, New  
Delhi.
- Sen, Jyotirmoy ( 1988 ) Land Utilization and Popula-  
tion Distribution in West  
Bengal 1850-1985, Daya  
Publishing House, Delhi.
- Singh, R.L. [Ed] ( 1989 ) India, A Regional Geography,  
Geographical Society of India,  
Varanasi.
- Yadava, K.N.S ( 1989 ) Rural-Urban Migration in India  
Determinats, Patterns and  
Consequences, Independent  
Publishing Comapany, Delhi.
- Yadav, S.P. ( 1993 ) Settlement Dispersion : A

**ARTICLES:**

Ali, S.M. ( 1942 )

Quantitative Analysis, Inter-India Publications, New Delhi.

"Population and Settlement in Ghaggar Plain" Indian Geographical Journal, Vol.17.

Bhattacharya, N.D. (1969 )

"Rural Settlements of Murshidabad, West Bengal", National Geographical Journal of India Vol.12. No. 4.

Bhattacharya, N.D. ( 1978 )

"Changing Courses of the Padma and Human Settlements", National Geographical Journal of India, Vol.24. No.2.

Bhattacharya, R ( 1975 )

"Settlement Pattern in Deltaic West Bengal" Geographical Review of India, Vol.37. No.4.

**GOVERNMENT PUBLICATIONS :**

Census of India 1901

The Lower Provinces of Bengal and their Feudatories,  
Vol. VI A, Part II  
The Imperial Tables.

Census of India 1911

Bengal, Bihar and Orissa and Sikkim, Vol V, Part I, Report.  
L.S.S.O' Malley.

Census of India 1911

Bengal, Vol V, Part II, Tables.

Census of India 1911

Bihar and Orissa, Vol V, Part

III Tables.

Census of India 1921		Bengal Vol V, Part I, Report. W.H. Thompson.
Census of India 1921		Bengal Vol V, Part II, Tables.
Census of India 1921		Bihar and Orissa Vol VII, Part I, Report. P.C. Tallents.
Census of India 1921		Bihar and Orissa Vol VII, Part II, Tables.
Census of India 1931		Bengal and Sikkim Vol V, Part I Report. A.E. Porter.
Census of India 1931		Bengal and Sikkim Vol V, Part II, Tables.
Census of India 1931		Bihar and Orissa Vol VII, Part I, Report, W.G. Lacey.
Census of India 1931		Bihar and Orissa Vol VII, Part II, Tables.
Census of India 1981		Regional Divisions of India-A Cartographic Analysis, Occa sional Papers, Bihar Series I, Vol IV.
Bengal District Gazetteers	1910	Burdwan L.S.S.O' Malley.
Bengal District Gazetteers	1908	Bankura L.S.S.O' Malley.
Bengal District Gazetteers	1910	Birbhum L.S.S.O' Malley.
Bengal District Gazetteers	1911	Midnapore. S.S.O' Malley.
Bengal District Gazetteers	1909	Howrah. L.S.S.O' Malley.
Bengal District Gazetteers	1912	Hooghly L.S.S.O' Malley.



- Bengal District Gazetteers 1912 Jessore L.S.S.O' Malley.
- Bengal District Gazetteers 1906 Cuttack L.S.S.O' Malley.
- Bengal District Gazetteers 1907 Balasore L.S.S.O' Malley.
- Bengal District Gazetteers 1984 Puri L.S.S.O' Malley. Usha Publications New Delhi.
- Imperial Gazetteer of India 1909 Provincial Series, Bengal  
Vol I and Vol II.
- Hunter W.W. ( 1875 ) "A Statistical Account of Bengal"  
Vol I-Vol XX Trubner and Co.  
London. Reprinted in India, New  
Delhi 1973.
- Techno Economic Survey of West Bengal ( 1962 ) NCAER New Delhi.
- UNPUBLISHED WORKS :**
- Ahmad, Neelufar ( 1977 ) Migration from eastern Bengal to  
Assam 1891-1931, M.Phil. Disserta  
tion CSRD / SSS, J.N.U. New Delhi.
- Bagchi, G.C ( 1979 ) Settlements in deltaic Bengal :  
Their socio-economic and demograph  
ic characteristics and correlates,  
M. Phil. Dissertation CSRD / SSS,  
J.N.U. New Delhi.
- Padha, K.N ( 1984 ) Population and Settlement Structure  
of Andaman and Nicobar Islands;  
M.Phil Dissertation, CSRD / SSS,  
J.N.U. New Delhi.
- Singh, A.K.P ( 1984 ) Population and Settlement Structure  
of Manipur, M.Phil Dissertation

- Singh, Kanchan ( 1981 )      CSRD / SSS, J.N.U. New Delhi.  
Settlement Structure and process of  
regional development A case study  
of Bundelkhand Ph.D Thesis CSRD /  
SSS, J.N.U. New Delhi.
- Zutshi, B      ( 1986 )      Settlement Structure and Spatial  
organization : A case study of  
Kashmir Valley Ph.D Thesis CSRD /  
SSS, J.N.U. New Delhi.