SPATIAL ANALYSIS OF ECOLOGICAL SETTING, OCCUPATIONAL STRUCTURE AND SOCIO-ECONOMIC TRANSFORMATION OF THE SCHEDULED TRIBES IN THE THREE SOUTHERN STATES- TAMIL NADU, KERALA AND KARNATAKA

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

R. PALANISAMY

CENTRE FOR THE STUDY OF REGIONAL DEVELOPMENT
SCHOOL OF SOCIAL SCIENCES
JAWAHARLAL NEHRU UNIVERSITY
NEW DELHI-110067
1981

JAWAHARLAL NEHRU UNIVERSITY

Gram : JAYENU

Telephone : 652282
652114

Centre for the Study of Regional Development
School of Social Sciences

New Mehrauli Road,
NEW DELHI-110067.

Certified that the dissertation entitled "Spatial Analysis of Ecological Setting, Occupational Structure and Socio-Economic Transformation of the Scheduled Tribes in the three Southern States - Tamil Nadu, Kerala and Karnataka", submitted by Sri. R. Palanisamy 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.

G.S. Bhalla 5.1.82.

(G.S. Bhalla)
CHAIRMAN

(Aijazuddin Ahmad)
SUPERVISOR
5.1.82

CONTENTS

ACKNOWLEDGEMENTS

I take this opportunity to express my sincere thanks to my supervisor Dr. Aijasuddin Ahmad for his valuable guidance in writing this dissertation. However, I am alone responsible for any lapses in the dissertation. I express my thanks to Professor G.S.Bhalla and Prof. Moonis Raza for extending all facilities in completion of the work. I am also indebted to all the faculty members. My sincere thanks to Mr.Subbiah, from whom I benefitted by his helpful suggestions. I am also grateful to Mr. Saseetharan, Mr.Kanakaraj for their assistance in cartographic work.

Last, but not the least, I thank all my friends who all helped me in completing the work, especially Dhandapani, Ayene and Vijayakumar.

R. Palanisamy.

(R. PALANISAMY)

List of Maps

List of Tables

LIST OF APPENDICES

A. Percentage of Tribals to the Total Population and Total Tribal Population of the District

B. Percentage distribution of Scheduled Tribes Working force in Different Industrial categories of Three States: 1971

C. Percentage of Literates among Scheduled Tribes and Growth Rate Urban Tribes and Growth Rate

D. Index of Concentration and Location Quotient

E. Percentage of male workers in percentage variation and Growth Rate

"Each section of our large population contributes to the making of the nation, in the same manner as each flower helps to make a garden. Every flower has the right to grow according to its own laws of growth, has the right to enrich and develop its own colour and form and to spread its own fragrance to make up the cumulative beauty and splendour of the garden. I would not like to change my roses into lillies nor my lillies into roses. Nor do I want to sacrifice my lovely orchids or rhododendrons of the hills. I would likewise like the tribals to grow according to their genius and tradition".

Jaoramdass Daulatram,
quoted in The Adavis, 1955, p. 22.

Chapter I

INTRODUCTION

STATEMENT OF THE PROBLEM

The age-old traditional economies of the tribal communities are being exposed to new strains as the gradual infiltration of the non-tribal groups continues to develop a new equation with the natural resources. The new patterns of land occupance and its new uses, diffusion of new technologies and developing market networks have led to an accelerated rate of social transformation. Recent findings of empirical research show that, in many respects, the direction of change has been counter production as it has proved detrimental to the normal process of socio-economic development of the tribal segment. The present dissertation is a preliminary attempt at identifying the nature of ecological setting, occupational structure and socio-economic transformation of the tribes in the three southern States viz., Karnataka, Kerala and Tamil Nadu. The three States have meagre tribal population and thus the area has been relatively left or not attracted many studies.

There is no doubt that the Indian society is passing through a phase of active socio-economic change. The impact of change appears more striking among the lower segments of society than the higher one because this section had remained

relatively immobile in the past and at the present they have been provided with special opportunities. By taking advantage of the new opportunities and social awareness for improving their position, tribals are undergoing changes in their very nature. The changes may be very slow in comparison to other communities. At this juncture, it would be better to know how far the changes in the occupational structure and socio-economic transformation of the tribes in the three southern states have taken place over the decade 1961-71. The phrase socio-economic is a wide one and has components closely linked with one another. Without economic change social transformation cannot be possible. Hence, social transformation has a wide connotation involving the indicators ranging from the degree of social facilities, such as, medical education, transport and communications and other infrastructural facilities, the occupational or class mobility under the impact of the introduction of such facilities to the changes in demographic characteristics, such as sex composition, population growth under the impact of urbanization and modernization which are reflective of social transformation.[1] Because of the limitations of data, literacy, urbanization and occupational structure have been considered as indicators of socio-economic transformation.

1. Sudesh Nangia, "Social Transformation" in Moonis Raza (ed.) Survey of Research in Geography (1969-92) (New Delhi, Allied Publishers, 1979), p. 115.

The main distinguishing characteristics of the Scheduled Tribes are their rurality, illiteracy and economic backwardness. The same characteristics are prevalent among the general population also, but they are much prominent in the case of Scheduled Tribes. Most of the Scheduled Tribes live in inaccessible hills and forested or desert areas or have habitations near the sea. In general the areas where the tribals live and work are backward both economically and socially. Also the tribal areas happen to be poorly integrated with the rest of the national economy.[2] The Planning Commission document[3] shows that in areas where tribals predominate, the agricultural productivity per hectare of land is relatively low, irrigation facilities are inadequate and infrastructural facilities such as roads and electricity are poorly provided.

Study Area

The study area - the three Karnataka, Kerala and Tamil Nadu - is comprised by 43 districts. According to 1971 Census, the Scheduled Tribes with a total population of 0.81 million accounted for 0.88 per cent of the total population of three States. Of them 0.34 million (42.64 per cent) are

2. Hanumantha Rajappa and Deepak Grover, "Employment for Scheduled Castes and Scheduled Tribes", Economic & Political Weekly, Vol. 14, No. 24, June 1979, p.

3. Government of India, Planning Commission Draft Five Year Plan 1978-83, New Delhi 1978, pp. 113-17.

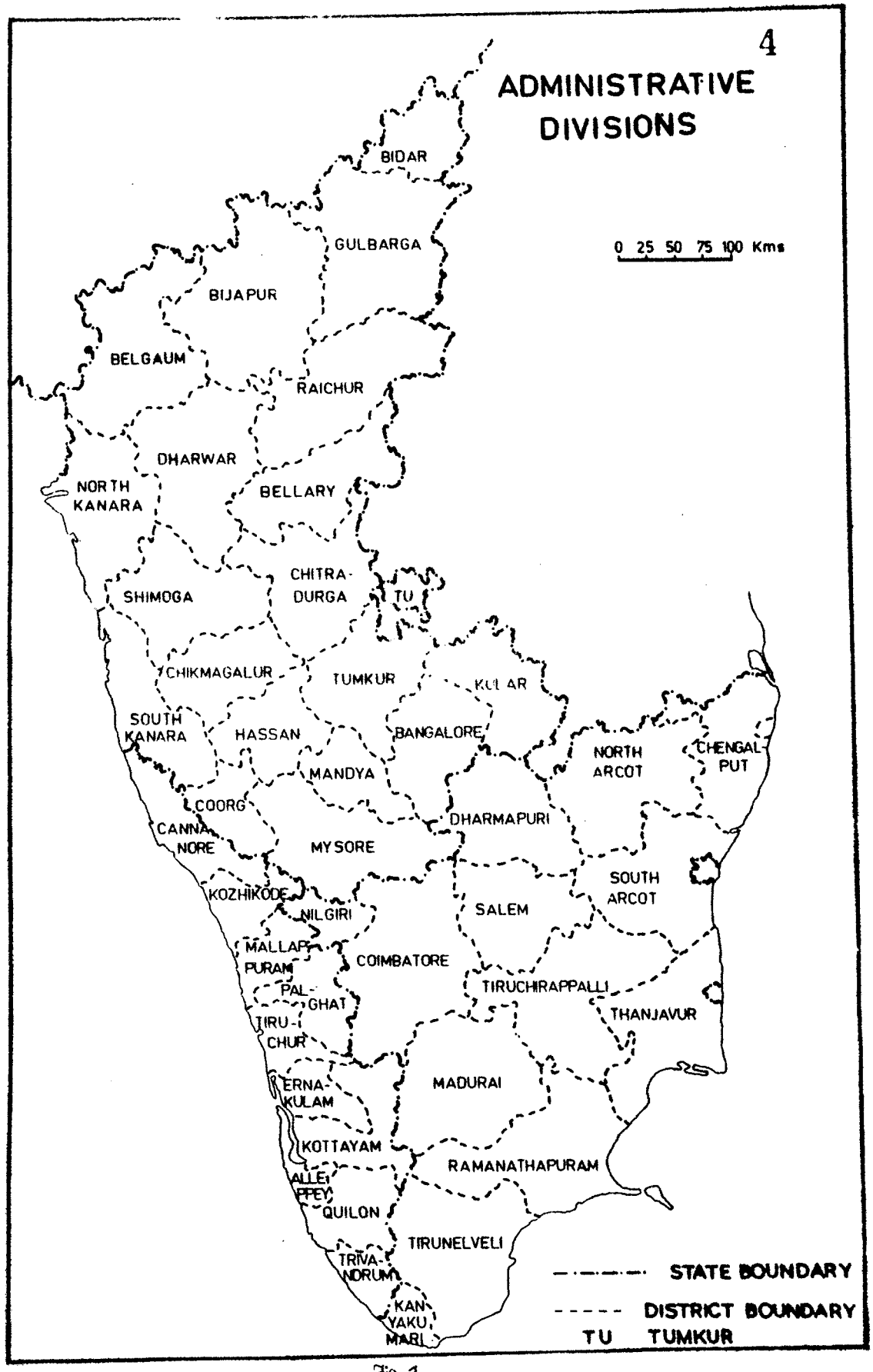

ADMINISTRATIVE DIVISIONS
0 25 50 75 100 Kms
BIDAR
GULBARGA
BIJAPUR
BELGAUM
RAICHUR
DHARWAR
NORTH KANARA
BELLARY
SHIMOGA
CHITRA-DURGA
TU
CHIKMAGALUR
TUMKUR
KU AR
SOUTH KANARA
HASSAN
BANGALORE
NORTH ARCOT
CHENGAL PUT
MANDYA
COORG
DHARMAPURI
CANNA NORE
MYSORE
SOUTH ARCOT
KOZHIKODE
NILGIRI
SALEM
MALLAP PURAM
COIMBATORE
PAL-GHAT
TIRUCHIRAPPALLI
THANJAVUR
TIRU-CHUR
ERNA-KULAM
MADURAI
KOTTAYAM
RAMANATHAPURAM
ALLE-PPEY
QUILON
TIRUNELVELI
TRIVA-NDRUM
KAN-YAKU-MARI
STATE BOUNDARY
DISTRICT BOUNDARY
TU TUMKUR

Fig. 1

reported as workers. The percentage of male and female workers are 68.25 and 31.74 respectively of the total tribal workforce of the three southern states. However, there were significant variations among the states. In Tamil Nadu the proportion of male workers was 72.93 per cent while in Karnataka and Kerala, the proportion was much lower (Karnataka 67 per cent and Kerala 63 per cent). Fig.1 shows Administrative divisions

Objectives

The main objectives of the present research work flow from the theoritical framework developed in preceding paragraphs. Broadly speaking, they may be stated as follows:

1. To analyse the spatial distribution of scheduled tribes;
2. To assess the variations in occupational structure of the scheduled tribes; and,
3. To examine the process of socio-economic transformation among the scheduled tribes with the help of selected indicators.

Data Base

The data for this study have been derived from different volumes of Census of India, 1961 and 1971. They are listed below.

(1) Special Tables for Scheduled Castes and Scheduled Tribes, 1961, and 1971. Part V-A.

(2) Union Primary Census Abstract, India. 1961 and 1971. Part II - A(i).

(3) Social and Cultural Tables, 1961 and 1971
Part II- C(1).

Methodology

(a) Since the first phase of the study purports to the geographical aspects, the chorographic and chorologic methodologies have been adopted. These involve the systematic description and interpretation of the regional patterns revealed by the choropleth maps. The choropleth maps of the different category of industrial classification of Scheduled Tribes in the three southern states have been used as the main tools of identification, description and analysis.

(b) Secondly, the index of concentration and the quartiling method have been used to identify the geographical distribution, clustering and concentration of Scheduled Tribes of the region. Maps have been prepared by using cartographic techniques showing the occupational change, literacy change and change in urban tribal population over the decade 1961-71.

(c) Thirdly, the correlation analysis has been attempted to explore the relationship between the selected variables. The analysis is based on twenty one variables chosen selectively.

The industrial classification of the work force has undergone changes between the census years of 1961 and 1971. They are:

(1) In 1961, Mining and Quarrying, livestock, forestry, plantation and hunting, orchards and allied activities were considered as one category i.e., III, whereas in 1971 they were split into two categories. Now the III category includes livestock, forestry, plantation and hunting, orchards and allied activities and the IV category is Mining and Quarrying.

(2) In 1971, the V category had two parts. They are Va. Household industry and Vb. Other than Household industry which have constituted IV and V categories of 1961 census.

(3) There has been a drastic change in the definition of worker from Census to Census in India. In 1961 Census persons engaged in seasonal work like cultivation, livestock, and household industry were included as Workers. But in 1971 Census, the definition of the Worker was more rigorous and according to this definition a person engaged in household duties such as cooking or a student who helped in the family economic activity - not as a full time worker - was excluded. Hence, the data pertaining to occupational structure of the Scheduled Tribes are not exactly comparable. However, the male workers were not affected much by the change in definition Therefore, ior comparing the occupational structure at two different points of time only male workers have been taken into account.

Framework of the Study

The dissertation is organized into eight chapters. The opening chapter is devoted to a description of the problem with brief notes on the objectives, data base and methodology. The second chapter analyses the ecological setting of the study area with an emphasis on the Physiography, Geology, Climate, Rainfall, Soil Types and the Natural Resources. The process of clustering and concentration among the Scheduled Tribes has been analysed in the third chapter. The occupational structure of the tribes based on 1971 data has been analysed in fourth chapter. In the fifth chapter ranking of the Scheduled Tribes has been discussed. Here, only first five ranking tribes (numerically) in each of the state have been chosen for their spatial analysis. The process of socio-economic transformation has been analysed in the sixth chapter. The last chapter deals with the identification of correlation of socio-economic transformation.

Chapter II

ECOLOGICAL SETTING

The study area here is confined to the southern part of the Indian Peninsula comprising the States of Tamil Nadu, Kerala and Karnataka. The three southern states are bounded on the southeast and south-west by the Bay of Bengal and the Arabian Sea respectively. The southern tip ends up at Cape-Comorin where three seas i.e. the Indian Ocean, the Arabian Sea and the Bay of Bengal form a junction. Following paragraph attempt to present a brief note on the Ecological Setting of the three southern states.

PHYSIOGRAPHY

PHYSICAL GEOGRAPHY AND GEOLOGY

The Indian Peninsula is an ancient Plateau having gentle slope from west to east with an average height ranging from 330 m. to 1000 metres. Its mountains are mostly considered to be a relict type and are not always related to structure. The rivers flow with low gradients through comparatively flat country and they have all built up broad but shallow valleys. Structurally, the Peninsula represents stable block which has practically remained quiscent since the close of Archaean era.

Topographically the South India can be divided into four division.[1]

1. The Western Ghats,
2. The Eastern Ghats,
3. The Nilgiri Plateau, and
4. The Coastal Plains.

1. The Western Ghats

The Sahyadri, commonly known as the Western Ghats, is the most conspicuous among the Southern region mountains system. It runs parallel to the coast from Kanyakumari to the Tapti Valley enclosing a very small tract of coastal land. It extends over 1,200 kms. from north to south overlooking the Konkan lowland.[2] Some earliest texts suggest that the Western Ghats extend from Cambay to Kanyakumari.

Based on the Ghats structural composition, it can be divided into two parts.

(1) The southern half comprising of Mysore, Malabar, Cochin and Trivandrum which is composed of genisses and Charnockites with rounded undulating outline, and,

(2) The northern half from Belgaum northwards, mostly beyond the region as south India, completely covered up with Deccan Traps which on weathering have given rise to the typical stairlike aspect, to produce a large number of natural citadels and fortresses.

---

1. M.N. Vasantha Devi, "Some aspects of the agricultural geography of South India", The Indian Geographical Journal Vol. 39, Nos. 1-4, 1964, pp. 1-41.

2. L.R. Singh, The New Perspectives in Geography, "A Geomorphic Overview", Indian Universities Press, Allahabad, 1981.

The southern half of the gneisses and charnockites form irregular and rugged ranges varying from 650 to 2,000 mts. The Palani hills may also be considered as their easterly branch, separated from this group. In Trivandrum they are called as Anamalai and Cardamon hills. Just south of Mysore the Western and Eastern Ghats forming a knot of hills known as the Nilgiri mountains which attain the highest altitude of any Peninsular range. Further south in Malabar there is a gap in the mountains called Palghat which is serving as the main line of communication in between the coastal strip and eastern districts of the region. On the west, this strip ranges in width from 15 kms in the north to about 90 kms near Kottayam. While on the west the mountains are bordered by an escarpment, on the east they are characterized by a sequence of stepped surfaces of erosion forming the spurs, transverse to the main orientation of the mountains and appearing as Plateau divides between the east flowing rivers like Godavari, Krishna and Cauvery. Many of these river tributaries emerge not from the western Ghats but from these spurs. The east flowing rivers are graded almost to their source having trough like valleys resulting from the rapid retreat of the valley

streams make amphitheatre like valley heads backed by neatly chiseled escarpments.

2. The Eastern Ghats

A set of isolated hills running in the north east direction forms the Eastern Ghats. The Eastern Ghats starting from near Balasore in Orissa a to Nellore, and they extend southwards through Arcot and Salem to Nilgiris. They once formed a continuous ridge but gradually the natural agents weathering and running water specially have left them only as relicts. These hills are rarely wider than 16 kms and area a series of detached or separated hills.

The Eastern Ghats comprise the Nallamalai hills, the Javadi hills, the Shervaroys and the Nilgiris. Generally, they attain much less altitude than the Western Ghats, the average height is being said about 670 mts. Although it is composed of various Archaean and Purana formations, the Charnockites, gneisses and the Dharwarians dominate. The hill like Nallamalais, the Pachamalais, the Shervaroys etc., are to be treated as an individual group of hills.

3. The Nilgiri Plateau

The Western Ghats merge with the Eastern Ghats towards south to form a knot of hills in the Nilgiri Plateau. The Nilgiri is bordered by the low lands of the west and east coast. The line of western Ghats is continued upto the southern most point Kanyakumari through the Cardamon hills while the Palanis and Salem hills detached masses branch off to the north-east towards Madras. The western and southern sides of

the Nilgiris, Palanis and their counterparts of the Cardamon hills have terminating in gigantic precipices which constitute the most spectacular and striking feature of the south Indian landscape. Above the Pene-plain of Coimbatore, the Nilgiri massif, on the south-eastern sides rises by a sheer drop cliff of 2,000 mts. altitude. The Nilgiri and Palani escarpments are a best example of cliff faces, above thousands of feet high built of closely folded and contorted strata and they are explained as due to faulting followed by relative movement along the walls of the fissures.

4. The Coastal Plain

The coast line is comparatively uniform and regular with few indentations of any magnitude. The West Coast is more eroded than the east because of being perpendicular to the persistent south-west monsoon. Both the coasts fronted by low submarine Platforms scarcely 100 fathoms deep, the west coast is being broader than the east coast. There has been a recent identification of emergence of land while seeing a raised beaches at altitudes varying from 35 to 50 mts. are found fringing these coasts. An example of lowland with an average width of about 160 kms the richest section of Tamil Nadu and Andhra Pradesh forms in between the southern hills and the eastern coast. The rainfall is very much less on the West Coast, but has highly developed irrigation system which is sufficient to increase the productivity. The East

coast is studied with lands of rice and palm cultivation with temples and monuments with scores of ancient centres of culture and industry. The Godavari delta and Cauvery of Andhra Pradesh and Tamil Nadu together form a rice granery of the southern States of India.

Climate

Climate is the most important physical factor influencing the economic activity of man. It determines the land-use and the cropping pattern of a region. It exerts considerable influence on the health of the people; the nature of transport and communication system; and on the settlement pattern.[3]

The climatic elements, such as temperature, pressure, rainfall, wind direction etc. are determined by a variety of factors, like the location. Southern states form a part of the great monsoon area characterized by reversal of winds during the winds being Southwesterly on-shore and winter north easterly off-shore. The climate of South India cannot be easily generalised even though the region is dominated by monsoon. Within the region there are great regional contrasts between the west and east in the different seasons. Hence, the physiographical and geographical features of the region of great importance as they modify the lower air movements, the distribution of temperature, pressure, humidity and rainfall.

3. R.P. Mishra, Geography of Mysore (Allahabad, 1973).

The South India climate can be divided into four seasons.[4] They are:

1. The Cool seasons - Months of December, January and February
2. The Hot weather season - the duration of this season is different in the west and the east. On the west coast, beginning of March to the end of May and on the east coast from the beginning of March to the end of July.
3. The South West Monsoon season - Beginning from June to mid-September. The rainfall is widespread in the entire west coast and the north of the mouth of Krishna river on the east coast.
4. The season of the retreating monsoon - Beginning from mid-September to December. Generally heavy rains from 60 cm. to 75 cm. are experienced on the east coast i.e. south of the Krishna delta but the rainfall amount is very low in comparison to the south-west monsoon rains on the west coast.

In Kerala, over 75 per cent of the rainfall occurs between June and September during the south-west monsoon period. The rainfall decreases from north to South. About 500 cms of rainfall on the hills of Kerala while the part of Kozhikode receives about 302 cms a year, but further south the Trivandrum receives only 100 cms of rainfall.

4. Vasantha Devi, M.K., "Some aspects of the agricultural geography of South India", The Indian Geographical Journal Vol. 39, Nos. 1-4, 1964, pp. 1-41.

SOILS

The soils of the three southern states vary from place to place depending upon the diversity in the parent material and climatic conditions. The soils of the region can be divided into two broad types.[5]

I. DRIFT SOILS - mostly alluvial

II. RESIDUAL SOILS

(a) black cotton or regur soil

(b) red soil

(c) laterites, and

(d) forest and hilly soils.

It is, rather, important to know the distribution pattern of the variety of soils.

I. DRIFT SOIL - alluvial

The alluvial tracts are agriculturally most important and occupy greater portions of southern India, like East Godavari, Krishna and Thanjavur deltas. The alluvial strip have varied width and extends along the east and west coasts.

II. RESIDUAL SOILS

(a) <u>black cotton or regur soil</u>

1. The true regur or black cotton soils are found over the Deccan Trap in the districts of Dharwar, Bijapur, Belgaum, Raichur and Bidar.

5. Ibid., p. 26.

2. Black soil is found outside the Deccan traps in the districts of Tirunelveli, Ramanathapuram, Madurai and Coimbatore. The black soil tracts lie to the east of the Western Ghats of the South India.

(b) Red soil

This type of soils in South India is developed under monsoon climate and chiefly obtained by weathering of crystalline rocks. The red soil tracts occupy largest area in South India. The tracts extend over the whole of Madras and southern half of Mysore.

There are two kinds of red soils the first type is the fairly mature red loams. These soils are found in the districts of Madras, and Kerala; and the second is the least mature soil - stony, scanty and infertile. It is found on the steep and rugged uplands of Mysore. These soils are extremely poor in terms of agricultural activities.

(c) Laterites

This group of soils occurs as a continuous strip along the length of Kerala and Mysore at the elevation varying from 80 to 330 m. in Kerala and 80 to 660m in Mysore. The isolated pockets of laterites soils in Ramanathapuram and Chingleput are also notable.

(d) Forest and hilly soil

The soil of this kind is undifferentiated. It is found along the slopes of the Western Ghats at the elevations of

over 330 m. By colour it may be seen either red or brown loams. It has been brought from the laterite cappings on the crests of the Ghats. And then the mixture of these lighter soils with the rich forest humus gives a very fertile and easily worked loam.

NATURAL RESOURCES

Natural resources are comprised by the materials we get from nature for meeting many of our economic needs. Natural resources can be classified into two main categories: (1) forest resources and (2) mineral resources.

Forest resource

Because of the varied climatic donditions and the topography, the South India has different type of plants and grasses. The western slope of the western Ghats, receive heavy rainfall and therefore have the dense tropical evergreen forests, while the eastern slops have moist deciduous forests notable for sal and teak. Ghats have huge trees and thick mass of almost inpenetrable vegetation. Sandal forests which are the most precious and rare species of trees in the world are found in the semi-humid belt along the Cauvery river and also near the hills. The Southern Maidan region of Karnataka is characterized by the deciduous forest while the scrub forests are found in the north Maidan. Tropical dry deciduous forests are found in the drier parts of Tamil

Nadu upland and the southern part of Eastern Ghats - the most important trees are sal, teak, simul and sisoo which give hard and durable timber.

Tropical monsoon climate makes Kerala a green and luchland with widespread growth of forest orchids, bamboos, palms, mangoes, jack and breed fruit trees. The coconuts are found in sandy beaches; in the back water zone- mongrove; and swamp vegetation; in marshes - creeks and estuaries; and tropical evergreen forest on higher slopes of the Sahyadris. The tropical evergreen forests are also very common in Tamil Nadu plains and Karnataka Plateau. Although palms grow along the coast, these are most prolific in Kerala and south karnataka. The highest density of palm is found in the coast of Kozhikode district. In jungle areas the animals like leopard, tiger, panther, elephant and bison are found. In Nilgiri hills eucalyptus is grown widely. The species of coffee, tea, cashewnuts, timber and rubber are available in the steep forested sopes of the Nilgiri hills and Cardamon hills. In Nilgiri about two-thirds of the land is devoted to tea and coffee plantation.

Mineral resources

Minerals are found where they have been put by nature and it is not possible for man with all his ingenuity, to produce minerals where he likes.[6] In the case of animals

6. Krishnan, M.S., "Geographical Control in relation to mineral industries", Bulletin 16. National Geographical Society of India.

and plants it is possible to some extent to make them flourish even under adverse conditions of living. That is to say, we may be able to grow a forest or introduce animals in almost any region we like, provided the conditions are not too severe. It may therefore, be stated that while man may be able to interfere with the distribution of animals and plants, he has no control over the distribution of minerals and has to accept whatever nature has done in the matter of their distribution.

The northern part of the southern states ie., Karnataka, the minerals are mainly associated with the Dharwar system. The important among these are iron ore, manganese, chromium and gold. The other minerals associated with the Dharwarians are pyrites, copper, lead, antimony, bauxite, corundum, garnet, asbestos, magnesite, graphites, limestone, kyanite sillimanite, soapstone etc. The Babu Budan hills have larger haematite iron ore. Iron ore occurs in several parts of Salem, Tiruchirappalli and South Arcot district of Tamil Nadu. They are in the form of magnetite quartzites and the iron content is not more than 40 per cent. About 300 million tons iron ore reserves have been estimates in the district Salem. This district also has chromite, quartz, bauxite, limestone and dolomite.

Manganese ore occurs in Belgaum, Shimoga, Chitradurga and Tumkur districts. In and around the Kolar districts gold

is available. Tamil Nadu region accounts for 90 per cent of the total production of magnesite in the whole country. This ore is mainly available in Salem district. The bauxite occurs on some of the peaks in the Shervaroy hills. The estimated reserves are between 7 to 8 million tons. In Kerala, the bauxite materials are found in close association with laterite cappings. The corundum is found in south of Salem district and Erode taluks. Beryl is available in Salem and Coimbatore and also in south Sahyadri hills just north of Anamalai. Redgarnets has been found in the crystalline metamorphic rocks in Sankaridurg (Salem). Zinc stone occurs in Nilgiri and Coimbatore-Madurai uplands and also in some parts of the south Sahyadri. High grade limestone is available in Salem and it is suitable for the manufacturing of bleeching powder. Limestone is also found in the coastal area of Kerala. In addition to the above minerals considerable amount of mica is available in Nettur, Cudalur, Dindigul and Ambasamudram taluks in Tamil Nadu and also in Palghat, Quilon and Trivandrum districts of Kerala. Graphite is available in Ambassamudram taluk of Tamil Nadu. In Kerala graphite is found in association with the khondelite group of rocks in Trivandrum, Quilon and Kottayam district.

7. Nedunchezhian V.N., "Geography and Industry of Tamil Nadu". This is Tamil Nadu, Madras, 1968.

TRIBAL INTERACTION WITH NATURE

The tribes live in the hilly and the forested tracts of the Southern states and the predominantly tribal reas are backward economically. The tribes interact with Nature at a low level. Their technologies are generally primitive and the process of change in the social and economic spheres is sluggish. The natural resources in the traditional tribal homelands are, however, being increasingly utilised by the non-tribal component of population with varying degree of intensity. The tribes have either remained unaffected by such developments or these interventions have led to serious imbalances in their ecological setting.

Chapter III

SPATIAL PATTERNS OF DISTRIBUTION

In this chapter an attempt has been made to identify the geographical distribution, clustering and concentration of the Scheduled Tribes in the three southern States. The chief home of the tribes is in the barren and sparsely populated tracts of hills and forests corresponding closely to east Satpuras but encroaching eastwards and westwards along the Vindhyan ranges through the Malwa Plateau on the eastern extremity of Gujarat.[1] On the basis of geographical propinquity Mazumdar and Madan[2] have given a three fold territorial distribution of the tribals viz. northern and north-eastern, the Central and the Southern zone. The spatial distribution of the tribes and their pattern of clustering and concentration closely correspond to the nature of the physical features. The tribal areas are characterized by striking tendency to cluster in a few pockets of diverse degrees of isolation within an environmental setting which is by and large adverse to settled agriculture.

---

1. C.B. Mamoria, India's Population Problem (Allahabad, Kitab Mahal, 1981).

2. Mazumdar and Madan, An Introduction to Social Anthropology (Bombay, Asia Publishing House, 1967)

3. Moonis Raza, Aijazuddin Ahmad, A.L. Jain and Chandrakanta Chauhan, Tribal Population of India Sptaial Patterns of clustering and concentration, Occasional Papers, Centre for the Study of Regional Development, No. 5, 1977, Jawaharlal Nehru University, New Delhi.

Patterns of Spatial Distribution

The Scheduled Tribes constitute an important place in the India's population. According to the 1971 Census the tribal, comprising 380151162 persons, account for 6.94 per cent of the total population of the country. The distribution of tribals varies from one region to another. It is very high in states like Madhya Pradesh, Orissa and Nagaland and it is very low in Karnataka, Kerala and Tamil Nadu. But the proportion of the Scheduled Tribes to the total population of the three States is very much below the national average and also shows greater variation over space. These three States together account for only 2.81 per cent of the tribal population of the country. Of the three southern states, Tamil Nadu accounts for 38.36, Kerala 33.17 and Karnataka 28.47 per cent respectively to the total tribal population.

State Level Patterns

The statement giving the percentage of Scheduled Tribes to the total population of the three southern States is furnished in Table 1.

Table 3.1

State	Total Population	Total Scheduled Tribes	Percentage of S/T as total population	Percentage of S/T as total tribal of three States
Tamil Nadu	41199168	311515	0.76	38.36
Kerala	21347375	269356	1.26	33.17
Karnataka	29299014	231268	0.79	28.47

Source: Census of India, 1971.
Special Tables for Scheduled Castes and Tribes.

The Table 3.1 shows that the tribal population does not constitute larger share of the total population in South India (excluding Andhra Pradesh). Among the three States, only in Kerala the tribal constitute more than one per cent of the total population. The remaining two states constitute less than one per cent separately.

District Level Patterns

The distribution pattern of the tribes which at State-level tends to give an impression that the tribal population account for insignificant proportions of the total population. Due to the peculiar pattern of their settlements and traditional occupations, the tribal population tends to live and concentrate in certain pockets of the three southern States. If we go down to the district level distribution pattern,

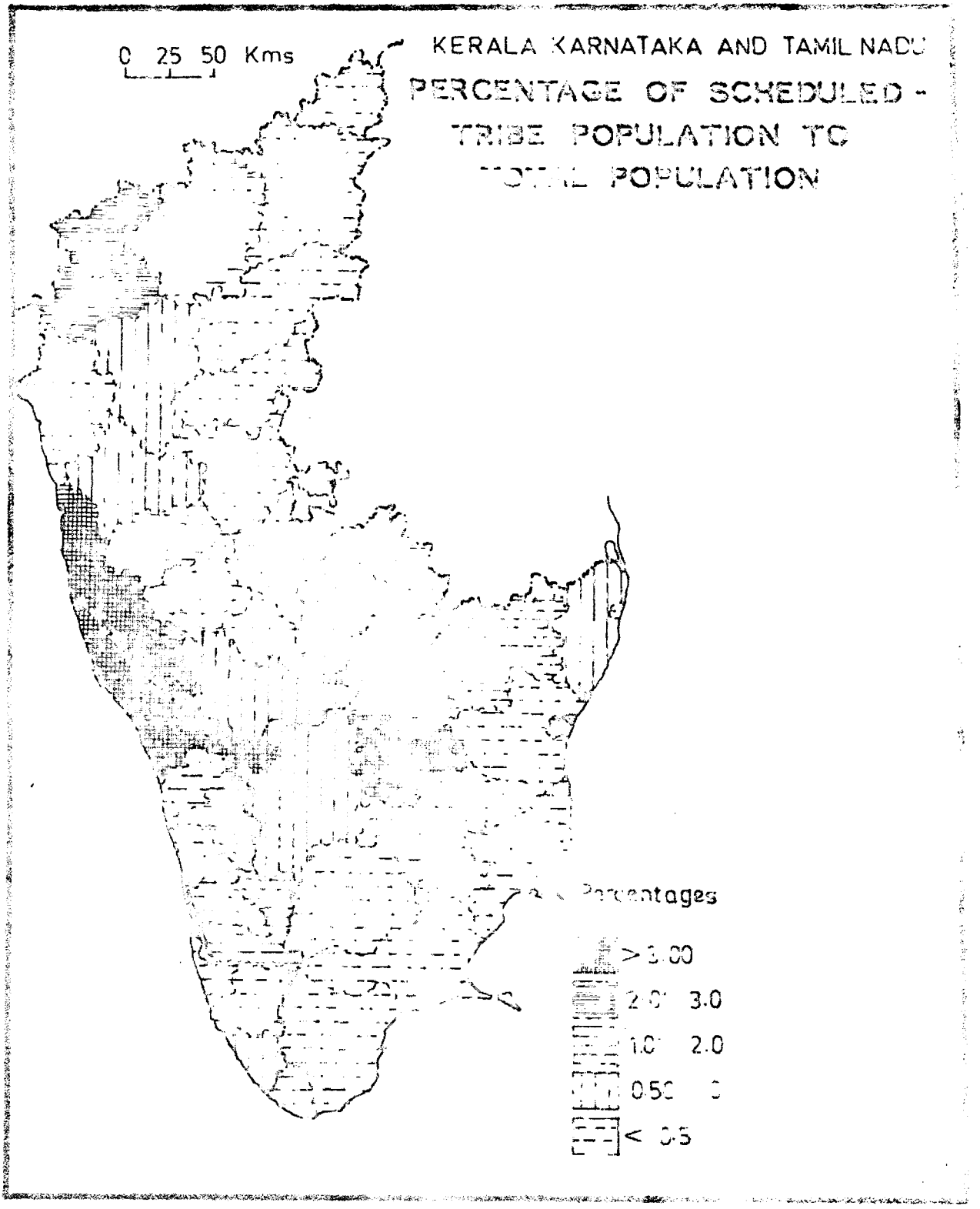

0 25 50 Kms
KERALA KARNATAKA AND TAMIL NADU
PERCENTAGE OF SCHEDULED - TRIBE POPULATION TO TOTAL POPULATION
Percentages
> 3.00
2.0 3.0
1.0 2.0
0.5 1.0
< 0.5

FIG 3-1

it may give a clear picture of the pattern of clustering and concentration. The Fig. 3.1 shows the spatial pattern of Clustering of Scheduled Tribes. The central region i.e., South Malnad of Karnataka (comprising Coorg and South Kanara district), northern Malabar coast consisting of Cannanore and Kozhikode districts and Nilgiri Plateau and Shervaroy hills of Tamil Nadu show high clustering where the percentage of Scheduled Tribes to the total population of the district is above 3.

In all six districts show moderate clustering where the percentage ranges between 1 and 3. These districts are Belgaum and Chikmagalur of Karnataka; Palghat and Kottayam districts of Kerala; and North Arcot and Dharmapuri districts of Tamil Nadu.

Nearly two-thirds districts of the each State of the three southern States show low degree of clustering.

PATTERNS OF CONCENTRATION

Fig. 3.2 shows the spatial concentration of Scheduled Tribes population in three States. The northern, central and south-eastern parts of the region have high concentration. The northern region extends over Belgaum district, the central region encompasses Coorg, South Kanara, Cannanore and Kozhikode and the south-eastern region is comprised of North Arcot and Salem districts.

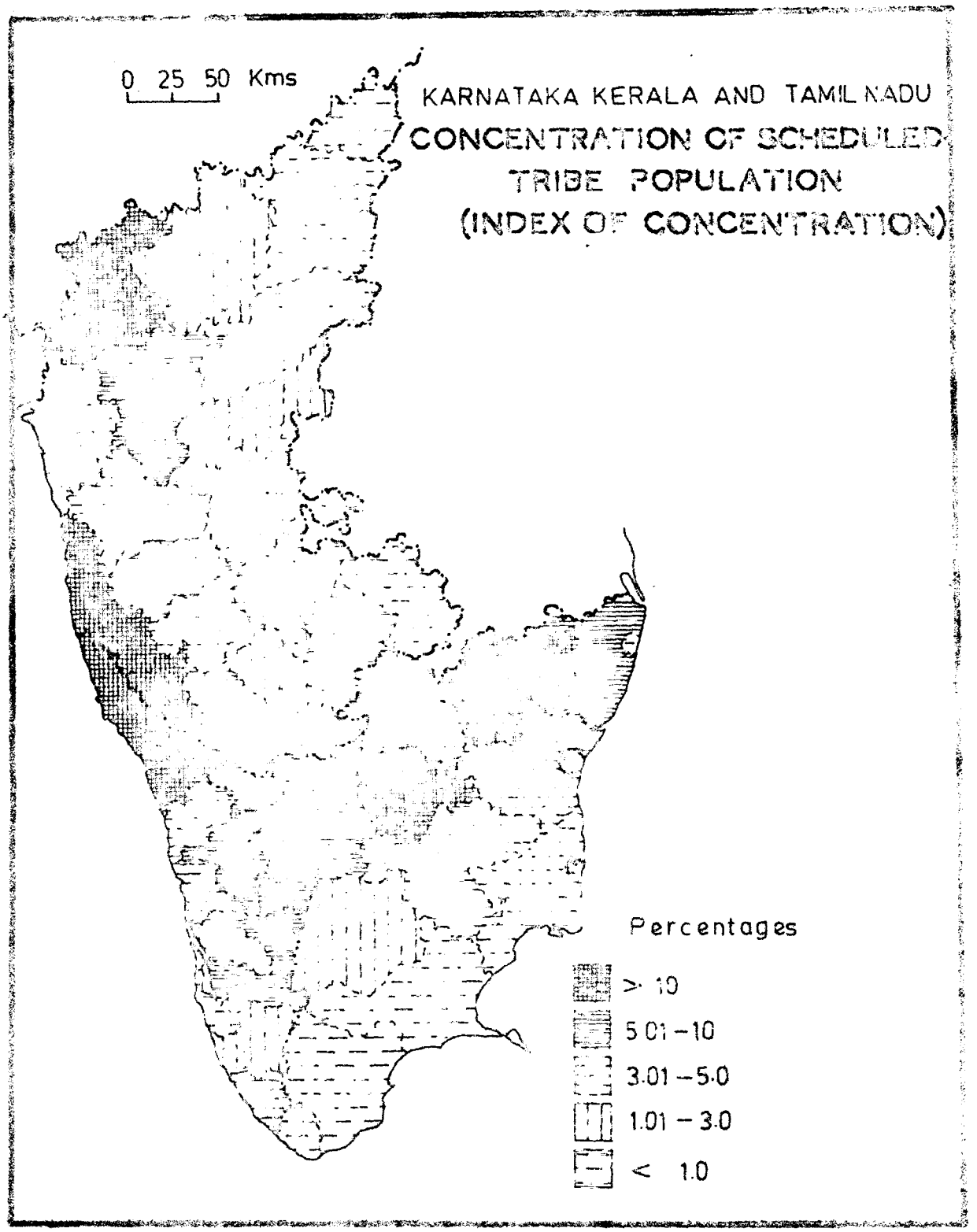

0 25 50 Kms
KARNATAKA KERALA AND TAMIL NADU
CONCENTRATION OF SCHEDULED TRIBE POPULATION
(INDEX OF CONCENTRATION)
Percentages
> 10
5.01 – 10
3.01 – 5.0
1.01 – 3.0
< 1.0

Fig 3.2

In Karnataka, the Scheduled Tribes are found in all the districts. Figure 3.2 reveals that they are concentrated only in certain areas. The largest population is found in South Kanara district, where tribals account one-fourths of the total tribal population of the State. Some districts contribute larger proportion in the State (South Kanara 27.50, Belgaum 22.98, Coorg 11.50, Mysore 8.45 and Dharwar 6.30 per cent). Nearly three-fourths of the Scheduled Tribes in the State are found in these five districts. In fact almost half the population of the tribes in the State is in two districts of South Kanara and Belgaum.

In Kerala, the distribution of tribals is very much different from district to district. While the tribal population of the Cannanore district is 90464 that of Alleppey is only 435. As much as 65.14 per cent of the total tribal population of Kerala live in two districts viz., Cannanore and Kozhikode. They are also found in fairly large numbers in Palghat and Kottayam districts. In Alleppey district which is plain and flat region, the tribal population makes up only 0.16 per cent of the total tribal population of the State.

A very few districts have the larger share of tribes in Tamil Nadu. As fig. 3.2 reveals, the Salem district shows the highest percentage- where the share of tribal population in the total tribal population is 30.30.- followed by North

Table 3.2

Concentration of the Tribal Population at the District Level

Categories	Districts	Tribal Population	Percentage of S/T of the districts to the total tribal of the three states
Above 10%	Belgaum, South Kanara, Coorg, Cannanore, Kozhikode, North Arcot and Salem	483898	59.58
5 - 10	Dharwar, Mysore, Palghat, Kottayam, Chingleput, Dharmapuri, Nilgiri and Coimbatore	186147	22.92
3 - 5	Bangalore, Shimoga, Chikmagalur, Mallapuram, Trivandrum, Tiruchur, Ernakulam, South Arcot and Tiruchirapalli	97903	12.05
1 - 3	Bellary, Bijapur, Mandya, Quilon and Madurai	24009	2.96
Below 1%	Bidar, Gulbarga, Raichur, Chitradurga, North Kanara, Tumkur, Hassan, Kolar, Alleppey, Madras, Thanjavur, Ramanathapuram, Tirunelveli, and Kanyakumari	20182	2.49
Total	43 Districts	812139	100.00

Source: Census of India 1971. (See also Appendix A)

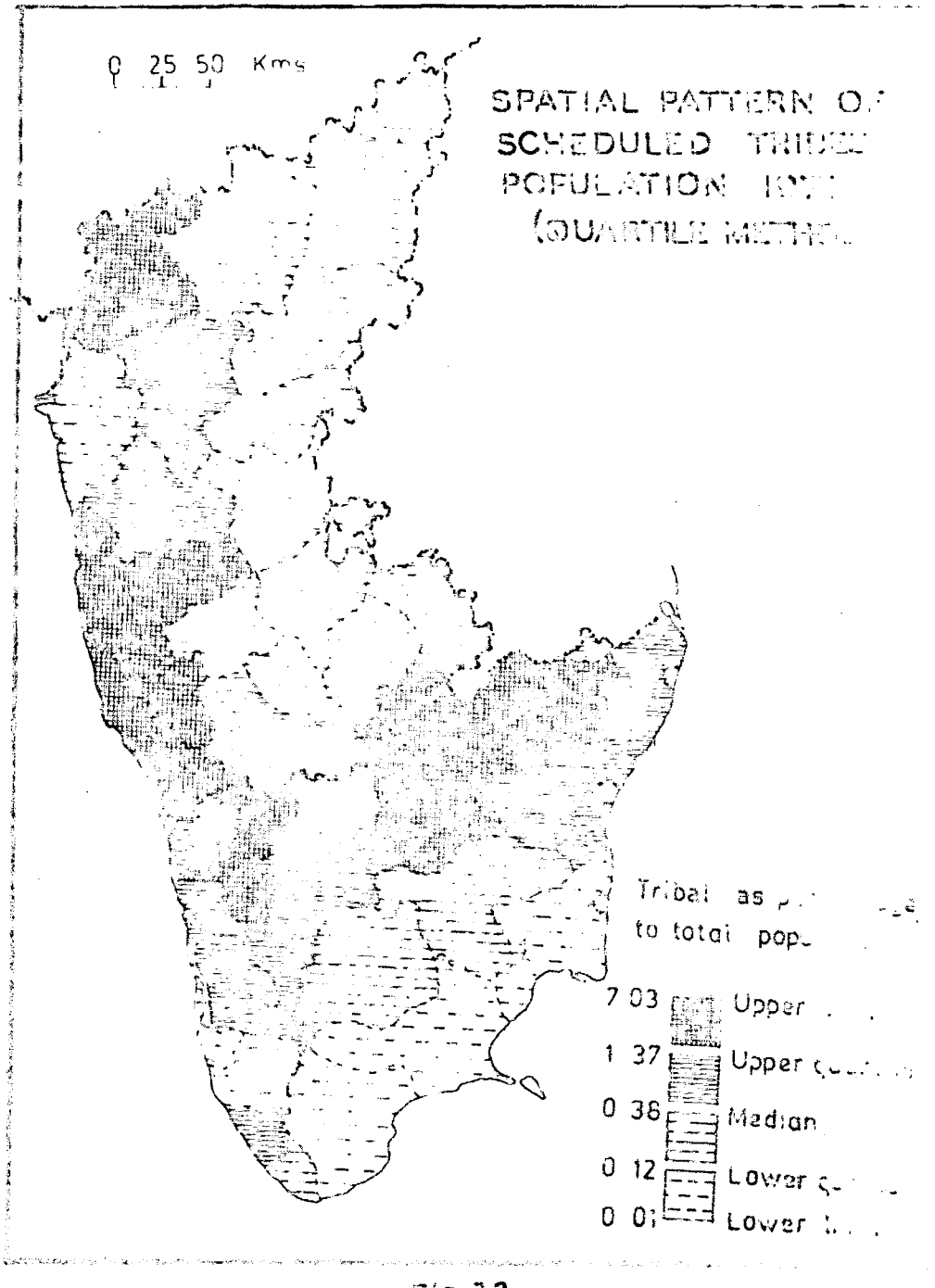

0 25 50 Kms
SPATIAL PATTERN O
SCHEDULED TRIBE
POPULATION
(QUARTILE METH
Tribal as
to total pop
7 03
Upper
1 37
Upper
0 38
Median
0 12
Lower
0 01
Lower

Fig. 33

Arcot 22.70. The coastal districts of Thanjavur, Ramanathapuram, Tirunelveli, Kanyakumari and Madras have below one per cent of the tribal population of the State. The fig.3.3 shows the spatial concentration of scheduled tribes population by quartiling method.

Table 3.2 presents the district-level distribution. Table 3.2 shows the concentration of the tribal population in the three southern States. Although, the Scheduled Tribes are found in all the districts, the figure shows that they are concentrated in certain pockets. Table clearly shows that about 59.58 per cent of the total tribal population of the three States lives in 7 districts where the percentage to the total tribal is above 10. They are mainly located in Malnad region (Belgaum) South Malnad (Coorg and South Kanara), Northern Malabar coast comprising Cannanore and Kozhikode districts and the North central part of Tamil Nadu.

In the same way eight districts with percentages of tribal ranging from 5 to 10 account for 22.92 per cent of the total tribal population of three States. These regions include Dharwar Plateau, Mysore region; Palghat, and Kottayam district of Kerala; and Kongunadu uplands, Nilgiri plateau, Chingleput and Dharmapuri districts of Tamil Nadu.

Only 5.45 per cent of the tribal population of the three States live in those districts where its share in the total tribal population is below 3.

Taluk Level Patterns

Although, the Scheduled Tribe population is scattered in most of the taluks of the three southern States, the clustering is observed only in few taluks. As evident from the Table 3.3, only one taluk accounts for more than 50 per cent of the total population of the taluk i.e., Yerkad, located at Shervaroy hills region in Salem districts of Tamil Nadu. A little less than three-fourth of the total taluks in the three States constitute less than 1 per cent of the population. From the point of view of the percentage of tribal population of the taluk to total population of taluk, the following categories may be identified.

Category	Range	Total tribal population	Percentage of tribal to total tribal population of Three States
Areas of High Clustering	Above 10 per-cent	120470	14.83
Areas of Moderate Clustering	3 - 10 per-cent	336899	41.48
Areas of Low Clustering	Below 3 per-cent	354770	43.68
Total	Total	812139	99.99

Areas of High Clustering Taluks

The areas of high clustering extend over five taluks. The tribal population is highly clustered along with the border of three southern States especially in the Western

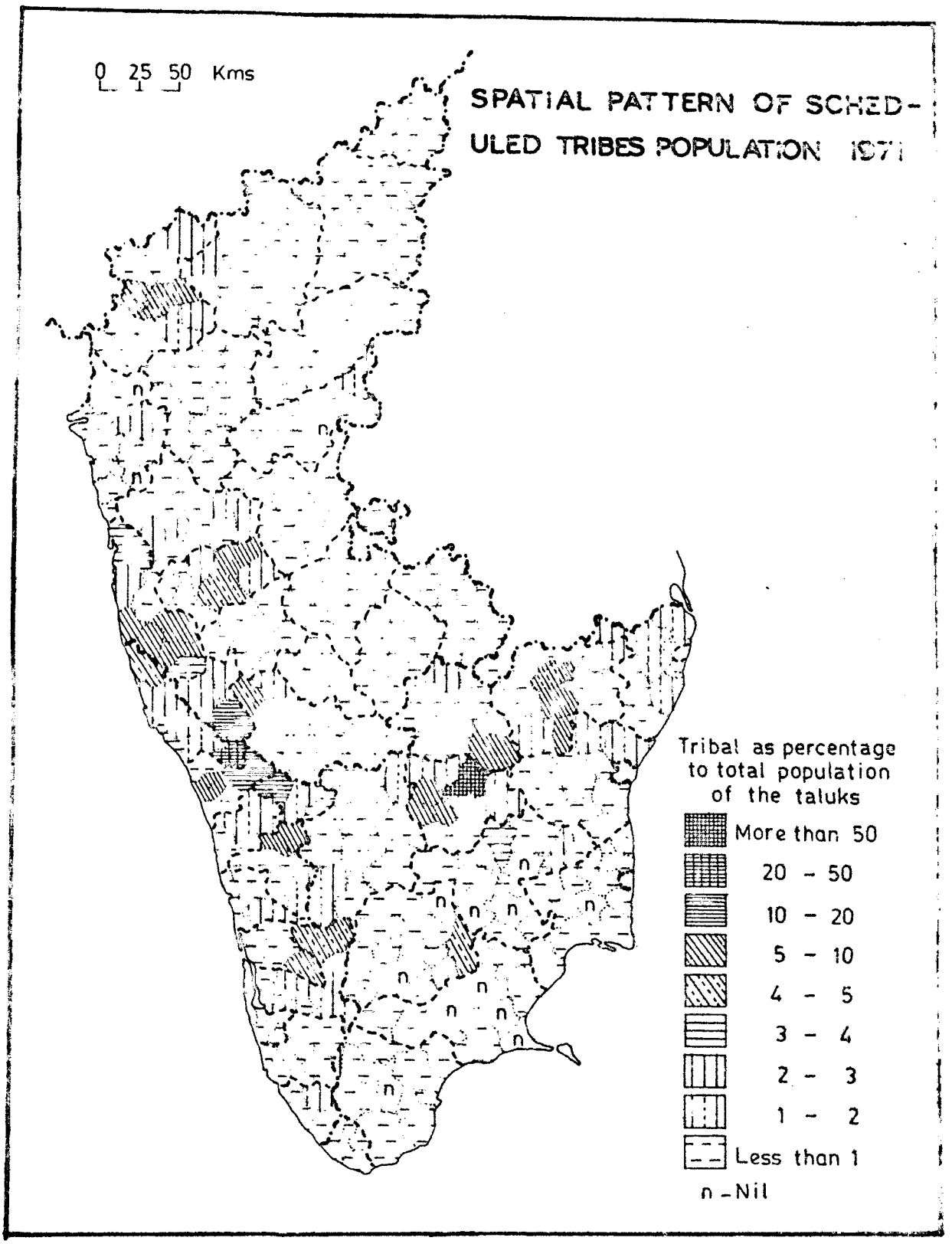

0 25 50 Kms
SPATIAL PATTERN OF SCHED-
ULED TRIBES POPULATION 1971
Tribal as percentage
to total population
of the taluks
More than 50
20 - 50
10 - 20
5 - 10
4 - 5
3 - 4
2 - 3
1 - 2
Less than 1
n - Nil

Fig. 4.3.4

region (See fig.34) where Virajpet taluk of Coorg in Karnataka; North and South Wynad taluks of Cannanore and Kozhikode in Kerala; and Gudalur taluk of Nilgiri district in Tamil Nadu, meet along the State boundary lines. These five taluks together account for 14.83 per cent (120470) of the total tribal population of the three States.

Areas of Moderate Clusters

In all 28 taluks fall in this category, which are clustered in the taluks of western area; two taluks are found in Belgaum district of Karnataka and some taluks are scattered over Tamil Nadu and Kerala. These 28 taluks accounts for 41.48 per cent (336899) of the total tribal population of the three States.

Areas of low Clustering

The tribal population in the remaining taluks of these three States account for less than 3 per cent by the total population of the taluk. They are spread over vast area of all the three States. In other words, nearly 86 per cent taluks of the total taluks in the region fall in the category of areas of low Clustering.

There are 19 taluks which have no tribal population. About three-fourths of these taluks are in Tamil Nadu.

Table 3.3

Clustering of the Tribal Population by Taluk

Percentage of S.T. to the total population of the taluk	No. of Taluks			Total No. of Taluks of the three States
	Tamil Nadu	Kerala	Karnataka	
Above 50 per cent	1	Nil	Nil	1
20 - 50	Nil	1	Nil	1
10 - 20	1	1	1	3
5 - 10	5	2	6	13
4 - 5	2	4	3	9
3 - 4	3	1	2	6
2 - 3	3	4	9	16
1 - 2	18	7	12	37
0 - 1	86	34	138	258
0	14	1	4	19
Total	133	55	175	363

Chapter IV

STRUCTURE OF TRIBAL WORKFORCE

The population of a country is generally divided into those who are economically 'active' and those who are not. Those who are classified as economically active are called workers and those who are classified as economically not active are non-workers. Now the question here is what is meant by "economically active"? The simplest explanation given by Census[1] is that the economically active population, or the workers includes all those who produce economic goods or perform economic services. Thus obviously factory workers or farmers are workers as also clerks in Government offices, shop-keepers, pilots of aircrafts etc. All those who do not contribute to the production of economic goods or to services are said to be non-workers. The non-workers include persons who are house wives, students, pensioners etc. Obviously, a housewife works in running her home, a student works when he studies. But for our purpose, though all such persons have a very useful role to play in society they are by definition, considered as non-workers.

The size of working force, its division into various industrial categories and sex wise participation in work are fair indices to the type of physical resource base, kind of social organisation and nature of economy.[2] The objective of

1. Portrait of Population, Mysore, Census of India, 1971.
2. Gopal Krishan and R.C. Chandra, "Haryana: Working force and its occupational structure 1971 Man power journal, vol. x no. 2. Jul - Sep 1974 P. 56-72

of the present chapter is to analyse the spatial patterns of occupational structures of the Scheduled Tribes.

No history of economic activities and occupations of the tribal people in the early days is available. Perhaps they lived on gathering, collected fruits and eatable roots from the forest. There is no evidence as to when did they start cultivation, what crop they cultivated and which method they have adopted. But it is likely that after their settlement in a definite territory, cultivation might have been started. The pattern of occupation signifies the general structure of the economy, level of living, involvement of persons in different activities and socio-cultural conditions.[3] In a predominantly agricultural country, like India, agriculture stands as the mainstay of the economy. But the agricultural conditions among the tribals are miserably poor. Agriculture is by far the most important occupation which employs nearly 71, 80 and 82 per cent of the total tribal workforce in Karnataka, Kerala and Tamil Nadu respectively.

The classification of Scheduled Tribes population by industrial category points out that the tribal workforce is mostly engaged in primary activities and the share of secondary and tertiary sector is insignificant. This is evident from Table 4.1

---

3. H.K. Jaiswal, Demographic Structure of Tribal Society, (Meenakshi Prakashan), New Delhi, 1973, pp.99-108.

Table 4.1

Industrial Classification of the Tribal Workers
1971

Industrial Categories	Percentage Workers		
	Karnataka	Kerala	Tamil Nadu
Primary Sector Total	**82.26**	**88.85**	**93.06**
1. Cultivators	26.26	17.75	44.94
2. Agri. Labourers	45.05	62.56	37.29
3. Livestock, forestry, fishing, hunting and plantation etc.	10.90	7.91	10.63
4. Mining and Quarrying	0.53	0.33	0.20
Secondary Sector Total	**6.12**	**4.98**	**2.13**
5. a. Household industry	3.80	2.31	0.52
b. Other than Household industry	2.86	2.21	1.38
6. Construction	1.51	0.46	0.23
Tertiary Sectory Total	**9.08**	**6.45**	**4.80**
7. Trade and Commerce	1.52	0.51	1.46
8. Transport, Storage and Communication	1.46	1.18	0.59
9. Other Services	6.10	4.76	2.75

Source: Census of India, 1971,
Special Tables for Scheduled Tribes, Part V. A

In Karnataka the proportion of Tribal to primary sector is about 82.74, in secondary sector 8.17 and in tertiary sector 9.08 per cent. In Kerala, the share of primary, secondary and tertiary sectors is 80.55, 4.98 and 6.45 per centages respectively.

In Tamil Nadu 93.06 per cent of the tribal work force is engaged in primary sector while 2.13 and 4.80 per cent of workers are engaged in secondary and tertiary sectors respectively.

Table 4.1 helps to draw the following conclusions:

1. Excluding Karnataka, over 80 per cent of the working population of Scheduled Tribes is engaged in agriculture. However, significant variations are observed among the states.

2. The proportion of the Scheduled Tribes workers in the Secondary and Tertiary sectors in Karnataka is comparatively more than in Kerala and Tamil Nadu. In Tamil Nadu, the Secondary and Tertiary sectors together account for 6.93 per cent while the same sectors in Karnataka and Kerala account for 17.25 and 11.43 per cent respectively.

3. Per centage of tribal workers engaged as agricultural workers is more in Tamil Nadu. This is primarily because of the nature of terrain which is comparatively plain.

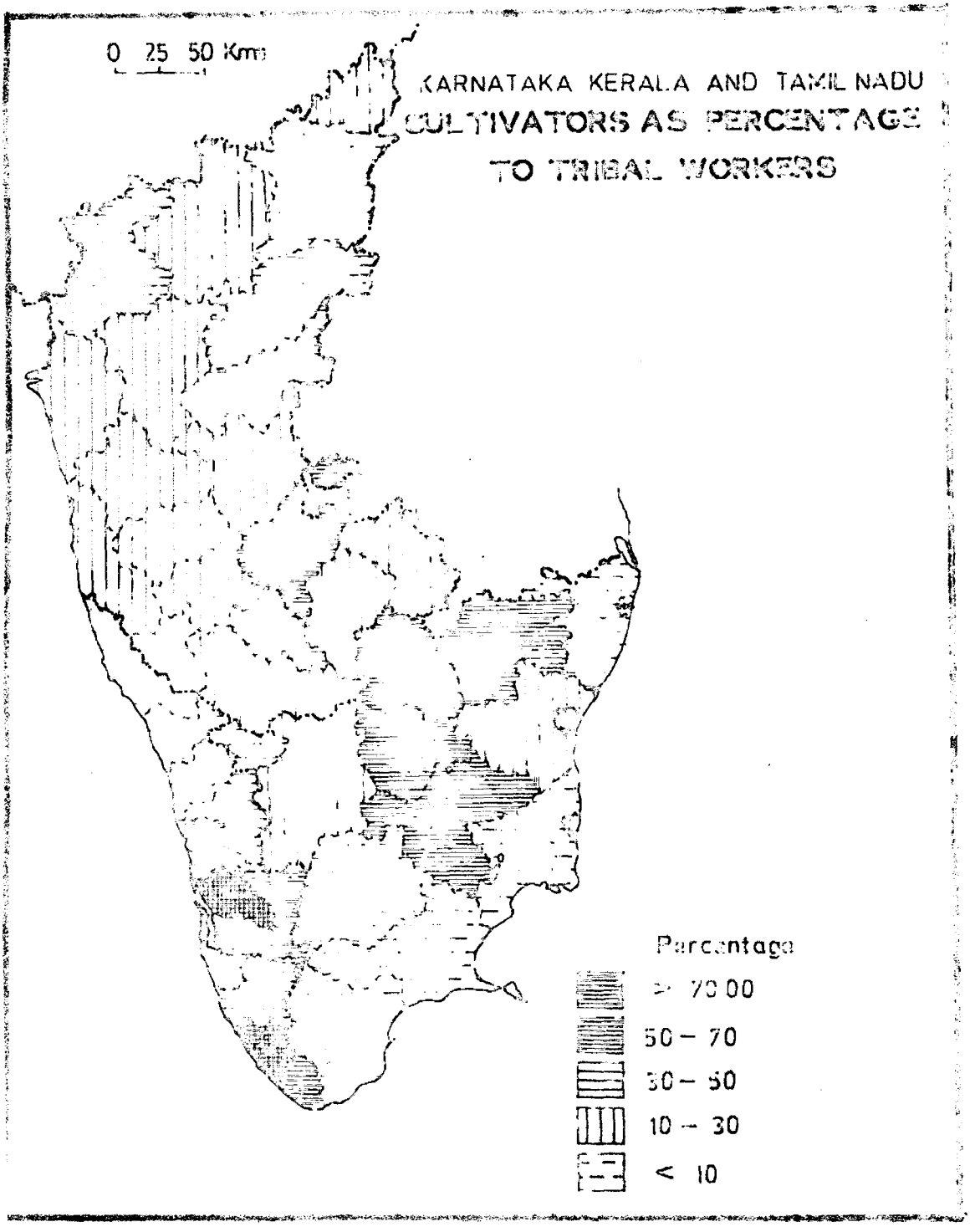

0 25 50 Kms
KARNATAKA KERALA AND TAMIL NADU
CULTIVATORS AS PERCENTAGE
TO TRIBAL WORKERS
Percentage
>= 70 00
50 – 70
30 – 50
10 – 30
< 10

Fig. 1

INDUSTRIAL CLASSIFICATION OF THE TRIBAL WORK FORCE - 1971

The trend of labour force participation is an index of the socio-economic structure of any State or region.[4] A study of economically active population employed in non-agricultural sector in any State largely indicates the level of industrialisation and urbanisation of that State. An attempt is made to identify the occupational structure at district level. Table 4.2 coupled with Appendix II presents a broad picture of the occupational structure of Scheduled Tribes in the three southern States.

1. Cultivators

It is evident from figure 1 that cultivators account for more than 50.01 per cent of work force in the region extending over the Malabar coast - especially Ernakulam district; South Malabar; districts of Trivandrum and Kottayam of Kerala; Vellore region; Javadi hills and Shervaroy hills region of Tamil Nadu; and Tumkur district of Karnataka. The district of Ernakulam shows the highest proportion - 82.74 - while the lowest is seen in Ramanathapuram (0.22) of Tamil Nadu. This exceptionally high percentage is mainly attributed to the topographical feature, resource structure and

---

4. Radhakrishna Murthy and P. Vijayalakshmi, "Demographic Structure of Labour Force in Andhra Pradesh - An Analysis of 1971 Census data", Man Power Journal, Vol. X, No. 2, Jul. Sep. 1974, pp. 86-97.

the lack of diversified occupational activities which makes the economic activity more intensive.

The moderate concentration of tribal cultivators is found in North Kelnad region (Belgaum), Bellary plain, south Maidan region, Palghat, Quilon, the coastal districts of Kerala, where the percentages of Tribal workers engaged in Cultivation ranges between 30-50 percent.

In most part of these three southern States the proportion of tribal cultivators is below 30 per cent. The low proportion is found in the north Maidan comprising Bidar plateau and Dharwar plateau; and Bangalore and Kolar districts of Karnataka. Similar is the pattern in north Malabar coast region i.e. Cannanore, Kozhikode and Palghat districts. Paddy is the most intensively cultivated crop and some parts are devoted for plantations crops like coconut, rubber, coffee, cardamom and tea. In Tamil Nadu, the coastal districts of Thanjavur, Ramanathapuram and Tirunelveli and the Nilgiri plateau are also characterized by low share of tribal cultivators.

(ii) Agricultural Labourers

As evident from figure 2, the Malabar coast, has higher proportion of agricultural labourers. The highest proportion is seen in the Kolar district (85.33), while the lowest is in Madras (0.27). In Karnataka, Bijapur

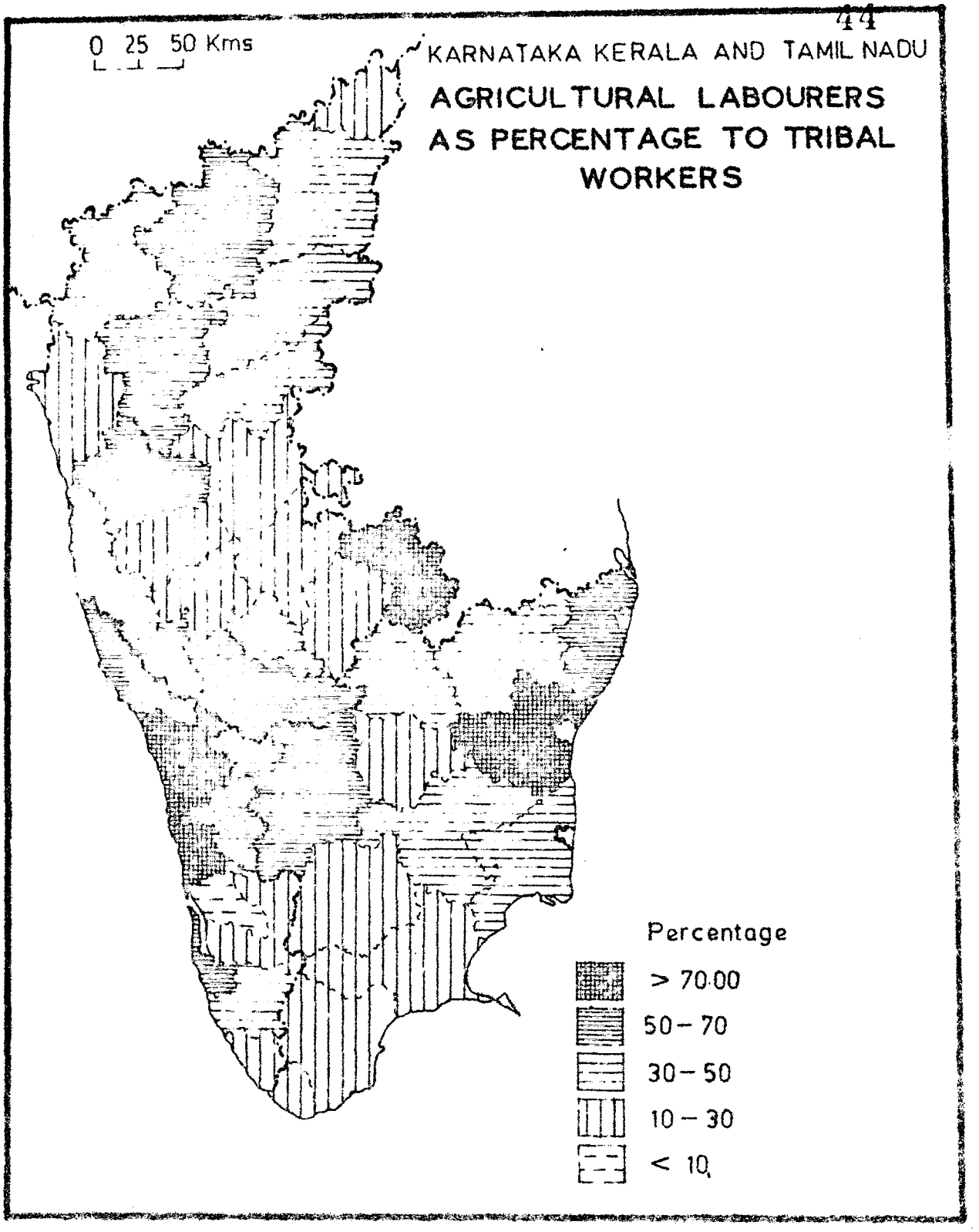

0 25 50 Kms
KARNATAKA KERALA AND TAMIL NADU
AGRICULTURAL LABOURERS AS PERCENTAGE TO TRIBAL WORKERS
Percentage
> 70.00
50 – 70
30 – 50
10 – 30
< 10

Fig. 2

district of north Maidan, Dharwar plateau and Mysore region; and in Tamil Nadu Chingleput, South Arcot districts and Kongunadu uplands also have higher share of agricultural labourers. It can be concluded that agriculture continues to be the chief economic base of the tribals. Thus both, cultivators and agricultural labourers constitute the major part of tribal workforce.

The next moderate proportion is observed in twelve districts extending over the plain area of Bellary, Raichur and Gulbarga of the north Maidan region; the Belgaum region of north Malnad and Coorg region of south Malnad. In Tamil Nadu, Cauvery delta, Nilgiri plateau and some parts of the Shervaroys hill and in Kerala the south Malabar coastal districts also show moderate proportion of agricultural labourers.

In a large number of districts the proportion of agricultural labourers is below 30 per cent. These districts are scattered all over the southern States. They include Ramanathapuram, Tirunelveli, Madurai uplands and Kanyakumari in Tamil Nadu; Chitradurga, Bangalore and Tumkur in Karnataka and districts of Kottayam and Trivandrum in Kerala.

A little more than half of the districts of three southern States have more than 60 per cent agricultural labourers to agricultural workforce in the primary sector

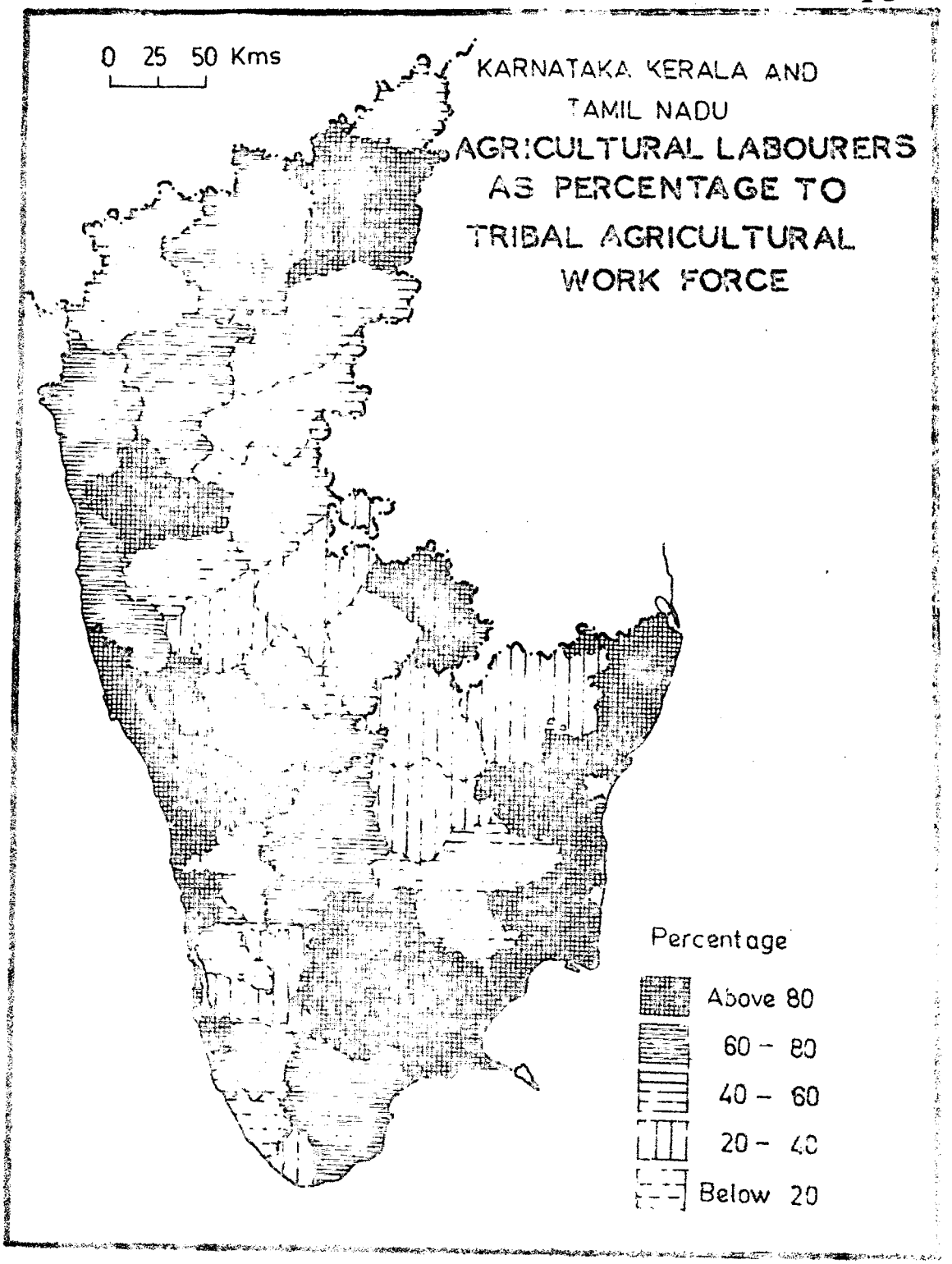

0 25 50 Kms
KARNATAKA KERALA AND
TAMIL NADU
AGRICULTURAL LABOURERS
AS PERCENTAGE TO
TRIBAL AGRICULTURAL
WORK FORCE
Percentage
Above 80
60 - 80
40 - 60
20 - 40
Below 20

Fig. 3

(fig. 3). Their proportion is high in Nilgiri plateau, Kongunadu uplands and the east coastal districts of Tamil Nadu; the north Malabar region of Kerala and North, central and south Malnad region, Dharwar plateau, Bijapur, Gulbarga plain and Kolar district of Karnataka.

Fig. 1 and 2 help us to draw the conclusion that the agriculture is the main economic activity among the tribes but only a small section owns land to cultivate. The majority of the tribals work as agricultural labourers.

The moderate proportion of 40 to 60 per cent is found in eleven districts of the three States. They are mainly in Bidar Plateau; Raichur and Bellary plain of the north Maidan region; Chitradurga, Mandya, and Bangalore region of south Maidan of Karnataka. Kerala accounts for two districts - Palghat and Quilon.

The lowest proportion (below 40 per cent) is found in northern part of Tamil Nadu comprising North Arcot, Dharmapuri and Shervaroy hills region of Tamil Nadu, Tumkur and Mandya districts of Karnataka and Quilon district of Kerala.

iii. <u>Livestock, Hunting, Forestry, Fishing, Plantation etc.</u>

The highest share of tribal workforce engaged in this category is seen in Coorg, Chikmagalur and Hassan districts, south Malnad, the Nilgiri Plateau, Madurai uplands and Ramanathapuram district of Tamil Nadu. The south Malnad

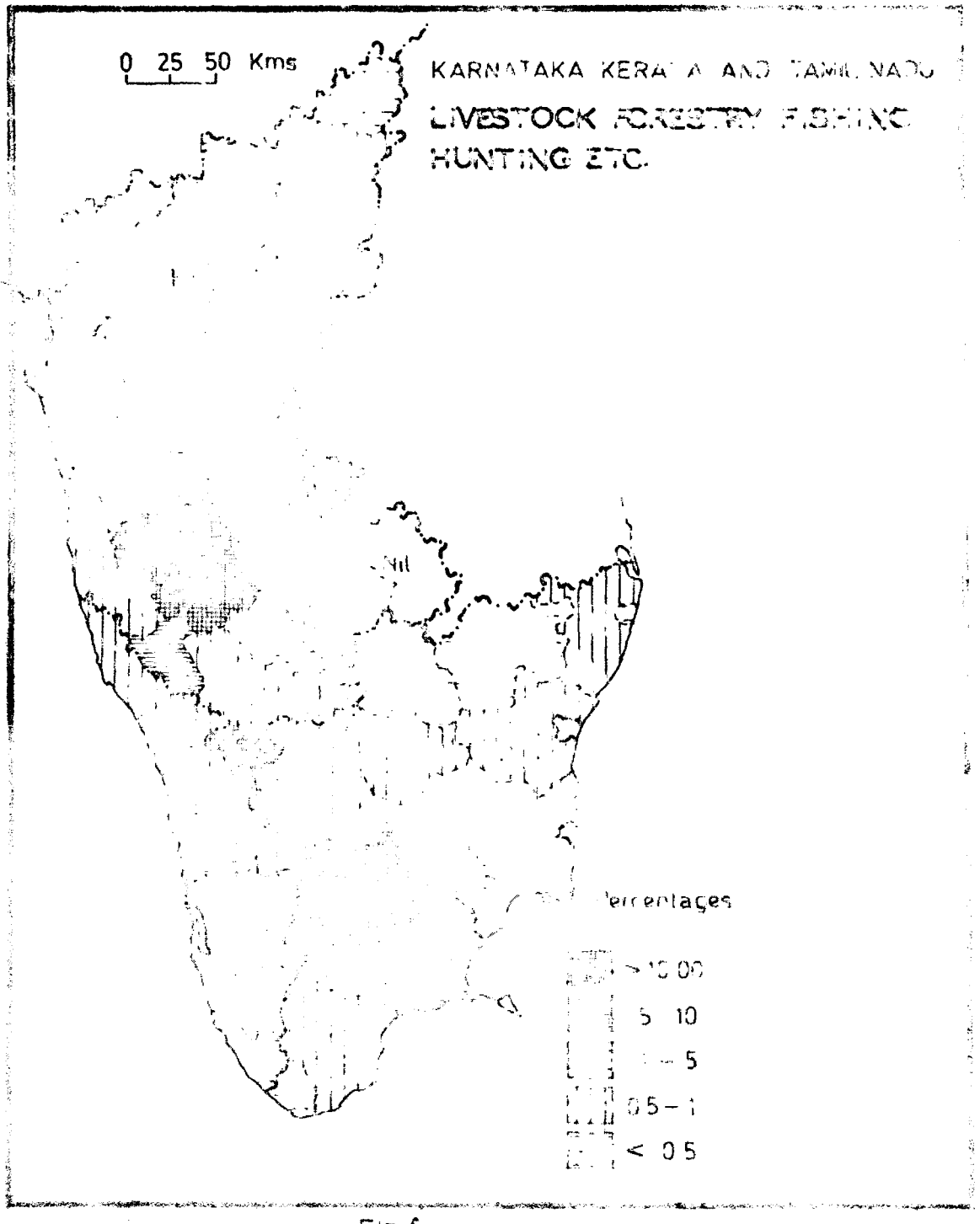

0 25 50 Kms
KARNATAKA KERALA AND TAMIL NADU
LIVESTOCK FORESTRY FISHING
HUNTING ETC.
Nil
Percentages
> 10.00
5 10
5
0.5 – 1
< 0.5

Fig. 2

region is very popular for its plantation works; coffee estates are found in larger number and areca, pepper and oranges are also grown. The Nilgiri, Madurai uplands and south Sahyadri are well-marked with plantation crops. Tea, coffee, rubber, pepper cashewnut and cardamon are some of the important plantation crops grown in this region. As the plantation crops need particular type of weather and soil they are confined to higher elevated regions and hence the tribals located in this category are fairly engaged in these occupation. The maximum percentage of tribal workers is recorded in Madurai district (64.75) whereas the lowest is recorded in Kanyakumari district (0.21 per cent (fig.4). The next to the cultivators and agricultural labourers, the only other category in which they are well represented is of livestock, hunting, forestry, fishing, and other such activities.

Altogether 17 districts have recorded moderate share of Tribal workers in this sector of economic activities. These districts are mainly north and south Malabar coast of Kerala; north Malnad and central Malnad i.e., Shimoga and Sringeri region, some portions of Gulbarga palin, South Kanara and Mysore district of Karnataka. In Tamil Nadu they lie in Kongunadu uplands, Shervaroy hills, Javadi hills and the black cotton soil tract of Tirunelveli and Tiruchur, Kottayam and Quilon districts of Kerala.

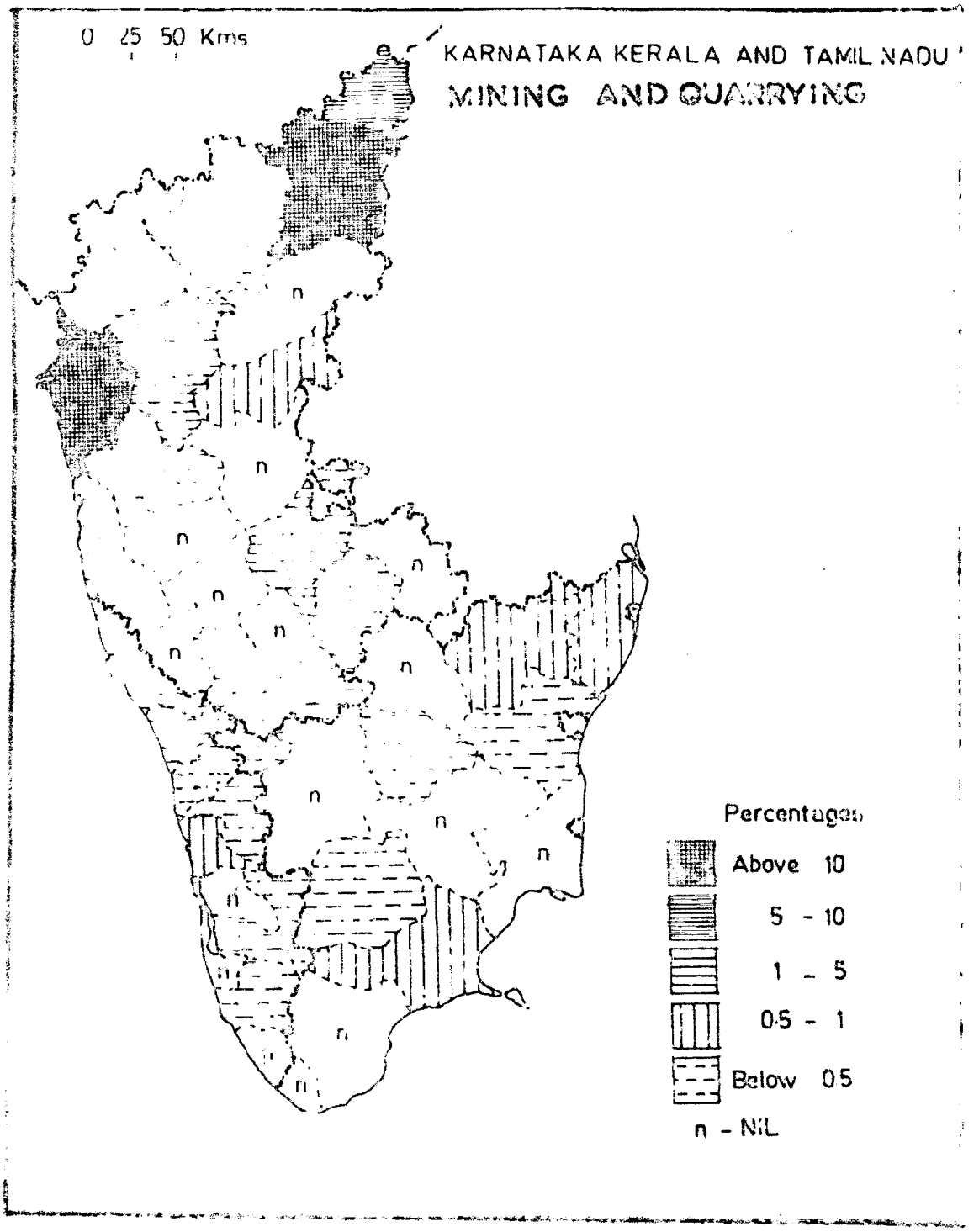

0 25 50 Kms
KARNATAKA KERALA AND TAMIL NADU
MINING AND QUARRYING
n
Percentages
Above 10
5 - 10
1 - 5
0.5 - 1
Below 0.5
n - NiL

Fig. 6

A little lesser than half of the region is having the lowest percentage of tribal workforce engaged in this category i.e. below 5 per cent. The entire north Maidan region and some parts of south Maidan of Karnataka; Ernakulam and Alleppey districts of Kerala and the Cauvery delta, North Arcot, Madras and Kanyakumari districts of Tamil Nadu fall under this category.

iv. Mining & Quarrying

The fig. 5 depicts district-wise proportion of tribal workers engaged in Mining and Quarrying. The geographical location of North India gives the region an edge over the southern States for their richness in mineral resources which are very limited in southern States and hence a lesser extent of people are engaged in this category of occupation.

Only three districts of the three southern States show a higher proportion of tribal workers in Mining and Quarrying and incidentally all the three districts are in Karnataka viz. Gulbarga, North Kanara and Bidar. In another two districts of Karnataka-Dharwar and Tumkur their share varies between 1 and 5 per cent.

In almost half of the regions of the three States proportion of tribal engaged in Mining and Quarrying is below 1 per cent. Of the 21 districts in this category Karnataka, Kerala and Tamil Nadu account for seven districts each.

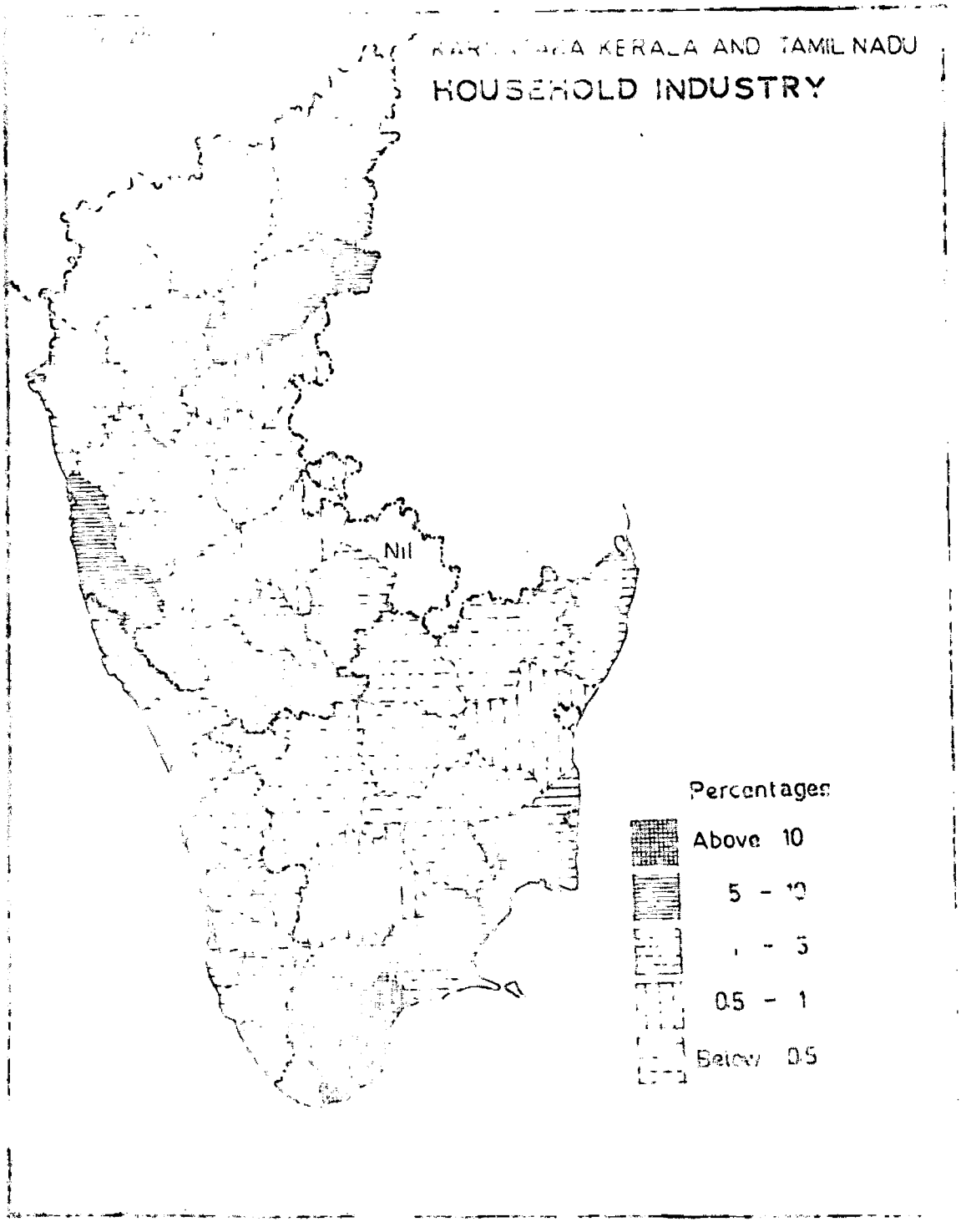

KARNATAKA KERALA AND TAMIL NADU
HOUSEHOLD INDUSTRY
Nil
Percentages
Above 10
5 - 10
1 - 5
0.5 - 1
Below 0.5

Fig. 8

A little more than one-third of the region have no worker engaged in Mining and Quarrying. It may be concluded that the Scheduled Tribe workers engaged in this category constitutes a insignificant proportion.

V.a. Household Industry

The production in Household industries takes place at three levels; at the first level the products are for consumption within the household, at the second level it is for consumption within the village community and at the third level it is for consumption for sale in the market.[5]

The high share of tribal workers in household industry is found in Bellary plain region, Chitradurga and South Kanara districts of Karnataka and Tirunelveli district (upper Vaigai valley) of Tamil Nadu (fig. 6). The district of Tirunelveli where the tribal workers engaged in household industry account for 22.90 per cent ranks first. The district is very popular for household industries like match factory, beedi rolling, coir mating etc.

Tribal workers engaged in household industry are moderate (1-5 per cent) in almost half of the districts lying in northern part of Karnataka.

The lowest proportion in the range 1 per cent and below is found in south Sahyadri region, Coimbatore, Madurai

5. B.K. Roy Burman, Demographic and Socio-Economic Profile of the Hill areas of the North-East India, Census of India, 1961.

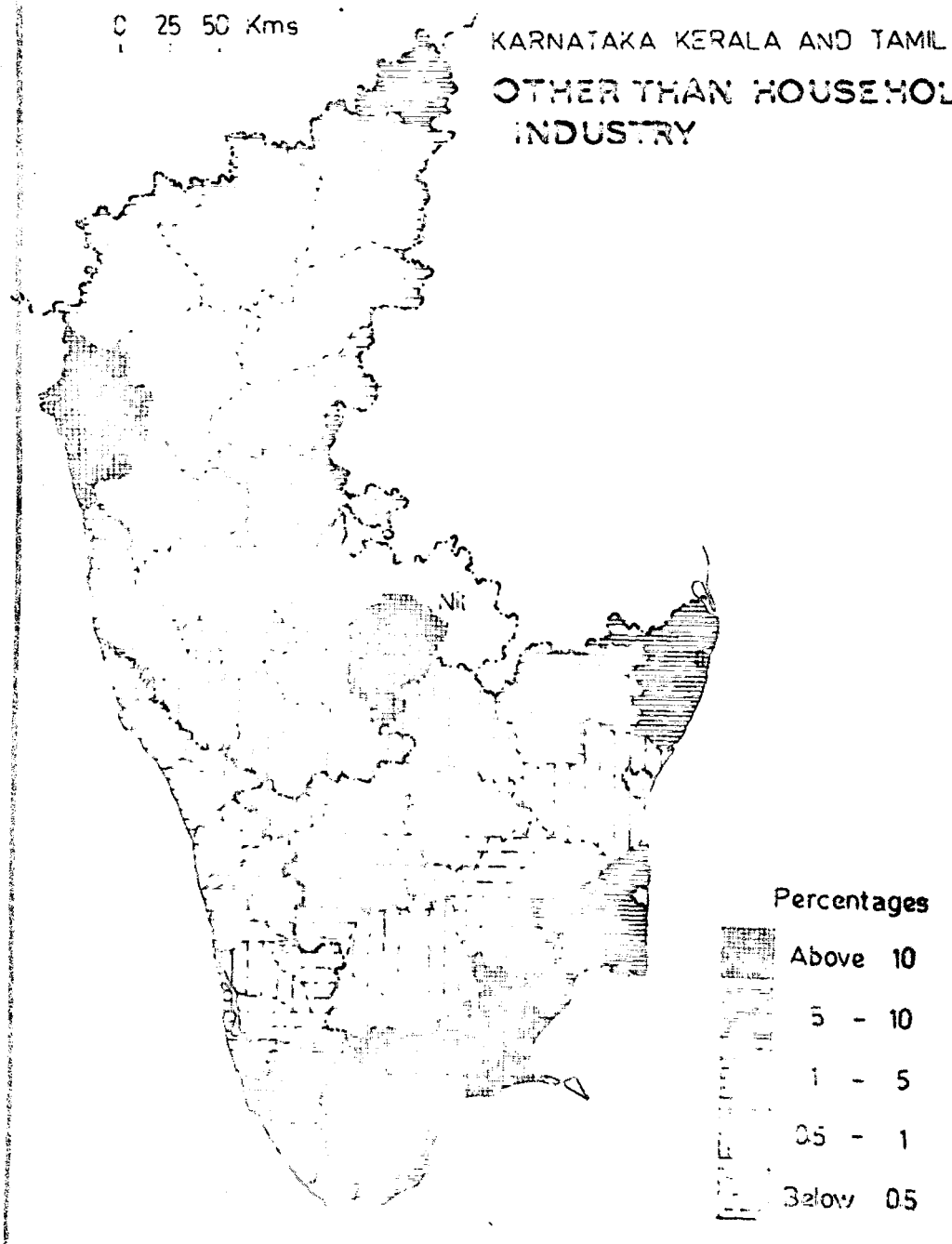

0 25 50 Kms
KARNATAKA KERALA AND TAMIL NADU
OTHER THAN HOUSEHOLD INDUSTRY
Nil
Percentages
Above 10
5 - 10
1 - 5
0.5 - 1
Below 0.5

Fig. 7

uplands and Nettur-Vellore region, of Tamil Nadu; Kottayam, Trivandrum districts of south Malabar and Dharwar Plateau and Chikmagalur region of Karnataka.

V.b. Other than Household Industry

The proportion of persons engaged in other than household industry is an important index of the industrialisation among the different communities. The percentage of tribes engaged in this category is low.

The share is high in the east coastal districts of Tamil Nadu, Bidar plateau, Bangalore region, Chitradurga and North Kanara regions of Karnataka (fig. 7). The high proportion of tribal workers is not reported in Kerala. These regions where high share of tribal workers involved in other than household industries are considered as highly industrialised areas of the three States.

The moderate share of workers is seen in northern districts of Karnataka comprising north Malnad, Dharwar plateau, Gulbarga plain, Bijapur and Raichur, Bellary and plains of north and south Maidan. In Kerala the North Malabar coast and the Vellore region of Tamil Nadu also fall in this category.

The low share of tribal workforce engaged in this sector is noticed in four districts of Karnataka viz., Coorg, Chikmagalur, Mysore and Tumkur ;and Mallapuram, Palghat, Kottayam, Ernakulam and Trivandrum districts of Kerala. In Tamil Nadu the low share is found in Coimbatore-Madurai uplands, Shervaroy hills Javadi hills, Dharmapuri, South Arcot and Tiruchirappalli districts.

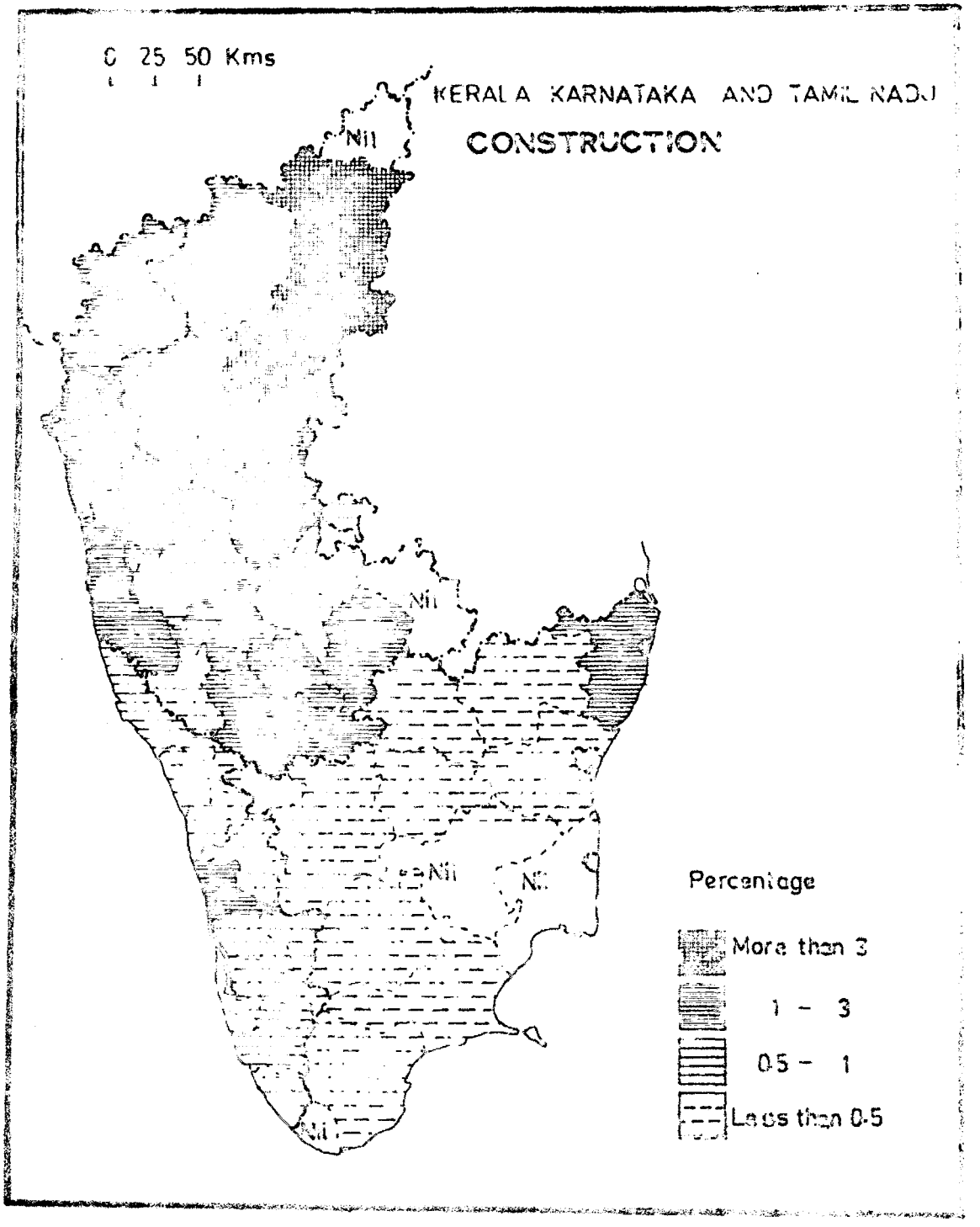

0 25 50 Kms
KERALA KARNATAKA AND TAMIL NADU
CONSTRUCTION
Nil
Nil
Nil
Nil
Nil
Percentage
More than 3
1 - 3
0.5 - 1
Less than 0.5

Fig. 8

vi. Construction

It is evident from fig. 8 that very low proportion of the tribals are engaged in this category. The highest percentage is seen in Gulbarga (6.21) while the lowest is in Madurai (0.03).

The tribal workers engaged in construction constitute a insignificant number all over the three southern States. Barring the cities and urban areas this kind of occupation is scarcely noticed. Absence or lack of facilities for other occupations especially Agricultural workforce in urban areas can be sited as a main reason for construction as occupation for urban Scheduled Tribes.

There are five districts which fall in the highest category of more than 3.01 per cent tribal workforce in construction. They include Bangalore, Gulbarga, North Kanara and Raichur and Madras,

A group of eleven districts fall in the category of moderate involvement. The majority of them are in Karnataka (nine). They include north Malnad region, Bijapur, Bellary plain, Dharwar plateau, Shimoga, South Kanara, Mysore and Hassan districts. Out of the remaining two districts one each is in Kerala (Tiruchur) and Tamil Nadu (Chingleput).

Most of the districts of Tamil Nadu fall under the lowest category of below 1.00 per cent. Excluding Tiruchur district, the remaining Malabar coastal districts fall in this category. Karnataka accounts for four districts. They are Chitradurga, Chikmagalur, Coorg and Tumkur.

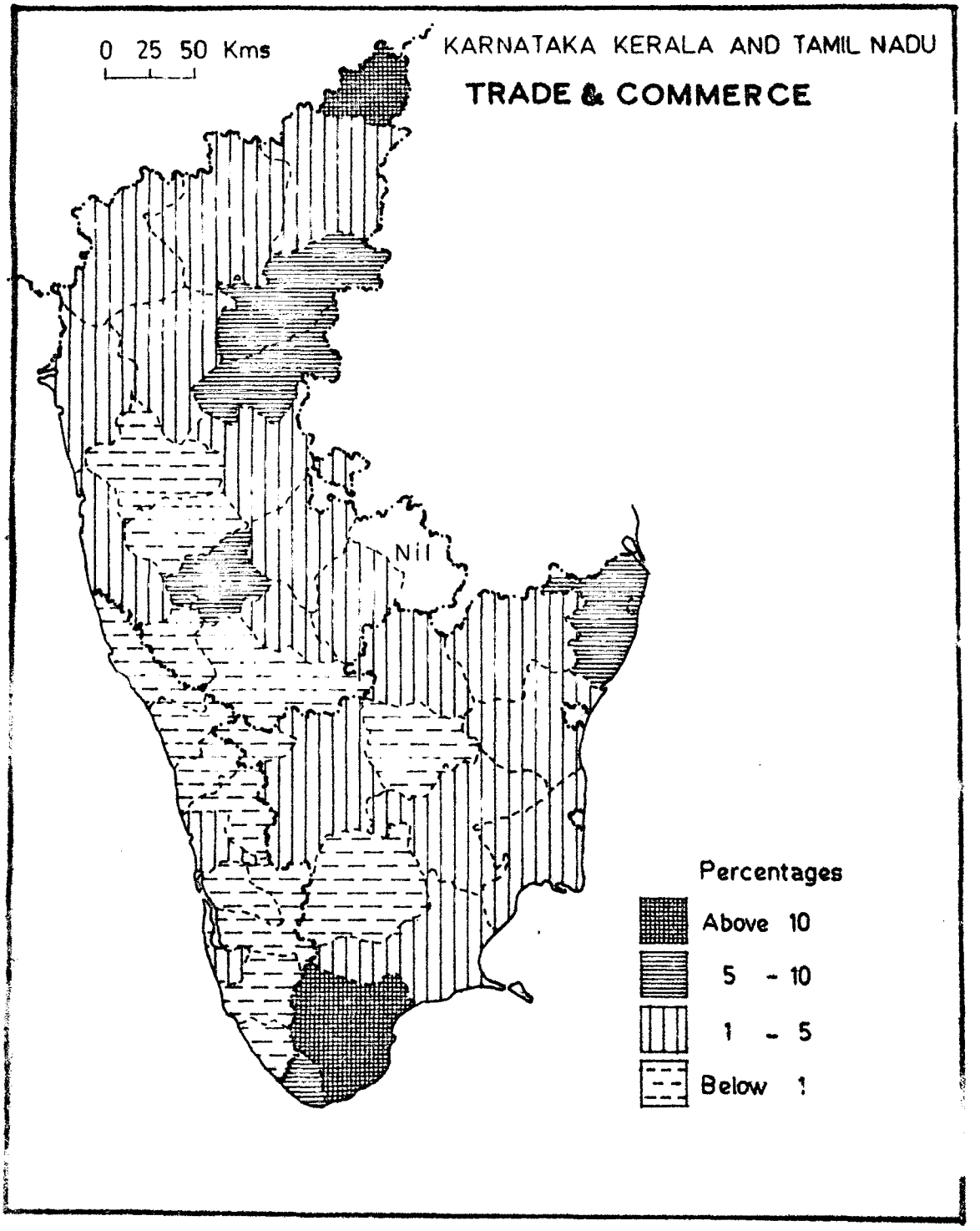

0 25 50 Kms
KARNATAKA KERALA AND TAMIL NADU
TRADE & COMMERCE
Nil
Percentages
Above 10
5 - 10
1 - 5
Below 1

Fig. 19

There are six districts of the three southern States having no tribal workers engaged in Construction.

vii. Trade and Commerce

The district having larger urban population, obviously, command a leading position with regard to participation in Trade and Commerce. The high concentration is recorded in Bidar district (30.22 per cent) followed by Tirunelveli 18.28 and also the district of Raichur, Bellary, Hassan of Karnataka; and Madras, Chingleput and Kanyakumari districts of Tamil Nadu (fig. 9). The reason might be that these districts are located and closely connected with urban centre or Trade Centre. For instances the Bidar district is situated very near to Kolhapur of Maharashtra and Hyderabad; and Tirunelveli district is located close to Trivandrum and Madurai which are urban centres. Moreover, these are the regions where the Household industries are highly developed and also considerable proportion of tribal workforce is engaged in Manufacturing, Processing, Servicing and Repair centres.

The moderate concentration is found in north Malnad, Gulbarga plain, Bijapur, Dharwar plateau, North and South Kanara region and the south Maidan excluding Mysore of Karnataka. Along the east coastal districts this zone stretches upto Ramanathapuram district. Coimbatore uplands, Dharmapuri and North Arcot and Tiruchur, Alleppey districts of Kerala.

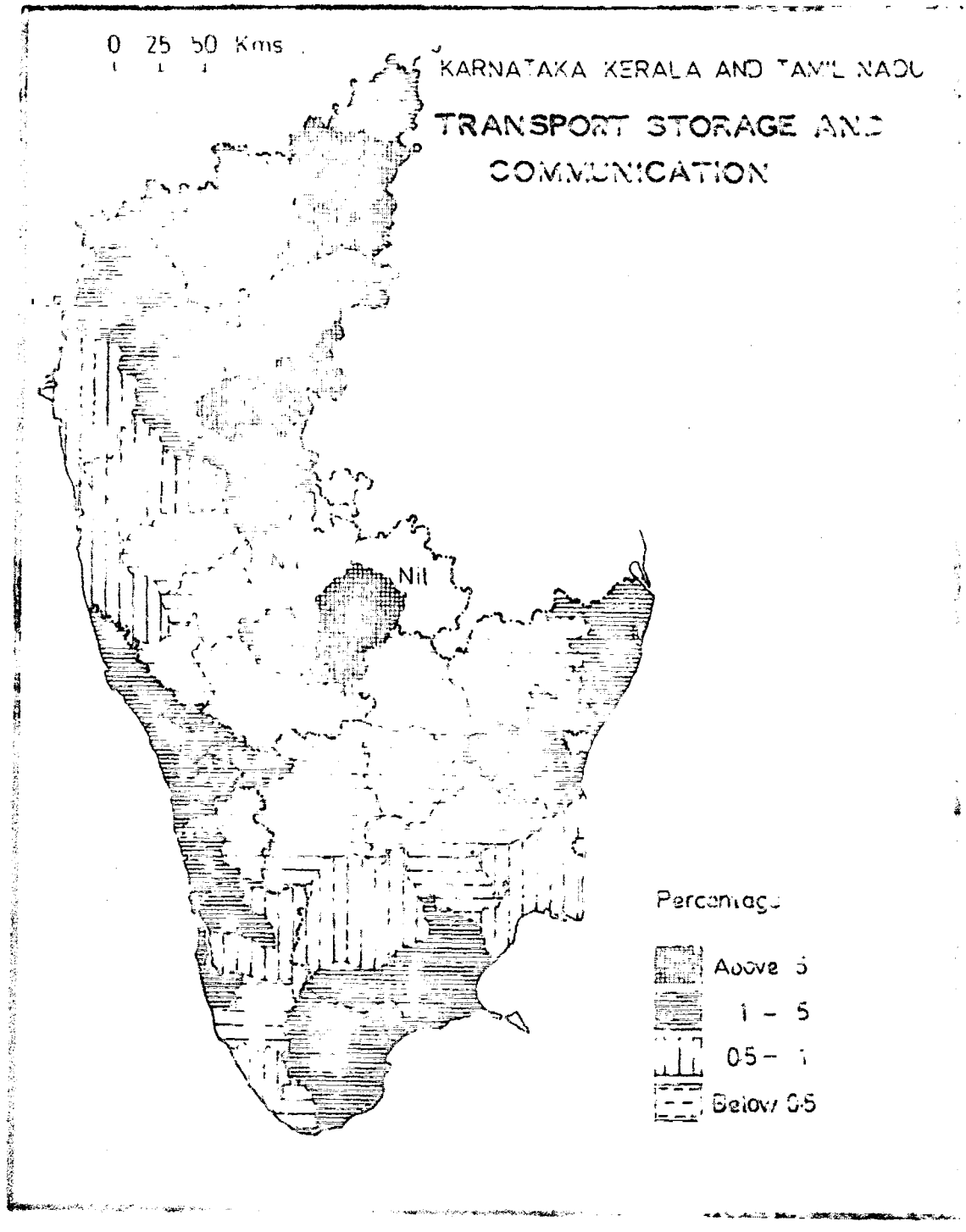

0 25 50 Kms
KARNATAKA KERALA AND TAMIL NADU
TRANSPORT STORAGE AND
COMMUNICATION
Nil
Percentage
Above 5
1 - 5
0.5 - 1
Below 0.5

Fig 10

Excluding Tiruchur and Alleppey, the remaining regions fall in the category of low proportion of tribal workforce engaged in this category. The Shervaroy hills and Madurai uplands of Tamil Nadu and Mysore, Coorg region, Chikmagalur and Shimoga districts also have low proportion of the tribals engaged in this sector.

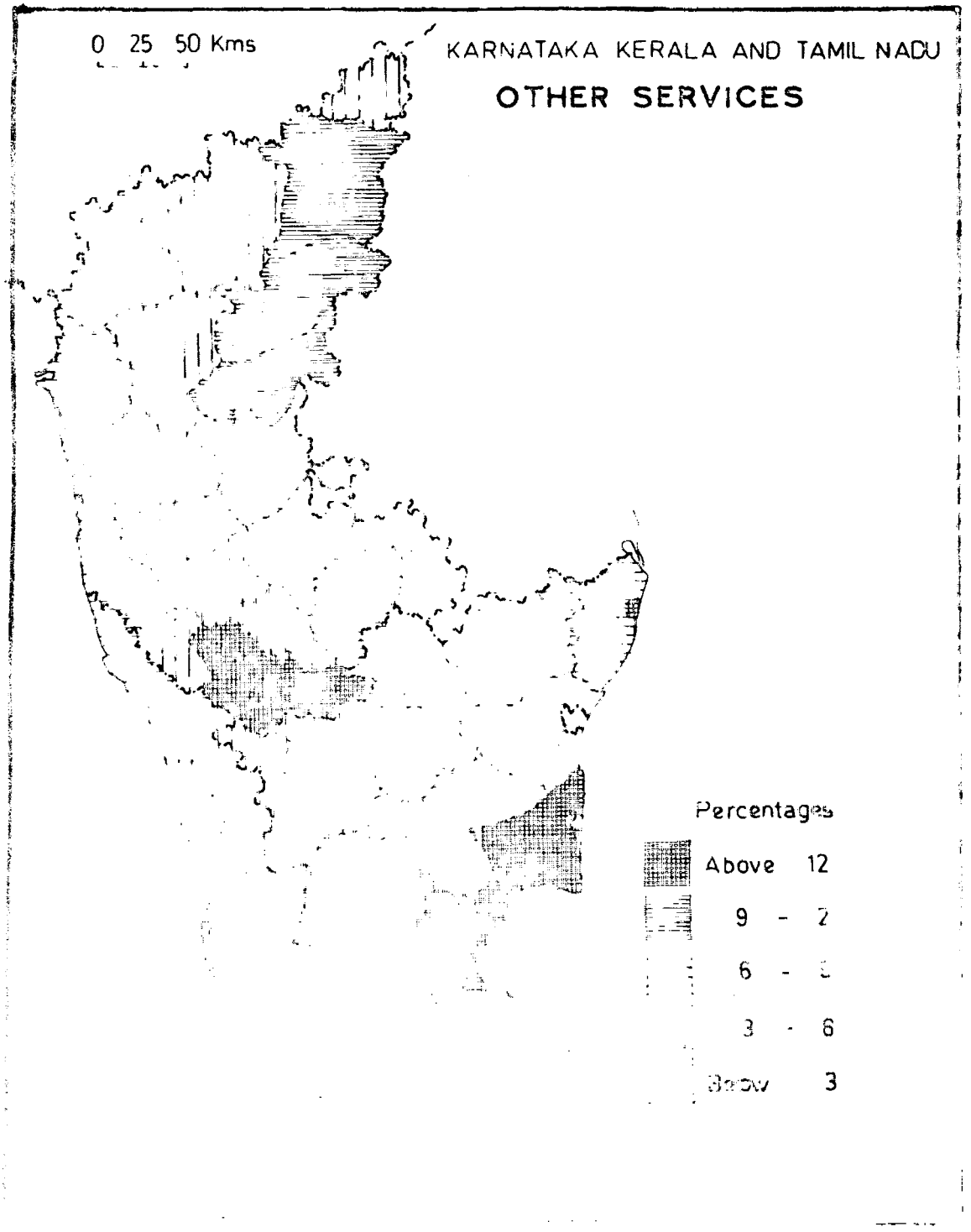
viii. Transport, Storage and Communication

Transport and Communication, with the advanced knowledge of science have become a must in day to day life in this modern age. Indeed, the development of Transport and Communication can be considered as an index of economic development. The Transport and Communication considered as barometer for measuring the economic and cultural development of any region.[6]

Among the 43 districts in the entire three States only four districts fell under the high category of proportion (above 5.01). They are Gulbarga, Bangalore, Bellary and Madras (fig. 10). Most of the tribal people settled in these urban centres engage themselves in Transport, Storage and Communication. The highest per cent is recorded in Madras (14.94) followed by Bangalore (10.29) while the lowest is recorded in Mysore district (0.03).

---

6. S.I. Muller, "Some aspects of the distribution of people engaged in Transport and Communication in Mysore State" Deccan Geographer, Vol. 11-12, 1973, Nos. 1, p. 27.


0 25 50 Kms
KARNATAKA KERALA AND TAMIL NADU
OTHER SERVICES
Percentages
Above 12
9 - 12
6 - 9
3 - 6
Below 3

The moderate concentration of Scheduled Tribe workers engaged in this category is found in Coastal districts of Kerala and the eastern coastal districts of Tamil Nadu. In Karnataka, the similar concentration (1 -5) is found in Raichur plain, Bijapur, Bellary, Hassan region and Dharwar plateau.

Along the western Ghats, the Sherveroy and Javadi hills low percentage of tribal workers engaged in this activity, is observed because of mountaineous topography, the road and railway network has not been developed.

ix. Other Services

Among the tertiary activities Other Services shows slightly higher per cent of tribal engagement. The concentration of workers is high in southern coastal districts of Tamil Nadu comprising Thanjavur, Ramanathapuram, Tirunelveli and Madurai; one district of Kerala (Alleppey) and Mysore and north Maidan region of Karnataka (fig. 11).

Nearly half of the area of the southern region covered by moderate share of Scheduled Tribe workers ranging from 3-9 per cent. They include west coastal districts - North Kanara, South Kanara, Cannanore, Kozhikode, Mallapuram, Tiruchur, Ernakulam and Trivandrum districts and Bangalore, Nilgiri, Chingleput districts and Coimbatore - Madurai uplands.

The very low concentration of workers in this category (below 3 per cent),is noticed in Belgaum, Shimoga and Tumkur

districts of Karnataka; Palghat, Kottayam and Quilon districts of Kerala. In Tamil Nadu the similar pattern is found in Shervaroy, Javadi hills, Dharmapuri, North Arcot, South Arcot, Tiruchirappalli and Kanyakumari districts.

Concluding Statement

It may be deduced from the foregoing analysis that involvement of tribes in the agricultural sector - together form a bulk of workers engaged in the three southern States of India. Over 70 per cent of the workers are engaged as agricultural work force which denotes an agricultural based economy in the study area. The role of household industries is insignificant and it accounts for very less per cent of the total tribal workers. The position of other activities such as manufacturing other than household industry, construction, trade and commerce, transport and communication and other services is also not very encouraging.

Chapter V

GEOGRAPHICAL DISTRIBUTION OF THE MAJOR TRIBAL COMMUNITIES

In this chapter, an attempt has been made to examine the concentration pattern of the most numerous tribal communities of the three southern States. In each state the first five ranking Scheduled Tribes have been taken into consideration. The following table presents a tribal total population and the percentage to total tribal population of the State, according to 1971 Census.

First Five Ranking Scheduled Tribes

Ranking	Total Population	Percentage to total tribal of the State
	KARNATAKA	
1. Naikda	68632	29.68
2. Marati	48840	21.12
3. Yerawa	13743	5.94
4. Hasalaru	11213	4.85
5. Soligaru	10983	4.75
	KERALA	
1. Pulayan	85098	31.59
2. Paniyan	45562	16.91
3. Marati	17556	6.52
4. Kurichchan	15700	5.83
5. Kurumans	15116	5.16
	TAMIL NADU	
1. Malayali	159426	51.18
2. Irular	89025	28.58
3. Kurimans	11269	3.61
4. Sholaga	8310	2.66
5. Paniyan	6093	1.95

Source: Spcl. Tables for S.T., 1971, Part V A.

KARNATAKA

Naikdas

The Naikdas are the most numerous tribe in Karnataka and they are found in the districts of Belgaum, Bijapur, Dharwar and South Kanara. They account for 93 per cent, 77 per cent, 85 per cent and 80.32 per cent of tribal population of respective districts. Their population in 1961 and 1971 was 70598 and 68632 respectively. About 85 per cent Naikdas are engaged as cultivators and agricultural labourers. The Naikdas account for nearly 30 per cent of the total Scheduled Tribes of the State and holds first rank among tribes. Naikdas are referred by different names in the different places like Nayaka, Cholivala Nayaka, Kapadiya Nayaka, Mota Nayaka and Nana Nayaka. Nearly 60 per cent of them are non-workers.

Marati

Maratis Tribes are inhabitants of the South Kanara district of Karnataka and Cannanore district of Kerala. Their population in 1961 and 1971 was 48840, 17556 respectively and their proportion to the Scheduled Tribe population of the district was 80.32 and 49.40 per cent. It holds second numerically strong group in Karnataka and 3rd in Kerala. The name has been originated from the Marati language that they speak.

Yerava

They are confined into only Coorg district of Karnataka. The population of Yerava in 1961 and 1971 was

15290, 13743 respectively. Their proportion to the total tribal population of the district Coorg is about 51.67 (1971), while the proportion to the total tribal population of the State is 6 per cent. Of them 79 per cent are cultivators and agricultural labourers. Nearly 41 per cent Yeravas are non-workers.

Hasalaru

The Hasalarus are concentrated only in four districts of the State which accounts for 4.85 per cent of the total tribal population. They are Shimoga (68.88 per cent), Chikmagalur (51.67), Hassan (44.21) and Bangalore (0.25 per cent). Of them about 47.11 per cent are living in Chikmagalur district.

In the bygone past Hasalaru dwelt in forests and subsisted solely by food gathering, supplemented occasionally by hunting with the bow and arrow. Later they became agrestic serfs or day labourers in planation areas and are exhibiting a trend now towards acquiring agricultural lands. Most of them are engaged in primary activities.

Soligaru

Although, they are found in seven districts of Karnataka, about 83 per cent of them are living in both Mysore and Mandya districts. The concentration is very high in Mandya district i.e. 58.78, followed by Mysore 38.24, Tumkur 16.29, Bangalore 13.38, Hassan 4.73, Bellary 1.32 and Chitradurga 0.16 per cent. Nearly 56 per cent of Soligarus are non-

workers. The Soligarus engaged in primary activities account for 88 per cent of tribal workforce.

KERALA

Pulayan

The Pulayans are spread over Cannanore, Kozhikode, Tiruchur, Mallapuram and Palghat districts of Kerala. They are also found in adjoining area of Tamil Nadu. Mostly they are inhabitants of the jungle and hilly tracts of the district. The proportion of Pulayans to total Scheduled Tribe population of the State in 1971 is 31.59 per cent and holds first rank. The concentration is very high in the northern coastal districts whereas the Pulayans are not seen in the southern districts. About 72 per cent of them are engaged as both cultivators and agricultural labourers. Nearly 58 per cent of them are non-workers.

Paniyan

The Paniyans of Kerala are found in the Wynad plateau. This is an extension into malabar of the highest part of the Deccan plateau in the region of the Nilgiris. They are also seen in Madras and Mysore States. The Paniyans have hitherto been described as "a dark-skinned tribe, short in stature, with broad noses and curly or wavy hair"[1], and they are reported to be of African origin though it has not been

---

1. A.A.D. Luiz, Tribes of Kerala (New Delhi: Bharatiya Adimjati Sevak Sangh, 1962).

conclusively proved. Though they are inhabitants of Cannanore, Tiruchur and Palghat, the concentration is more in Mallapuram and Kozhikode districts which account for 43.74 and 29.03 per cent respectively. This tribe holds 2nd rank in Kerala. They usually live at high elevations where in it is possible to practice cultivation of plantations and rice. Nearly 97 per cent of them are engaged in the primary activities (1971) and about 47 per cent are non-Workers.

Kurichchan

They are the inhabitants of Cannanore and Kozhikode districts. They have a population of 15700 which accounts for 5.83 per cent of the total tribal population of the State. Most of them are engaged in primary activities. The name Kurichchan connotes good markmanship a characterstic of the tribes. It also means hill people.

Kurumans

The Kurumans are found in northern coastal districts of Kerala comprising Cannanore, Kozhikode, Mallapuram and Palghat. They are also scattered in most of the districts of Tamil Nadu. But the concentration is very high in Madras district where the percentage to total tribal population of the district is 46.12. In kerala, they constitute 5th most numerous tribe and account for 5.61 per cent of the total tribal population of the State. The name Kuruman is believed to be a corrupt form of Kuruba which connotes a mountaineer. Their total population in 1961 and 1971 was 13377 and 15116 respectively. Nearly

90 per cent of them are engaged in primary sectors and about 61 per cent are non-workers.

TAMIL NADU

Malayali

Malayali is the most numerous tribe of Tamil Nadu having a numerical strength of 159426. They are found in North Arcot, Dharmapuri, Salem and Tiruchirapalli districts. The concentration is very high Salem (97.89 per cent to the total Scheduled Tribes population of the district), followed by North Arcot (61.97), Dharmapuri (52.14) and Tiruchirappalli (50.25). The Malayali tribe holds first rank among the Scheduled Tribes in Tamil Nadu and their percentage to total tribal population of the State is 51.18. This tribe is confined only to Tamil Nadu and they are not to be seen either in Kerala or Karnataka. About 97 per cent of them are engaged in the Primary sector. Nearly 56 per cent of them are non-workers. They are the most primitive tribe.

Irulars

Irulars are inhabitants of Chingleput, South Arcot, Coimbatore, and Nilgiri. They are also seen in Palghat district of Kerala and in Karnataka they are known as Iruligas and Iraligas. Their name is reported to have originated from their own description of their colour as Irula (dark). They themselves claim superior than the other groups and they treat

the Pandiyans, Kurumbas, Kattunayakans and Harijans as low. Irulars are said to be clever agriculturists. The Irulars proportion in total Scheduled Tribe population of Tamil Nadu is 28.5% and holds second numerically strong position with a population of 89025 persons. Among Irulars about 50 per cent are engaged as a cultivators and agricultural labourers and 48 per cent of them are non-workers.

Sholaga

According to 1971 Census, the total Sholaga population is 6310 which accounts for 2.66 per cent of the total tribal population of the State. Although they are distributed in nine districts, the concentration is very high in Coimbatore district in which it accounts for 30.48 per cent to total tribal population of the district. About 95 per cent of them are engaged in primary sector.

Chapter VI

SOCIO-ECONOMIC TRANSFORMATION AMONG THE SCHEDULED TRIBES

The Scheduled Tribes have remained backward socially, economically as well as educationally. However, there has been a growing tempo of developmental activity in order to facilitate their mobility and acceptance in other social services. The study of pattern of occuaptional structure of population in a country is regarded as one of the most effective ways of measuring economic development. In other words, industrialization involves the transformation of society's occupational structure. Thus the pattern of occupational distribution is perhaps the best index of the extent of industrialization and economic development of a country.[1] The present chapter therefore, is an attempt to identify the socio-economic transformation among the Scheduled Tribes in the three southern States. Owing to the limitations of data occupational structure has been considered as a main parameter to measure the economic transformation. Hence, the literacy, urbanization and occupational structure (Male workers) have been taken as the dimension of socio-economic status along which social mobility has been measured in terms of movement or change over the decade 1961-71. Firstly an attempt has been made

---

1. Priyatosh Maitra, Trends of Socio-economic Change in India 1871-1961, in M.K. Chaudhuri (ed.), (Lucknow, Indian Institute of Advanced Study, Simla, 1969).

to identify the changes in these parameters at the State level.

Literacy Change (1961-71)

Education is a basic factor in the enlightenment of the people. A number of difficulties are experienced in promoting education among the Scheduled castes and the Scheduled Tribes for the simple reason that to send a grown up boy or girl to a school, is essentially a matter of economics and entails dislocation of traditional pattern of division of labour in their family. Inspite of incentives and special care for the development of education amongst the tribes provided by the Government the process of educational development has been far from satisfactory. According to 1961 Census, the percentage of literates among the Scheduled Tribes in Karnataka was 8.14, Kerala 17.25 and Tamil Nadu 5.90 as compared to all-India literacy rate of 8.54 per cent among the tribes. The state of Tamil Nadu is very far from all India tribal literacy level. Table 6.1 shows the proportion of Scheduled Tribes literate to total Scheduled Tribe population, decadal variation and the growth rate.

Table 6.1

State	Literacy 1961 Per cent	Literacy 1971 per cent	Per cent variation	Growth rate
1. Karnataka	8.14	14.85	6.71	119.43
2. Kerala	17.25	25.71	8.46	88.66
3. Tamil Nadu	5.90	9.02	3.12	88.83

It is evident from table 6.1 that the Kerala State is showing quite high percentage of the tribals literates in 1961 and 1971. The growth rate of the tribal literacy in Karnataka is very high +119.43 per cent over a decade. The uniform growth rate has been observed in Tamil Nadu and Kerala.

TRIBAL LITERACY GROWTH RATE 1961-71

Economists like Schultz have made the concept of education as a valuable social investment well known and widely accepted today. An educated worker is capitalized labour. Before 1971, a person who was able both to read and write any simple letter either in print or in manuscript was considered as a literate. But according to 1971 Census, the definition of a literate is, a person who can both read and write with understanding in any language. A person who can merely read but cannot write is not a literate. There

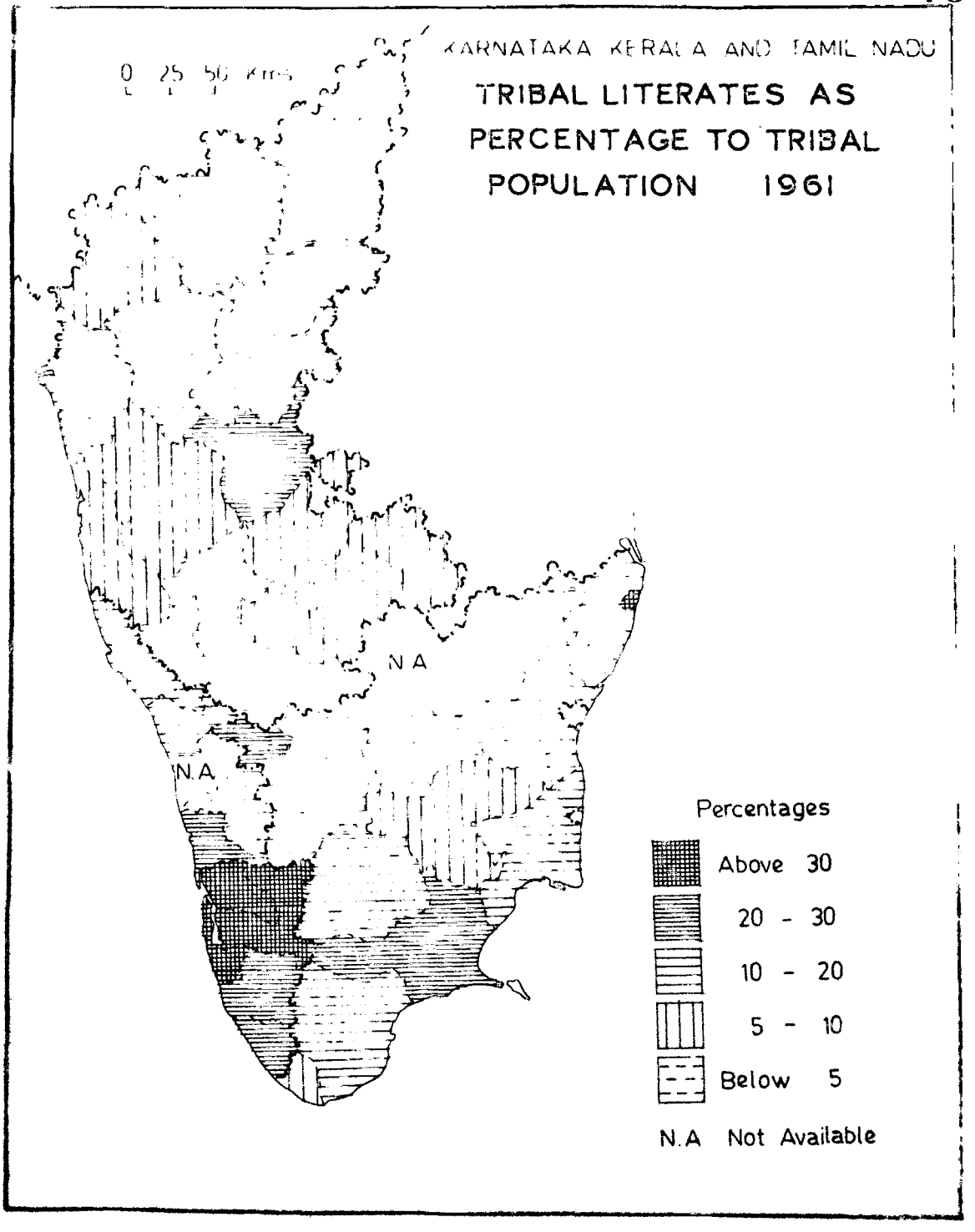

KARNATAKA KERALA AND TAMIL NADU
0 25 50 Kms
TRIBAL LITERATES AS PERCENTAGE TO TRIBAL POPULATION 1961
N.A
N.A
Percentages
Above 30
20 - 30
10 - 20
5 - 10
Below 5
N.A Not Available

Fig. 1

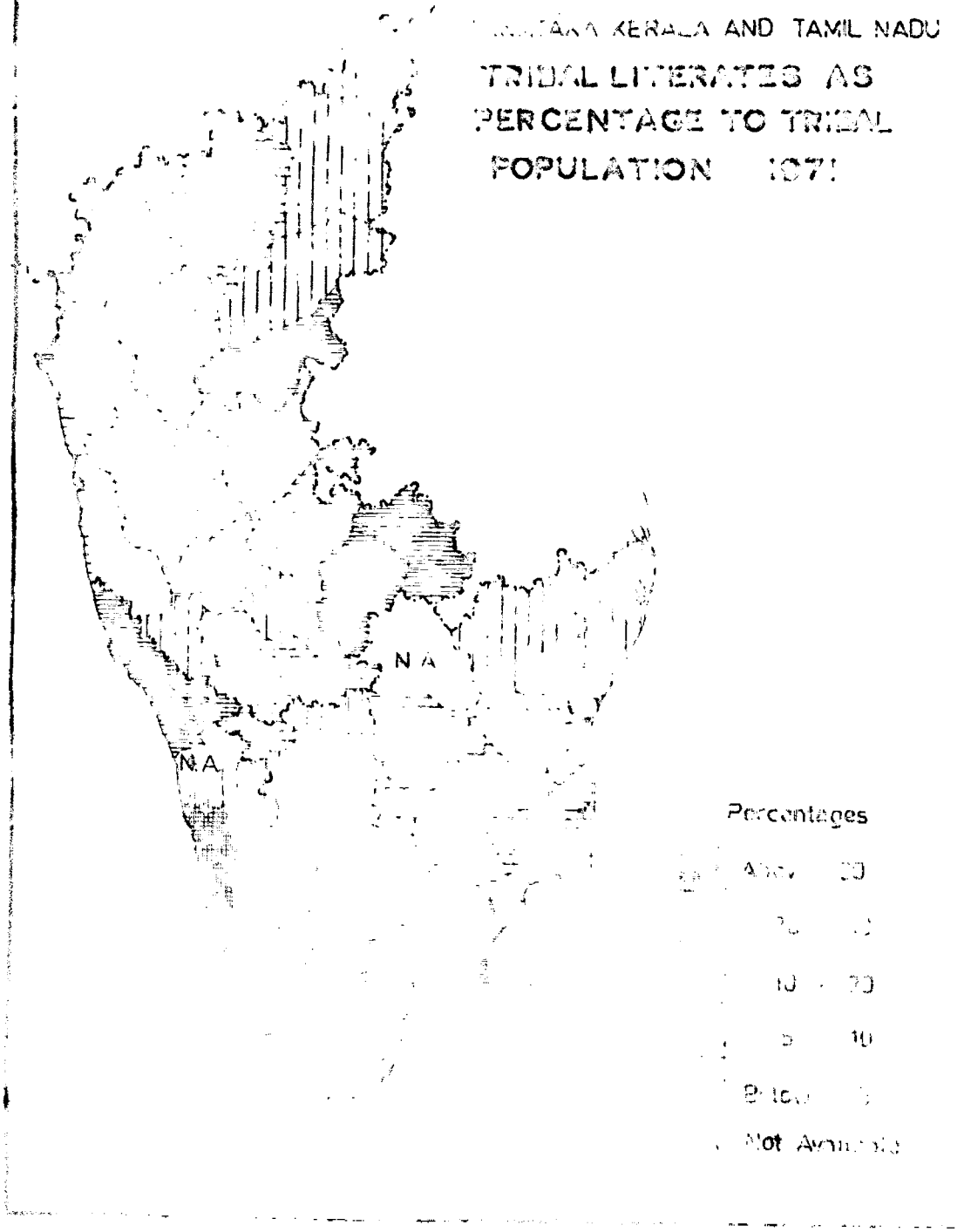

KERALA AND TAMIL NADU
TRIBAL LITERATES AS
PERCENTAGE TO TRIBAL
POPULATION 1971
N A
N A
Percentages

Fig 2

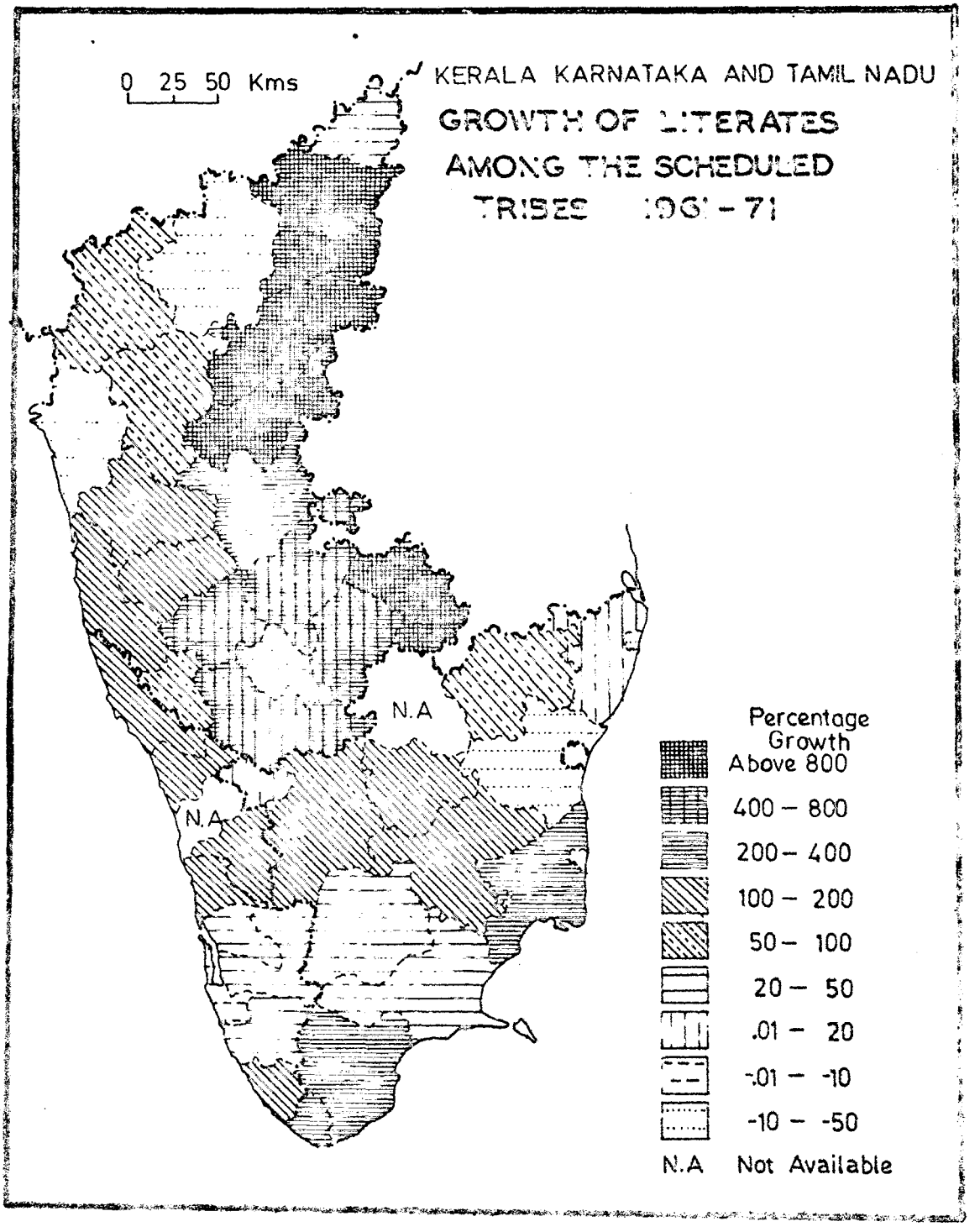

0 25 50 Kms
KERALA KARNATAKA AND TAMIL NADU
GROWTH OF LITERATES
AMONG THE SCHEDULED
TRIBES 1961 - 71
N.A
N.A
Percentage Growth
Above 800
400 – 800
200 – 400
100 – 200
50 – 100
20 – 50
.01 – 20
-.01 – -10
-10 – -50
N.A Not Available

Fig. 3

has been a noticeable improvement in the tribal education of the three southern States over a decade. Our purpose here is to ascertain whether the literacy change has been taken place or not. As per the 1971 Census data drastic improvement has been observed in Kerala and Karnataka, but the growth rate is found to be very low in Tamil Nadu. The change or improvement in the educational level might be as a result of introduction of new school in the region, particularly in tribal areas after 1961, but before 1971 if it had not in 1961.

It is only after the Independence that they began to appreciate the value of education, and have started sending their children to schools. Figures 1, 2 and 3 show the percentage of literates 1961, 1971 and growth of literates respectively. Of the forty one districts of the three southern States four districts have shown very high growth rate of above 800 per cent (Fig. 3). They are all located in North Maidan region of Karnataka viz. Bellary, Raichur, Gulbarga and Kolar. Among these four districts, the Gulbarga is showing the highest growth rate i.e. 3075 per cent. Relatively high growth rate ranging from 100.01 to 800 has been observed in four northern districts of Kerala, one district of Kerala - Trivandrum, and southern coastal districts of Tamil Nadu. The similar pattern is found in half of the districts of Karnataka. The moderate

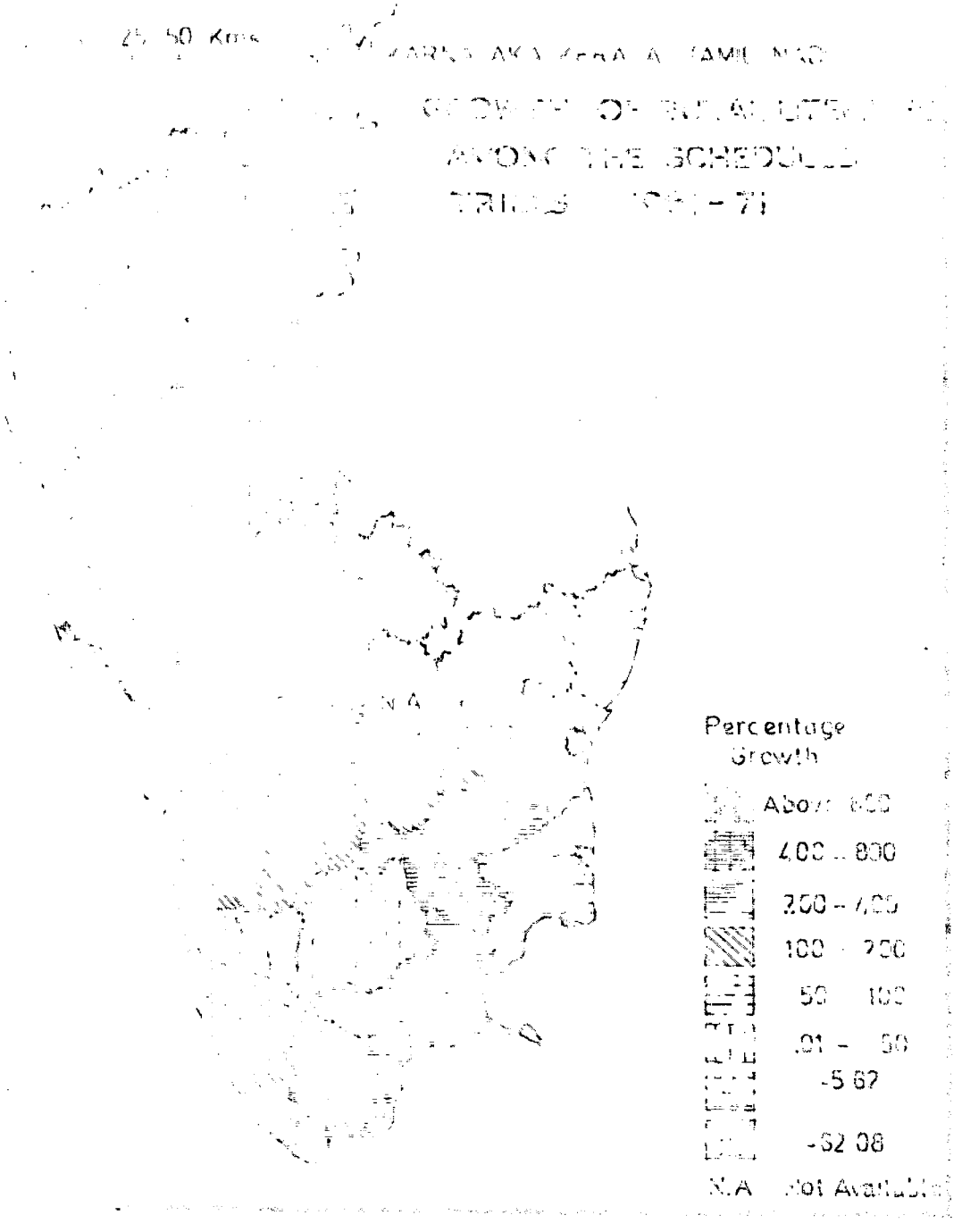

0 50 Kms
Percentage
Growth
Above 800
400 - 800
200 - 400
100 - 200
50 - 100
01 - 50
-5 67
-62 08
N.A Not Available

Fig. 4

growth ranges from 50.1 to 100. Districts falling in this category are Belgaum, Coorg and Dharwar of Karnataka and North Arcot district of Tamil Nadu. In all eight districts have shown low growth in tribal literacy rate i.e., below 50 per cent. Four districts have shown negative growth rate. They are Bijapur, North Kanara, Alleppey and Madras.

TRIBAL RURAL LITERACY GROWTH (1961-71)

The very high growth rate of above 800 per cent (Fig. 4) has been found in Bellary and Gulbarga districts of Karnataka. Nearly half of the districts of the three States fall in the high growth rate range (100.01 - 800). These districts are mainly in Karnataka, followed by Tamil Nadu and Kerala. The districts of North Kanara and Chingleput districts show negative growth rate over the decade.

Tribal Urban Literacy Growth (1961-71)

The literacy growth rate is higher in urban areas than in the rural areas. In Karnataka six districts observed a very high growth rate of above 800 per cent (Fig. 5). They are Bellary, Bidar, Coorg, Kolar, Raichur and Tumkur. Usually in urban areas the non-agricultural economic base calls for literate and educated workers. The urban areas have also larger schooling facilities and

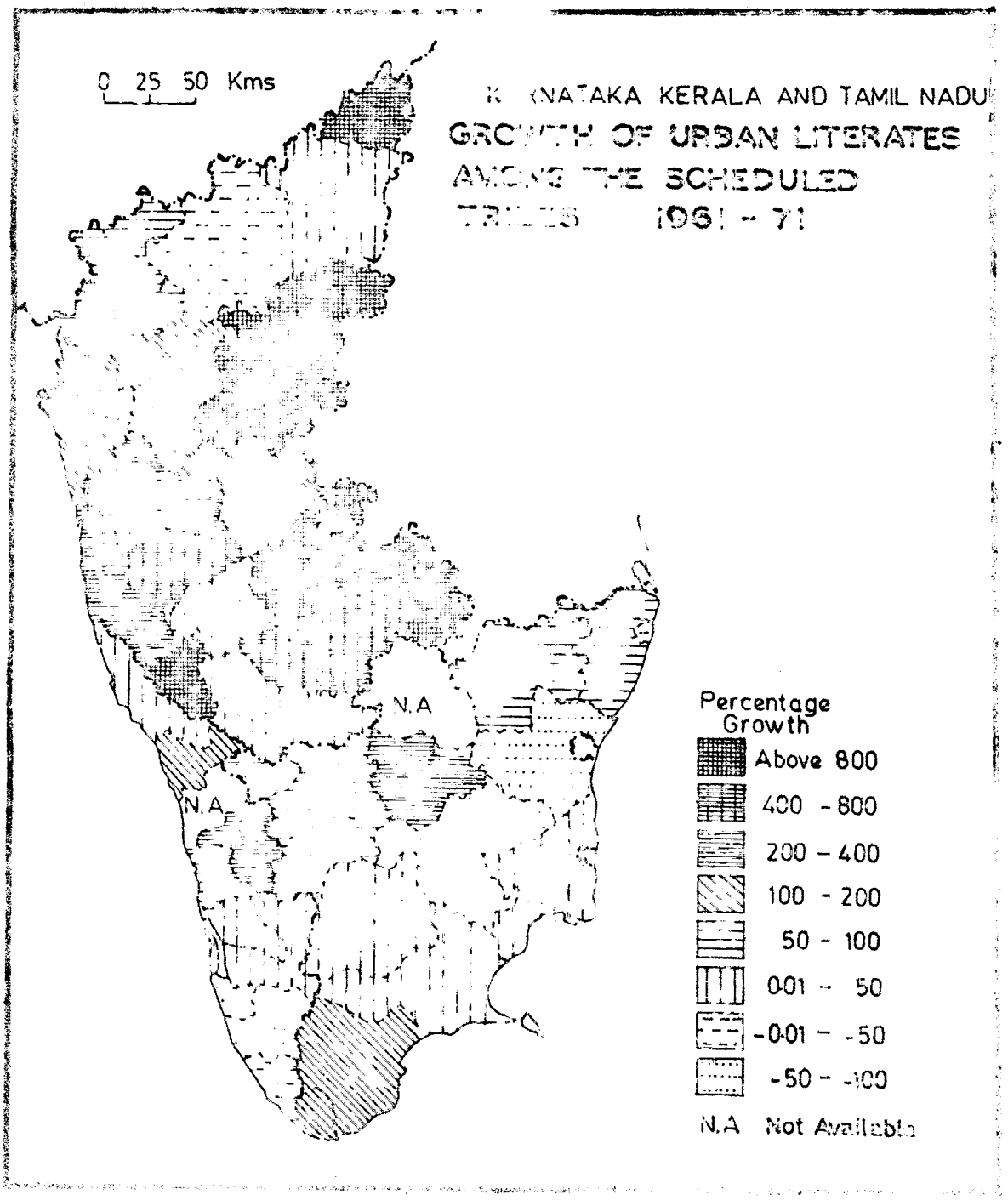

0 25 50 Kms
KARNATAKA KERALA AND TAMIL NADU
GROWTH OF URBAN LITERATES
AMONG THE SCHEDULED
TRIBES 1961 - 71
N.A
N.A
Percentage Growth
Above 800
400 - 800
200 - 400
100 - 200
50 - 100
0·01 - 50
-0·01 - -50
-50 - -100
N.A Not Available

Fig. 5

the urbanites are more motivated towards educating their children. The urban growth rate (literacy) therefore appears to be high. Eight districts show negative growth rate over the decade. They include three districts of Kerala; four districts of Tamil Nadu and Bijapur district of Karnataka.

Progress of tribal literacy in the three States has been fairly better during the decade 1961-71. The difference between rural and urban literacy continues to be enormous, and in some districts urban literacy is 2 to 3 times greater than rural literacy in the districts.

Urban Tribal Population Change (1961-71)

The proportion of population living in urban areas is often used as a rough measure of economic and social advancement, since urbanization - defined as a process whereby the proportion of the total population living in places defined as urban is rising is usually a concomitant of industrialization. Table 3.2 shows the percentage of tribal living in urban areas, per cent variation and the growth rate of the three southern States.

Table 6.2

State	Per cent 1961	Per cent 1971	Per cent variation	Growth rate
1. Karnataka	5.17	10.89	+5.72	+153.66
2. Kerala	4.30	4.04	-0.26	+ 18.69
3. Tamil Nadu	5.68	5.50	-0.18	+ 19.60

Source: Computed from Union Primary Census Abstract

In 1961, the urban tribal population living in Karnataka State was 5.17, Kerala 4.30 and Tamil Nadu -5.68 per cent. The corresponding figures in 1971 were 10.89, 4.04 and 5.50 per cent respectively. It is noticed from table 6.2 that Karnataka State is showing sizeable change over a decade (from 5.17 to 10.89) and the growth rate is +153.66 per cent. Though the per cent variation is negative in Kerala and Tamil Nadu, the growth rate is positive - +18.69 and + 19.60 respectively. The tribal urban population increased by 5.72 per cent in Karnataka and declined in Kerala and Tamil Nadu by 0.26, 0.18 per cent respectively.

Urban Tribal Growth Rate (1961-71)

The growth of tribal or general population in urban areas particularly could be ascribed to two factors, firstly,

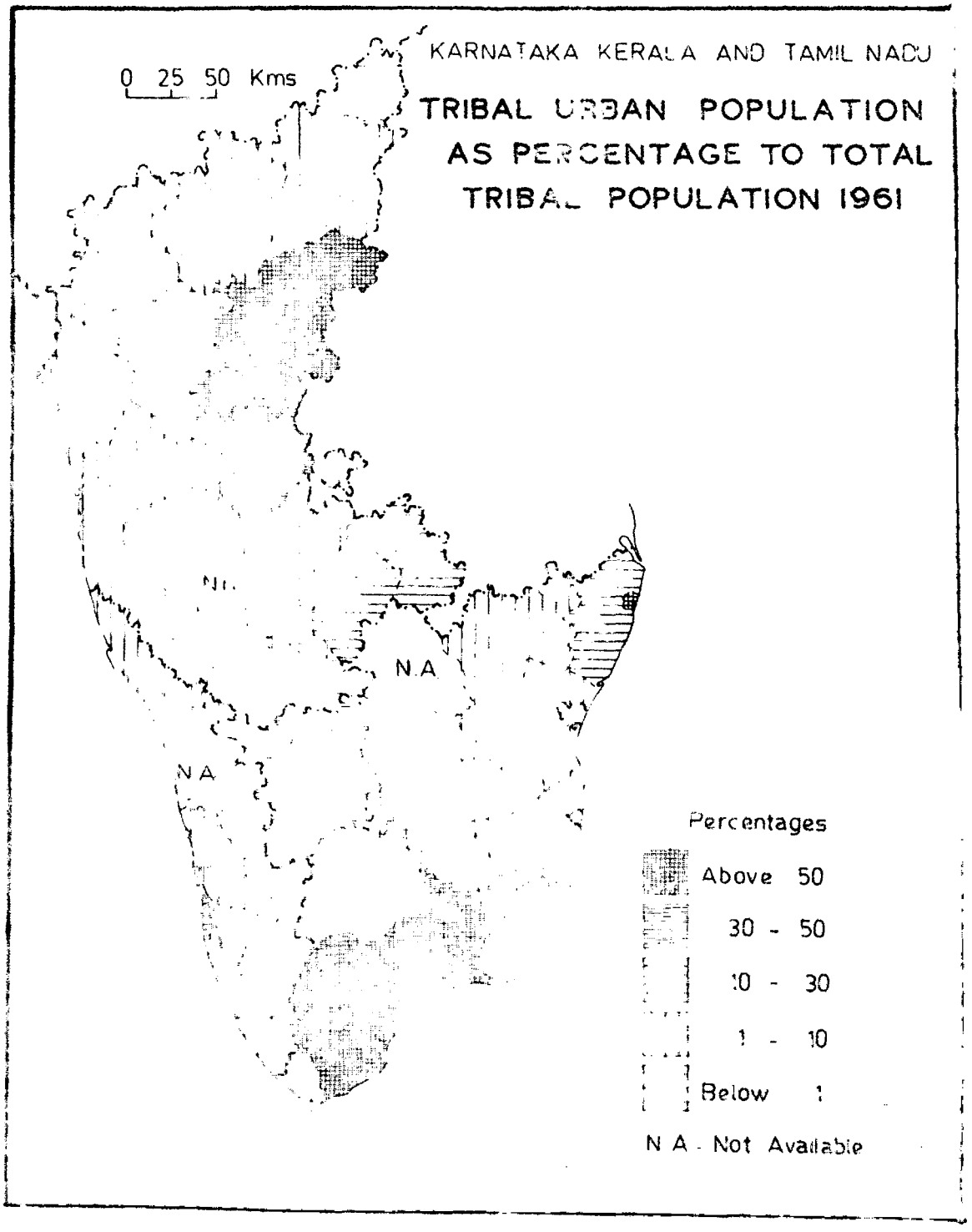

KARNATAKA KERALA AND TAMIL NADU
0 25 50 Kms
TRIBAL URBAN POPULATION
AS PERCENTAGE TO TOTAL
TRIBAL POPULATION 1961
N.A
N.A
Percentages
Above 50
30 - 50
10 - 30
1 - 10
Below 1
N A - Not Available

Fig. 6

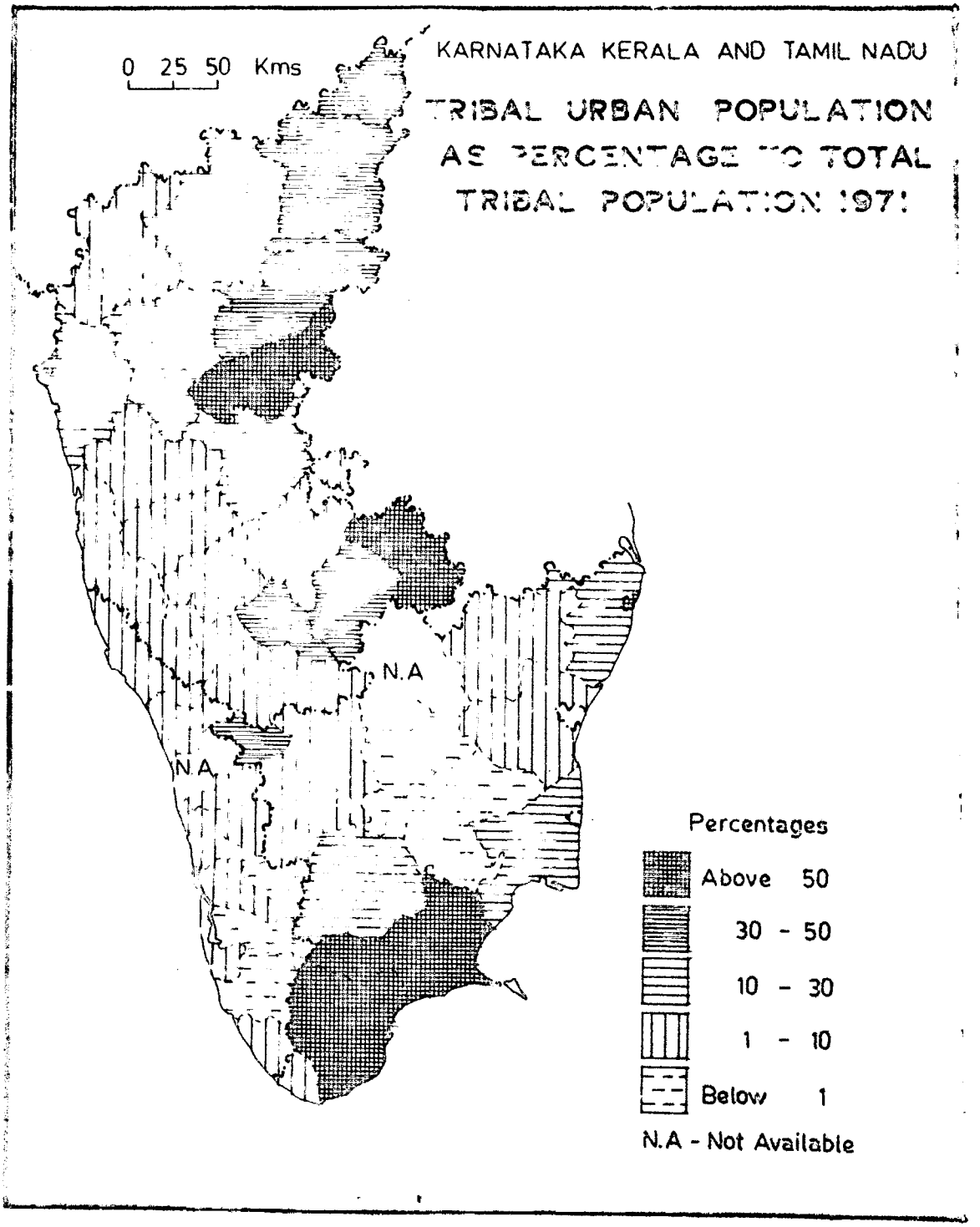

KARNATAKA KERALA AND TAMIL NADU
TRIBAL URBAN POPULATION
AS PERCENTAGE TO TOTAL
TRIBAL POPULATION 1971
0 25 50 Kms
N.A
N.A
Percentages
Above 50
30 - 50
10 - 30
1 - 10
Below 1
N.A - Not Available

Fig. 7

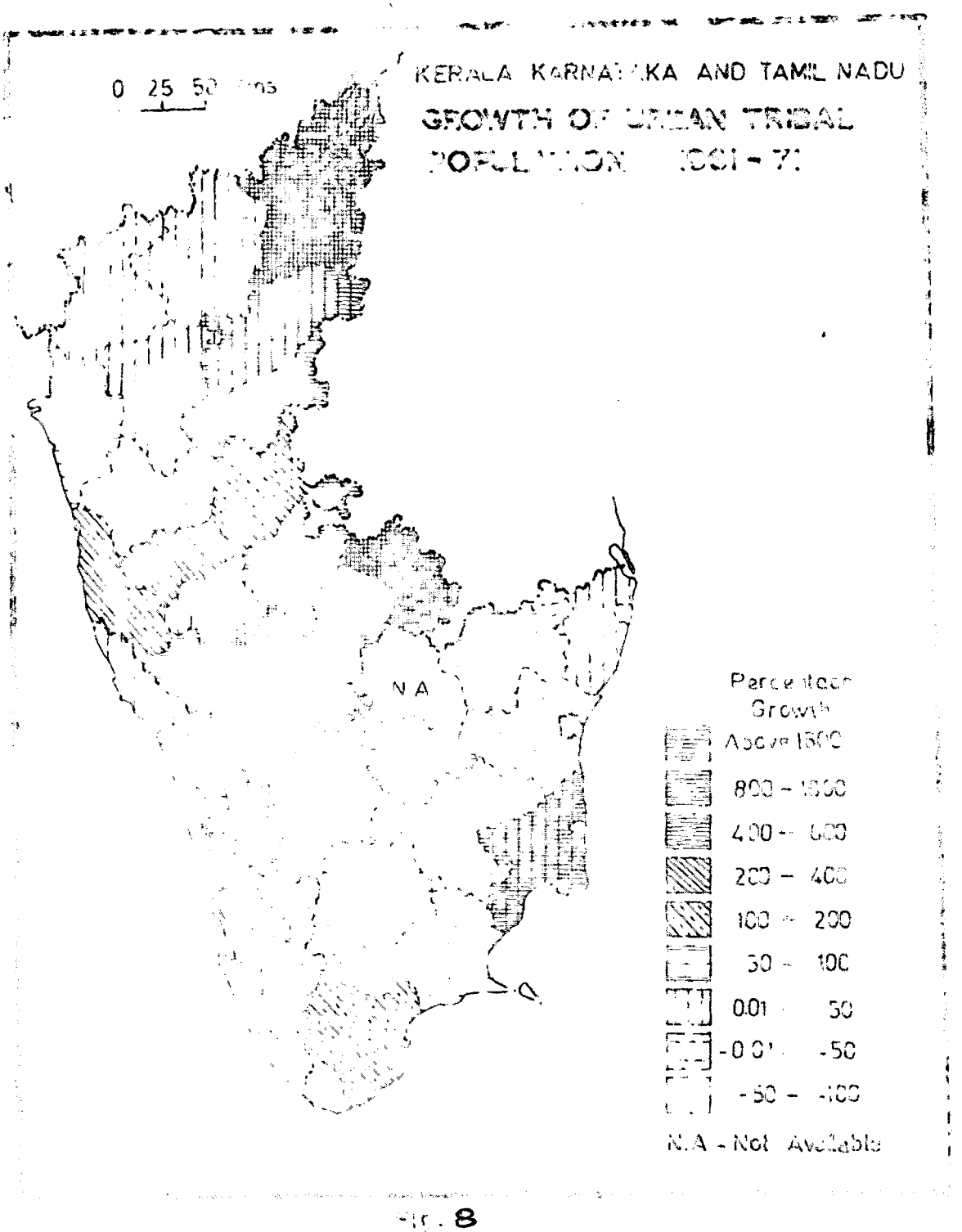

0 25 50
KERALA KARNATAKA AND TAMIL NADU
GROWTH OF URBAN TRIBAL
POPULATION
N A
Percentage
Growth
Above 1500
800 - 1500
400 - 800
200 - 400
100 - 200
50 - 100
0.01 - 50
-0.01 - -50
-50 - -100
N.A - Not Available

Fig. 8

natural growth of population and secondly net migration to that area. The difference between the number of births and the number of deaths is definied as natural increase.

The urban tribal population has been increasing rapidly in Karnataka from 9935 in 1961 to 25201 in 1971 and slowly in Kerala from 9163 in 1961 to 10876 in 1971 and Tamil Nadu from 14328 to 17136. The figures 6, 7 and 8 show urban tribal as percentage to tribal population 1961, 1971 and growth rate 1961-71 respectively. The highest growth is observed in Bellary, Bidar, Coorg, Gulbarga, Kolar, Mandya, Mysore, Raichur and Tumkur (See Fig. 8). Barring some of the above districts, others are industrially well developed. The reason for high growth of urban tribal population may be that industries are expanded very rapidly during 1961-71. Those districts which are highly industrialised might have attracted more tribal people. The reason for slow and negative growth rate is the fact that there might have been genuine improvement in the rural economic situation or the tribal might be satisfied with their own customs and way of life and also lack of knowledge about urban nature of work therefore, the tribal population might have felt reluctant to migrate to urban centres.

The district Bidar of Karnataka recorded the highest growth rate (23200 per cent) over the decade 1961-71. It does not mean that Bidar is highly industrialised or developed than the other districts. According to 1961, only one person

was enumerated as urban tribe whereas in 1971 Census it was enumerated 313 persons. Hence it shows very high urban tribal growth rate. In Kerala, Palghat district shows the highest growth rate (496.34 per cent) and also two districts of Tamil Nadu (Salem 725.64 and Thanjavur 1877.27 per cent). Barring Karnataka, there are many districts in Kerala and Tamil Nadu which show negative urban tribal growth over the decade (Fig.4). They include all southern districts of Kerala viz. Ernakulam, Alleppey, Quilon and Trivandrum; and Madras, South Arcot, Coimbatore, Madurai, Tiruchirappalli, Ramanathapuram and Kanyakumari of Tamil Nadu.

Change in Occupational Structure

According to 1971 Census, 42.10 per cent tribal population of Karnataka, 41.10 per cent tribal population of Kerala and 44.07 per cent tribal population of Tamil Nadu was engaged in economic activities. The corresponding figures for the year 1961 were 53.36, 46.98 and 56.77 per cent respectively. The growth rate of the work force during 1961-71 has been positive in Kerala (1.64) and negative in Karnata (-4.98) and Tamil Nadu (-3.96). This is due to the change in the definition of worker. This can be seen from the table 6.3

Table 6.3

State	Per cent 1961	Per cent 1971	Per cent variation	Growth rate
1. Karnataka	53.36	42.10	-11.26	- 4.99
2. Kerala	46.98	41.43	- 5.55	+11.64
3. Tamil Nadu	56.77	44.07	-12.70	- 3.96

Our main emphasis here is the occuaptional change among the Scheduled Tribe male workers during the period 1961-71. Table 6.4 shows the proportion of tribal Male workers to total male population, the per centage growth rate and also the tribal male population growth rate.

Table 6.4

State	Per cent 1961	Per cent 1971	Per cent variation	Male workers growth	Male population growth rate
1. Karnataka	60.04	55.20	- 4.84	10.50	20.20
2. Kerala	53.78	52.56	- 1.22	24.35	27.26
3. Tamil Nadu	63.98	62.70	- 1.28	21.14	23.62

According to table 6.4 the growth rate of male workers has been highest in Kerala and also the male population. Inspite of the positive growth rates the percentage figure declined. The percentage variation is observed very high in Karnataka (-4.84). It can be also seen from the table 6.4

that the growth of the tribals during 1961-71 has been very slow. The slow growth or decline in the population is dependent on variables such as natality and mortality. The other causes for slow growth rate are the incomplete enumeration, conversion of tribes into castes, varying definitions and coverages adopted from time to time and failure on the part of the tribes to report their characterstics correctly at various Censuses.

(1) Primary Sector

For the convenience of analysis, the entire industrial classification has been clubed into Primary, Secondary and Tertiary sectors. Henceforth, the first four viz., cultivators, agricultural labourers, livestock, fishing, forestry, hunting, plantation etc., and Mining and Quarrying are included in the primary sector. In the following passage an attempt has been made to see the changes in occupational structure of the tribes.

Table 6.5 shows the proportion of tribal male workers in the Primary sector to total Male workers and the percentage growth rate of male workers in the three southern States of India.

Table 6.5

State	Per cent 1961	Per cent 1971	Per cent variation	Growth rate
1. Karnataka	84.24	82.87	- 1.37	+ 8.71
2. Kerala	74.08	88.55	+14.47	+48.64
3. Tamil Nadu	85.73	92.89	+ 7.16	+21.14

It can be seen from the table 6.5 that the proportion of male workers engaged in the Primary sector in Kerala has been higher over the decade by +14.47 per cent (from 74.08 to 88.55) and Tamil Nadu +7.16 (from 85.73 to 92.89). Karnataka shows negative percentage change by -1.37 (from 84.24 to 82.87) whereas it shows positive growth rate (+8.71).

The Kerala State experienced high growth rate of the male workers in the Primary sector (+48.64), followed by Tamil Nadu (+21.14) and Karnataka (+8.71). The high growth rate of the work-force in the primary sector is due to the fact that the region having better wetlands and less mountainous tracts might attract a lot of tribal cultivators and agricultural labourers. The other possibility may be the intersectoral shifts in tribal population, mainly the movement of people from household industry to the agricultural activities.

(11) Secondary Sector

At the 1971 Census, about 7.38 per cent male working population of Karnataka, 4.04 per cent of Kerala and 2.13 per cent male working population of Tamil Nadu were engaged in the Secondary sector. The corresponding figures in 1961 were 7.15, 3.91 and 3.11 respectively. The secondary sector includes household industry, other than household industry and construction activity. Table 6.6 shows the proportion of Scheduled Tribe male Secondary workers to total male tribal workers and also the percentage growth rate of the workers in the secondary sector.

Table 6.6

State	Per cent 1961	Per cent 1971	Per cent variation	Growth rate
1. Karnataka	7.15	7.38	+ 0.23	+ 13.97
2. Kerala	3.91	4.04	+ 0.13	+ 28.29
3. Tamil Nadu	3.11	2.13	- 0.98	- 16.84

Computed from Special Tables for Scheduled Tribes Part V (A) 1961 and 1971.

Table 6.6 reveals that inspite of increase in the Secondary sector, the Tamil Nadu shows decreasing trend by 0.98 per cent. Though the per centage difference between 1961-71 is very small the growth rate becomes significantly high. This may be due to the fact that the industrial sector has been rapidly developed in Karnataka during 1961-71.

Hence the tribal folks who have settled in urban areas might engage in this category. With the well developed plantation and household industries in Kerala, the tribal could have shifted from the Primary sector to Secondary sector.

(iii) Tertiary Sector

The proportion of the male tribal workers in tertiary sector has increased in Karnataka from 8.16 in 1961 to 9.75 per cent in 1971 but drastically declined in Kerala - from 22.00 in 1961 to 7.41 per cent in 1971 and in Tamil Nadu from 11.15 in 1961 to 4.97 in 1971 over the decade. Table 6.7 shows the percentage of tribal male tertiary workers to total male workers and percentage growth rate of the workers in the tertiary sector.

Table 6.7

State	Per cent 1961	Per cent 1971	Per cent variation	Growth rate
1. Karnataka	8.16	9.75	+ 1.14	+ 25.07
2. Kerala	22.00	7.41	-14.59	- 58.13
3. Tamil Nadu	11.15	4.97	- 6.18	- 45.98

Table 6.7 reveals that the growth rate during the period 1961-71 has been negative in Kerala and Tamil Nadu, whereas the State Karnataka has shown significantly

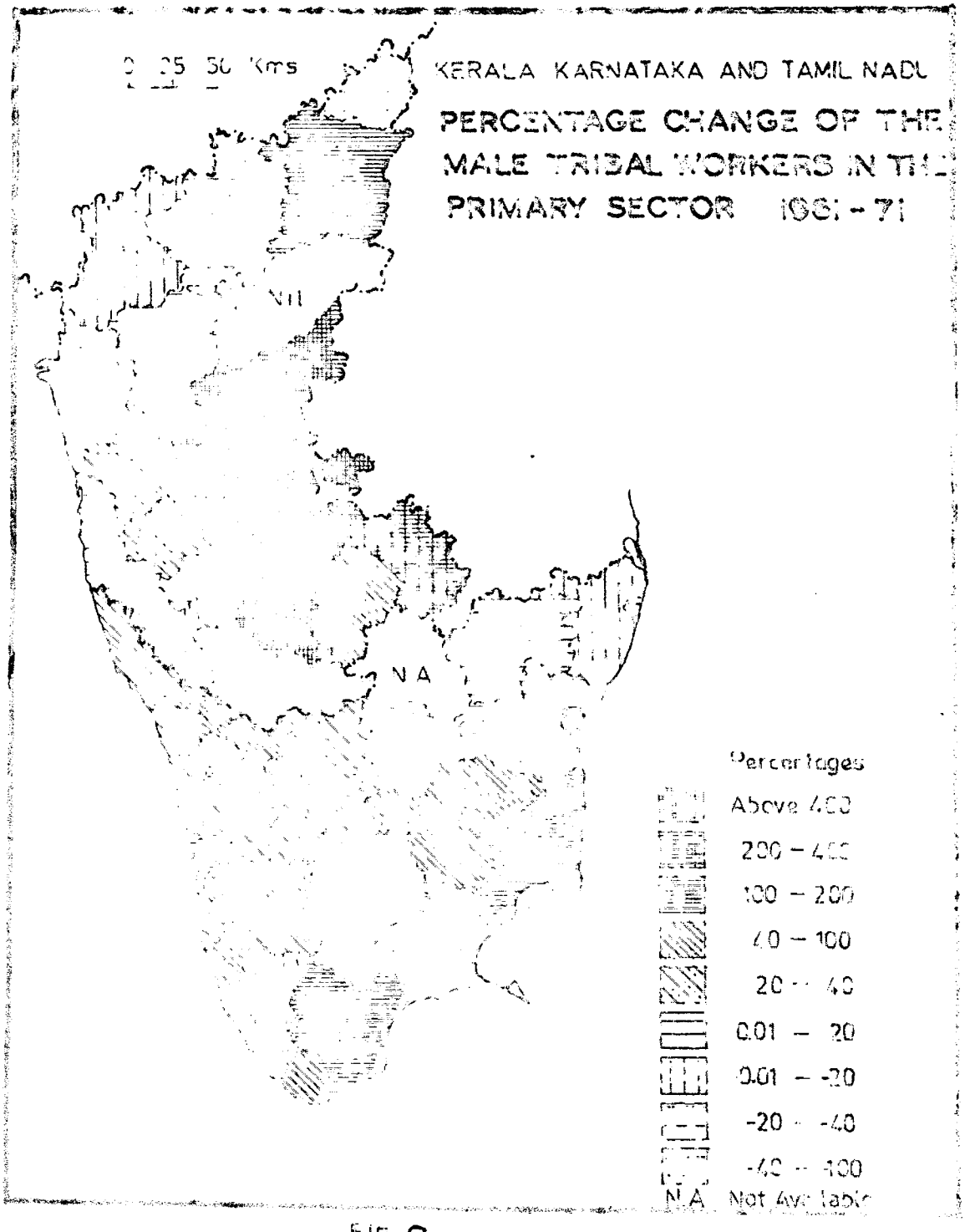

0 25 50 Kms
KERALA KARNATAKA AND TAMIL NADU
PERCENTAGE CHANGE OF THE
MALE TRIBAL WORKERS IN THE
PRIMARY SECTOR 1961 - 71
N A
Percentages
Above 400
200 – 400
100 – 200
40 – 100
20 – 40
0.01 – 20
0.01 – -20
-20 – -40
-40 – -100
N.A Not Available

Fig. 9

high positive growth rate (25.06). This might be due to the intersectoral shift among the tribes.

OCCUPATION CHANGE 1961-71 - A DISTRICT LEVEL ANALYSIS

(1) Change in Primary Sector

Analysis of the Census reports from 1961-71 shows that there was a really marked increase in the population of total tribal labour force engaged in primary sector. Though the tribal engagement in the primary sector shows high percentage, about one-fourth of the districts of the three southern states, show negative growth rate over the decade (Fig. 9). Karnataka shares 5 districts - Belgaum, Bijapur, Bidar, Coorg and North Kanara - in this category. Chingleput, Madras and Salem districts of Tamil Nadu and Quilon of Kerala also fall in this category. It is observed that there are some districts which have very high growth in Primary, Secondary and Tertiary sectors. They are Bangalore, Bellary and Mandya of Karnataka and Tiruchirappalli, Thanjavur and Tirunelveli districts of Tamil Nadu. The high growth rate in the primary sector i.e. more than 100 per cent has been found in Gulbarga, Tiruchur, Tirunelveli, Thanjavur, Kolar, Bellary, Chitradurga, Mandya and Tumkur. The growth of the Tribal workers in the Primary sector

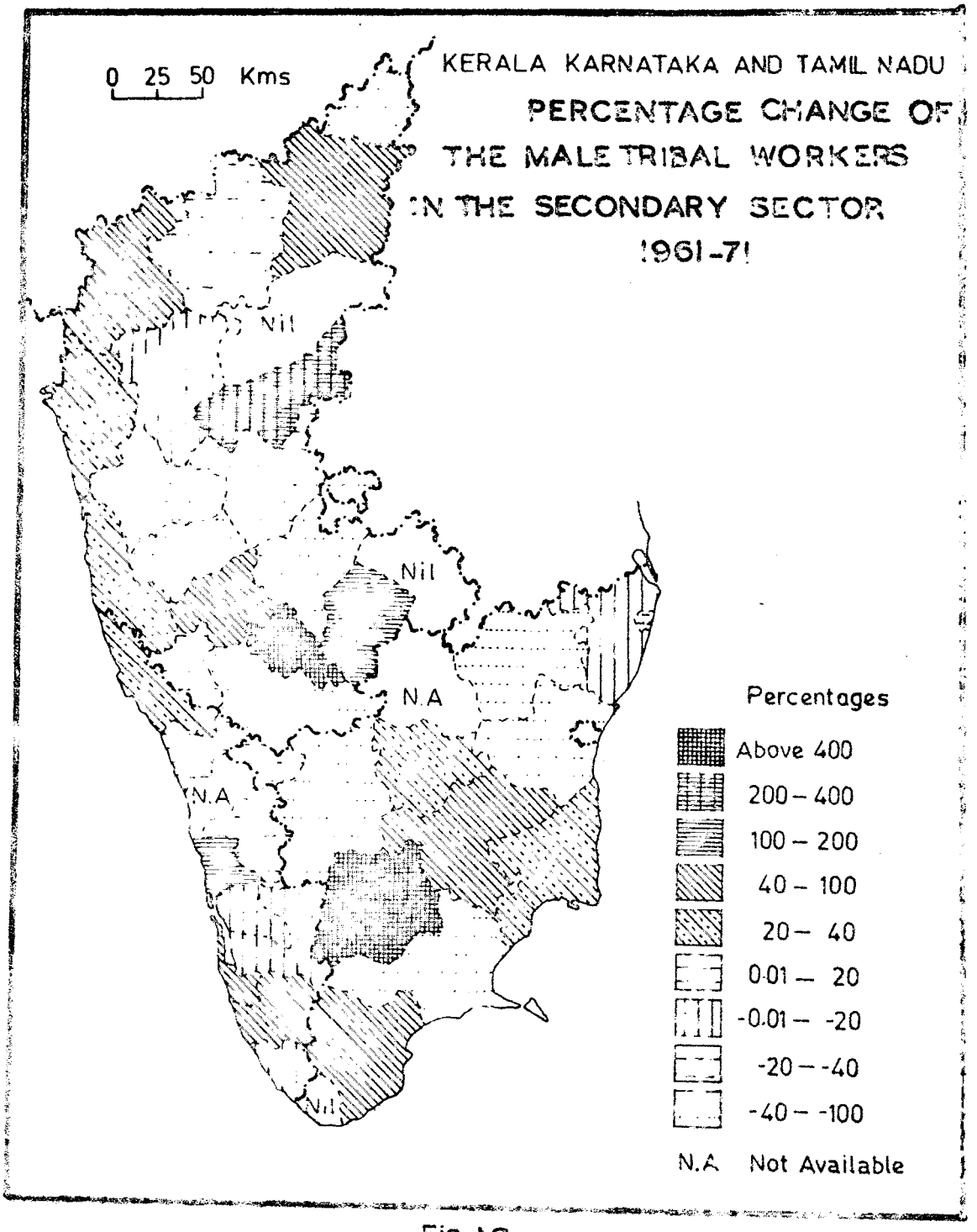

0 25 50 Kms
KERALA KARNATAKA AND TAMIL NADU
PERCENTAGE CHANGE OF
THE MALE TRIBAL WORKERS
IN THE SECONDARY SECTOR
1961-71
Nil
Nil
N.A
N.A
Nil
Percentages
Above 400
200 – 400
100 – 200
40 – 100
20 – 40
0·01 – 20
-0·01 – -20
-20 – -40
-40 – -100
N.A Not Available

Fig. 10

has been moderate (40.01 - 100) in Bangalore, Cannanore, Kozhikode. Alleppey, Nilgiri, Tiruchirappalli and Kanyakumari. The low growth rate of less than 40 per cent is found in Dahrwar, Hassan, Mysore, South Kanara, Chitradurga, Shimoga, Trivandrum, Palghat, Ernakulam, Kottayam, North Arcot, South Arcot, Ramanathapuram, Madurai and Coimbatore.

(ii) Changes in Secondary Sector

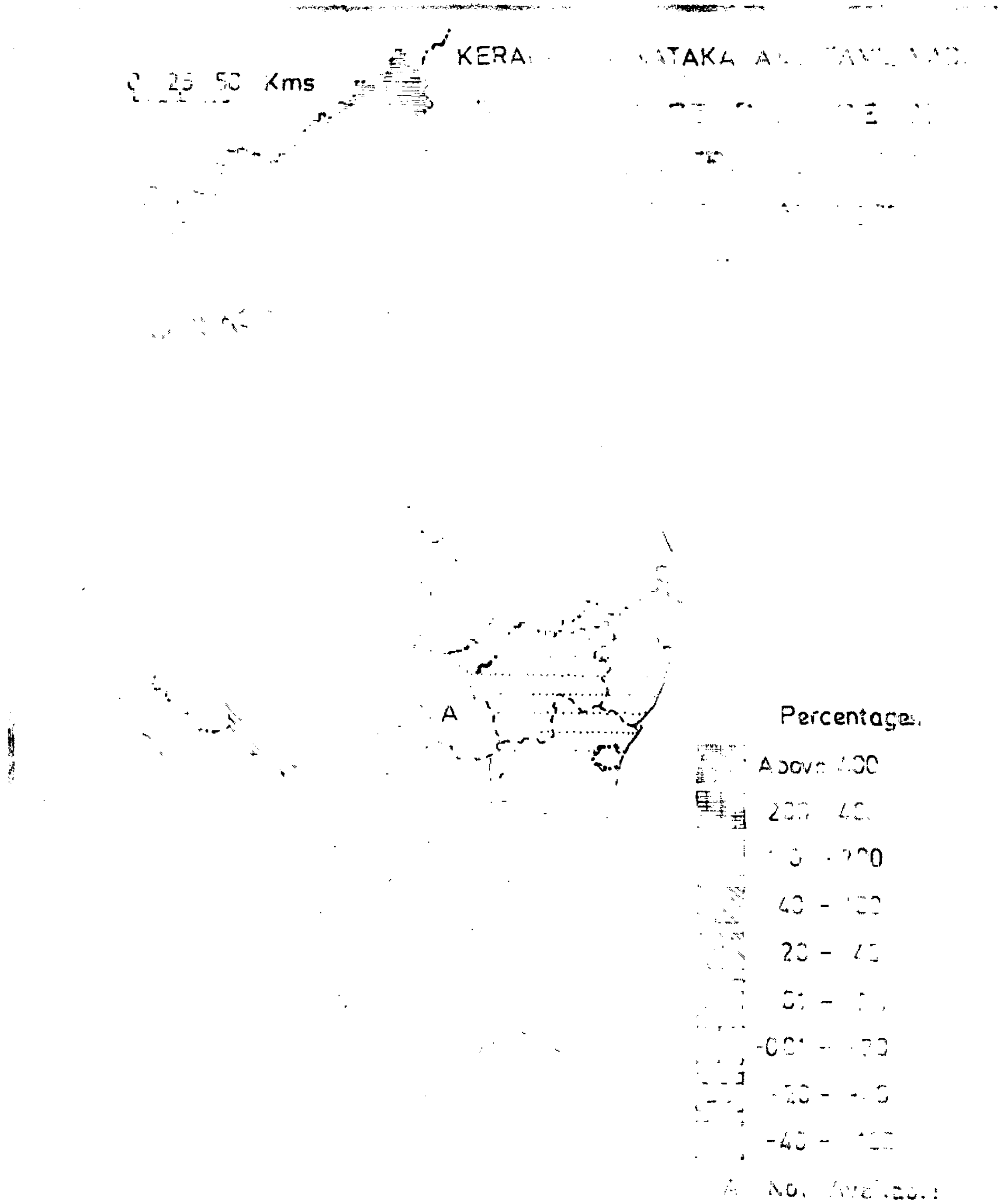
During the last decade the share of tribal engaged in secondary sector has progressively increased in Karnataka and Kerala whereas it declined in Tamil Nadu. But the southern districts of Tamil Nadu show positive growth rate because the household and manufacturing industries have been well developed in these districts. In a little less than half of the districts of the three southern States, the share of tribal male engaged in Secondary sector has increased. This may be a result of the growth of urban tribal population. It is noticed that the proportion of male workers employed in secondary sector has shown significantly higher growth over the decade (Fig. 10). The districts of Tiruchur, Bangalore, Bellary, Mandya, and Madurai fall in the category of high growth rate. These districts form a industrial belt of the region. The growth has been moderate (40.01 - 100 per cent) in Tirunelveli, Tiruchirappalli, Quilon, Alleppey, Gulbarga and Hassan. These districts

are also equally well developed in household, small and large scale industries. The low growth rate of below 40 per cent is observed in those districts characterized by high concentration of the Scheduled Tribes population. They include Salem, Cannanore, Kozhikode, Belgaum, North Kanara, South Kanara and Thanjavur. Nearly half of the district of the three southern States have negative growth rate of Secondary male workers. The State Karnataka shares maximum districts (nine), followed by Tamil Nadu (seven) and Kerala (four).

(iii) Change in Tertiary Sector

The economic activities related with tertiary sector are mainly determined by literacy, the level of economic development and urbanization. In the process of economic development and urbanization. In the process of economic growth the expansion of tertiary sector must be much more rapid than the secondary sector. But analysis reveals that about half of the districts show negative growth rate which shows that the process of economic growth among the Scheduled Tribes in the three southern States has not been significant.

About one-fourth of the districts show high growth rate of more than 100 per cent (Fig. 11). They are Hassan, Tumkur, Mandya, Chitradurga, Bangalore, Bidar, Bellary, Thanjavur,



11

Tiruchirappalli, and Tirunelveli. There is only one district - Mysore - which shows the moderate growth. Another seven districts show low growth rate of less than 40 per cent. They are Belgaum, Dharwar, Gulbarga and South Kanara districts of Karnataka and Madras, Ramanathapuram and Kanyakumari districts of Tamil Nadu. In all twenty one districts negative growth rate in tertiary sector are seen. These include nine dittricts of Kerala, five districts of Karnataka and seven districts of Tamil Nadu.

Concluding Statement

The analysis reveals that the significant changes have taken place in the occupational structure of the Scheduled tribes. Changes in primary sector are very significant. It is significant to note that half of the districts in the study area show negative growth rate in secondary and tertiary sector.

Chapter VII

CORRELATES OF SOCIO-ECONOMIC TRANSFORMATION

Agriculture has been the traditional occupation of the tribals and their economy has been mainly based on subsistence.. In inhospitable areas of the region, they normally produce one crop in a year. The tribals who have migrated to plains or fertile land came in contact with cultivating groups and have started producing double crops. As a result of this change, the tribal economy has become a part of market economy. The progress of education has forced the tribals to work in other service sectors. This has generated new mode of life among the tribal communities. It is assumed that the process of socio-economic change was promoted by several factors; such as educational development, urbanization, politicization, communic tion and transport, constitutional provision, religion and cultural practices, natural resources, Christian missionaries and occuaptional structure.[1] In addition Governmental plans aimed at tribal development have helped, to some extent, to bring about a change in tribal order. The twon and urban centres have been providing an opportunity of interaction between the tribals and non-tribal population. The change in occupational structure brings changes in social relations,

---

1. K.L. Kothari, 'Tribal Social Change in Rajasthan', Unpublished Ph. D. Thesis: University of Udaipur, 1978.

customs, habits and the value system.

During the initial period of this century, education was totally out of reach of the tribals. With the slow rooting of the primary educational institutions in villages, even in remotest areas, the tribals have started getting benefitted educationally. The newly educated tribes, who are largely exposed to the wider spectrum of the society, constitute a distinct stratum in the tribal hierarchy. Education, therefore, has become an inevitable cause for the enormous social consequences in the tribal society.

During the pre-Independence period, the participation of tribals in the political affairs of the country was almost non-existent. But in the present days, it has become possible for the tribals to acquire political position than to obtain higher status and economic opportunities. The Constitution is providing reservation in Loksabha, Vidhan Sabha and local Governments. With the participation in elections, political campaigns and other political activities, the tribals get exposed to the wider political world. As a result of this process, slowly, but surely socio-economic change will take place.

The hilly tracts and forested area were the main hinderances for the development of communication. This isolation today is a thing of the past; now roads have reached the door steps of almost every tribal village.

Furthermore, various Government agencies and social workers frequently visit the tribal areas. This statement can further be substantiated by the establishments of educational institutions founded by the Christian missionaries. The frequent visits made by these agencies and social workers make the tribes to reciprocate and thus they start coming out to visit towns and administrative centres for some purpose. This increases the possibilities of interaction between the tribals and non-tribal segments of society.

The other important factor which brings about socio-economic transformation in the tribal areas is exploration of the natural resources. Now a days several industries have come up in the tribal areas. With the introduction of new industries, tribals are exposed to new economic order. The present analysis is an exploratory attempt towards assessing some of these theoretical postulates. The underlying objective is to identify the correlates of socio-economic transformation among the tribal societies of the three Southern states.

Choice of Variables

The following variables have been considered in the analysis.

X_1 Tribal population as percentage to total population of the district.

X_2 Rural tribal population as percentage to total rural population.

X 3 Urban tribal population as percentage to total urban population.

X 4 Urban tribal population as percentage to total tribal population.

X 5 Tribal cultivators as percentage to total tribal agricultural workforce.

X 6 Tribal agricultural labourers as percentage to total tribal agricultural workforce.

X 7 Tribal male primary workers as percentage to total tribal workers.

X 8 Tribal female primary workers as percentage to total tribal workers.

X 9 Tribal male secondary workers as percentage to total tribal workers.

X 10 Tribal male tertiary workers as percentage to total tribal workers.

X 11 Tribal male tertiary workers as percentage to total tribal workers.

X 12 Tribal female tertiary workers as percentage to total tribal workers.

X 13 Tribal male non-primary workers as percentage to total tribal workers.

X 14 Tribal female non-primary workers as percentage to total tribal workers.

X 15 Tribal literates as percentage to total tribal population.

X 16 Tribal rural literate as percentage to total rural tribes.

X 17 Tribal urban literate as percentage to total urban tribes.

X 18 Growth rate of literate tribal population 1961-71.

X 19 Growth rate of rural tribal literates 1961-71.

20. Growth rate of urban tribal literates 1961-71.

X 21 Growth rate of urban tribal population 1961-71.

Correlates of Socio-Economic Transformation

Results of the correlation analysis help to make the following observations in each of the States.

(i) Karnataka

1. Tribal population is positively correlated with rural tribal population at 1% level of significance, whereas it is negatively correlated with urban tribal population and percentage of tribal engaged as cultivators.

2. Urban tribal population is positively correlated with male secondary, tertiary and non-primary workers at 15 per cent level. On the other hand, it is negatively correlated with agricultural workforce (I II), tribal male primary workers and female primary workers.

3. Tribal cultivators is having negative correlation with agricultural labourers.

4. Tribal male primary workers is negatively correlated with secondary, tertiary and non-primary workers.

5. The male secondary workers is having positive correlation with tribal male tertiary workers and tribal male non-primary workers at 1 per cent level of significance.

6. The share of female secondary workers is positively correlated with tribal female non-primary workers.

7. The share of female tertiary workers is showing positive correlation with female non-primary workers and growth rate of urban tribal population. Both values are significant at 1 per cent level.

8. The proportion of tribal literate is positively correlated with per centage of rural literate at 1 per cent level of significance.

9. The percentage of rural literate is negatively correlated with growth rate of tribal literate population.

10. Growth rate of tribal literate and growth rate of urban tribal literate are positively correlated with growth rate of rural tribal literate population and growth rate of urban literate population respectively.

(11) Kerala

1. Tribal population is positively correlated with rural tribal population at 1 per cent level.

2. Urban tribal population is positively correlated with tribal male secondary workers at 1 per cent level of significance and negatively correlated with percentage of tribal cultivators and male primary workers.

3. Tribal cultivators as percentage of tribal workers is having positive correlation with percentage of male primary workers. This variable also has negative correlation with percentage of tribal agricultural labourers and female primary workers. Both values are significant at 1 per cent level.

4. Tribal agricultural labourer is positively correlated with female primary workers. On the other hand, it is negatively correlated with tribal male primary workers.

5. Tribal percentage of literate is positively correlated with the per cent of rural tribal literate population and negatively correlated with growth rate of urban tribal literate and growth rate of urban tribal population.

6. Rural literates is having negative correlation with growth rate of urban literate and growth rate of urban tribal population.

7. The tribal growth rate of literate is positively correlated with growth rate of tribal rural literates.

8. The growth rate of tribal urban literate is having positive correlation with growth rate of urban tribal population.

(iii) Tamil Nadu

1. Tribal population is positively correlated with rural and urban tribal population at 1 per cent level of significance.

2. Rural tribal population is having positive correlation with urban tribal population.

3. Urban population is positively correlated with tribal male secondary, female secondary, male tertiary, male non-primary, female non-primary workers and percentage of tribal literate population. On the other hand it is negatively correlated with cultivators, male primary workers and female primary workers.

4. Percentage share of agricultural labourers is negatively correlated with male primary workers and growth

rate of urban literates.

5. Percentage of male primary and percentage of female primary workers are negatively correlated with male, female secondary, male tertiary, male and female non-primary workers and tribal percentage of literates.

6. Percentage of female non-primary workers have positive correlation with percentage of tribal literate population at 1 per cent level of significance.

7. Tribal percentage of rural literate population is positively correlated with growth rate of rural literate at 1 per cent level of significance.

(iv) Three Southern States: Cumulative

1. The percentage of tribal population is positively correlated with the percentage of rural and urban tribal population and female primary workers at 1 per cent level of significance. On the other hand, it is negatively correlated with male tertiary workers and male non-primary workers.

2. The percentage of rural tribal population is having positive correlation with urban tribal population and percentage of urban tribal population to total tribal population at 1 per cent level of significance, whereas it is negatively correlated with male secondary, tertiary and male non-primary workers.

3. The percentage of urban tribal population is positively correlated with male secondary, female secondary, male tertiary, female tertiary, male non-primary and female non-primary workers at 1 per cent level of significance. But it is negatively correlated with male primary and female primary workers.

4. Tribal cultivators is highly correlated with male primary workers.

5. Percentage share of agricultural labourers is negatively correlated with male primary workers.

6. Percentage share of male secondary to total workers is positively correlated with female secondary, male tertiary, and male non-primary workers at 1 per cent level of significance.

7. Tribal literates is positively correlated with tribal rural and urban literate at 1 per cent level of signifiance.

8. Growth rate of urban literate population is positively correlated with growth of urban tribal population.

Table

Correlation Matrix: Karnataka

Sl. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	1.00	.99*	.45	-.48**	-.46**	.46	.09	.56	-.30	-.09	-.39	-.25	-.38	-.23	-.16	.05	.14	-.27	-.26	.12	-.16
2		1.00	.44	-.48**	-.47**	.47	.09	.56	-.32	-.09	-.40	-.25	-.39	-.23	-.16	.06	.15	-.27	-.27	.11	-.15
3			1.00	.07	-.05	.05	.04	.03	.27	.14	-.08	-.20	.12	-.07	.16	.19	-.14	-.22	-.17	-.10	-.16
4				1.00	.16	-.16	-.47	-.70*	.84*	.22	.78*	.53	.90*	.51	.24	-.37	-.26	.41	.29	.23	.21
5					1.00	-1.00*	.08	-.31	.14	-.10	.31	.08	.19	-.01	.17	.02	.20	-.04	.17	.27	.09
6						1.00	-.08	.31	-.14	.10	-.21	-.08	-.19	.01	-.17	-.02	-.20	.04	-.17	-.28	-.09
7							1.00	.03	-.47**	.49**	-.76*	-.70*	-.67*	-.79*	-.01	.23	.37	-.31	.11	-.30	-.43
8								1.00	-.55**	.35	-.46**	-.38	-.66**	-.46**	-.18	.41	.02	-.32	-.27	-.03	-.12
9									1.00	.34	.83*	.27	.92*	.39	.45	-.07	-.11	.32	.22	.03	.06
10										1.00	.25	.18	.33	.70*	.23	-.07	-.02	.18	-.01	-.31	-.16
11											1.00	.81*	.88*	.72*	.07	-.44	-.27	.42	.18	.44	.59
12												1.00	.67	.83*	-.15	-.43	-.38	.18	.04	.58	.83
13													1.00	.60*	.30	-.27	-.20	.35	.22	.24	.25
14														1.00	.02	-.35	-.29	.24	.03	.24	.53
15															1.00	.54*	.55	-.25	.13	-.26	-.37
16																1.00	.27	-.52**	.01	-.43	-.34
17																	1.00	-.22	.05	-.02	-.41
18																		1.00	.38*	-.08	-.04
19																			1.00	-.22	-.12
20																				1.00	.68
21																					1.00

* Significant at 1 per cent level

** Significant at 5 per cent level

Table

Correlation Matrix: Tamil Nadu

Sl. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	1.00	.99*	.78*	-.27	.29	-.29	.35	.58	-.41	-.33	-.49	-.43	-.47	-.48	-.30	.04	-.28	-.26	-.12	.30	.13
2		1.00	.74*	-.26	.28	-.28	.34	.59	-.41	-.33	-.49	-.43	-.46	-.48	-.30	.05	-.27	-.26	-.11	.30	.32
3			1.00	.05	-.19	.19	.04	.48	-.18	-.15	-.20	-.16	-.20	-.20	-.06	.22	-.40	-.31	-.01	-.22	-.09
4				1.00	-.57**	.57	-.95*	-.56**	.94*	.91*	.91*	.39	.93*	.90*	.92*	.01	.23	-.19	.10	-.20	-.03
5					1.00	-1.00	.65	.01	-.51	-.35	-.48	-.45	-.47	-.50	-.30	.21	.34	.38	.28	.61	-.02
6						1.00	-.65**	-.01	.51	.35	.48	.45	.47	.50	.30	-.21	-.34	-.38	-.28	-.61**	.02
7							1.00	.54	-.93*	-.83*	-.95*	-.58**	-.95*	-.94*	-.81*	-.09	-.15	.06	-.18	.14	-.13
8								1.00	-.74*	-.72*	-.78*	-.41	-.78*	-.77*	-.60**	.06	-.44	.40	-.23	-.09	-.06
9									1.00	.95*	.95*	.43	.97*	.95*	.85*	-.09	.23	-.06	.04	-.10	.04
10										1.00	.86*	.17	.90*	.86*	.90*	-.12	.32	-.15	-.01	-.06	-.12
11											1.00	.61	.99*	.98*	.82*	.14	.25	.12	.27	-.06	.01
12												1.00	.65	.66	.24	.24	.10	.56	.30	-.07	.61
13													1.00	.98*	.86*	.08	.28	.08	.22	-.08	.08
14														1.00	.82*	.04	.30	.18	.18	-.08	.22
15															1.00	.09	.54	-.06	.17	-.11	-.10
16																1.00	.09	.40	.85*	.21	-.06
17																	1.00	.39	.22	.32	.17
18																		1.00	.45	.29	.58
19																			1.00	.20	-.10
20																				1.00	.32
21																					1.00

* Significant at 1 per cent level

** Significant at 5 per cent level

Table

Correlation Matrix: Kerala

Sl. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	1.00	.98*	972	.37	-.39	.39	-.35	.48	.36	.40	-.30	-.19	-.15	.17	-.57	-.59	-.05	.46	.46	.40	.24
2.		1.00	.62	.28	-.37	.37	-.32	.45	.29	.45	-.30	-.23	-.17	.18	-.55	-.57	-.03	.45	.44	.39	.21
3			1.00	.71	-.38	.38	-.42	.45	.70	.22	-.11	.09	.10	.24	-.42	-.45	-.14	.35	.43	.19	.14
4				1.00	-.64**	.64	-.75**	.62	.82*	.12	.51	.55	.65	.51	-.01	-.02	-.34	.12	.38	.11	.14
5					1.00	-1.00*	.98*	-.92*	-.71**	-.69**	-.39	-.29	-.52	-.75**	.14	.13	.62	-.28	-.49	-.14	-.11
6						1.00	-.98*	.92*	.71	.69	.39	.29	.52	.75	-.14	-.13	-.62	.28	.49	.14	.11
7							1.00	-.92*	-.73**	-.55	-.47	-.40	-.60	-.72**	.11	.10	.64	-.26	-.48	-.18	-.18
8								1.00	.54	.53	.12	.10	.25	.48	-.44	-.43	-.68**	.42	.53	.48	.45
9									1.00	.52	.50	.48	.69	.75	.15	.13	-.24	.08	.36	-.29	-.29
10										1.00	.04	-.13	.17	.69	-.17	-.16	-.37	.25	.33	-.11	-.19
11											1.00	.78*	.97*	.61	.74	.75	-.11	-.44	-.10	-.52	-.42
12												1.00	.78*	.64	.55	.55	-.14	.07	.38	-.32	-.28
13													1.00	.71	.56	.66	-.16	-.34	.01	-.52	-.43
14														1.00	.28	.28	-.39	.24	.64	-.22	-.35
15															1.00	.99*	.46	-.59	-.37	-.84*	-.80*
16																1.00	.43	-.60	-.38	-.83*	-.79*
17																	1.00	-.31	-.38	-.45	-.59
18																		1.00	.93*	.58	.41
19																			1.00	.39	.24
20																				1.00	.95*
21																					1.00

* Significant at 1 per cent level

** Significant at 5 per cent level.

Table

Correlation Matrix Three Southern States

Sl. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	1.00	.99*	.57*	-.30	-.17	.17	.11	.61*	-.29	-.16	-38**	-30	-.36**	-.28	-.17	-.06	.03	-.[illegible]	-.19	.10	-.11
2		1.00	.56*	-.31	-.16	.16	.13	.51*	-.31**	-.16	-.39**	-.31	-.38**	-.29	-.17	-.05	.03	-.31	-.20	.08	-.12
3			1.00	.04	-.21	.21	-.07	.39	.32	-.08	-.16	-.14	-.09	-.13	-.12	-.06	-.17	-.08	-.03	-.02	-.05
4				1.00	-.29	.29	-.78*	-.46*	.88*	.74*	.86*	.48*	.92*	.80*	.14	-.31	-.20	.22	.22	.13	.14
5					1.00	-1.00	.61	-.38**	-.20	-.30	-.30	-.26	-.26	-.37**	.01	.13	.36	.06	.13	.22	.08
6						1.00	-.61*	.38	.20	.30	.30	.26	.26	.37	-.01	-.13	-.36**	-.06	-.13	-.22	-.88
7							1.00	.05	-.70*	-.72*	-.85*	-.60*	-.73*	-.86*	-.10	.22	.30	.11	-.06	-.13	-.20
8								1.00	-.48*	-.45*	-.51*	-.31	-.62*	-.50*	-.30	-.03	-.27	-.13	-.11	.04	-.03
9									1.00	.68*	.77*	.39	.92*	.71*	.15	-.25	-.16	.23	.24	.10	.03
10										1.00	.74*	.20	.76*	.93*	.32	-.15	.02	.22	.02	-.12	-.07
11											1.00	.68*	.85*	.82*	.28	-.09	-.10	.17	.15	.13	.28
12												1.00	.59*	.71*	-.02	-.01	-.19	.16	.13	.36	.47
13													1.00	.88*	.25	-.16	-.12	.21	.21	.14	.16
14														1.00	.22	-.17	-.09	.11	.07	.06	.21
15															1.00	.82*	.70*	-.23	-.14	-.29	-.22
16																1.00	.62*	-.27	-.13	-.36*	-.20
17																	1.00	-.20	-.13	-.16	-.25
18																		1.00	.68	.13	.08
19																			1.00	.01	-.01
20																				1.00	.71
21																					1.00

* Significant at 1 per cent level

** Significant at 5 per cent level

Chapter VIII

CONCLUSION

The Indian Constitution provides a number of safeguards to the Scheduled Tribes. The Directive Principles say

> "The State shall promote with special care the educational and economic interests of the weaker sections of the people, and in particular of the Scheduled Castes and Scheduled Tribes and shall protect them social injustice and all form of exploitation."

The various measures taken by the Central and State Governments were on the economic and social exaltation of the tribes so far. But these measures could not make any remarkable impact on the tribes. The main reasons were the lack of proper implementation. The present dissertation which deals with occupational structure and socio-economic transformation of the tribes in the three southern states of Kerala, Karnataka and Tamil Nadu may be of some relevance in this context.

The three southern states have meagre tribal population. According to 1971 census, the total population of 812,139 Scheduled Tribes accounts for 0.88 per cent of the total tribal population in India. However, the concentration is found only in certain districts. In Karnataka the high concentration is found in South Kanara, Belgaum and Coorg; in Kerala, Cannanore, Kozhikode; and Salem and North Arcot districts

of Tamil Nadu. There are two major tribes in each State which constitute nearly 50 per cent of the tribal population in each state separately. They are Naikda 29.68 per cent and Marati 21.12 per cent in Karnataka, Pulayan 31.59 per cent and Paniyan 16.91 per cent in Kerala and Malayali 51.18 per cent, Irula 28.58 per cent in Tamil Nadu.

The growth rate of tribal population has shown a declining trend in Karnataka and Tamil Nadu whereas in Kerala the tribal population increased by 11.64 per cent, due to the varying definition adopted at different periods for the Scheduled Tribes.

The Tribals are more dependent on agriculture and other primary activities than any other segment of the society. More than 80 per cent of the tribal population is still dependent on agriculture, livestock, forestry etc., in Kerala and Karnataka, according to 1971 census. The proportion of tribals dependent on primary activity is as high as 90 per cent in Tamil Nadu. The proportion of tribal workers to total workers engaged in secondary sector has significantly improved over the decade in all the three southern states. The proportion of tribals engaged in tertiary sector has increased in Karnataka, whereas it has largely decreased in Kerala and Tamil Nadu.

The study further shows that the tribes have recorded significant improvement in literacy. Their urban share has also increased significantly in Karnataka, This share has slightly increased in Tamil Nadu and Kerala, which some districts show negative change. The changes in the occupational structure of the male workers has been analysed from the census reports of 1961-71. Inspite of decreasing trend in Karnataka, the primary sector of the male workers has increased in Tamil Nadu and Kerala. Although the share of male workers in secondary sector increased marginally in Karnataka and Kerala, the state of Tamil Nadu registered a decline.

However, in view of the lack of adequate data and the changes in the classification at the different census, it is rather difficult to draw any conclusion. However, it is noticed that the primary sector has registered increase during the decade, even though some districts of the three southern states have registered decline. It clearly indicates that most of the scheduled Tribes population still depend upon agricultural sector and it holds an important position of the day to day life. Since the second half of the present century the Government has adopted a variety of measures to divert tribals towards secondary and tertiary sectors.

The present study reveals that the traditional customs, way of living of the tribals had undergone changes in view

of the new economic order introduced in tribal societies. While analysing the economic change it is necessary to ascertain the changes in landholdings and cropping patterns. However, the limitations of datas, did not allow to consider these aspects in present analysis. It is believed that of these variables are taken into consideration, it may perhaps indicate the reasons for the unequal pace of development in the tribal societies.

PERCENTAGE OF TRIBALS TO THE TOTAL POPULATION AND TOTAL TRIBAL POPULATION OF THE DISTRICT

STATE/DISTRICT	TOTAL TRIBAL POPULATION	TOTAL POPULATION	PERCENTAGE OF TRIBALS TO TOTAL POPULATION	PERCENTAGE OF TRIBALS TO TOTAL TRIBAL POPULATION
1	2	3	4	5
KARNATAKA				
1 Bangalore	10,287	33,66,515	0.30	4.45
2 Belgaum	53,150	24,23,342	2.19	22.98
3 Bellary	4,246	11,22,686	0.37	1.84
4 Bidar	699	8,24,059	0.08	0.30
5 Bijapur	6,524	19,65,591	0.32	2.82
6 Chikmagalur	10,092	7,36,647	1.37	4.36
7 Chitradurga	762	13,97,456	0.05	0.33
8 Coorg	26,596	,78,291	7.03	11.50
9 Dharwar	14,632	23,42,213	0.62	6.33
10 Gulbarga	1,871	17,39,220	0.10	0.81
11 Hassan	1,606	11,02,370	0.14	0.69
12 Kolar	1,921	15,16,646	0.12	0.83
13 Mandya	2,795	11,54,374	0.24	1.21
14 Mysore	19,547	20,77,238	0.94	8.45
15 North Kanara	2 , 175	8,49,105	0.25	0.94
16 Raichur	1,148	14,15,740	0.08	0.50
17 Shimoga	7,540	13,01,485	0.57	3.26
18 South Kanara	63,596	19,39,315	3.27	27.50
19 Tumkur	2,081	16,27,721	0.12	0.90
TOTAL	231,268	292,99,014	0.78	

1	2	3	4	5
KERALA				
1 Cannanore	90,464	23,65,164	3.82	33.58
2 Kozhikode	84,982	21,06,249	4.03	31.55
3 Malappuram	8,882	18,56,362	0.47	3. 29
4 Palghat	25,594	16,85,342	1.52	9,50
5 Trichur	9,383	21,28,797	0.44	3.42
6 Ernakulam	11,648	23,83,178	0.49	4.32
7 Kottayam	23,172	20,85,134	1.11	8.60
8 Alleppey	435	21,25,722	0.02	0.16
9 Quilon	3,737	24,12,821	0.01	1.39
10 Trivandrum	11,059	21,98,606	0.50	4.10
TOTAL	269,356	21,34,375		
TAMIL NADU				
1 Madras	928	24,69,449	0.03	0.30
2 Chingleput	27,189	29,07,559	0.93	8.73
3 North Arcot	70,727	37,57,797	1.88	22.70
4 South Arcot	14,105	36,17,723	0.38	4.53
5 Dharmapuri	30,123	16,77,775	1.79	9.67
6 Salem	94,383	29,92,616	3.15	30.30
7 Coimbatore	28,021	43,73,178	0.59	8.35
8 Nilgiris	19,869	4,94,015	4.02	6.38
9 Madurai	6,707	39,38,197	0.17	2.15
10 Tiruchirappalli	14,907	38,48,816	0.38	4.79
11 Thanjavur	1,024	38,40,732	0.02	0.33
12 Ramanathapuram	1,056	28,60,207	0.03	0.34
13 Tirunelveli	1,614	32,00,515	0.05	0.52
14 Kanyakumari	2,862	12,22,549	0.23	0.92
TOTAL	311,515	41,199168	0.75	

APPENDIX B

PERCENTAGE DISTRIBUTION OF SCHEDULED TRIBES WORKING FORCE IN DIFFERENT INDUSTRIAL CATEGORIES OF THREE STATES : 1971

STATE/ DISTRICT	TOTAL TRIBAL POPULATION	TRIBAL WORKERS	CENSUS INDUSTRIAL CATEGORIES									
			CULTIVATORS	AGRICULTURAL LABOURER	PLANTATION ETC	MINING & QUARRYING	H.H INDUSTRY	O.H.H. INDUSTRY	CONSTRUCTION	TRADE & COMMERCE	TRANSPORT; STORAGE; COMMUNICATION	OTHER SERVICES
			I	II	III	IV	Va	Vb	VI	VII	VIII	IX
1	2	3	4	5	6	7	8	9	10	11	12	13
KARNATAKA												
TOTAL	231268	97379	26.26	45.05	10.90	0.53	3.80	2.86	1.51	1.52	1.46	6.10
1 Bangalore	10287	3673	26.28	25.10	3.35	0.05	3.70	14.00	4.66	4.68	10.29	7.95
2 Belgaum	53150	20832	43.37	41.00	2.34	0.17	1.73	3.98	2.13	1.37	1.40	2.49
3 Bellary	4246	1460	36.23	30.75	2.26	0.68	0.82	4.66	1.78	5.55	7.60	9.66
4 Bidar	699	182	23.07	21.98	0.55	9.34	2.20	6.04	-	30.22	3.30	3.29
5 Bijapur	6524	2633	22.56	57.92	4.90	0.49	3.15	2.81	1.44	1.67	2.01	3.04
6 Chickmagalur	10092	4586	19.82	22.87	50.68	-	0.11	0.11	0.65	0.22	0.20	5.34
7 Coorg	26596	14289	5.80	58.52	27.86	-	1.27	0.53	0.20	0.21	1.07	5.51
8 Chitradurga	762	280	34.28	42.50	2.50	-	0.35	8.57	1.42	2.14	1.07	7.14

1	2	3	4	5	6	7	8	9	10	11	12	13
9 Dharwar	14632	5577	23.07	57.80	1.87	1.58	1.52	1.23	2.20	3.53	3.01	4.16
10 Gulbarga	1871	789	8.11	37.52	6.72	11.66	3.50	4.84	6.21	4.94	6.34	10.01
11 Hassan	1606	688	22.09	12.50	46.66	-	2.03	1.16	2.41	8.72	0.14	4.21
12 Kolar	1921	859	14.67	85.33	-	-	-	-	-	-	-	-
13 Mandya	2795	849	14.67	88.63	3.06	-	4.71	3.51	1.06	4.12	1.53	5.30
14 Mysore	19547	7300	25.10	50.48	6.16	0.15	1.51	0.84	1.38	0.53	0.03	13.82
15 North Kanara	2175	1100	12.09	22.45	10.27	13.09	1.72	19.27	5.91	2.18	0.88	7.18
16 Raichur	1148	475	32.42	30.53	1.47	—	8.84	1.47	4.00	6.74	4.21	10.32
17 Shimoga	7540	2884	16.22	65.57	11.27	0.07	0.38	1.63	1.70	0.62	0.80	1.73
18 South Kanara	63596	28210	26.69	42.88	7.44	0.31	9.08	2.52	1.50	1.21	0.77	8.03
19 Tumkur	2081	753	66.93	20.32	4.91	1.33	0.26	0.40	1.59	-	2.79	
KERALA												
TOTAL	289356	111598	17.75	62.56	7.91	0.33	2.31	2.21	0.46	0.51	1.18	4.76
1 Cannanore	90464	39225	7.39	68.71	7.60	0.34	2.29	4.40	0.65	0.70	[illegible]	[illegible]
2 Kozhikode	84982	37079	8.75	73.11	7.02	0.40	3.98	1.30	0.39	0.22	1.13	3.69

1	2	3	4	5	6	7	8	9	10	11	12	13
3 Malla puram 8	8882	4320	2.13	80.39	8.93	0.28	1.06	0.41	0.19	0.40	0.31	2.52
4 Palghat	25594	12108	36.17	52.35	7.32	0.16	0.16	0.41	0.19	0.40	0.31	2.52
5 Trichur	9383	4145	0.36	74.35	10.16	0.80	1.95	1.97	1.20	1.28	1.83	6.08
6 Ema-kulam	11648	3215	82.74	8.99	1.43	-	0.31	0.62	0.06	0.06	0.84	1.24
7 Kotta-yam	23172	7047	51.64	23.36	19.44	0.28	0.10	0.44	0.05	0.81	0.98	2.89
8 Allep-pey	435	180	2.78	68.89	1.67	-	2.78	2.22	-	2.22	3.33	16.11
9 Quilon	3737	1194	40.79	39.70	10.38	0.33	2.60	2.01	0.50	0.75	0.33	2.59
10 Trivan drum	11059	3085	77.63	10.70	0.55	-	0.06	0.84	0.06	0.45	0.91	8.78
TAMILNADU												
TOTAL	311515	137295	44.94	37.29	10.63	0.20	0.52	1.38	0.23	1.46	0.59	2.75
1 Madras	928	367	-	0.27	0.81	-	1.36	50.95	3.00	7.08	14.44	22.07
2 Chingle put	27189	11211	4.06	60.78	9.18	0.74	1.65	7.32	1.10	5.76	1.83	7.57
3 North Arcot	70727	26924	54.47	34.07	4.73	0.50	1.12	[illegible]	[illegible]	[illegible]	0.31	2.32
4 South Arcot	14105	6154	10.43	74.36	9.08	0.36	0.8[illegible]	0.92	0.03	1.15	1.95	8.78

1	2	3	4	5	6	7	8	9	10	11	12	13
5 Dharma puri	30123	12050	65.03	30.10	0.62	-	0.40	0.74	0.20	1.30	0.33	1.27
6 Salem	94383	45296	64.80	24.59	9.13	0.03	0.11	0.26	0.10	0.13	0.32	0.32
7 Coimba tore	26021	11082	24.33	60.57	8.82	-	0.36	0.26	0.13	1.22	0.04	4.24
8 Nilgiri	19969	9802	7.24	45.24	40.40	0.01	0.21	0.74	0.45	0.56	1.00	4.05
9 Madurai	6707	3453	3.38	21.28	64.75	0.02	0.66	0.81	0.03	0.17	0.55	8.10
10 Tiru chira ppalli	14907	4347	33.15	42.96	0.96	-	0.42	0.24	-	1.00	0.14	1.11
11 Thanja vur	1024	399	0.26	43.95	2.05	-	4.11	7.71	-	1.02	0.77	40.10
12 Rama-natha puram	1056	462	0.22	18.18	24.89	0.65	1.30	15.36	0.21	1.29	2.38	35.71
13 Tirunel veli	1614	607	6.42	11.20	5.76	-	22.90	7.90	0.16	18.28	1.65	25.53
14 Kanya kumari	2362	951	63.20	24.92	0.21	-	-	0.16	-	8.72	0.10	2.52

Source: Census of India, 1971 - Computed from Special Tables for Scheduled Castes and Tribes of the concern States.

Appendix C

Percentage of Literates Among Scheduled Tribes and Growth Rate
Urban Tribes and Growth Rate

1	2	3	4	5	6	7	8
State/ District	Total literate Tribes 1961	Total literate tribes 1971	Literates as % to total tribes 1961	Literates as % to total tribes 1971	Growth Rate of Tribal literate 1961-1971	Rural tribal literate 1961-1971	Urban tribal literate 1961-71
KARNATAKA							
State Total	13651	34343	8.14	14.85	119.43	96.28	276.52
1. Bangalore	316	2421	6.81	23.53	666.14	331.03	793.45
2. Belgaum	4341	6694	8.40	12.59	54.20	46.68	98.42
3. Bellary	106	995	13.38	23.43	838.68	839.29	838.46
4. Bidar	47	69	4.45	8.44	25.53	84.78	2800.00
5. Bijapur	1335	928	14.19	14.22	-30.49	37.51	- 4.25
6. Chikmagalur	681	1350	8.00	13.38	132.36	120.60	646.15
7. Chitradurga	33	150	21.71	19.68	354.54	664.28	126.31
8. Coorg	1086	2015	4.00	7.58	85.71	78.50	1383.33
9. Dharwar	1660	2509	15.56	17.15	51.14	34.23	104.77
10. Gulbarga	4	127	0.29	6.79	3075.00	1050.00	0.01
11. Hassan	31	214	3.35	13.32	590.32	520.03	0.01
12. Kolar	30	498	8.17	25.92	1560.00	131.25	3192.86
13. Mandya	36	165	6.52	5.90	358.33	202.36	587.50
14. Mysore	318	2327	1.89	11.90	631.76	551.98	0.01
15. North Kanara	624	304	14.79	12.78	-51.28	-67.08	100.00
16. Raichur	6	106	13.33	9.23	1666.67	0.01	1216.67
17. Shimoga	497	1160	7.96	15.38	133.40	119.74	308.33
18. South Kanara	4669	12073	9.38	18.98	164.23	156.47	312.77
19. Tumkur	32	248	7.96	11.91	675.00	603.45	1336.67

contd../-

Appendix (contd..2)

1	2	3	4	5	6	7	8
KERALA							
State Total	36716	69280	17.25	25.71	88.66	92.35	53.84
1. Cannanore	11110	82882	15.65	25.23	105.42	123.76	41.81
2. Kozhikode	9345	19753	13.36	23.24	111.27	110.27	136.19
3. Palghat	912	1826	4.46	7.63	100.22	85.10	345.28
4. Tiruchur	1350	3352	22.96	35.02	148.30	151.56	88.57
5. Ernakulam	3869	5255	38.57	46.11	35.82	36.64	20.00
6. Kottayam	6651	8908	31.09	38.44	33.93	34.36	3.30
7. Alleppey	275	261	47.08	60.00	-5.09	45.34	-89.33
8. Quilon	922	1318	24.27	33.59	38.10	33.08	-66.37
9. Trivandrum	2282	4630	23.32	42.14	104.20	109.30	- 8.08
TAMIL NADU							
State Total	14885	28107	5.96	9.02	88.83	124.18	-17.33
1. Madras	572	429	40.97	46.23	-25.00		-25.00
2. Chingleput	1263	1372	4. 80	5.04	8.63	- 5.62	36.22
3. North Arcot	2313	4479	3.90	6.33	93.64	93.36	74.24
4. South Arcot	620	617	4.58	4.37	-0.48	30.97	-85.12
5. Salem	4257	9589	4.23	16.16	125.25	123.53	385.71
6. Coimbatore	951	1918	4.72	7.37	101.68	107.01	66.13
7. Nilgiris	2883	3029	22.26	15.24	5.06	160.55	-43.52
8. Madurai	887	1096	16.09	16.25	22.89	20.65	8.96
9. Tiruchirappalli	706	2113	8.02	14.17	199.29	233.81	-63.41
10. Thanjavur	32	143	11.72	14.26	356.25	84.38	0.01
11. Ramanathapuram	159	234	20.07	22.16	47.17	383.33	4.25
12. Tirunelveli	114	413	16.22	25.68	262.28	376.74	192.96
13. Kanyakumari	128	444	7.31	15.51	246.87	258.26	146.16

contd.../-

Appendix (contd..3)

Percentage Distribution of Urban Tribes and Growth Rate

State/ District	Total Urban tribal population 1961	Total urban tribal population 1971	Urban tribes as Percentage to total tribes 1961	1971	Growth rate of urban tribes 1961-71
1	2	3	4	5	6
KARNATAKA State Total	9934	25201	5.17	10.87	153.66
1. Bangalore	828	4529	17.85	44.02	446.98
2. Belgaum	4209	5130	8.14	9.65	21.88
3. Bellary	341	2348	52.70	55.30	588.57
4. Bidar	1	233	0.10	33.33	23200.00
5. Bijapur	860	980	9.14	15.02	13.95
6. Chikmagalur	19	334	1.26	3.30	271.11
7. Chitradurga	67	189	44.08	24.80	182.08
8. Coorg	39	280	0.14	1.05	670.95
9. Dharwar	1719	2365	16.12	16.16	37.58
10. Gulbarga	23	661	1.70	35.32	2793.91
11. Hassan	--	73	--	4.54	0.01
12. Kolar	46	1146	12.53	59.66	2391.30
13. Mandya	23	907	4.16	32.45	3843.48
14. Mysore	12	844	0.07	4.37	6933.33
15. North Kanara	319	545	7.56	25.05	70.85
16. Raichur	30	403	66.67	35.10	1243.33
17. Shimoga	274	513	4.39	6.80	87.23
18. South Kanara	1039	3630	2.13	5.71	249.37
19. Tumkur	15	91	3.73	4.37	506.67
KERALA State Total	9163	10876	4.30	4.04	18.69
1. Cannanore	6503	6861	9.17	7.58	5.50
2. Kozhikode	1120	1865	1.60	2.19	66.51

contd../.

Appendix (contd..4)

1	2	3	4	5	6
3. Palghat	164	978	0.80	3.82	496.34
4. Tiruchur	232	320	3.95	3.41	37.93
5. Ernakulam	479	267	4.77	2.29	-44.26
6. Kottayam	206	122	0.96	0.52	-40.77
7. Alleppey	197	26	33.76	5.97	-86.80
8. Quilon	18	7	0.47	0.19	-61.11
9. Trivandrum	244	164	2.49	1.39	-36.88
TAMILNADU State Total	14328	17136	5.68	5.50	19.60
1. Madras	1396	928	100.00	100.00	-33.52
2. Chingleput	3087	3835	11.72	14.10	24.28
3. North Arcot	724	1345	1.22	1.90	85.77
4. South Arcot	874	273	6.45	1.93	-68.76
5. Salem	39	322	0.03	0.34	725.64
6. Coimbatore	2061	963	10.23	3.70	-53.27
7. Nilgiris	3620	5965	27.95	30.02	64.78
8. Madurai	1229	1079	22.30	16.08	-12.20
9. Tiruchirappalli	231	81	2.32	0.54	-64.93
10. Thanjavur	22	303	8.05	28.58	1277.27
11. Ramanathapuram	575	564	72.60	53.40	- 1.91
12. Tirunelveli	374	818	53.20	50.68	118.72
13. Kanyakumari	96	61	5.51	2.13	-36.46

Appendix D

Index of Concentration and Location Quotient

State/ District	Concentration index	Location Quotient
1	2	3
KARNATAKA		
1. Bangalore	4.45	0.043
2. Belgaum	22.98	0.302
3. Bellary	1.84	0.043
4. Bidar	0.30	0.014
5. Bijapur	2.82	0.043
6. Chikmagalur	4.36	0.187
7. Chitradurga	0.33	0.007
8. Coorg	11.50	1.008
9. Dharwar	6.23	0.086
10. Gulbarga	0.81	0.014
11. Hassan	0.69	0.014
12. Kolar	0.83	0.014
13. Mandya	1.21	0.028
14. Mysore	8.46	0.129
15. North Kanara	0.94	0.028
16. Raichur	0.50	0.014
17. Shimoga	3.26	0.072
18. South Kanara	27.50	0.461
19. Tumkur	0.90	0.014
KERALA		
1. Cannanore	33.59	0.547
2. Kozhikode	81.55	0.576
3. Mallapuram	3.13	0.057

Appendix (contd. 2)

1	2	3
4. Palghat	9.60	0.216
5. Tiruchur	3.48	0.057
6. Ernakulam	4.32	0.072
7. Kottayam	8.60	0.158
8. Alleppey	0.16	0.030
9. Quilon	1.39	0.014
10. Trivandrum	4.11	0.057
TAMIL NADU		
1. Madras	0.30	0.060
2. Chingleput	8.73	0.144
3. North Arcot	22.70	0.260
4. South Arcot	4.53	0.043
5. Dharmapuri	9.67	0.260
6. Salem	30.30	0.447
7. Coimbatore	8.35	0.086
8. Nilgiri	6.38	0.576
9. Madurai	2.15	0.014
10. Tiruchirappalli	4.79	0.057
11. Thanjavur	0.33	0.043
12. Ramanathapuram	0.34	0.006
13. Tirunelveli	0.52	0.007
14. Kanyakumari	0.92	0.028

Concentration Index $= \frac{\text{Scheduled Tribe Population in a district}}{\text{State Scheduled Tribe population}} \times 10$

Location Quotient $= \frac{ei}{et} \div \frac{Ei}{Et}$

Where:
ei = tribal population of the district
et = total population of the district
Et = total population of the Country
Ei = tribal population of the Country

Total population of the Country = 547949809
Total tribal population of the Country = 38015162

Appendix E

Percentage of male workers in percentage variation and growth Rate

State/ District	S.T. Total Male Workers		Male Primary workers		Percentage to total S.T. Male workers		Percentage Difference	Growth Rate 1961-71
	1961	1971	1961	1971	1961	1971		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
KARNATAKA								
State Total	59048	60246	49730	54071	84.24	82.87	-1.37	8.71
1. Bangalore	1522	2020	1092	1783	71.74	60.99	-10.79	63.28
2. Belgaum	15708	19443	13930	13341	89.05	86.39	- 2.66	-4.62
3. Bellary	160	1142	76	765	47.50	66.99	19.49	906.57
4. Bidar	188	193	114	88	60.64	51.33	-9.31	-49.12
5. Bijapur	2934	1952	2541	1644	86.60	84.22	-2.38	-35.30
6. Chikmagalur	2307	2951	2094	2738	87.72	92.78	5.06	30.75
7. Chitradurga	98	194	18	151	17.24	77.83	60.59	14410
8. Coorg	8813	8560	7995	7867	90.72	91.85	1.13	-1.60
9. Dharwar	3044	3545	2502	2939	82.85	82.90	0.05	16.53
10. Gulbarga		841	142	346	47.97	63.95	15.98	143.66
11. Hassan	315	441	320	350	95.24	79.36	-15.88	16.66
12. Kolar	103	476	95	476	92.23	100.00	399.05	398.05
13. Mandya	108	677	79	559	73.15	82.57	9.42	607.19
14. Mysore	5055	5360	4309	4877	85.24	85.39	0.15	6.21
15. North Kanara	1640	733	1186	402	72.32	54.04	-17.48	-66.18
16. Raichur	-	351	-	211	-	60.11		
17. Shimoga	1941	2121	1463	1978	75.37	93.26	17.89	35.20
18. South Kanara	14644	17141	11635	13343	79.45	77.84	1.61	14.67
19. Tumkur	132	870	97	543	73.48	94.43	20.95	459.79
KERALA								
State Total	57054	70950	42267	62829	74.00	88.53	14.47	48.64
1. Cannanore	18167	23193	12034	18980	66.24	81.83	15.59	57.71
2. Kozhikode	19266	22651	13757	20503	71.40	90.52	19.12	49.03
3. Malappuram	-	2306	-	2113	-	88.36	-	-
4. Palghat	6931	7680	5923	7351	90.69	95.71	5.02	24.10
5. Trichur	1548	2311	730	1952	47.16	84.46	37.30	167.39
6. Ernakulam	2486	2905	2027	2774	83.55	93.87	10.32	36.85
7. Kottayam	5432	6369	4914	5954	83.10	94.85	11.79	23.83
8. Alleppey	121	119	61	78	42.15	67.02	25.67	52.94
9. Quilon	1016	955	936	893	92.12	93.51	1.39	-4.59
10. Trivandrum	2547	2851	2295	2631	90.10	92.28	2.18	14.60

Contd...../-

Male Secondary workers		Percent as total male workers		Percent Difference	Growth Rate	Male Teritiary workers		Percent as tototal male workers		Percent Difference	Growth Rate
1961	1971	1961	1971		1961-71	1961	1971	1961	1971		1961-71
(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
1224	4814	7.15	7.38	0.23	13.97	6086	6361	8.61	9.75	1.14	25.07
229	555	15.04	18.97	3.93	142.36	201	587	13.20	20.06	6.86	192.04
880	1252	6.23	8.10	1.87	27.75	780	850	4.71	5.50	0.79	14.86
24	98	15.00	6.58	-6.42	308.33	60	279	37. 5	24.43	-13.07	365
61	13	32.44	11.50	-20.94	-78.68	13	42	6.91	37.16	30.25	176.92
188	145	6.40	7.42	1.02	-22.87	205	163	6.98	8.35	1.37	-20.48
77	33	3.22	1.11	-2.11	-57.14	216	180	9.04	6.09	-2.95	-16.66
40	26	68.96	13.40	-55.56	-35	8	17	13.79	8.76	-5.03	112.5
99	206	3.27	2.40	-0.87	-28.71	529	492	6.00	5.74	-0.26	-6.99
387	153	6.14	4.31	-1.83	-18.18	335	453	11.00	12.77	1.77	35.22
10	74	16.89	13.67	-3.22	48	104	121	35.13	22.36	-12.77	16.34
0	19	3.17	4.30	1.13	90	5	72	1.58	16.32	14.74	1340
7	-	6.79				1	-	0.97			
7	60	6.48	8.86	2.38	757.14	22	58	20.37	0.56	11.81	163.63
803	127	5.59	2.36	- 3.23	-55.12	463	656	9.15	12.23	3.08	41.68
273	211	10.54	28.70	18.24	21.96	281	120	17.13	16.37	-0.76	-57.29
	60		17.09			-	80		22.79		
301	83	10.35	3.91	-6.44	-58.70	277	60	14.27	2.82	-11.45	-78.33
85	1694	9.53	9.08	-0.35	21.34	1613	2104	11.01	12.27	1.26	30.44
32	5	16.66	0.06	-15.0	-77.27	13	27	9.84	4.69	-0.20	107.69
3	2866	3.91	4.04	0.13	28.29	12553	5255	22.00	7.41	-14.59	- 58.13
26	1901	7.62	8.19	0.57	37.15	4747	2312	26.12	9.96	- 16.16	- 51.29
77	624	2.99	2.75	0.24	8.14	4932	1524	25.59	6.57	- 89.02	- 69.09
	56	-	2.35			-	217		9.09		
4	64	1.99	0.83	- 0.76	-38.46	504	265	7.71	3.45	- 4.26	- 47.42
3	102	2.78	4.41	1.63	137.20	775	257	50.06	11.12	- 38.94	-66.83
30	29	1.24	0.90	-0.26	- 3.33	369	152	15.21	5.14	- 10.07	- 58.80
37	39	0.86	0.67	-0.19	- 17.02	871	260	16.03	4.49	- 11.59	- 70.14
3	6	2.48	5.21	2.73	100	67	31	55.37	26.95	- 28.42	- 53.73
34	20	1.38	2.09	0.71	42.85	66	42	6.49	4.39	- 2.10	- 36.36
30	25	1.18	0.87	- 0.31	- 16.66	222	195	8.71	6.81	- 1.90	- 12.16

State/ District	2	3	4	5	6	7	8	9
State Total	82660	100138	70868	93019	85.73	92.89	7.16	21.14
1. Madras	317	252	30	4	9.46	1.58	-7.88	-20.50
2. Chingleput	8569	8294	5065	6184	59.10	74.55	15.45	- 3.80
3. North Arcot	20109	23173	17379	21713	86.42	93.63	7.21	15.23
4. South Arcot	4379	4435	3225	4155	73.64	93.68	20.04	1.26
5. Dharmapuri	--	9779	--	9366	--	95.77	--	--
6. Salem	34002	31869	32859	31857	96.63	98.39	1.76	-6.27
7. Coimbatore	5943	8051	4759	7545	80.07	93.71	13.64	35.47
8. Nilgiris	3762	5817	2995	5521	79.61	91.47	11.86	54.62
9. Madurai	1776	2060	1221	1811	68.75	87.91	19.16	15.99
10. Tiruchi	2690	4616	2624	4470	97.54	96.84	-0.70	71.60
11. Thanjavur	96	254	60	128	62.5	50.39	-12.11	164.58
12. Ramanathapuram	261	293	29	111	11.11	37.88	26.77	12.26
13. Tirunelveli	200	435	120	114	60.00	26.20	-33.80	117.50
14. Kanyakumari	556	810	502	740	91.27	91.36	0.09	45.68

10	11	12	13	14	15	16	17	18	19	20	21
2571	2138	3.11	<.13	-0.98	-16.84	9221	4681	11.15	4.97	-6.18	-45.98
153	101	48.26	40.08	-6.18	-33.98	134	147	42.27	58.33	16.06	9.70
868	851	10.13	10.26	0.13	- 1.96	2636	1259	30.76	15.18	-15.58	-52.23
672	363	3.34	1.57	-1.77	-45.98	2058	1097	10.23	4.73	- 5.50	-46.69
257	91	5.87	2.05	-3.82	-64.59	897	189	20.46	4.26	-16.22	-78.93
--	141	--	1.44	--	--	--	272	--	2.78	--	--
123	152	0.36	0.47	0.11	23.57	1020	360	3.00	0.88	-2.12	-64.70
127	59	2.14	0.73	-1.41	-53.54	1057	447	17.78	5.55	-12.23	-57.71
150	109	3.99	1.87	-2.12	-27.33	617	387	16.40	6.65	-9.75	-37.27
9	46	0.51	2.23	1.72	411.11	546	203	30.74	9.85	-20.89	-62.82
17	32	0.63	0.69	0.06	88.23	49	114	1.82	2.47	0.65	132.65
28	38	29.16	14.96	-14.20	35.71	8	88	8.33	34.64	26.31	1000.00
116	53	44.44	18.09	-26.35	-54.31	116	129	44.44	44.03	-0.41	11.20
51	102	25.50	23.45	- 2.05	100.00	29	219	14.50	50.34	35.84	655.17
--	--	--	--	--	--	54	70	9.71	8.64	-1.07	29.63

BIBLIOGRAPHY

Books

Ananda Krishna Iyer, L.K., The Tribes and Castes, Vol. 1, 2 & 3, Cosmo publications, New Delhi.

Bardhan, A.B., Unsolved Tribal problem, Communist Party Publication, New Delhi, 1973.

Beteille (Andre), Caste, Class and Power Changing Patterns of Stratification in a Tanjore village, Oxford, Bombay 1969.

Bhowmik, P.K., Occupational mobility and Caste Structure in Bengal, Calcutta 1967.

Bose, N.K., Tribal Life in India, National Book Trust, New Delhi 1971.

Chanduri, M.K. (ed.), "Trends of socio-economic changes in India 1871-1961", Vol. 7, Indian Institute of Advanced Study, Simla 1969.

Chattopadhyaya, Kamaladevi, Tribalism in India, Vikas Publishing House (pvt.) Ltd., 1978.

Das Gupta, N.K., Problems of the Tribal Education and the Santals, Bhasatya Adimjati sevak Sangh, New Delhi, 1963.

Davis., The Population of India and Pakistan, Princeton, New Jersey, 1951.

Dhan, R.D., These are my Tribesmen - The Oraon, Ranchi 1967.

Dube, S.K., A Study of the tribal people and tribal areas of Madyapradesh, Tribal Research and Development Institute, Indore Govt. Regional Press 1967.

Dube, S.C. (ed.), Tribal heritage of India: Ethnicity, Identity and Interaction", Vikas Publishing House (pvt) ltd., New Delhi, 1977.

Gare, G., Tribes in an Urban Setting: A Study of socio-economic impact of Poona city on the Maradeokois, Shubhadasaraswat Publication, Pune 1976.

Ghurya, G.S., Scheduled Tribes", ed. 3, Popular, Bombay, 1963.

Guha, B.S., The Aboriginal Races of India, Science and Culture 1935.

Guha, B.S. & Hutton, J.H., Census of India 1931, Ethnographical vol. I, Part III.

Hall, R.E., Occupations and Social Structure, Englewood cliffs, Prentice Hall 1969.

King, K.J., Statistical Analysis in Geography, Englewood cliffs, Prentice Hall 1969.

Luiz, A.A.L., Tribes of Kerala, Bharatiya Adimijati sevak Sangh 1962.

Majumder, D.N., Caste and Communication in an Indian Village, Asia Publishing House 1958.

Mamoria, C.B., Geography of India: Agricultural Geography" Shivalal Agarwala & Company, Educational Publishers, Agra 1975.

Mitra, A., Relationship between patterns of shift from Agriculture to Non-agriculture 1951-1961 and the levels of development, Ed. Ashish Bose, "Patterns of population change in India", Allied publishers, Bombay 1967.

Raghaviah, V., Tribes of India, vol. I, Bharatiya Adimijati sevak sangh 1969.

Romesh Thaper, (ed.) Aiyappan: Tribes in the South, Macmillan India Ltd., New Delhi, 1981.

Ramaiah, P., Tribal economy of India, Light and Life, New Delhi 1981.

Roy Burman, B.K., Social Relations of post-primitive communities in Chotanagpur, JNU, New Delhi 1976.

Roy, S.C., Lunoas and their country, Asia Publishing House, Bombay 1970.

Sachchidanda, Cultural Change in Tribal Bihar, Book land (pvt.) Ltd., Calcutta 1964.

_____., "The Tribal Village in Bihar: A Study in unity and Extension, Book land (pvt.) Ltd., Calcutta 1964.

Schwartzberg, J.A., "Occupational structure and levels of Economic Development in India"; A Regional Analysis, Manager of publication, Delhi, 1969.

Sharma, B.L., Tribal Development, the concept and the frame", Prachi Prakashan, New Delhi 1978.

Sharma, T.C. and Coutinho, O., "Economic and Commercial Geography of India", Vikas Publishing House (pvt.) Ltd., Delhi 1978.

Singh, R.L., "India: A Regional Geography, Bhargav Bhusan Press, Varanasi 1971.

Spate, O.H.K., India and Pakistan, London 1957.

Stephen Fuchs, "The Aboriginal Tribes of India", Macmillan Company of India, Delhi 1973.

Surajit Sinha (ed.), Sharma, B.L., Primitive Tribes, printed by the Manager, Government of India Press, New Delhi 1977.

Mishra, P.K., The Jenu Kurubas

Mathur, K.P.G., The Kurumbas of Attappady.

Thakkar, A.V., Tribes of India, Bharatiya Adimjati sevak Sangh, Delhi 1950.

Thurston (Edgar) & Rangachari, K., Castes and tribes of southern India, Government press, Madras 1909.

Vidyarthi, L.P., Applied Anthropology in India, Kitab Mahal, Allahabad 1966.

_____., Tribal Development and its Administration, Concept publishers, New Delhi 1981.

Vidyarthi, L.P., Socio-cultural Implications of industrialization in India: A Case study of tribal Bihar, Planning Commission, New Delhi 1970.

Vyas, V.N. and Mann, R.S. (ed.), Indian Tribes in Transition, Rawat Publications, Calcutta 1971.

Selected Periodicals

Bagchi, J., "Occupational Pattern of displace of migrants, Geographical Review of India, vol.37, No. 2, 1979.

Bhardwaj, S.M. and Harvey M.E., Occupational Structure of the Scheduled castes and general population of the Punjab: A Comparative Multivariate analysis, The National Geographical Journal of India, vol. 2, Part 2, June 1975.

Chandna, R.C., Female working force of Rural Punjab, Manpower Journal, vol. 2, 1961.

Levi, L.R., Working force Participation and economic development, Demography of India, vol. IV, No.1, June 1975.

Elatter, M.L., Measuring components of Occupational Change; A Journal of Regional Development, Vol.5, no. 4, 1974.

Patha, S.N., Religion and Occupational Differentiation, Man in India, vol. 50, No.3, 1970.

Gibbs, J.P. and Martin, W.T., Urbanisation Technology and the division of labour - International pattern, American sociological Review 27, 1962.

Gist, N.P., Occupational Differentiation in South India, Social forces, vol. 33, No.2, December 1954.

Gopal Krishnan and Chandra, R.C., Haryana: Working force and its occupational structure, Manpower Journal, vol. X, No.2, July-September 1974.

Gosal, G.S., Occupational Structure of India's rural population, National Geographical Journal of India, 1958.

Gosal, G.S. and Krishnan, G., Occupational Structure of Punjab's Rural Population 1961, Indian Geographical Journal, vol. 40, Nos. 1 & 8, 1965.

Goswami, B.S. and Morab, S.G., Occupational Change in a priestly caste of Mysore, Man in India vol. 50, No.1, 1970.

Goswami, ..C.R., Caste and Occupation in an Assamese Village, Man in India, vol. 3, 1966.

Hethway, D.E., Migration from Agriculture : the historical record and its meaning, American Economic Review, 50, 1960.

Huller, S.I., Some aspects of the distribution of people engaged in transport and communication in Mysore state, Deccan Geographer, vol. 11-12, 1974.

Jain Ashok latha, Tribal territories in India: A Regional Analysis, M.Phil. dissertation, JNU, New Delhi 1972.

Jain, S.P., Occupational differentiation in North Indian Community, Man in India, vol. 47, No.4 1967.

Krishnamurthy, J., Secular change in the occupational structure of the Indian Union 1901-1961, Indian Economic and Social History Review, 2, 1965.

Krishnan, P., Occupational Mobility in India 1961-71, Demography of India, vol. IV, No.1, January 1975.

Mehta, S., India's rural female working force and its occupational structure 1961: A Geographical Analysis, Indian Geography, vol. 12, Nos. 1 & 2, 1967.

Patil, S.K., Occupational pattern of Urban settlement in Mysore State, The Geographer, vol.20,

Sadhikhan, S.K., Impact of increasing population and Industrialization and Employment in India, Geographical Review of India Vol. 37, No.2, 1975.

Sorani, N.V., Occupational classification in Poona, A Resurvey, Gokhale Institute of economics and Politics, Poona, 1946.

Swarnlata Ekka, Opcupational Structure of the tribal Communities of Chota nagpur Region of Bihar, M.Phil. dissertation, JNU, New Delhi 1976.