RURAL URBAN MIGRATION IN MEGHALAYA

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Introduction

1.1 Introductory Statement

With large-scale international migration becoming less and less feasible, migration within the territorial boundaries of nation states continues to be active in the process of economic development and population redistribution. This latter process is referred to as internal migration. Quantitative and qualitative aspects of internal migration has different connotation for developed and developing countries. Since a large segment of the population is already urbanized in the developed countries a turnover of migration tends to be between cities and towns. On the other hand since the majority of the population lives in the rural areas, rural to urban migration constitutes an important stream in the less developed countries. In India, for example, recent history of industrialization, development of transport nodes, administrative centres and general impetus on urbanization and demands on non-traditional modern sector jobs lead to vast transfers of population from rural to urban areas. This process traditionally has been treated as the classical stream of migration because of its nexus with modernization and industrialization of traditional societies.

Traditionally, rural to urban migration has been associated with the so called "push factor" operative at the level of towns and cities, namely better wages, better standard of living, high social over heads etc. However, it must be noted that there

could be other important demographic, social and psychological reasons, which play their part in explaining rural to urban migration.

1.2 Statement of the Problem

The process of migration has been one of the most dynamic aspects of human activity since the beginning of the human civilization. Migration broadly denotes movement of people from one area to another involving changes in the spatial distribution of population. Geographers have been traditionally interested in the study of redistribution of people.

The migration process involves different types of mobility from region to region, state to state, country to country, continent to continent, rural to rural, urban to urban, rural to urban, urban to urban, seasonal, temporary, permanent etc. It is influenced by physical environment as well as socio-economic conditions in both the places, i.e., the place of origin and the place of destination of the migrants. In almost all the developing nations, rural to urban stream is assuming significant dimension due to the ongoing process of industrialization and urbanization taking place in a few selected places and nodes.

The overall picture at the all India level however, is too generalized and does not reflect the situation at micro-level, which is affected more by factors, both *regional* and *local*. The present study makes an attempt to study the patterns of migration with special reference to rural to urban stream in the state of Meghalaya -a

state characterized by hilly environment and supporting a large proportion of tribal population.

Researchers on rural to urban migration in India generally emphasize on the general conditions of the rural areas as stagnating as agriculture can no more accommodate the ever increasing population pressure or that the urban areas are attracting surplus rural population to look for a non-agrarian employment. Emphasis is laid on their socio-economic status, direction, and length of migration, literacy levels, age-sex distribution and many other characteristics. But little effort is made to understand the process of rural to urban migration as it unfolds itself in different geographical conditions. Highly generalized causes are identified which in ultimate analysis tend to take the shape of an understanding based on `push' and `pull' factors. In most of the studies, the `rural' is represented as the area where poverty and other constraints are pushing vast segment of people to seek a living in the urban areas.

It is generally accepted that the hilly and tribal economies have not gone through similar experience of `rural push' or ` urban attraction', as may be the case in the areas of greater agrarian potential. The near subsistence tribal or quasi-tribal social organization in these areas present a qualitatively different scenario when the rural to urban migration takes place. The process simply cannot be explained away as `rural push' or `urban attraction'.

The problem of rural to urban migration in such area need to be understood in the distinct geographical context in which it takes place. Briefly speaking the context represents itself as:

a. The tribal areas are characterized by a low level of economic development on account of the operation of development process-both exogenic and endogenic at a low key and the majority of the population lives at a subsistence level which is a serious constraint on large scale redistribution of population.

b. The social structure is dominated by a tribal social order based more on ethnic and clan bond, which is also seen as restrictive to large-scale migration.

c. The urban development too is recent and is more externally induced to perform administrative functions and not related to any structural transformation of the rural economy.

Much of the tribal areas particularly in the North East continues to subsume numerous economic modes ranging from forest based hunting and gathering to the practice of shifting cultivation locally known as *jhum* in large tracts of land, whereas settled, subsistence production characterize the agrarian mode in a few favourite pockets. Spotty development of cultivation of commercial crops is a recent phenomenon as a direct consequence of urban influence in the neighbouring villages.

Given the geographical milieu, varying resource potential, tribal mode of social organization and the induced urban development, the present study proposes to explore the varying impact of resource potential in the rural areas of Meghalaya that

Meghalaya

Location Map

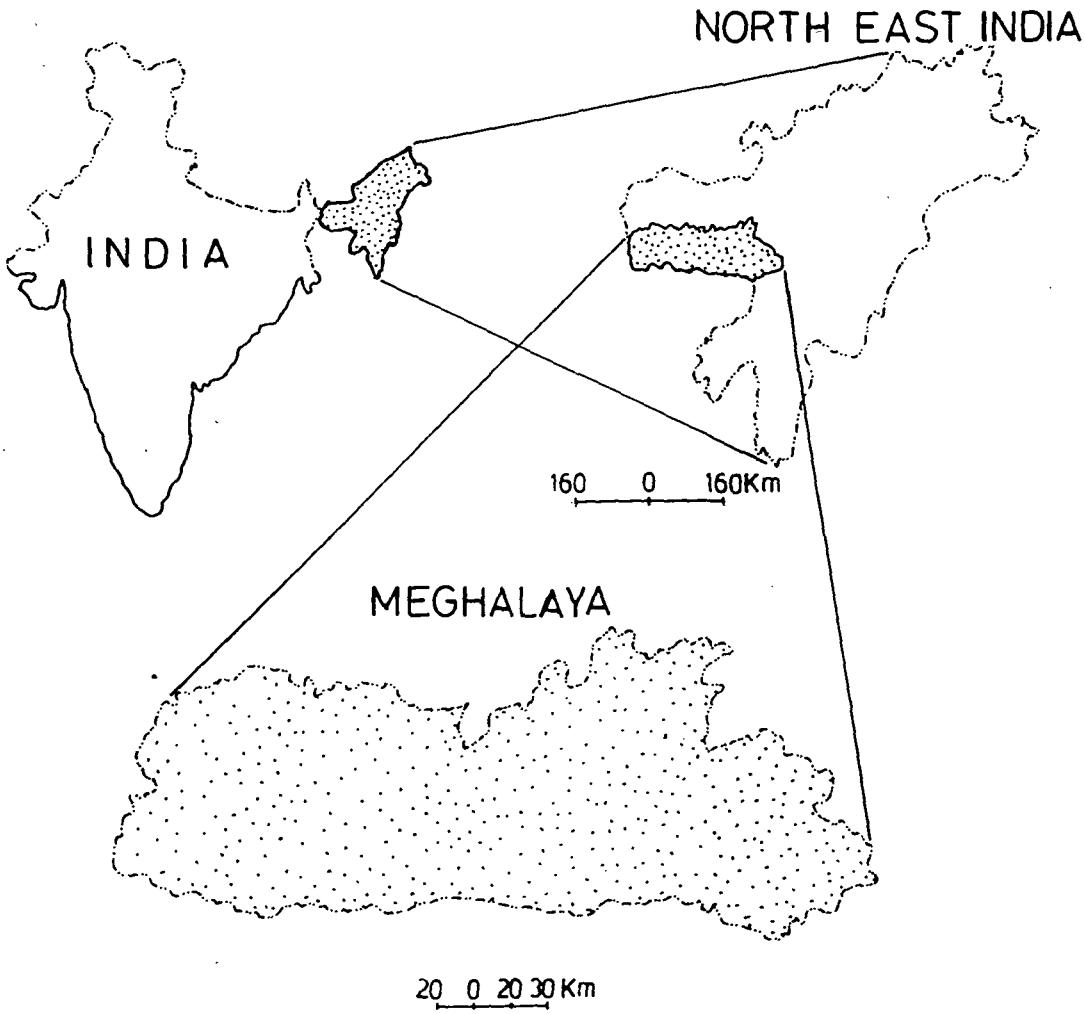

Fig 1.1

exhibits striking differences in its resource base depending upon varying ecological potential and socio-economic attributes. The ~~study~~ present study aims at a deeper understanding the process of rural to urban migration - however weak and feeble it may be in hilly and tribal areas - in its resource context as well as with regard to the nature of urban development.

1.3 Study Area

The Meghalaya plateau in the northeastern part of India has been selected for the present study. The selection of the region is guided by the following considerations:

i. Tribal population overwhelmingly dominates the plateau.

ii. The region presents striking contrasts in its resource base depending upon the ecological and social attributes and their utilization.

iii. This is perhaps one of the very few tribal regions in the country to have a huge urban centre.

The study area is bounded in the north and the east by Assam and in the south by Bangladesh. The region has a total geographical area of 22,429 sq. km and supports a population of 17,60,626 persons as per 1991census estimate and a population density of 78 persons per square kilometre.(Fig. 1.1).

Physiographically, Meghalaya is characterized by the erosion surfaces associated with plateau structures and hilly terrain of the pre-Cambrian age of the

Indian peninsula which have been uplifted to its present height of 600-1800 metres above the mean sea level with Shillong peak as its highest point (1961 meters). The region has been variously described as an irregular parallelogram and a tableland.

Restricted availability of valley land has forced the tribal people to practice jhum in manageable slopes. This traditional method of agriculture indicates the low level of socio-economic development in the state. Only a small zone close to the towns have experienced cultivation of cash crops and the areas in the southern part of the state have experienced some amount of horticultural development.

The state experiences fairly good amount of rainfall, which supports dense forests. Therefore, the economy revolves around agriculture and forest based works. Minerals such as coal, limestone, etc, provide the basis of works in specific location. The pace of industrialization is very slow compared to other state of the country. Nevertheless, there has been a steady growth of some small industrial units in the recent years.

The pace of urbanization has been rather slow over the past years. The total urban population contributes a little over 18 per cent (18.69) to the total population. East Khasi Hills with Shillong as the capital city of Meghalaya has contributed a major share to the growth of urban population in the states. East Khasi Hills alone claims to have 1,80,000. urban population out of the state's total of 2,41,333 accounting for 74.92 per cent. This shows that urbanization is largely confined to this

district compared to any other district of the state. However, the growth of Tura, another important township in West Garo Hills district, has been experiencing very large increase in its population i.e., from 15,489 in 1971 to 39,440. in 1981 accounting for 150 per cent increase over the decade. There is no record of increase or decrease in the West Garo Hills and East Garo Hills. The new towns of Nongstoin and Williamnagar came into being in 1981 with the creation of these two districts.[1]

Table 1.1
Meghalaya: Change in Urban Population 1951-91

Year	No of Town	Total Population
1951	2	58,512
1961	6	1,17,483
1971	6	1,47,170
1981	12	2,91,333
1991	12	3,29,079

Source : Census of India, Population tables,1991

It may be noted that the constituents of the Shillong Urban Agglomeration are reckoned as separate towns and have been classified according to the population of the agglomeration.

It is evident from the table 1.1 that the increase in urban population is a consequence largely of proliferation in the number of towns after 1961. There were just two towns during the period 1901 to 1951. These towns were the Shillong Municipality and the Shillong Cantonment with a total population of 8,512. In the year 1961 another four towns were added to the existing number of towns. They are

[1] Census of India, 1981-91, General Population Tables, Meghalaya.

Nongthymmai town, Mawlai town (all of them now part of Shillong urban agglomeration), Tura town, and Jowai town with the total population of 1,17,483. In the year 1971 no new towns were added to the existing ones but the population in those towns increased to 1,47,170. Six more towns in 1981 were added to the existing six towns; they are Pynthorumkhrah, Madanrting, (treated as towns because of the expansion of Shillong urban agglomeration). Nongstoin, Williamnagar, the district headquarters and both do not satisfy the technical criteria of being notified as towns. In 1991 no new town has been added. However, the urban population reached to a level of 3,29,079 persons as compared to 2,91,331 in 1981.

In 1991, the census recorded a total of 31.80 per cent growth rate in population. The overall growth rate of population from 1901-91 has been quite high considering the growth rate at the national level.

Table 1.2
Meghalaya: Growth and Density of Population

Year	Total Population	Percentage Decadal Variation	Density per Sq. Km.
1901	340524	-	15
1911	394005	15.71	18
1921	422403	7.21	19
1931	480837	13.83	21
1941	555820	15.59	25
1951	605674	8.97	27
1961	769380	27.03	34
1971	1011699	31.50	45
1981	1335819	32.04	60
1991	1774779	31.08	79

Source: Statistical Handbook, Meghalaya, 1992.

The overall growth in the population shows the decadal variation of population during the decade 1981-91 was 31.80 per cent. There is an increase in the growth of population during the decade. The increase in the percentage seems to be higher in the urban areas than in the rural areas during the decades.

Between 1901 to 1991 (table-1.2), the density of population has increased by 15 persons per square kilometre to 79 persons per square kilometres. The increase in the density of population is mostly caused by the increase in the natural growth of population during the recent years.

The overall increase in population and density is pressing hard on the availability of the natural resource base of the people. The situation is getting accentuated with the continuation of an older mode of economic practice based on shifting cultivation in most parts and the low level of agricultural development in the state.

The literacy rate in Meghalaya was 34 per cent in the year 1981, which increased to around 39 per cent in the year 1991. The male literacy rate is little higher than the average, while the female literacy rate stands at 36.45 per cent only. The proportion of literate in the urban areas is higher than that among the rural population. This is primarily due to a better educational infrastructure in the urban areas. The existence of a large number of small and scattered villages makes the programme expensive and the enrolment per schools is much below the desired numbers. The

terrain of the land and the extreme backwardness of the area act as a disincentive both for teachers and for prospective pupils. This is in spite of great efforts made by Christian missionaries in spreading education right from the 19th century.

The Khasi-Jaintias and the Garo tribal communities predominantly inhabit Meghalaya. These tribal communities present a distinct ethnicity both in terms of their racial characteristics as well as linguistic affinity. The tribal segment of population accounts for about 80.58 per cent of the total population in 1981 as against 80.48 per cent in the year 1971.

1.4 Objective

As stated earlier, the main aim of the present research is to get an insight into the nature of rural-urban migration taking place in hilly and tribal areas of the country with special reference to the Northeast India in general and Meghalaya in particular. Needless to say that the process of population redistribution in this part of the country is rather recent and takes place under qualitatively different conditions. The specific conditions within which the process is unfolding itself have been assumed as (i) the resource context (ii) the urban context and (iii) the context of tribal social order.

Based on these parameters, the study proposes to keep the following broad objectives:

i. To measure the extent of rural to urban migration and its characteristics;

ii. To identify the factors in the processes of rural to urban migration;

iii. To explain the processes of rural to urban migration in a tribal setting;

1.5 Hypotheses

Given the problem and the broad objectives of the research, the following hypotheses shall be treated in the course of this research with reference to the areas of the study:

i. The volume of rural-urban migration is a response to the varying resource potential of the study area.

   (a) Areas with fragile resource bases, such as those traditionally practising shifting cultivation, areas which are experiencing widespread deforestation and the areas with a large scale exhaustion of mineral resources are experiencing migration to urban areas in search of livelihood.

   (b) The nature of rural-urban migration in areas where natural resource base is better utilized is characterized by a positive selection of the migrants who may improve their economic position by moving to towns; some of them will migrate as students to improve their socio-economic status.

(c) The volume of migration from urban fringe dominated by peasant economy is small and the migration is more individual movement rather than family.

ii. The stream of migration is not sex selective due primarily to the fact that the region has the prevalence of matrilineal system. However, in some areas the sex selectivity may be more prominent due to individual migration for education, government employment, etc.

1.6 Sources of Data

The research study depends on the primary and the secondary sources of data.

Data concerning the studies on migration and the whole overview of rural-urban migration were collected from published books, research papers, gazetteers and other relevant sources.

Data regarding resource base of the region have been based on the secondary information derived from census records, government records, records on jhum, agriculture, workforce, density and literacy have been analyzed on the basis of government and Census records.

Data concerning patterns of urbanization have been collected on the basis of Census records

The patterns and causes of rural to urban migration in Meghalaya have been analyzed on the basis of Census data.

Primary data have been collected from the sample villages with the help of structured questionnaire, which have been canvassed through interview method. The schedule also includes questions pertaining to the resource base, general economic conditions of the migrant households, level of education etc. The village questionnaire included questions related to general ecology, resource base and social organization.

1.7 Methodology

The methodology adopted for the present study may be briefly summarized as below:

An attempt is made to evaluate the resource base of the region by a reference to the distribution of environmental attributes such as relief features, physiography, climate, natural vegetation, rivers etc., and socio-economic attributes such as land use, cropping pattern, mineral exploitation, structure of the workforce, distribution and density of population etc.

In the next stage the pattern of urbanization is analyzed at different levels of spatial aggregation such as the state, districts, and development blocks to get an insight into the varying force of urbanization in inducing rural-to-urban stream. Special emphasis is laid on spatial patterns in urban growth of population, which is generally perceived as an indicator of rural to urban stream of migration. An attempt is

also made to understand the urban economic base of Meghalaya by analyzing occupational structure of urban areas with the help of NIC classification of workers at three digital levels. The objective in this analysis is to assess the type of employment opportunities available in the emerging towns of Meghalaya.

At the next stage the data available in the censuses regarding migration is analyzed by classifying the data into different streams of migration. The data is further classified by male, female segments as well as by stated causes of such migration.

The process of rural to urban migration is further examined by collecting relevant data from sample households of seven villages selected on the basis of the following broad resource areas:

a. Areas characterized dominance of subsistence agriculture.
b. Areas characterized by urban influence
c. Areas characterized by dominance of jhum cultivation
d. Areas characterized by mining activities.
e. Areas characterized by agro-forestry based economic activities.

The migration process in each of these areas has been analyzed with the help of the following:

i. Quantum of migration
ii. Age and sex composition of the migrants.

iii. Duration of migrants,

iv. Occupation of migrants before and after migration,

v. Causes of migration.

vi. Literacy status of the migrants.

1.7 Sample Design

In order to understand the process of rural urban migration in hilly and tribal areas, a few villages have been selected for intensive field investigation. The selection of the villages has been based on the dominant resource base and the economy of the people. Attempt is made to select at least one village from each of the broad resource areas already identified. However, three villages have been selected from areas characterized by a dominance of subsistence agriculture, as it happens to be the most important resource base of a bulk of the tribal people living in the state. The following table provides a brief outline of the villages selected for the study.

Table 1.3
Sample Villages: Resource Base

Village	Block	District	Resource Base
Mawrong	Umsning	Ri-Bhoi	Subsistence Agriculture
Myrdon Nongbah	Umsning	Ri-Bhoi	Subsistence Agriculture
Umran Niangbyrnai	Umsning	Ri-Bhoi	Subsistence Agriculture
Laitkor	Mylliem	East Khasi hills	Urban Fringe
Nongtalang	Amlarem	Jaintia	Agro-Forestry
Patharkhmah	Umling	Ri-Bhoi	Shifting Cultivation
Sutnga	Khliehriat	Jaintia Hill	Mining and Forestry

Special care has been taken to ensure that the villages selected are fairly representative of the resource areas. This has been done by an in-depth study of the resource base of Meghalaya presented in a separate chapter (Ch. II) and visits to a number of villages as part of pilot survey.

1.8 Organisation of Chapters

The first chapter broadly deals with the research setting. It includes the objective of the study, the hypotheses, sources of data, methodology and the sample design adopted in the study. The second chapter examines the spatial pattern of human migration by providing an assessment based on migration studies, and also examining the overview of literature by comparing the spatial pattern of rural to urban migration in the other parts of the world with that of the study region (consisting of a hilly and tribal economy). The third chapter examines the nature of resource base of the study area. The region as a whole is characterized by the dominant traditional agricultural practices the nature and conditions do not favour agrarian surplus. The density of population has been viewed on the bases of the resource base.

The fourth chapter broadly deals with the urban situation particularly in respect of its level, growth and spatial patterns, which are important in getting some clues regarding the role of migration in the urbanization process. An attempt is also made to evaluate the economic base of the towns with a view to assessing their capacity to absorb the rural migrants. The fifth chapter endeavours to study the patterns and causes of rural to urban migration based on data available in the Census. The purpose

of this analysis is to integrate macro understanding with highly localized micro-level understanding taken up in the following chapter.

The sixth chapter has made an attempt to test the hypotheses regarding rural urban migration in hilly and tribal areas with the help of data collected from a few selected villages located in different areas with diverse resource base.

The concluding chapter summarizes the main findings of the analysis and suggest broad policy guidelines on the basis of the implications of the study.

Chapter II

Migration Studies: An Overview of Literature

2.1 Generalities

Population geography deals with the spatial pattern of the human population and explanations of the patterns, in the light of the responses to cultural, physiographic or economic phenomena.[1] In other words, it is concerned with demonstrating how spatial variation in composition; distribution and growth of populations vary in space and regions in response to a set of explanatory variables.[2] The variations operate through the dynamics of the population changes, besides variations in population phenomena per se. It influences regional population growth, organization of a population over space and its composition, etc. In the short run however, population mobility, in the form of migration, affects inter-regional population distribution. Migration may affect the areas of emigration and those of immigration. A population, the size and composition of which are largely determined by political, social and economic factors helps in interpreting the pattern of population mobility.

In every area, there are usually two sets of factors that influence the decision to migrate. One set of factors attracts the people to it, while the other set of factors repel people from these areas. There is also a third set of factors by which the people who relocate themselves are influenced. These are the combination of the intervening

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[1] Zelinsky, W. 1966 : *A Prologue to Population Geography*, Prentice Hall Inc.,Englewood Cliff, New Jersey, p.5.

[2] Clark, J.I. 1966 : *Population Geography*, Pergamon Press, London, p. 2.

obstacles and personal factors. Thus, migration may be the result of the comparative strength of the `plus' and the `minus' factors at play at the place of origin and the destination.[3]

The movement of people is much older than the recorded history. Man is essentially a mobile creature, susceptible to suggestions and endowed with imagination and initiative. Population mobility is an important feature of the developing as well as the developed world. There are definite patterned regularities in the growth of mobility and this comprises essential components of modernization.[4] Population mobility has increased with technical and economic progress.[5] Each movement provides an important network for the diffusion of ideas and information. It includes a system of social and economic changes and can be regarded as a form of human adjustment to economic and environmental and social problems.[6] Zachariah states that the predominant causes of rural-urban migration is economic.[7] Josef Gugler stressed on two issues in particular:

(i) the relationship between economic and non- economic factors and

(ii) the distinction between collective and personal forces.[8]

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[3] Lee, Everett,S. 1968 : "A theory of Migration" in Heer D.M.(ed) *Reading on Population*, Prentice Hall, New Jersey.

[4] Zelinsky, W. 1971: " The hypothesis of the transition mobility", *Geographical Review*, Vol. 61, No. 2, p. 221.

[5] Clark, J.I., 1966 : *op.cit*, p. 2.

[6] Demko,G.J., 1970 : `Spatial Patterns of Population Flows', *in Population Geography: A Reader*, McGraw Hill Book Co, New York, p.1.

[7] Zachariah, K.C., 1964: "A note on Internal Migration in India" in *Rural-Urban Differences in South Asia* (UNESCO). p.235.

[8] Josef Gugler., 1971: "In the Theory of Rural-Urban Migration", The Case Study of Sub-Sahara Africa, in *African Social Research*, Manchester University Press, pp. 134-135.

Zelinsky states that societies initially have only limited migration and circulation and the society is geographically focused on a limited area. In the early transitional stages, there is a rapid rise in fertility, a consequent growth in population, the emergence of rural to urban migration and the setting up of towns. This is a period of frontier colonization in many societies; the other which is in the process is that of the rapid rise of cities and intensification of rural urban migration.[9]

Gould and Prothero formulated a scheme to facilitate the study of population mobility and the socio-economic change, where the problems of rural- urban development are of major importance.[10] Davis observed that the extremely high density of agricultural workers on arable lands with no provision for secondary occupation, compel the poor villagers, especially the landless labourers to migrate to the cities, temporary or permanent, to earn a living.[11] Lansing and Mueller[12] and Wertheimer R.F. analyze the effect of migration of people from rural and economically depressed areas and found the effects are rather complex. A number of studies indicate that migration has been beneficial to the out-migrants from rural areas from the monetary point of view. Others have pointed out that migrants from rural areas remain as low-income group at their urban destination.[13]

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[9] Zelinsky, W., 1977: "The Hypothesis of Mobility Transition", *Geographical Review*, 61.

[10] Gould,W.T.S. and Prothero, M., 1975: "Population Mobility in Tropical Africa", *The Population Factors in African Studies, eds Moss*, R.P. and Rathbone, R.J.A., London.

[11] Davis, Kingsley., 1955: "The Origin and Growth of Urbanization in the World", *in American Journal of Sociology*, p. 429.

[12] Lansing, J.B., and Mueller, E., (eds) 1967: *The Geographic Mobility of Labour*, Ann Arbor, Milch., University of Michigan, Institute of Social Research, Survey Research Centre.

[13] Werthimer, R.F.,1970: *The Monetary Rewards of Migration Within USA*, Washington D.C.

2.2. **Defining Migration**

The definition Weinberg used in his study of migration in Israel seems flexible. He defined human migration "as a change of a place permanently or temporarily for an appreciable duration as in the case of seasonal workers. It is used symbolically in the transition from one surrounding to another in course of human life."[14] Safa[15] emphasizes on the economic aspects of human migration. According to her, migration is normally viewed as an economic phenomenon, though non-economic factors obviously have some bearing. Most studies agree that migrants leave their areas of origin primarily because of the lack of employment opportunities or with the hope of employment opportunities elsewhere. Fortes[16] in his discussion of movement of the people of Ghana, distinguishes mobility from migration. In the case of mobility movement is restricted within the boundary while in the case of migration one crosses the border. Many scholars have attempted to define migration and the related terms. The word migration generally means all types of movements of population in physical space with an assumption that a change of residence or domicile is involved.[17]

Migration is also defined as a process involving transition of an individual or a group from one society to another, this involves leaving one social setting and entering

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[14] Weinberg, A.A., 1961: *Migration and Belongings: A Study of Mental Health and Personal Adjustment in Israel*, New York.

[15] Safa,H.I., and Dutoit, B.M., 1975 : *Migration and Development*, The Hague.

[16] Fortes, M., 1971 : " Some Aspects of Migration and Mobility in Ghana", *Journal of Asia and African Studies*, Vol. 6, No.9, pp. 1-20.

[17] Smith,T.N., 1960 : Fundamentals of Population Geography, Chicago. Urbanisation and Urban Indian, New York, Asian Publishing House.

a different one.[18] In the definition of migration, Lee emphasized upon permanent or semi permanent change of residence. As such his definition puts restriction on the distance of the move or the voluntary or involuntary nature of all the act and no distinction has been made between internal or external migration.[19] His definition does not explain all kinds of spatial mobility. Mobility in fact, involves space differentiation between the place of origin and the place of destination. As a result migration refers to all movement of population in the physical space. In the opinion of Caplow migration is considered as a change of residence only and it should not necessarily involve any changes in occupation.[20] Mangalam suggested another definition. According to him migration is relatively permanent wearing away of a *collectivity* called migrants, from one geographical region to another? His definition introduces the term "relatively permanent" which distinguishes migration from occupation and work.[21]

2.3 **Significance of Population Mobility**

Population mobility, particularly migration, is one of the dynamic constituents of population changes. Population, the size and composition of which are largely determined by migration, presents unique features-demographic, economic, social, and

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[18] Eisenstadt, S.N., 1953 : "Analysis of Patterns of Migration and Absorption of Immigrants" *Population Studies*, Vol. 7, pp.167-80.

[19] Lee, E.S., 1969 : "A Theory of Migration" in Jackson, J.A.(ed) *Migration : Sociological Studies-2*, Cambridge University Press, pp. 282-97.

[20] Caplow, T., 1954 : *The Sociology of Work*, Minneapolis: University of Minnesota Press, p. 60.

[21] Mangalam,J.J., 1968 : "Human Migration"; *Literature in English 1955-62*, Lexington, p. 53.

political.[22] Migration has various effects on those aspects both in the areas of immigration and the areas of emigration.[23]

a. Demographic effects: The size, growth rate and age, sex and occupational composition of population are functions of the dynamics of population change. Except natural increase, migration is the only other source of population changes.[24]

b. Size of population: The size of population depends upon the natural increase and redistribution of population accomplished by migration. Natural increase of population is responsible for overall growth of population, but regional growth rate results from both differential natural increase and migration leading to redistribution of the population.[25]

c. Growth rate: Population dynamics of natural increase and migration increase are very different. The difference is in relation to age and sex structure due to 'selective migration'. The age structure weighs towards the younger age under conditions of natural increase and also because of predominance of adult population.[26] Migration also considerably influences the sex structure of receiving

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[22] Vieland,C.A., 1934 :"The Population of Malaya Peninsula - A Study in the Human Geography", *Geographical Review*, Vol.24, pp. 61-78.

[23] Prothero, R.M., and Kosinski,C.A., 1970: *Migration and Population Pressure on Resources,* Oxford University Press, New York, pp.61-78.

[24] Barclay, G.W. 1966: *The Techniques of Population Analysis*, John Wiley & Sons, New York, p.241.

[25] Habakuk,H.K., 1972 : *Population Growth and Economic Development Since 1750*, Leicester University Press, New York.

[26] Prothero, R.M. & Kosinski,C.A. 1985: "Circulation in Population Movement" in *Substance and Concept from Malenesian Case*, Edited by Murray Chapman & R. Marshal. Prothero, London, Routeledge & Kegan Pauls.

and sending area, leading to higher sex ratio in the latter case and lower in the former. Thus population does not conform to any simple law of growth where population composition is largely a function of migration. Migration upsets the age and sex structure leading to distribution of normal family life and consequently fertility pattern. Due to lower sex ratio in the area of immigration the birth rate may be even lower than the death rate leading to negative natural increase.[27] However, for the families involved in migration, the influx of people in re-productive age groups contributes to an increase in birth rates. The new comers do not immediately adopt urban family patterns and high fertility exists among them for some time.[28]

d. *Economic Effects*:

Population mobility, particularly migration influences regional economic development in the long run.[29] Population influences economic growth through the effects upon the basic economic input of land, labour and capital. The supply of land is affected by the pressure of population. The growth of employment depends upon both demand and supply sides. From supply side it is influenced by the size and growth of population and from the demand side by the level of employment generating investment in the non-agricultural sector. Investment in

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[27] Vieland,C.A., 1934: *op.cit.*

[28] Prothero,R.M., 1967: "Characteristics of Rural-Urban Migration, and the Effects of their Movements upon the Composition of Population in Rural-Urban Areas in Sub-Saharan Africa", in *Proceedings of World Population Conference, Belgrade, 1965*, Vol-IV, New York, United Nations, Sales No. E.66, XIII, 8.

[29] Ruprecht, T.K. and Wahren, C. 1970: *Population Variables in Social and Economic Development*, Development Centre of the Organisation of Economic Co-operation and Development, Paris, pp.19-34.

turn, is affected by the impact of population upon saving and in shaping the composition of investment via its role in determining the alternative demand for investment, e.g., in schools, houses or directly in productive activities. A larger child population requires higher investment for providing educational facilities. Thus, population tends to influence the structural character of the developing economy. Fertility reduction yield an economy with larger industrial, transportation and communicational sectors, i.e., more developed and modern sectors that are suited to economies of larger scale production. On the other hand a rapid growth hinders, to a moderate extent, the emergence of a market structure, patterned along modern lines. However, fertility is neither a pre-requisite nor a constant high fertility a barrier to economic development.[30] Population thus has a dual role with economic development as related to consumption and the supply of manpower.[31] Consumption depends upon the size of population and its standard of living. High consumption provides a larger market and thereby a benefit of expanded production, so essential for investment. The supply of manpower or dependency rate is a function of age structure of population which is important for regional economic development, and in turn affects the dynamics of population change.

Migration has differential effects on sending and receiving areas[32] it relieves the pressure of population on land resources in the former and increases in the latter. It

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[30] Ruprecht,T.K. and Wahren,C., 1970: *op.cit.*

[31] Brass,W.G., 1972: "Population Data", in *Need for Development Planning*, in E.H.Ominda and C.M.Ejogu, Edited by Prothero, R.M. and Kosinski,C.A. (1970), *op.cit.*

[32] Addo,N.O., 1974 : "Migration in Sub-Saharan Desert", *Population Index*, Vol - 40, pp. 450-51.

increases the population of working age group in the receiving areas and leaves behind a large number of dependants (children and old persons) in the out migrating areas. In the areas of out migration the marginal productivity of emigrants is lower than the average for these areas, per-capita income lower than of the remaining labour force which may increase provided the outflow is not drastic. Otherwise there will be further decline in the marginal productivity and the acute shortage of labour force may occur in the out migrating areas. On the other hand, the influx of unskilled labour to a highly developed region reduces the per capita income and in short run retards economic development of the receiving region. In the long run however, they prove beneficial due to importation of human capital (for training and employment are made available).[33]

c. *Social Effects*:

Each movement provides an important network for the diffusion of ideas and information, indicating the symptoms of social and economic change.[34] Thus, mobility of population will have an effect on the existing social structure. New patterns of thought and attitude of mind develop from experience gained in other places and as a result social mobility is likely to be increased.[35] In the heterogeneous and regionally diverse society, cultural diffusion and social integration takes place.

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[33] Harvey,M.E., 1972: "Economic development and migration in Sierraleone" in S.H. Ominde, and N. Ejogu (eds), *op.cit.*, and Prothero, R.M., and Kosinski, C.A.,(1970), *op.cit*

[34] Demko,D.J., et al (1970): *op.cit.*

[35] Prothero,R.M., and Kosinski,C.A. : *op.cit*

However, as a result of migration the most able members of a community may be lost completely or may be away for long periods of time, thus hindering the process of social change and limiting the economic potential.[36] The flow and the characteristics of internal migrants affect social condition in both the communities of origin and destination.[37] From the perspective of the communities, they lose disproportionately more of their talented youngsters, in unskilled positions.[38] In theory a migrant who joins a new and developing community can rapidly ascend the economic and social hierarchy, but the rapid growth of urban slums indicates that actual material and social improvement can be difficult to achieve. In many cases social degradation occurs.[39]

The rural migrants living in urban places often have a lower status (as measured by education, income and occupation, etc.,). In the case of immigrants to rural areas on the other hand, migrants often insist on practising traditional methods of farming even though they may be in an environment that requires totally different treatment, the result may be catastrophic.[40]

f. *Political Effects*:

A population, the size and composition of which are largely determined by migration, presents administrative problems. The people consist of different races

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[36] Prothero,R.M., and Kosinski,C.A. : *op.cit.*
[37] Mehrotra,G.K., (1974): *op.cit.*
[38] Kammayer,K.C.W., 1969 : *Introduction to Population*, Sanfrancisco, Chandler Publishing Co.
[39] Clark,C.G., 1974: 'Urbanization in the Caribbean', *Population Geography*, Vol.59,No.2, pt.3, pp.28-32.
[40] Kammayer, K.C.W., (1969) : *op.cit.*

and creed with totally different attitude toward life giving birth to racial tensions and communal disputes besides other problems.[41]

Thus, for regional, national and even international planning more rapid and precise information of past movements and prediction of future movements are necessary.[42]

2.4 **Typology of Migration**

Scholars of different disciplines have tried to classify migration in various ways. Bases adopted in the consideration of migration include cause, duration, distances, volume, velocity, selectivity, organization etc.[43] Fairchild[44] classified migration into invasion conquest, colonization, and immigration. His classification was latter modified by Isaac[45] and others who subdivided migration into 'free' (seasonal, nomadic, temporary, and permanent) and 'forced' (refuge, slave and population transfer). Paterson[46] suggested a more complex typology of migration by considering two main criteria: conservation and innovation. His classification was also modified by Price[47] that is given below:

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[41] Prothero,R.M., and Kosinski,C.A., (1970): *op.cit.*
[42] Vieland,C.A., (1934): *op.cit.*
[43] Clarke, J.I., 1972 : *Population Geography*,Oxford, Pergamon Press.
[44] Fairchild,H.P., 1925 : *Immigration*, New York.
[45] Issac,J., 1947 : *Economic of Migration*, London.
[46] Peterson,W.,1968: "Migration, Social Aspects", *International Encyclopedia of Social Sciences*, p.10.
[47] Prize,D.O., 1963 : "Some Socio-Economic Factors in Internal Migration", *Social Forces*, Vol. 29, pp.409-415.

Typology of Migration

Relation between Man and	Migratory Force	Class of Migration	Types of Migration	
			Conservation	Innovation
Nature	Ecological push	Primitive	Wandering ranging	Flight from land
State	Migratory policy	Forced impelled	Displacement flight	Slave trade Coolie trade
Norms	Aspiration	Free	Group	Pioneer
Other	Social movement	Mass	Settlement	Urbanization

Gonzalez has suggested another classification.[48] She has divided labour migration into five types: seasonal, temporary, non-seasonal, recurrent, continuous and permanent removal. She also established a linkage between recurrent migration and matri-local or consanguinal household. Amin[49] classified migration on the basis of place of origin and the place of destination namely rural to rural, rural to urban, urban to urban, urban to rural.

Permanent emigrants are those individuals who move out and do not return to their native places to resume permanent residence either by choice or by compulsion.[50] Another type of emigrants concerns those who leave the village for major period of time but resume permanent residence before their death. The third types of immigrants are known as birth of passage that leads a dual life by fleeing back and forth between the village and the foreign areas. Gould and Prothero have suggested a more

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[48] Gonzalez,N.L.S., 1961 : "Family Organization in five types of wage labour", *American Anthropologist*, Vol.63, No.6., pp. 1264-80.

[49] Amin,F., 1974 : *Modern Migration in Western Africa*, London.

[50] Douglas,W.A., 1970: "Peasant Immigrants - Reactors or Actors", Migration and Anthropologists, *Proceedings, Annual Spring Meeting, American Ethnological Society*, pp. 21-35.

comprehensive scheme of classification.[51] They have divided migration on the basis of time and space.

Population Mobility

Rural-Rural	Rural-Urban	Urban-Rural	Urban-Urban
Daily	Periodic	Seasonal	Long term, irregular, permanent

Kosinski's multidimensional scheme of types of migration is, however, one of the recent additions to the existing topology of migration.[52] As mentioned earlier, he based his classification on time (temporary, permanent), distance (long, short), boundaries crossed (international, external, aerial units), decision making (voluntary, impelled, forced); number involved (individual, mass), social organization of migration (sponsored, fee), causes economic, non-economic), aims (conservation, innovation). Kosinski's typology, because of its wider coverage, has more utility than Peterson's does.

Peterson's[53] best-known work based on the typology of population mobility is primarily based on the socio-economic factors. He differentiated population movements on the basis of types of interaction (free, impelled, mass), and the types of migration (whether conservation; whether nomadic movement or `innovation,' pioneer

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[51] Gould,W.T.S., and Prothero,R.M., 1975 : "Population mobility in Tropical Africa", in Moss, R.P. and Rathone,R.J.A., (eds) *The Population Factors in African Studies*, London, Univeristy of London Press.

[52] Kosinski,L., 1970 : "The Internal Migration of Population in Poland, 1961-65", *Geography Polinica*, Vol.18, pp. 75-84.

[53] Peterson, W., 1958 : "A General Typology of Migration", *Sociological Review*, Vol.13, pp.256-66.

movement, urbanization). He further classified types of migration according to the selective character of migrants (younger, adult, males, dissident group), within the major groups, conservative or innovating. Spatial aspects are implied but not explicit in these classifications, while temporal aspects have been completely ignored. Kant[54] has given a review of a number of classifications including his own. It is of the relatively generalized nature. He has noted broad distinction between inter-continental and intra-continental migrations, and between international and internal migrations. His further classification of intra-country or internal may be summarized as follows:

I. Intra-local or Intra-regional migrations:

a. Intra-urban migrations and

b. Intra-rural migrations,

II. Inter-local or Inter-regional migrations:

a. Migration by change of environmental or milieu and

b. Migration between similar parts of the country,

In this classification, the differentiating role of spatial movement has been considered but categories are of generalized nature, to be of assistance in the analysis of the movements of complex character.

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[54] Kant,E. 1962: "Classifications and problems of Migration", in P.L. Wegner & M.W.Mikesell, (eds.), *Readings in Cultural Geography*, University of Chicago Press,Chicago, pp.342-54.

Beltramone's[55] typology takes into account both spatial and temporal aspects. It is based on a major distinction between permanent and temporary movement. Further differentiation has been made between those, which occur within an administrative unit of different scales. In the categories of temporary movements further distinction has been made between those which are regular in time (daily, weekly, seasonal) and also in space, and those which are irregular in both time and space. Zelinsky[56] has emphasized the need for greater attention to spatial and temporal dimensions in the study of population movements. These have been neglected by social scientists that have tended to concentrate more on the socio-economic implications of population mobility.

Prothero and Gould have attempted to provide a working typology of population mobility. According to them, space and time dimensions are the essential frameworks for any geographical typology of population mobility. Space may be considered in one of the two respects: distance and direction.[57] Distance may be measured in terms of physical (as in Ravenstein's classification)[58] or in economic terms (as in Stouffer's concept of intervening opportunities)[59] or as within or between

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[55] Beltramone, A., 1965 : *La Mobilite Geographique une population*, Gauthier-Villars, Paris.

[56] Zelinsky, W., 1971 : "The hypothesis of the mobility transition", *Geographical Review*, Vol. 41 (2), pp. 219-49.

[57] Prothero,R.M., and Gould,W.T.S., 1972 : "Space and time dimension in the study of population mobility with particular reference to Tropical Africa", Paper submitted to the *International Geographical Union's Commission on Population Geography*, July-August.

[58] Ravenstein,E.G., 1989 : "The Laws of Migration", *Journal of Royal Society*, Vol.XLVIII, pp. 167-235, and Vol.52, pp.241-305.

[59] Stouffer,S.A.,1940 : "Intervening opportunities - A Theory Relating Mobility and Distance", *American Sociological Review*, Vol.5, No.6, pp. 845-67.

administrative units (as in Beltramone's typology).[60] The last of these differentiates the distance continuum through successive larger scale of interaction from the commune to the national and international community. They can be referred as intra- or inter-village movements, or as intra- or inter- district movements, and extended to intra-national and international. Differentiation of this sort is certainly more satisfactory than measures of a distance continuum in terms of short and long, since they are relative terms and it may be impossible to apply them in a comparative analysis.

Direction may satisfactorily be considered in terms of rural-urban relationship. Rural and urban areas represent the opposite ends of a continuum. Time may also be considered in two ways:

1) In Historical Terms[61]

a). Movements that took place formerly but which have now ceased.

b). Movement that have been continued from the past to the present, and

c). Movements that have been developed in recent times, within the present century.

2) In contemporary terms as measured by the periodicity of the movement may involve a continuum from repeated movements of a few minutes duration within a limited area to a permanent change from one place to another.

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[60] Beltramone,A., 1965: *op.cit.*

[61] Prothero,R.M., 1968: "Migration in Tropical Africa", in J.C. Coldwell and C.Okonjo (eds.), *The population in Tropical Africa*, Longman, London, pp. 250-62.

Population Mobility

Circulation	Migration	Time
	Daily, Periodic, Seasonal, Longterm	Irregular, Permanent
Rural-Rural		
Rural-Urban	Space	
Urban-Rural		
Urban-Urban		

The basic framework of the typology is shown above.[62] It considers space in four categories of rural/urban relationship and time in the span of each movement.

Fundamental to typology is the distinction made between the terms `mobility' `migration' and `circulation'. Mobility is sufficiently broad therein to include all population movements from one extreme of those made several times each day. e.g., to fetch water from the nearby well to other of a definite direction involves inter-continental movements over several thousand kilometres. Migration is sometimes used by demographers in this broad general sense to include all types of movements, but others consider it to be limited in space than mobility. Lee[63] excludes movements such as those of the tourists, seasonal workers etc from migration. Most definition of migration refers to a permanent change of residence, which are of a rhythmic or oscillatory nature. These movements can be suitably designated as circulation and include a great variety of movements, usually short term, repetitive or cyclic in character but all having in common, the lack of any declared intention of a permanent or a long standing change of residence.

[62] Prothero,R.M., and Gould,W.T.S., 1972 : *op.cit.*

[63] Lee, S.E., 1966 : "A Theory of Migration", *Demography*, Vol.3, pp. 47-87.

The principal difference between mobility and circulation lies in the permanence of the former and the non-permanence of the latter. However, 'permanent' has been defined in different ways. The period of time by the term permanent cannot be generalized in all instances of migration.[64] No broad specification of the duration of stay suits all purposes.[65] Other discussions of permanence such as that by Van Velsen[66] have considered economic and social commitment of a mover to a destination compared with those of his home areas. Thus, there has not been any universally accepted criterion for defining permanence. It is suggested that if there is a specific desire on the part of the individual or group of individuals who are moving to return to their place of origin, the movement may be considered circulation rather than migration. Some movers however know only the timing or the direction of future movements or are sure of any definite desire.

Circulatory movements have been sub-divided according to the length of the cycle into four main groups daily, periodic, seasonal and long term.

Daily circulation includes a great variety of intra rural and intra urban movements. Daily movements have become an increasingly important component of

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[64] Mangalam,J.J., 1968 : *Human Migration : A Bibliographic Guide*, University of Kentucky Press, Lexington, p. 8.

[65] Paterson, W. 1968: "Migration: Sociological Aspects", *International Encyclopedia of Social Sciences*, Vol. 10, pp. 286-300.

[66] Van Velsen,J., 1963 : "Some Methodological Problems of the Study of Labour Migration", in *Urbanization in African Social Change*, University of Edinburg, Centre of African Studies, pp.34-42.

population mobility in recent years. They are closely associated with the growth of towns and increase in transport facilities.

Periodic circulation may vary in length from one night (for a visit to a relative place or to market) to one year, though it is usually shorter in duration than seasonal circulation.

Seasonal circulation is in fact a periodic type of movement, the period being meagre, rigidly defined by marked seasonal variation in the physical or economic environment. Seasonal circulation does not include local movements with a high seasonal incidence (e.g., movements of farmers to sell their produce in the market) but movements which involve individuals or groups being absent from their permanent homes throughout a particular season of a year.

Long term circulation involves absence of more than one year from home. It includes important groups, usually wage labourers and traders, who despite long absence maintain close social and economic links with their home areas with the objective eventually to return to them.

The presence or absence of phenomenon in movements is the basis for distinguishing between migration and circulation. However, different interpretations of "permanent" have given rise to two types of migrations -- permanent and irregular. Permanent migration (in conventional usage of the term) indicates definite movements

with no propensity to return to their home areas. Irregular migration, on the other hand, is not wholly permanent. Further movement is likely in the future, but neither the time nor the direction of such movement is known. This sub-category includes the movements of nomads and refugees.

2.5 **Migration Studies in Developed Countries**

The idea of inverse distance or distance decay relationship developed by Zipf, Steward, Warntz, and others have been found applicable in many kinds of movements. They reveal that migration is directly proportional to products of population on a place of origin and destination and inversely proportionate to distance between them.[67] George[68] considers geographical movements in two forms: moves caused by necessity or obligation and moves caused by need. Features of former type are that they push people to certain classes or racial religious groups who are unsuitable in the donor society. In the second type, pressure from the place of origin is accompanied. Push and pull factors are also known as centrifugal or impulsive and centripetal or attracting forces respectively. Vandercamp[69] has observed that unemployment has a significant and substantial impact on the overall rate of geographical mobility in Canada and particularly on the rate of migration to such regions in which migration add to their population. Hypothesis in inter provincial mobility is positively related to differential

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[67] Morril,R.J., and Pitts,F.R., 1967 : "Marriage Migration and the Mean Information Field: A Study in Generality", *Annals of Association of American Geographers*,Vol.57, No.2, pp. 401-02.

[68] George, P., 1970: "Types of Migration of Population According to the Professional and Social Composition of Migrants", Janson, C.J. (ed.), *Reading in Sociology of Migration*, London, pp.39-47.

[69] Vanderkamp,J., 1968 : "Inter regional Mobility in Canada: A Case Study of the Time Pattern of Migration", *The Canadian Journal of Economics*, Vol. 1, pp. 595-608.

income and negatively related to distance has received impressive empirical support in Canada.[70] However, Wolpert[71] has shown the weakness of Stouffer's and other models for giving emphasis to `push-pull' factors and excluding behavioural parameters. He had borrowed much of the concept in the model building from the behavioural theorists. Zelinsky has approached migration in a completely different perspective. He in his hypothesis of the `transition mobility',[72] has applied the principle of spatial diffusion of innovations to the laws of migration, especially to Lee's assertion that `unless severe checks are imposed, both volume and rate of migration tends to increase with time'.[73] The result is set within the same sort of temporal structure that has been developed for the demographic transition. The hypothesis of the 'transition mobility' can be stated most precisely as follows:

`There are definite patterned regularities in the growth of personal mobility through space and time in recent history and these regularities are associated with the modernization process. In other words for any specific community, the course of mobility transition closely parallels to that of the demographic transition and other transitional sequences. There are major, orderly changes in the form and intensity of spatial mobility at various stages of the transition. There are concurrent changes in both, form and intensity of social mobility and in the transmission of information. The

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[70] Courchen,T.J., 1970: "Interregional Migration and Economic Adjustment", *The Canadian Journal of Economics*, Vol.1.11, pp.550-76.

[71] Wolpert,J., 1970 : "Behavioural Aspects of the Decision to Migrate", in G.J.Demko, H.M.Rose, and A.Schnell, (eds.), *Population Geography. A Reader*, McGraw Hill Book Co, New York, pp.298-305.

[72] Zelinsky,W., 1971 : The hypothesis of Mobility Transition, 61 Geographical Review.

[73] Lee,S.E., 1972: "A Theory of Migration",in G.J.Demko et al., op.cit. and Lee,S.E.(1966),op.cit.

process in question tend to accelerate in spatial and temporal pace with time because of the steady accumulation and intensification of causative factors within any given community and because of the effects of and transfer of information from more advanced to less advanced regions. The process of community towards advanced developed status can be gauged by its control over energy, things and knowledge, as exercised both individually and collectively and also by attainment of personal mobility, i.e., widening range of option for locating and patterning one's life.

Richardson[74] has observed that migrants tend to move from low wage to high wage areas and from areas of labour surplus to those with labour shortages. In other words, net migration flows show some tendency to be functionally related to the wage or per capita income differential between region of destination and origin. They thus substantiate the `neo-classical model'.

Drewe and Rogers[75] have presented a new aggregate hypothesis, which is derived from the survey of migration research. The traditional economic model of migration[76] includes explicitly the `opportunity cost of moving'. Joseph[77] has used the theory of `Markov Chains' to formulate a stochastic model of inter-regional migration

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[74] Richardson, H.W., 1973: "Resource Mobility in the Space Economy", in H.W.Richardson, *Regional Growth Theory.*, The MacMillan Press Ltd, London, pp. 89-103.

[75] Drewe,P., and Rogers,H., 1973: "Steps Towards Action Oriented Migration Research: A progress Report", *Regional Science and Urban Economic*, Vol.3, No.4, pp.315-26.

[76] Levy, M.B., and Wadicki, W.J., 1974: "What is the Opportunity Cost of Moving Reconsideration of Effects of Distance and Migration," *Economic Difference and Cultural Change*, Vol.2, No. 22, pp. 198-214.

[77] Joseph,G., 1974 : "Inter Regional Population Distribution and Growth in Britain: A Projection Exercise", *Scottish Journal of Political Economy*, Vol.21, No.2, pp. 159-69.

in Britain. Morgans[78] has tested in `Lansing-Muller hypothesis' by using the `in and out migration ratio of unemployed persons' in standard metropolitan area of the United States during the period of 1949-50 and 1955-60.

Davis[79] comes to the conclusion that modern migration are an ebb and flow that result from technological and economic inequalities. Glantz[80] has observed that the poor migrated to areas offering more employment opportunities and higher welfare benefits. Cebula[81] analyze the impact of the quality of life on inter-state migration in the United States over 1968-70 period.

Greenwood[82] has studied the post-1960 literature dealing with the cause and effects of migration within United States.

Smith[83] has developed a general probabilistic theory for modelling a variety of spatial interaction choices of individual behaving units. This theory is shown to be

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[78] Morgan,C.A., 1974: "A Note on Perrenial Question in Migration Analysis", *Growth and Change*, Vol.5, No.4, pp.43-47.

[79] Davis,K. 1974:"The Migration of Human Population",*Scientific American*,Vol.231, No.3, pp.92-105.

[80] Glantz,F.B., 1975 : "The Determinants of the Inter Metropolitan Migration of the Poor", *The Annals of Regional Science*, Vol.9, No.2, pp.25-29.

[81] Cebula,R.J., 1975 : "Migration: Economic Opportunities and the Quality of Life: An Analysis for the United States According to Race Sex and Age", *Annals of Regional Science*, Vol. 9, No.1, pp.127-33.

[82] Greenwood,M.J., 1975 : "Research on Internal Migration in the United States: A Survey", *Journal of Economic Literature*, Vol.13, June, pp.397-433.

[83] Smith,T.E., 1975: "A Choice Theory of Spatial Interaction", *Regional Science and Urban Economics*, Vol.4, No.2, pp.137-76.

consistent with wide class of empirical `spatial-interaction hypothesis' designated as `gravity hypothesis'.

2.6 **Studies in Developing Countries**

Prothero[84] studying the West African situation observed that economic opportunities in better developed areas offer an incentive for migration, but this is followed only if conditions are unsatisfactory in home areas (areas of origin) for stimulating the people to take up the employment opportunities offered elsewhere. In the Philippines, internal relocation of the people is the movement down the pressure gradient,[85] from areas of high density and economic distress to the sparsely settled frontier lands. Rampel and Toddaro[86] have concluded from the experiences in Kenya that the spatial allocation of labour between a rural and an urban sector is primarily a function of the differential of expected income between these two sectors. Harvey[87] has found in Sierra Leone that internal migration tends to be from areas of low development to relatively more advanced regions. However, Clark's experience in the Caribbean[88] is that the "mobility results more from the push from the overcrowded lands of the rural parishes than from a strong pull ... from job and other economic opportunities". Amin[89] has also

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[84] Prothero, R.M. 1966: `Migrant Labour in West Africa'. *Journal of Local Administration Overseas.* Vol. 3, pp. 149-55.

[85] Simkins, P.S. 1970: "Migration as a Response to Population Pressure: The Case Study of the Philippines", in W. Zelinsky et al., (eds.) , *op. cit.* , pp. 259-67.

[86] Rampel, H. and Todaro, M. P., 1972: "Rural to Urban Labour Migration in Kenya", in S.H. Ominde et al. (eds.), *op. cit.*, pp. 214-31.

[87] Harvey, M., 1968: "Implication of Migration to Freetown: A Study of the Relationship Between Migrants, Housing and Occupation," in *Civilization (Brussels) International Institute of Differing Civilization*. No.2., pp.247-69.

[88] Clark, G.C., 1974 : *op. cit.*

[89] Amin, S., 1974 : *Modern Migration in West Africa*, Oxford University Press. (ed)

experienced the same situation in Western Africa. Addo[90] is of the opinion that migration, both internal and international is economic, demographic, environmental, political, and to some extent religious in character. Carvajal has observed in Dominican Republic that migration flows are strongly affected by economic conditions both in the areas of origin as well as that of the destination[91]

Numerous studies have documented the fact that throughout the developing world, rates of rural-urban migration continue to exceed rates of urban job creation and to surpass greatly the capacity of both industry and urban social services to absorb this labour effectively.[92]

International Labour Organization in a study of the growth of population and migration over the past few decades, have observed that over 50 per cent of the urban growth in many developing nations is due to accelerated pace of rural to urban migration.[93]

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[90] Addo, N.O. 1970: 'Some Structural Aspects of Internal Migration in South Eastern Ghana: Their Implications for National Development Policies', Paper Presented at *the East African Conference on Social Science Dar es Salaam, Mimeographed.*

[91] Carvajal, M.J., and Geithman, D.T., 1976: 'Migration Flows and Economic Condition in the Dominican Republic', *Land Economies*, Vol. 52, No. 2, pp. 207-20.

[92] Todaro, M.P., 1980: *Internal Migration in Developing Countries*, International Labour Office, Geneva.

[93] Todaro, M.P., 1968: 'The Urban Employment Problem in Less Developed Countries : An Analysis of Demand and Supply', in *Yale Economic Essays*, New Haven, County., Yale University, Fall.

2.7 Studies in India

Davis[94] is probably the first scholar to study in detail the migration pattern in India. He discussed the extent and direction of migration under the following heads:

i. Immigration: The foreign trickle

ii. Emigration: The overseas movement, and

iii. Internal migration,

He has studied in detail the volume and types of internal migration, viz., short-run migration, marriage migration, rural -urban migration, etc. He has also discussed the cause of an overall immobility of the Indian population, but his studies relate to a period around 1930s and the period preceding it. Besides, he has described and discussed in broad terms the patterns of migration only between various regions of India and Pakistan.

Dayal[95] has studied the growth of population and rural urban migration in India during 1931 and 1951 and the changes in the pattern during this period. He has also discussed causes for small internal migration in India. More detailed historical studies of internal migration in India have been done by Zachariah.[96] The work of Mitra[97]

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[94] Davis, K., 1951 : *Population of India and Pakistan*, Princetown, London.

[95] Dayal, P. 1959: "Population Growth and Rural-Urban Migration in India", *NGJI*, Vol.5, pt. 4, pp.179-85.

[96] Zachariah, K.C., 1964 : "A Historical Study of Internal Migration in Indian Sub-Continent 1901-31", New York, *Research Monograph, No.1*, Demographic Research Centre, Bombay.

[97] Mitra, Ashok 1967: "Internal Migration and Urbanization in India", Part 1 & II, *Appendices, U.N., Expert Working Groups on Problem of Internal Migration and Urbanization*, Bankok.

gave a detailed account of internal migration on the basis of 1961 census records based on place of birth data. First, he gave an account of the general picture of migration. He tabulated the place of birth data and then, the migration differential analyzed in terms of areas of origin and destination of four migration streams, rural-rural, rural-urban, urban-urban, and urban-rural. Bose[98] presents an overall picture of intra-state movements and recognized four types of flow according to rural-urban composition of the migrants but does not discuss the state-wise pattern. Similarly, Saxena[99] has analyzed the stream of intra-state movement in details but his discussion regarding intra-state movement is confined only to the all India picture. Lopo[100] has given a quantitative description of internal migration in Bihar during 1921-51 by using linear programming technique in the analysis of migration. Hussain[101] in her review of the demographic research during 1966-69 in India has found that only 12 per cent of the total studies undertaken were devoted to migration and urbanization. Kumar[102] has studied the trend of inter- district migration in Bihar during 1951-61. Bhuyan[103] has discussed the types of immigrant in the Assam valley. Gulaty[104] has attempted an analysis of the relationship between migration and per

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[98] Bose, Ashish. 1967 : "Migration Stream in India", Contributed *Papers International Union for the Scientific Study on Population*, Sydney Conference, (Mimeo) pp. 597-606.

[99] Saxena, G.B., as Cited in Krishnagar, Sumati 1973 : "Pattern of Internal Migration of Males in India-Inter-State and Intra-state Flows",*Artha Vijnana*,Poona,Vol.15,No. 2, pp.161-79.

[100] Lopo Lisbet de Castro 1968 : "An Analysis of Internal Migration in Bihar, North India", 21st *IGU*, Denmark, pp. 70-99.

[101] Hussain, I.Z., 1969 : "The State of Demographic Research in India", Paper for *National Conference on Population Policy and Programme*, New Delhi, pp.15-23.

[102] Kumar, Anil., 1970 : "Pattern of Inter-District Migration in Bihar, 1951-61", *Journal of North East Geographical Society*, Vol. 2, No. 2, pp. 119-34.

[103] Bhuyan, M.C., 1971 : "Immigrants to Assam Valley : A Geographical Analysis", Paper *for National Conference on Population Policy and Programme*, New Delhi, pp. 15-23.

[104] Gulaty, S.C., 1971 : "Migration in India : A Cross Sectional Study of the In-migrants of the State and Districts", *Journals of Economics*, Vol. 51, No. 203, pp. 419-31.

capita income, urbanization, literacy and density in India at both the district and state levels. Kumar and Sinha[105] deal with the index of migration and formulate theories related to migration. Trewartha[106] discusses migration pattern between 1941-61, particularly during 1951-61. He also asserted that migration occurs due to complex interaction of `push and pull factors'. George[107] takes into account migration stream between rural and urban areas between Assam and West Bengal. He highlights the magnitude of internal migration in India and suggests the importance of intra-provincial migration analysis.

Rao[108] has used the data collected by Indian statistical Institute (July 1965 to June 1966) to apply Stouffer's model on 'intervening opportunities' and competing migrants in India. Roy[109] has done a general empirical study in U.P. without any generalization on statistical grounds. Kshirsagar[110] deals only with male migrants in the 15 states of India during 1951-61.She has given special emphasis on intra-district and inter district migration. Bose[111] presents an overall picture of internal migration in

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[105] Kumar, A., and Sinha, S.S.,1971 : "Towards an Index of Migration Flow" *The Geographical Progress Research Bulletin*, No.1, Bhagalpur University Geographical Society, pp.419-31.

[106] Trewartha, G.T., 1972 : *The Less Developed Realm : A Geography of its Population*, John Wiley and Sons Inc., New York.

[107] George, M.V., 1972 : "Patterns of Inter-state Migration in Assam and West Bengal with Special Reference to Rural-Urban Streams", Paper Presented at the *Indian Census Centenary Seminar* (Mimeo), New Delhi.

[108] Rao, G.D., 1973 : "Inter-State Migration in India", *Sankhya* (Calcutta) Series B, Vol. 35, No.3, pp.367-76.

[109] Roy, B.K., 1973 : "Migration Pattern in U.P.", *The Deccan Geographer*, Vol. 11, No. 1 and 2, pp. 45-46.

[110] Krishsagar, Sumati 1973 : *op. cit.*

[111] Bose, Ashish., 1973: *A Study of India's Urbanization: 1970-71*, Tata McGraw Hill Publishing Co Ltd., New Delhi, pp. 141-61.

India in terms of origin, direction, distance and volume of migration streams. He has also discussed migration and linguistic dispersal in India. The study is based on 1961 census data. Mehrotra's[112] study relates to the salient result of the one per cent sample tabulation of the 1971 census. He analyses the census data on internal migration for the whole country during 1961-71. He has extensively studied the characteristics of migrants falling under the category of birthplace concept.

2.8.Studies in North East India

Sinha[113] has undertaken an analysis of census data on migration relating to the urban areas of the North-Eastern Region. The date pertaining to 1961-71 census has been studied. This is related to a demographic change in the region. P.R. Bhattacharjee[114] sought to provide a bird's eye view of the long time trend of migration in North East India in the post - independent period with the objective of analyzing the nature of urbanization in this part of India. Saifun Nessa[115] in her paper aims at understanding the causes and oonsequences of rural urban migration and urbanization. An attempt is also made to propound certain remedial measures to check unabated rural urban migration and the evil social consequences of urbanization. This study is based on relevant secondary materials. The 1981 table shows that the people of Arunachal Pradesh have moved out of their villages to urban work sites but the magnitude is far

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[112] Mehrotra, G.K., 1974: *op. cit.*

[113] Sinha, S.K., 1986 : *Internal Migration in India, 1961-81, An Analysis Census of India 1981*, Census Monograph, No.2, Office of the Registrar General, India.

[114] Bhattacharjee, P.R., 1995 : 'Urbanization and Development in North East India', in *Trends, Policy and Implications*, Edited by J.B. Ganguli, Deep and Deep Publications. Pp. 23-38.

[115] Saifun, Nessa., 1995 : "The Social Consequences of Migration and Urbanization with Reference to North East India" in *Urbanization and Development in North East India*, Edited by J.B. Ganguli. pp. 54-63.

less than in the case of people's migration from other parts of the country. This is due to the fact that the majority of the inter-state migrants are engaged in the tertiary sectors in the urban areas.[116] The enclave character of the city is confirmed by the fact that it has very little symbiotic relationship with the hinterland. A study of the migration pattern also suggests limited impact of the city and its hinterland. The migrant segments drawn from the rural areas in close spatial proximity and people drawn from outside the region seems to sustain themselves more through external linkages while the hinterland tends to be hegemonic and exploitative.[117] A shift from rural to urban areas is qualitatively far more significant in this region in the context that the rural areas are dominated by an economic ethos of quasi foraging and quasi-subsistent economic organization and the social ethos dominated by tribal culture.[118]

There is a complete spatial fragmentation of the rural and urban settings.[119] Goel[120] in his dissertation has undertaken the analysis of the census data and shows that intra-district migration is much higher than inter-district migration; and the rural-urban migration indicates the lure for economic betterment.

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[116] Sebastian, A.: "Migrants in North East Region of India", in Datta Ray, B. (ed) *The Pattern and Problems of Population in North East India.*

[117] See. D.D.Nengnong 1991: "Rural-Urban Migration in Meghalaya", *M.Phil. Dissertation, (Unpublished)*, Deptt. of Geography, NEHU, Shillong. The study conclusively proved the limited especial impact of Shillong over the whole state in attracting migrants. It however, has much better linkages with areas outside Meghalaya.

[118] Nandini. Chakraborty, 1991: "Rural-Urban Linkages Interactions; A Case Study of Shillong and its Hinterland", *M.Phil, Dissertation*, NEHU, Shillong, (Unpublished).

[119] Nengnong, Danny D.,Debendra Kumar Nayak and A.C. Mohapatra 1995: "Process of Urbanization in Meghalaya:Evidences of Rural-Urban Migration", in *Urbanization and Development in North East India;Trends and Policy Implications*, J.B. Ganguli (ed), Deep and Deep Publication. pp. 237-252.

[120] Goel, N.P., 1983: "Demographic Structure of North East India", *Ph.D. Diss.*, NEHU, Shillong.

2.9 **Concluding Statement**

It is abundantly clear from the preceding overview of literature that migration studies have attracted much attention from scholars belonging to diverse fields. Geographers have contributed significantly to studies on migration as evident from the brief survey. However, it is important to note that migration behaviour in hilly and tribal areas of the country has attracted much less attention than desired. This may be due to a perception that the process of migration in a hilly and tribal areas does not attract much significance-a fact based on an assumption of relative immobility of tribal segment of people particularly in the North eastern region of the country. What assume significance however are not the total volume of migration in the region but the quality and the context of those who migrate. The rural to urban migration thus assumes important connotation in the context of hilly and tribal areas, where dwindling resource base and fast pace of urbanization plays a key role. Most studies on the nature of migration have ignored this vital aspect of great geographical significance that the present study attempts to fulfil.

Chapter III

Resource Base of Meghalaya

3.1 Introduction

In this chapter an attempt is made to evaluate the extent of diversity and quality of the available resource base of the region under investigation with a view to examining the role of varying resource base in influencing the pattern of rural-urban movement of people. It is assumed that the availability and utilisation of a particular resource base often leads to imbalances in the man-land ratio and thus generates forces for spatial mobility of people. This is particularly true of tribal areas where any imbalance in man-land ratio caused either by endogenetic or exogenetic forces lead to significant redistribution in the population.

3.2 Environmental Basis

In order to analyse the resource base of the region under investigation, it is imperative to begin with an understanding of the environmental attributes.

3.21 ***Location Characteristics*:**

Geographically, the present study confines itself to the state of Meghalaya. It is bounded on the north and on the east by Assam and in the south by Bangladesh. Meghalaya, metaphorically known as "the abode of clouds" lies between 20^0 9'30" and $25^0$8'28" north latitude and between $85^0$49'-$92^0$51' east longitude, with a total geographical area of 22429 square kilometres. The state supports a population of

17,60.626 persons as per 1991 Census records with a density of 78 persons per square kilometre. The state is divided into seven administrative districts, namely Jaintia Hills, East Khasi Hills, West Khasi Hills, Ri Bhoi, East Garo Hills, West Garo Hills, and South Garo Hills districts.[1]

Physiographically, the whole state of Meghalaya is said to represent a remnant of an ancient plateau of Pre-Cambrian age of Indian peninsula uplifted to the present height of 600-1800 metres above the mean sea level. Shilling Peak is the highest tower over neighbouring plateaux at a height of about 1961 meters above the mean sea level. The region has been described as an irregular parallelogram and a tableland etc.[2]

3.2.2 ***Topography and Terrain*:**

The topography of Meghalaya plateau is greatly affected by the structural links with the peninsular India,[3] i.e., rugged, undulating hills, and therefore, generally unsuitable for extensive cultivation. Geologically, Meghalaya plateau is composed of the formation of the Archaean and Pre-Cambrian rocks of the central parts of the plateau, whereas in the southern part the Cretaceous rocks and the Tertiary formations form it. Though the region has got numerous streams, rivers, and waterfalls, most of these are not perennial and flow in narrow valleys proving highly restrictive to intensive cultivation. However, much of the region is characterised by low gradient, which provide ideal condition for terrace cultivation.

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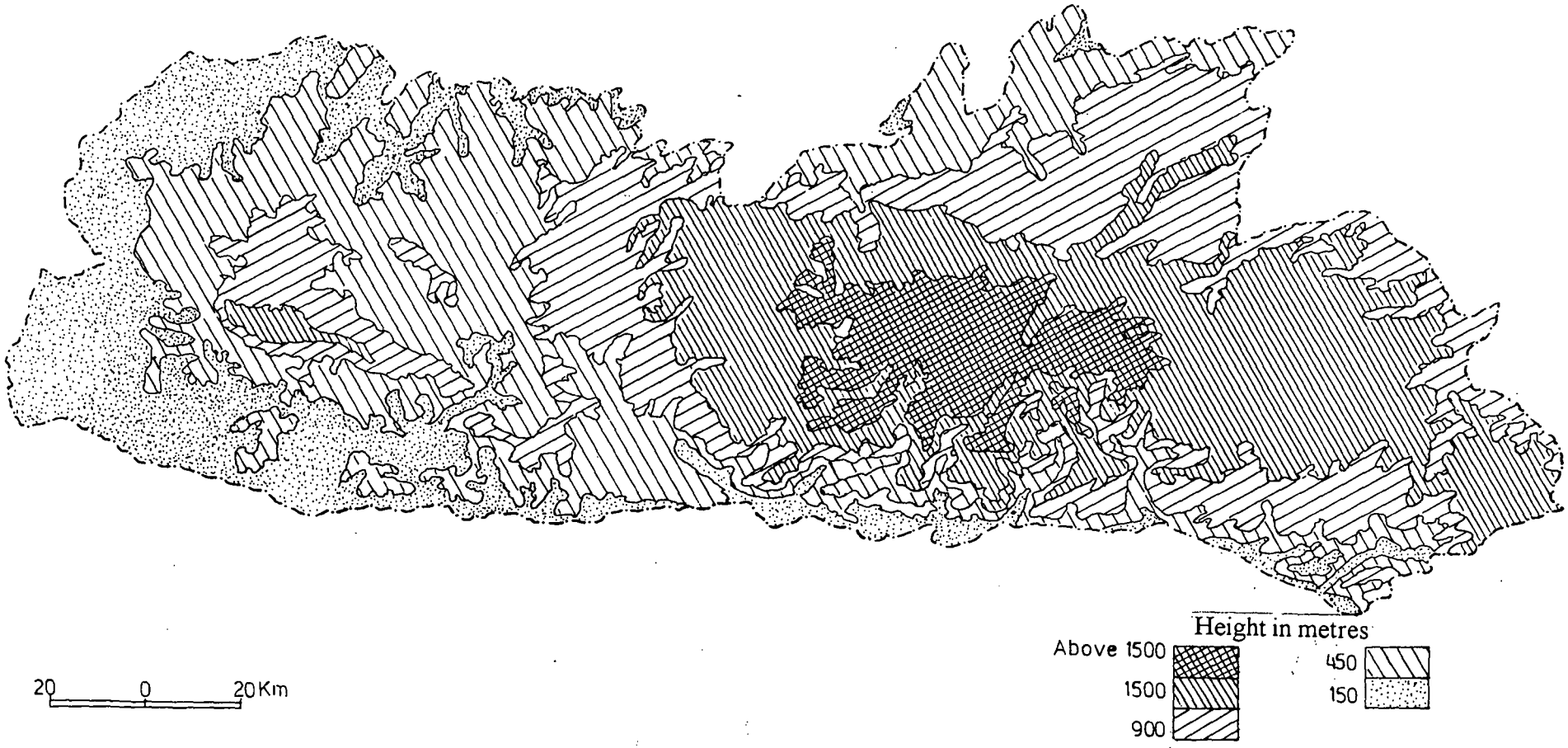
[1] Bareh, Hamlet., 1974 : *Meghalaya North East India News and Feature Service*, Shillong. pp.120-124.
[2] Geological Survey of India, 1974 : *Miscellaneous Publication*, No.30.
[3] Rai, R.K. 1986 : "Structural and Geomorphic Evolution of Meghalaya Plateau, India. on Landsat Imagery", *Proceedings of the ICARSS '86 Symposium*, Zurich, 8-11 Sept.

The region is characterised by the hilly dissected and irregular terrain in the western and northern faces in sharp contrast to the regular and steep fall in the southern part of the region down to the Surma-Barak plain through a faulted face (fig 3.1). The boundary of the plateau in its northern face is not well defined. There are many broken ranges of low irregular hills stretching up to Assam.

The Western part of the region i.e., the Garo hills is an extensively dissected tract of 8164 km with an average elevation of 600 to 1200 metres above the mean sea level. The area around Tura is a distinct geomorphic tract. The Tura range recorded the highest elevation of about 1515 metres. The Mahesgula Adaguri range is the dividing line that separates the western part and the central part of the plateau. The most important physiographic features are the Tura range and the Simsang valley. The Tura range runs almost through the central part of Garo hills in an east-west direction extending from Tura town to Siju, at a distance of about 50 kilometres. The hills in the north of the Tura range including the Arabela range are low and gradually reduce in altitude until they reach the latter in the south. The area around Tura is a typical hurst bounded by two lines and it is along the northern fault, through which the Simsang River flows eastward for about 45 kilometres before running through the gorge that separates Tura from the Kylas range. It ultimately comes down to the plains near Bagmara where it is known as the Someswari River. The Kylas range lies on the east of Someswari River (called Chitmang by the Garos) that stands as a hogback mass, that towers about most of the hills in the vicinity. It thus appears higher than it really is, and it was on this count that it has been regarded by the Garos as the `home of the

Meghalaya
Relief Features



spirit of the death'. The rest of the Garo Hills consists of a tumbled mass of hills whose general tendency is to run north and south with several low hills (peaks) between 400-600 metres.

The central and eastern parts of Meghalaya which comprises the districts of East Khasi hill, West Khasi hill, Jaintia hill, and Ri Bhoi, is a true plateau (14375 kilometres) with its senile topography and flat skyline.

The plateau can be physiographically well divided into three distinct units

1. The Northern undulating hills.
2. The Central upland zone.
3. The Southern precipitous face of the upland.

The northern hills with accordant summits (170-820 metres) gradually slope down towards the Brahmaputra valley and form therefore, the sub-montane region of the Central Meghalaya called the `Ri Bhoi' country by the Khynriam and the Pnars. There are two terraces of peneplain surfaces, one from Khanapara to Jorabat and the other from Byrnihat to Nongpoh. The northern hills are separated from the higher central upland by an important fault line. The alignment of the hills from Nongpoh to Byrnihat is North East to South East. Above 490 metres, most of the hillocks are conspicuous by their flat top character.

The central portion running E-W consists of plateau proper, covers more than one third of the Central and Eastern Meghalaya. Its outer limit is defined by the 1500

metre contour line. The Khynriam and the Pnars people called this plateau as `Ri Lum'. In general, most of these areas consists of the rolling grassy downs, intersected with river valleys and dotted all over with lofted rounded hills with fresh soft turf which from a distance, look as soft as a velvet. The Central upland zone contains remnants of seven peneplaned surfaces ranges from a height of 1500 to 2083 metres, thus preserving the several traces of erosion cycles in this part alone. The Shillong Range (Lum Shyllong) towering above the Shillong city contains the highest peneplaned surface trending E.S.E. to W.N.W. over which the stream meander before plunging into the deep valley of Umiam and Umkhen. The presence of many rapids and waterfalls indicate that this area consists of a youthful topography due perhaps to a recent uplift. This part consists of undulating knoll and gentle slope, and it appears to consist of a small hillock closely knit together. The Shillong Peak, the highest peak of the region (altitude of 1961 metres above m.s.l.) located just to south of Shillong. It is in fact the hilltop raising above the gentle range of such hills of which on the northern side disappear into the Laitkor Hills, where the Laitkor peak is another hilltop. Towards the west of Shillong is a hill called U Diengiei, which rises up to 1823 metres.

The southern face of the plateau locally known as the `Ri War' country consists of the steepest parts of the region. To the south of the Shillong plateau has typical granite topography known as the `Mylliem granite'. Further south beyond Mylliem is a structural platform known as the `Cherrapunjee platform' on which the town Cherrapunjee stands. This part is built of gently dipping sandstone of cretaceous age,

and over its edge located the magnificent Mawsmai waterfalls. This structural platform stand as an escarpment on its face subjected to fluvial erosion due to extremely heavy rainfall as a result of which a number of platforms namely, Cherrapunjee, Langkyrdem, Mawsynram, have been formed. Over the Cherra-platform a number of small rounded hills of limestone of the Eocene age are found scattered, some of which contains small caves with narrow underground passages and characteristic limestone features (e.g., stalactites, stalagmites, and pot holes). From Cherra, the terrain has a gentle slope southward for about seven kilometres and fall rapidly up to Sylhet plain. Towards the Surma valley the abrupt slope in many places has given rise to deep precipices due to heavy rainfall.

It can be seen here that though Jaintia hills is a continuous part of the Central upland but the Jowai upland has a relatively low elevation of a little over 1200 metres. It runs in the East West direction and also acts as a watershed between the Brahmaputra and the Surma valley. The Jaintia hills have more flat lands than Khasi hills.

3.2.3 *Climate*

The region receives a very high rainfall of about 2316-mm annually (Meghalaya has some of the rainiest places in the inhabited world. Cherrapunjee, Mawsynram with an annual average rainfall of 11598.3 mm and 12934 mm, respectively for the year 1990), indicating wet sub-tropical climate, winters are generally rain free and cool,

restricting the growing season to 9-10 months at higher elevations of the plateau (fig 3.2).

Table 3.1
Meghalaya: Rainfall, Temperature, and Humidity-1990

Months	Rainfall in mm	Temperature in C		Humidity Percentage	
		maximum	Minimum	8.30 am	5.30 pm
January	1.7	15.3	7.1	65	91
February	19.3	16.4	7.7	61	76
March	46.8	18.2	9.4	60	77
April	216.2	21.8	12.2	70	75
May	394.8	22	15.5	76	86
June	340.1	24	17.9	85	88
July	113	23.8	18	87	85
August	214	24.2	17.5	86	92
September	191	23.5	17	86	90
October	10.7	21.1	13.6	76	91
November	10.7	21.1	13.6	61	87
December	2.6	16.3	7.7	59	89

Source: Statistical Handbook, Meghalaya, 1992.

As is evident from table.3.1, the region receives rainfall almost throughout the year though the amount is rather heavy during summer i.e., from the month of May to October. Such a heavy rainfall causes high level of soil erosion. This has proved to be a great constraint in the agrarian economy, which has greatly affected the economic potential of the region.

The ecological setting and the agro-climatic conditions of the region do not seem to favour intensive cultivation except in the northern part where plantation agriculture, farming, and Argo forestry can be undertaken with some success.

Meghalaya

Average Annual Rainfall

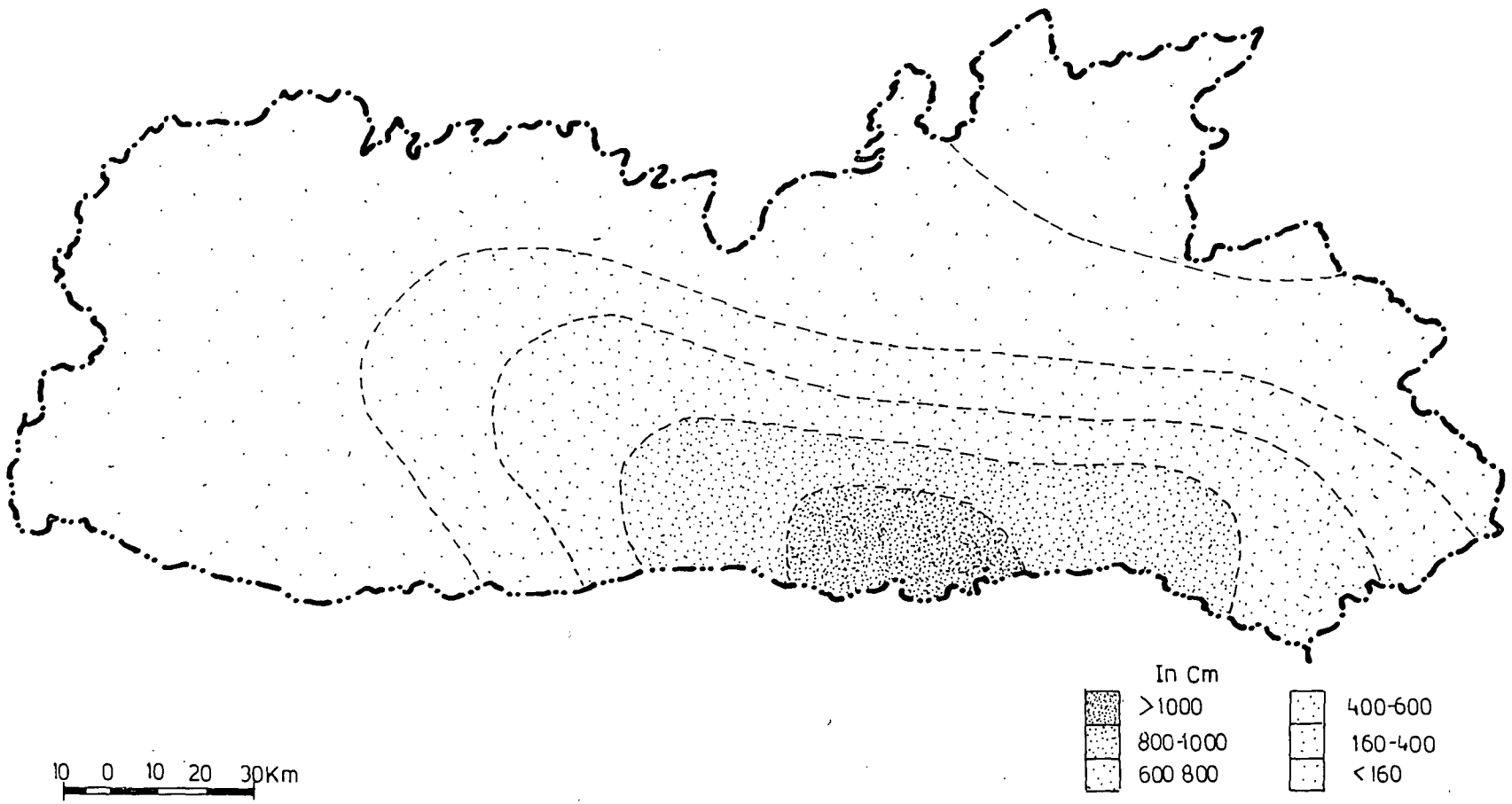


Fig 3.2

3.2.4 ***Vegetation***

The region is rich in its vegetation cover and offers an excellent natural resource base. The vegetation can be broadly classified into the following types.

(a)Tropical mixed evergreen forests:

This is confined to the northern and southern parts of Khasi and Jaintia Hills up to an elevation of 3,000 feet. The vegetation includes trees like Shorea Assamica (sal) vatica lanceafolia (Tita Sopa), Terameles nudifofa (choraneem), Terminalia-bellerica (champa), Ebuklandia (Sesak) etc. Bamboo forests covering considerable areas are also common in northern parts of Khasi Hills and in several parts of Garo Hills.

(b) Tropical deciduous forest:

This predominant type of forests is commonly encountered in Garo Hills. This constitutes *Shorea* (sal) as a single dominant species in several parts. The vegetation cover is characterised by trees like *Shorea, Gunelina, Arborea (Bonsum), anto carpera chaplasa* (a variety of *titasopa*) etc. Several other dominant trees and shrubs are also quite abundant.

(c) Sub-tropical pine forest :

The pine forest is spread all over the Shillong plateau and in the upper Khasi and Jaintia Hills from an elevation of 3,000 feet. It is dominated by pine trees as single vegetation, with a combination of several plants such as *Rhododendron* and *Eboecarpus (Eucaliptus*)

Besides, abundant grassland is also found which is biotic in nature arising from the age-old practice of shifting cultivation. This extends over several kilometres in several directions and usually covers the bare rounded tops of low hills and vales inter spread here and there by small pockets of mixed forests.[4] (Fig 3.3).

3.25 ***River System and Drainage***

The rivers in the Garo Hills make two distinct systems separated by the Central Tura Range, one flowing to the Brahmaputra towards the north, and the other to the south towards Surma valley. The important river that flows to the north towards the Brahmaputra from west to east are the Kalu or Gonal, Ringgi, Chagua, Ajagar, or Didak, Didram, Krishnai, and Kalu are navigable. The important rivers of the southern system are the Darong, Sanda, Bandra, Bhogai, Darang (Nitai), and Simsang or Someswari. Of these, Simsang is the largest river in Garo hills and is navigable.

The drainage system in the Central and Eastern Meghalaya is to a great extent directed by the Central upland zone which acts as a watershed from the river which flows down to the Sylhet plain in the south and Brahmaputra in the north. The rivers which flow to the Brahmaputra are the Khri,Umkhri, Digaru, Umiam, Umran, (fig 3.4), while those of the southern system are the Kynchiang or the Jadukata, Mawpa, Umiew-Umiam, Umiam-Bogapani, Umngot or Maneshbhil, and Myntdu.

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[4] Government of Meghalaya : Department of Forestry, Directorate of Statistics & Economics, Shillong.

Meghalaya
Natural Vegetation

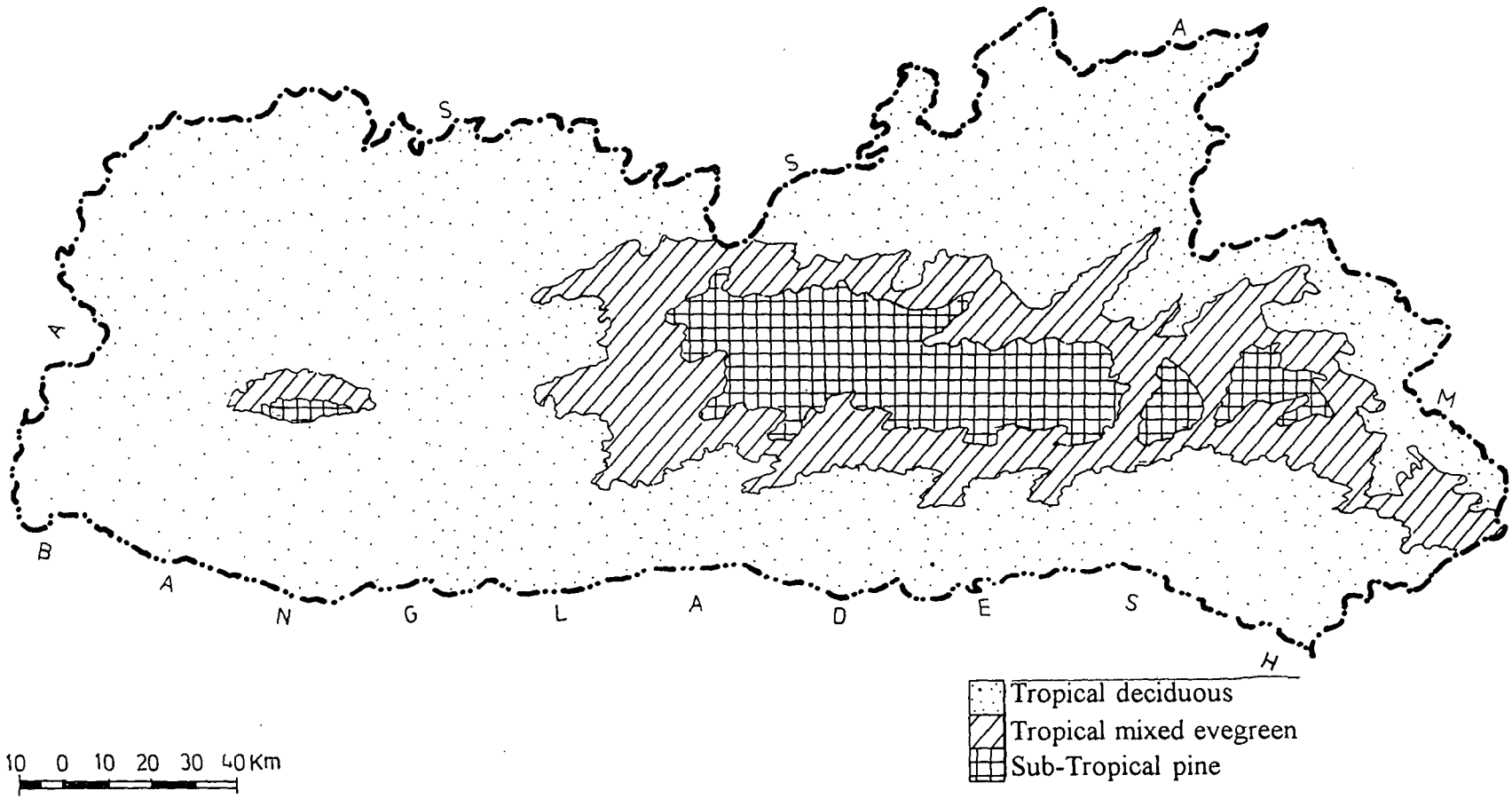

Fig 3.3

Meghalaya

River System and Drainage

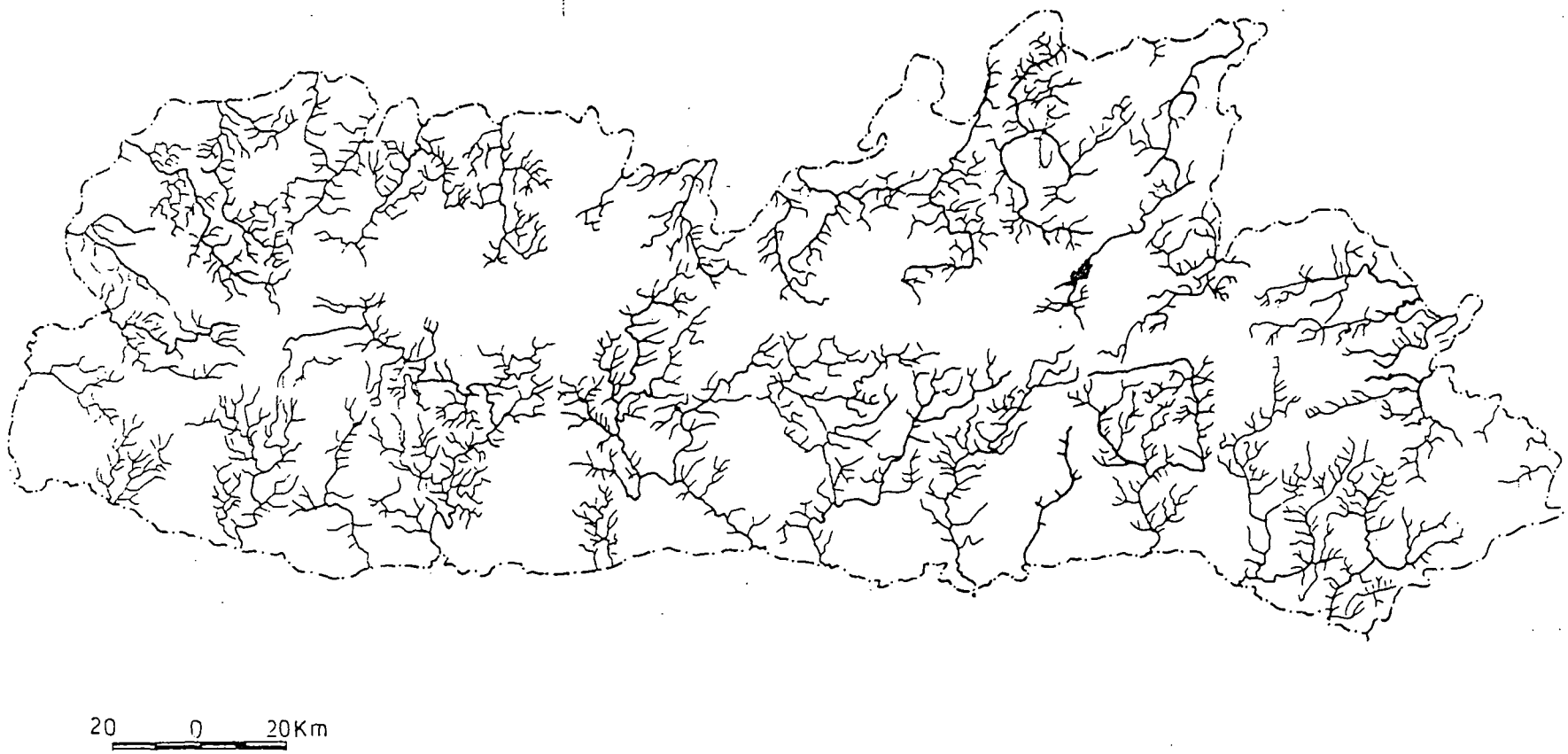

Fig 3.4

The main characteristics of the northern river are that most of them have formed plain embankments at their entrance into the plains, thereby, making the boundary of the northern plateau very irregular. The southern rivers debauch into the plains through ravines in the faulted face of the southern boundary.

3.2.6 ***Physiographic Regionalisation*:**

The study area can be regionalised on the basis of land form, climatic conditions, and the prevalent fluvial processes and the main geomorphic units are as follows (fig 3.5):

1. Northern Hill Region
2. Central Upland
3. Southern Dissected Plateau
4. Western Region

1. *Northern Hill Region*:

The northern hill region exhibits a highly undulating topography, The amount of rainfall decreases towards the north till it touches the Brahmaputra valley. This region is found to be covered with thick vegetation. Nearly the entire landscape bears evidence of erosion rather than that of deposition. The climate is characterised by of heavy rainfall, which favours the action of stream to a considerable extent.

2. *The central Upland*:

It runs in an east-west direction consists of the proper plateau and cover more than one third of the central and southern Meghalaya and covers an area of more than 5000 square kilometres. Its outer limit is defined roughly by 1500 metres contour. The

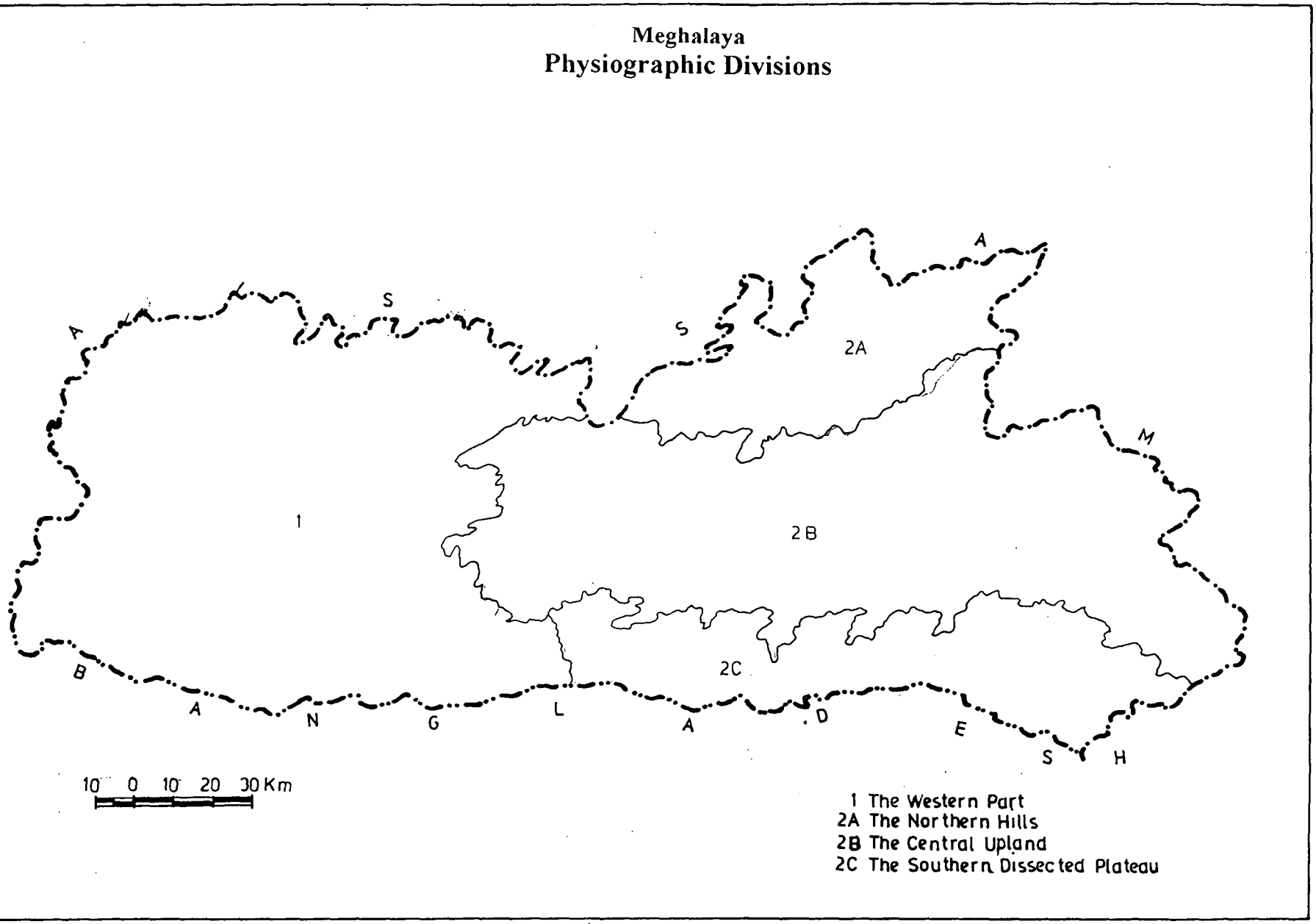
Meghalaya
Physiographic Divisions
1
2A
2B
2C
BANGLADESH
10 0 10 20 30 Km
1 The Western Part
2A The Northern Hills
2B The Central Upland
2C The Southern Dissected Plateau

Fig 3.5

Khynriam and Pnar people call this area "Ri Lum". This zone consists of rolling grassy downs, intersected with river valleys and dotted with rounded hills. The central upland plateau consists of a remnant of seven peneplane surfaces ranging in heights from 1500 metres to 1900 metres. This region receives a typical monsoon climate receiving rainfall in summer season.

3. *The Southern Dissected Plateaux:*

The plateau is located to the south of the Shillong Plateau. This region is at a higher elevation than the northern hills region. The southern face of the plateau is locally known as the "Ri War" country. The southern face of this plateau stands like a wall especially in areas like Cherrapunjee and Mawsynram. This structural platform stand as the escarpment and its face has been attacked by fluvial erosion due to extremely heavy rainfall. Further southwards the terrain has a gentle slope and then fall rapidly towards the plains of Sylhet. The elevation of the plateau generally decreases to the east and the west. The climate in the southern dissected plateau is quite different from that of the northern hills and the central uplands.[5]

4. *The Western Region*:

Garo Hills is an extensively dissected tract of about 8,164 square kilometres with an average elevation of 350 - 600 metres. The western part of this region however is relatively higher situated between 900-1500 metres above the mean sea level. It is a dividing line of the watersheds for rivers or streams traversing northwards and

[5] Rai, R.K. 1986 : *op. cit*, pp. 432-34.

southward direction. Numbers of streams originate from this central part and flow in north and south direction. The Maheshkhola Adajuri is a dividing line between the western part and the central part. The northwestern section gradually merges with the Assam plains.[6] The southern hill slope of the western part begins where the 900 metres elevation ends, and stretches downwards up to Bangladesh plains. Slope gradually decreases till it reaches the plains of Bangladesh. In some areas the slope is found to be very steep especially along the fault line through which Simsang River flows eastward for about 45 kilometres before turning south through a gorge separating Tura range and Kylas range. It ultimately comes down to the plains near Bagmara where it is known as Someswari River. The climate of this area is hot and is characterised by heavy rainfall. Almost the whole of this area is covered with thick vegetation.

3.3 Physical Resources

Depending upon the environmental characteristics of the region, an n analysis of the resource base of the region may be attempted now. Before assessing the resource situation, it may be pertinent to present a brief review of the concept of resources.

3.3.1 *Concept of Resources*

Zimmermann[7] (1933) provided a functional interpretation of resources, which is as relevant today as when first proposed in 1933. He argued that neither the environment as such nor parts of the environment are resources until they are considered to be

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[6] Soren, Paul., 1995: "Geomorphic Study of Tura and the Adjoining Areas, West Garo Hills District, Meghalaya", *M.Phil dissertation (unpublished).*

[7] Zimmermann, E.W., 1933 : *World Resources and Industries*, Harper & Brothers, New York, pp.3-20.

capable of satisfying mankind's needs. Resources thus are an expression of appraisal and represent an entirely subjective concept. In his words, `Availability of human use, not merely physical presence, is the chief criterion of resources. Availability, in turn, depends on human wants and abilities'. (Zimmerman, 1933; 4).

In a revised edition, Zimmerman[8] (1951) elaborated upon this functional interpretation of resources. He stressed that natural resources are dynamic, becoming available to man through a combination of increased knowledge and expanding technology, as well as changing individual and societal objectives. From this position, attributes of nature are no more than `neutral stuff' until man is able to perceive their presence, to recognise their capacity to satisfy human wants and to devise means to utilise them. Consequently resources evolve from a three-way interaction of natural, human and cultural assets. In other words in the frequent quoted words from his study, `Resources are not, they become; they are not static but expand and contract in response to human wants and human action'. (Zimmermann: 1957)

3.3.2 *Resource situation in the tribal areas*

The tribal population in most part of the country is largely concentrated in those areas, which are hilly, forested, too arid, or marshy, generally negative from the point of view of settled agriculture. However, these areas were or are rich in forest and mineral resources but remain awfully underdeveloped as a consequence of low level of utilisation of the available of their natural resources or their draining out to other areas.

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[8] *Ibid*

The social underdevelopment in tribal areas took place as a consequence of these areas remaining immune to changes around them and had little or no exchange between one group and the other (except in the weekly market). The isolation in the tribal belt, both geographical and social, has been the major cause of low economic development of the region leading to stagnation of the economy.

For centuries, the hill communities in the northeastern part of India particularly in Meghalaya have lived in a cul-de-sac. They have been able to adapt themselves with the environment in their respective habitat in the form of simple social and technological development. Their interaction with the rest of the country has been marginal, only in the form of trade and commerce. It has been found that the economic base of the region is in the hands of the native people, but with the penetration of the British Rule. They only brought Indian economy within the ambit of the world market and this area became a centre of isolation.[9]

This social set up in this tribal area began to change after the introduction of an alien system of administration during the colonial times. The mind of the tribals began to change from the mind of preserving the natural resources to plundering all the natural wealth including forest wealth. The practice of irrigation method began to change towards cash crop cultivation after the introduction of the market economy.

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[9] Misra,B.P.1979: "Agrarian Relations in Khasi States",*Eco. & Pol. Weekly*, Vol. XIV., pp.88-92.

The consequences of all this progress are not far to guess. Within the span of a century the vast forest wealth has dwindled, the mineral wealth nearly exhausted, the water resources are wasted without any avenues of irrigation use or water power generation.

It is generally agreed that the tribal region has three `viable resources' namely, land, water, and human. It is the ingenuity of the people that determines the manner in which these resources are used. Needless to say, man is the ultimate producer and consumer of resources. The region fortunately is not yet over-populated. The colonial intervention in the tribal areas and the consequent changes in the resource situation in tribal areas in the past have its implications for the present too. Varying resource potential and the depletion of available natural resources in some areas disturbed simple man-nature relationship in this hilly environment forcing population redistribution through migration. Colonial transport system and urbanisation played a key role in the process of resource depletion as well as migration. It may be pertinent now to get an insight into the nature of available natural resources in Meghalaya.

3.3.3 *Forest Resources*

Excessive rainfall and wet climate has endowed the region with thick cover of sub-tropical rain forest, rich in species diversity. The forests of Meghalaya cover an area of 8510 kilometres of which 42.3 per cent of the total area is covered with forest.

Table-3.2 gives the percentage of forest cover in different C.D. Blocks for the year 1981 and 1991

Table 3.2

Meghalaya: Percentage of Area Under Forest (Block Wise)

Block	Total Reporting Area	Forest Area	Percentage	Forest Area	Percentage
		1981		1991	
Mairang	98,900	42,020	42.49	42,101	42.48
Mawkyrwat	1,25,300	44,602	35.6	44,544	35.55
Nongstoin	1,62,400	1,21,109	40.33	62,990	38.79
Mawshynrut	1,28,100			58,023	42.02
Mylliem	20,300	4,330	21.33	5,404	26.62
Mawphlang	24,900	8,753	35.15	9,431	37.52
Mawsynram	62,300	24,320	39.04	25,785	41.39
Mawryngkneng	29,300	10,600	36.18	11,520	39.32
Mawkynrew	35,500	14,435	37.85	14,496	40.83
Shella	57,800	20,760	35.92	21,748	37.63
Pynursla	50,500	16,450	32.57	17,729	35.11
Nongpoh	1,15,300	28,390	24.62	38,385	33.29
Umsning	1,22,500	32,940	26.89	45,543	37.18
Laskein	71,600	30,060	41.98	12,170	31.17
Thadlaskein	63,100	23,978	38	34,470	38.45
Amlarem	39,800	15,780	39.65	13,700	34.42
Khliehriat	2,06,600	92,640	44.84	91,815	43.19
Rongjeng	88,500	40,458	45.72	43,456	49.1
Songsak	70,300	29,651	42.18	32,648	46.44
Resubelpara	46,800	16,160	34.52	19,150	40.92
Samanda	54,700	24,676	45.11	27,672	50.59
Rongram	82,400	33,375	40.5	33,929	41.18
Dadengiri	1,06,100	48,270	45.49	54,447	51.32
Salsella	48,100	15,290	31.79	18,360	38.17
Betasing	38,100	9,750	32.39	11,794	39.18
Dalu	66,300	30,500	46	33,049	49.85
Ziksak	35,800	11,000	30.73	12,658	35.36
Chokpot	71,200	33,975	47.72	35,157	49.38
Bagmara	55,800	24,150	43.28	27,627	49.51
Rongara	58,700	38,225	65.12	39,436	67.18

Source: General Landuse Statistics at C.D. BlockLevel, Meghalaya, 1980-81 & 1990-91.

N.B. (Mawshynrut and Nongstoin fall under the same block in 1981)

It is evident from the table 3.2 that the forest cover accounts for more than 67 per cent of the total geographical area in the Rongram C.D.Block, which accounts for the highest percentage of forest cover in the state. The forest cover ranges from 45 to 60 per cent in seven C.D.Blocks. They include Dalu, Dadengiri, Samanda, Songsak, Rongjeng, Resubelpara, Chokpot, and Bagmara. The forest cover ranges from 30 to 45 per cent in most of the C.D.Blocks in East and West Khasi hills and Jaintia hills district. Very little forest cover is left in the Mylliem C.D.Block where the area under forest cover is as low as 26.62. per cent.

The areas under reserve, protected, and unclassed forest cover are 980.63, 12.39 and 8503.02 hectares respectively. The following table provides an idea about the rich variety of species available in the forests of the region. Figure 3.6 shows the distribution of forest in the region.

Table 3.3
Meghalaya: Classes of Tree Species

Category	Specific Type
Class I	Sal, Bol gamari (dieng laphiang), Bonsam, Gogra, (makri sal) Nahar.
Class II	Red pine, (Dieng seh saw), Hollock, Patami, Samsuri, Toon, (dieng bti) Mango, Simul, Jackfruit.
Class III	White pine, Birch, Hingri, Kokhan, Acer horse chest nut, (Aesulus) Champa, (Dieng rai).
Class IV	Ahi, Sida, Jurul, Halden, Taxus, Naksaisal, Rongipoma
Class V	Bhela, Pinchola, Bespal, Bajrang, Choraneem, Jhingan, Boolok
Others	Tezpata (Latyrpad), Wild pepper (Sohmarit khlaw), Broom stick (Synsar), etc.

Source: District Council Office, Meghalaya, 1991.

Of the above classes of species Category II and I comprise of the most valuable resources of high economic value, used mainly as building material and furniture.

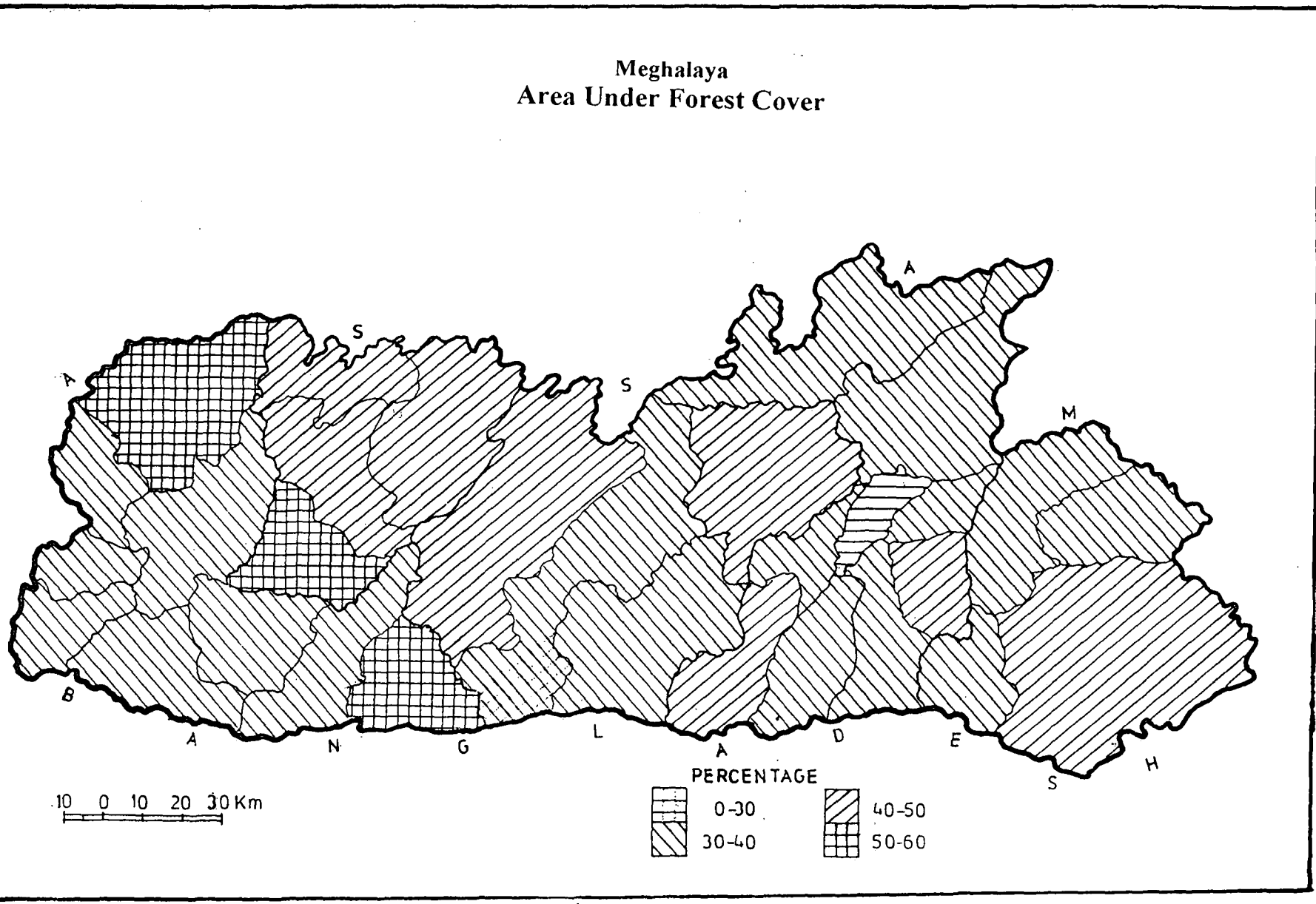
Meghalaya
Area Under Forest Cover
A S S A M
B A N G L A D E S H
10 0 10 20 30 Km
PERCENTAGE
0-30
30-40
40-50
50-60

Fig 3.6

In general, an extensive cover of forest covers a major portion of the area. That there is an increase in the area under forest cover in recent years is reassuring. It is clear from the table 3.2 that Umsning C.D. Block registered an increase of 10.81 per cent to its forest cover during the 1981-1991 decade. Nongpoh C.D. Block too had an increase of around 9 per cent of its total forest cover. Other C.D. Blocks showed an increase of around 5 per cent of forest cover. On the other hand, Amlarem, Laskein, and Khliehriat, recorded a decline in the area under forest cover, the decline varying from -5.23, -10.81, and -1.65 per cent respectively. Such a decline in the area under forest is largely due to felling of trees and lying close to the coal belt.[10]

3.3.4 *Shifting Cultivation*

The subsistence nature of agricultural production is indicated by a reference to the extent of dependence of population on Jhum cultivation.[11] According to 1981 census, (data not available for 1991) nearly a fifth (19.23 per cent) of the total population of Meghalaya is dependent on Jhum. Table 3.4 reveals that the dependence on Jhum is much higher in certain areas of Meghalaya.

A cursory look at the table 3.4 reveals the extent of concentration of Jhum dependent population. More than 50 per cent of the population in East and West Garo

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[10] Most of the forest in Meghalaya are privately owned, data on private forest have not been properly assessed by the Forest Department. Therefore, reliable data are not available.

[11] The general practice in Jhum or shifting cultivation is to clear a piece of forest land each year, cultivate it continuously for two or three years and after exhausting the soil fertility leave it idle for six to ten years before a second cultivation. The estimated area cleared in Meghalaya varies from 40 to 50 thousand hectares, with some 60 to 70 thousand families dependent on it and with an average one hectare area per family.

Hills practice Jhum. The extent of dependence in all the C.D.Blocks of Jaintia hills as well as East and West Khasi hills is less than 25 per cent.

Table 3.4

Meghalaya: Percentage of Population Dependent on Jhum Cultivation 1987

Percentage of Household Dependent on Jhum	East Khasi Hills	West Khasi Hils	East Garo Hills	West Garo Hills	Jaintia Hills	Meghalaya
0-15	12 (80)	4 (80)	-	-	4 (80)	20 (50)
15-30	1 (13.3)	-	2 (50)	3 (27.7)	1 (20)	8 (20)
30-45	1 (6.0)	1 (20)	1 (25)	4 (36.6)	-	7 (17.5)
45-60	-	-	1 (25)	2 (18.8)	-	7 (7.5)
60	-	-	-	2 (18.8)	-	2 (5)
Total	15	5	3	11	5	40

Source: North Eastern Geographer, Vol. 19, No. 1 & 2.

At the district level, the extent of variation in jhum dependence is not clearly brought out, but at the block level; the pattern shows considerable areal variation. In Khasi Hills, the share of population engaged in jhum is only 15 per cent. However, in Bhoi area (Presently Umsning Block), 30 to 45 per cent of the population practices jhum as the dominant agricultural method.

The pattern in East and West Garo Hills is more revealing. A very large section of the population (about 50 to 60 per cent) is engaged in jhum (Table-3.4). This is indicative of a highly subsistence nature of production. In general, the spatial pattern of jhum dependence in Meghalaya leads to the following conclusions:

i. The dependence on jhum increases with distance away from the urban areas (fig.3.7). This is probably due to requirements of the city to which the neighbour-

Meghalaya

Percentage of Households Depending on Jhum

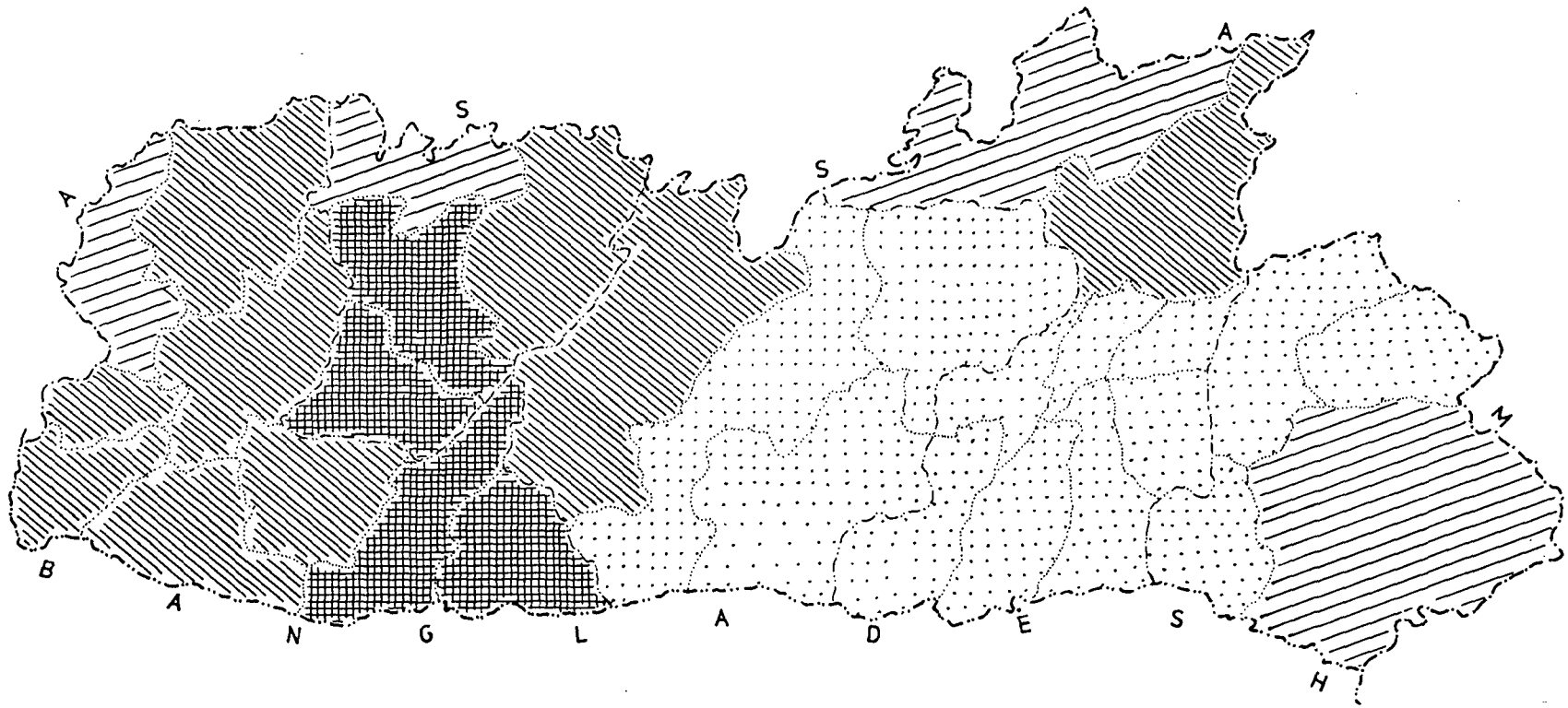


Fig 3.7

ing rural areas have responded by a relatively more intense cultivation of land and changes in the cropping pattern.

ii. The percentage of jhumias is very low in East and West Khasi hills in comparison to the other districts. This may be due to the urban influence, particularly in the East Khasi Hills, where the urban agglomeration of Shillong accounts for nearly half of the urban population in the state.

A large percentage of population continues to pursue shifting cultivation, which not only yields very low output but also limits cultivable land to a large extent.

3.3.5 ***Area Under cultivation***

The table given below provides information about area under cultivation.

Table 3.5

Meghalaya: Percentage of Net Sown Area in 1981-1991

% Net Sown Area	Number of Blocks	
	1981	1991
< 5	5	4
5 to 10	13	8
10 to 20	8	15
> 20	3	3
Total	29	30

Source: General Landuse statistics at C.D.Block Level, Meghalaya.

N.B. Mawshynrut and Nongstoin falls under the same block in 1981.

The nature of topography of the plateau of Meghalaya generally rugged and undulating is largely unsuitable for extensive cultivation. The net sown area is only

9.44 per cent of the total geographical area in the state. The proportion of the net sown area is less than 5 per cent in less than four blocks namely Amlarem Rongara, Nongstoin, and Mawshynrut, and 5 to 10 per cent in eight C.D.Blocks. The proportion varies from 10 to 20 per cent in as many as 15 blocks while only three blocks in the West Garo Hills district record over 20 per cent area under net sown area (fig 3.8).

3.3.6 *Cropping Pattern*

The cropping pattern in the state is largely in favour of cereals particularly rice.

Table 3.6

Meghalaya: Percentage Area Under Principal Crops

Crops	1985-86	1988-89	1990-91
Total area under different crops (ha.)	19400	203107	202041
Total rice	110987 (60.31)	104400 (51.40)	104364 (51.65)
Wheat	43.36 (2.23)	4660 (2.29)	4214 (2.08)
Maize	17700 (9.12)	18500 (9.11)	18552 (9.18)
Other cereals	2645 (1.36)	3100 (1.52)	2962 (1.46)
Total pulses	26.75 (1.37)	3200 (1.57)	3198 (1.58)
Total oilseeds	7956 (4.10)	7829 (3.85)	7996 (3.95)
Other crops	138343 (71.31)	133800 (65.87)	133290 (65.97)

Source: Statistical hand book, 1992.

Cropping pattern in the state of Meghalaya is a reflection of the subsistence economy prevalent in this hilly state. The dominance of food-grains is due to the fact that agriculture marketing system is absent in the state. Agriculture in most of the areas of Meghalaya largely consists of the individual farmers producing only for its subsistence. It is clear from the table.3.5 that cereals like, rice, wheat, maize, occupy most of the cropland. Together, cereals account for 70 per cent of the total cropped

Meghalaya
Net Sown Area

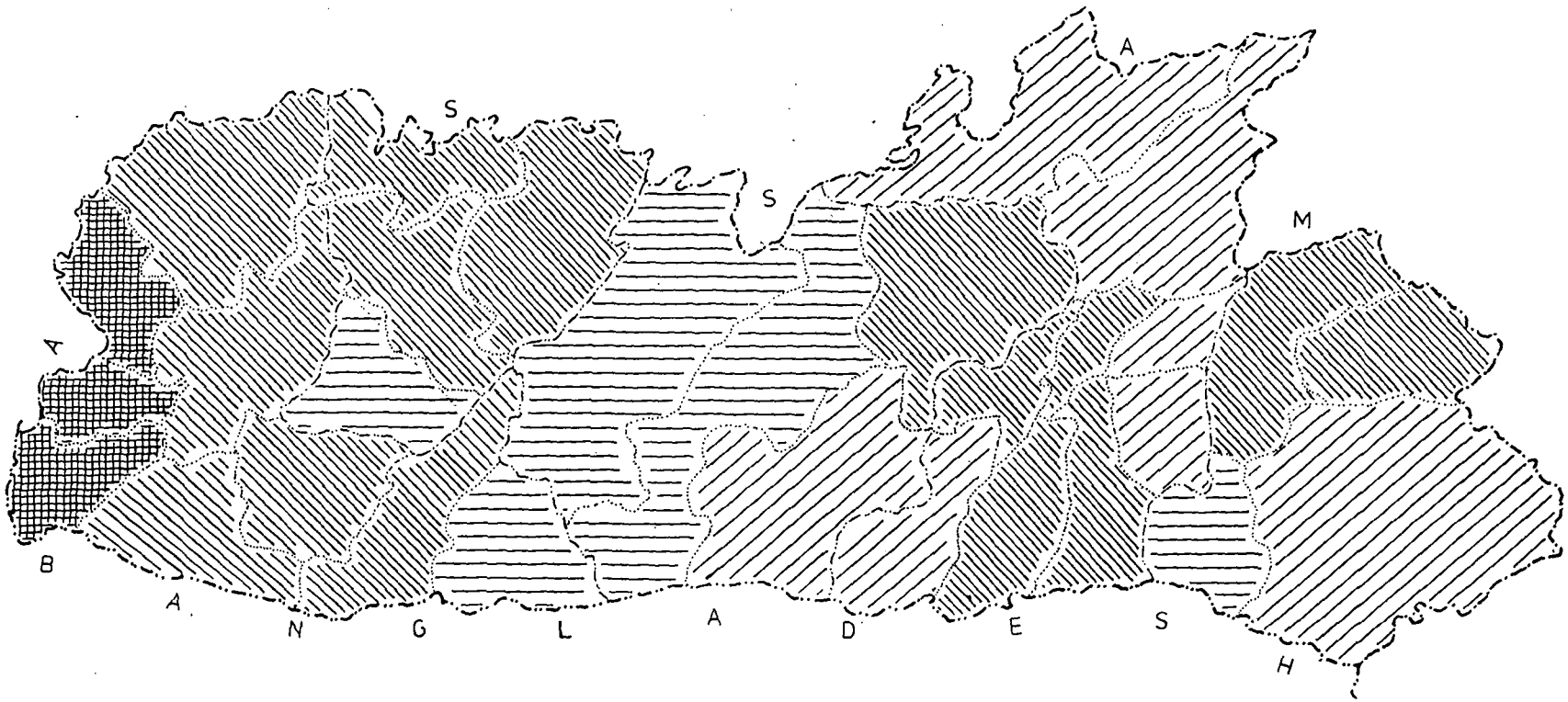


Fig 3.8

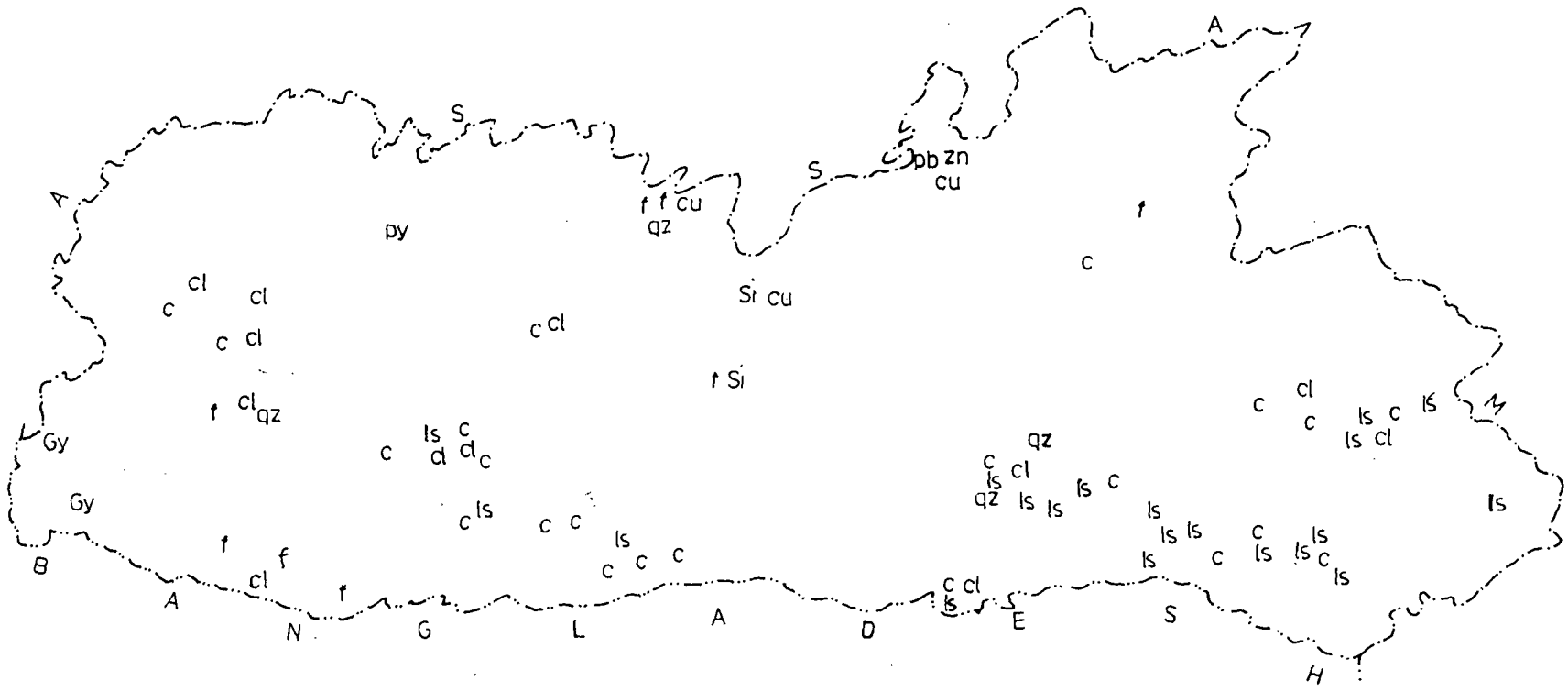
area. Rice constitutes as the single most dominant crop accounting for over a half (i.e. 51.65 per cent) of the cropped area in 1990-91. Total acreage under pulses is negligible. Oil seeds of different kind constitute around 3.95 per cent of the total cropped land. The Argo-climatic conditions favour the cultivation of vegetables like potato, ginger, turmeric, etc and tropical fruits such as pineapples are also very important. However, cultivation of winter crops such as vegetables seems to be a response more to the growing needs of an urban population.

3.3.7 *Mineral Occurrences*

The entire geological setting of Meghalaya comprises of sand and shalestone of the late tertiary period. With the presence of a folded topography, the area suggests that there is a large mineral potential. This is represented by a relative succession of Archean and pre-sediments surrounding the plateau which represent the oldest geological formation in the region. Mineral investigations in the state have been rather sketchy and have ended only with report occurrences. (Fig 3.9). Of the many economic minerals reported in the State, coal, limestone, silimanite and clay are perhaps, the best known. There are also reported occurrences of uranium deposits in the state.

The reserves of coal in the state based on preliminary surveys comprise a little over 500 million tonnes, forming only 3 per cent of the total coal reserves of the country. The estimated present production is about 1.5 lakh tonnes annually; some of it is consumed locally in Cherrapunji cement factory, while a major part goes down to the plains of Assam and Bangladesh.

Meghalaya
Distribution of Mineral Resources



10 0 10 20 30 Km

Abbrevations

Cl - Clay, C - Coal, Gy - Gypsum, Cu - Copper, f - Fossil localities, py - Pyrite and pyrrhotite, Qz - Quartzite and Glass Sand, pb - Lead, Zn - Zinc

Fig 3.9

The entire Bangladesh border with Meghalaya provides a thick wall of limestone deposit with total reserves of 3000 million tonnes. The present annual production of limestone available in the state is of a very high grade and runs into the metallurgical and chemical grades. A large quantity of limestone is exported out from the state catering to the national and international needs.

One of the best sillimanite in the world is found around Sonapahar in Western Khasi Hills. The high alumina and silica contents of these deposits make this mineral a natural refractory material of great commercial value. About 95 per cent of India's total reserve of silimanite are found in the state with an annual production of 3000 tonnes.

Extensive deposits of good clays totalling over 80 million tonnes are in inferred category. These occur in various parts of the state, the major occurrence being in Garo Hills.

Meghalaya also has extensive deposits of uranium, which is found in West Khasi Hills.

Besides, Meghalaya also abounds in building materials such as granite, quartzite, hard sandstone and basic rocks like Khasi greenstone, dolorite, and granite etc.

3.3.71 ***Regional Distribution***

However, most of these resources are only estimates and are yet to be exploited.. However, with the attainment of statehood and the consequent opening up of more roads and with the availability of technical skill hopes have been raised about increased production. The overall production and output at present remains at a very nominal level as evident from the table below.

Table 3.7

Meghalaya Production of Minerals (1987)

District	Minerals (in 000 tonnes)			
	Coal	Limestone	Silimanite	Clay
Jaintia Hills	1321 (91.2)	-	-	-
East Khasi Hills	8 (.55)	224 (100)	-	-
West Khasi Hills	35 (2.44)	-	3.9 (100)	-
East Garo Hills	-	-	-	-
West Garo Hills	4 (0.27)	-	-	1.2 (100)
Meghalaya	1448	224	3.9	1.2

Source: Directorate of Minerals,Meghalaya.

Coal comprises the most important resource of the region. Out of the five districts, Jaintia Hills contributes a major share of 91.2 per cent of the total amount. The remaining four districts together contribute only 8 per cent of the output. The limestone mines are mainly concentrated in the northeast section of East Khasi Hills district. Of the total output, the entire reserve is found in East Khasi Hills. Mineral output of the state of Meghalaya does not contribute to basic requirements like that of natural gas or petroleum etc, and the demands are met with imports from other states (Fig. 3.9).

3.4 **Human Resource**

The extent of physical resources available needs to be viewed in association with the quality of human resources. In this section an attempt is made to assess the human resource base of the study area.

3.41 ***Structure of the Workforce:***

In spite of a poor agricultural base, agriculture absorbs much of the labour force in Meghalaya and consists of more than 80 per cent cultivators in combination with the agricultural workers in the rural areas. Table 3.8 shows that an average of 44 per cent of the population is engaged in work and the main workers constitute nearly half of the population in Rongram, Mawshynrut, Khliehriat, Thadlaskein, and Songsak C.D. Blocks. The low proportion of workers can be seen in Mawsynram and Mylliem C.D. Blocks with the share of 35.22 and 36.77 per cent respectively in the East Khasi hills district. Salsella C.D. block in West Garo Hills accounts for 35.7 per cent of the total workers (fig.3.10).

Table 3.8
Meghalaya: Structure of Workforce, 1991

District	Percentage of main workers	Percentage of cultivators	Percentage of agricultural labourers	Percentage Livestock forestry	Percentage Mining Quarrying	Percentage Manufact. I	Percentage Manufact. II	Percentage Others
Jaintia Hills	46.5	59.2	15.18	3.36	0.99	0.2	1.14	19.92
E.K.Hills	44.18	27.57	12.85	15.62	1.02	0.5	3.48	38.84
W.K.Hills	44.18	72.95	1.86	0.57	0.12	0.13	0.77	9.95
E.G.Hills	40.43	84.04	4.63	0.36	0.007	0.2	0.4	10.35
W.G.Hills	41.33	70.15	12.24	0.94	0.29	0.59	0.77	15.01

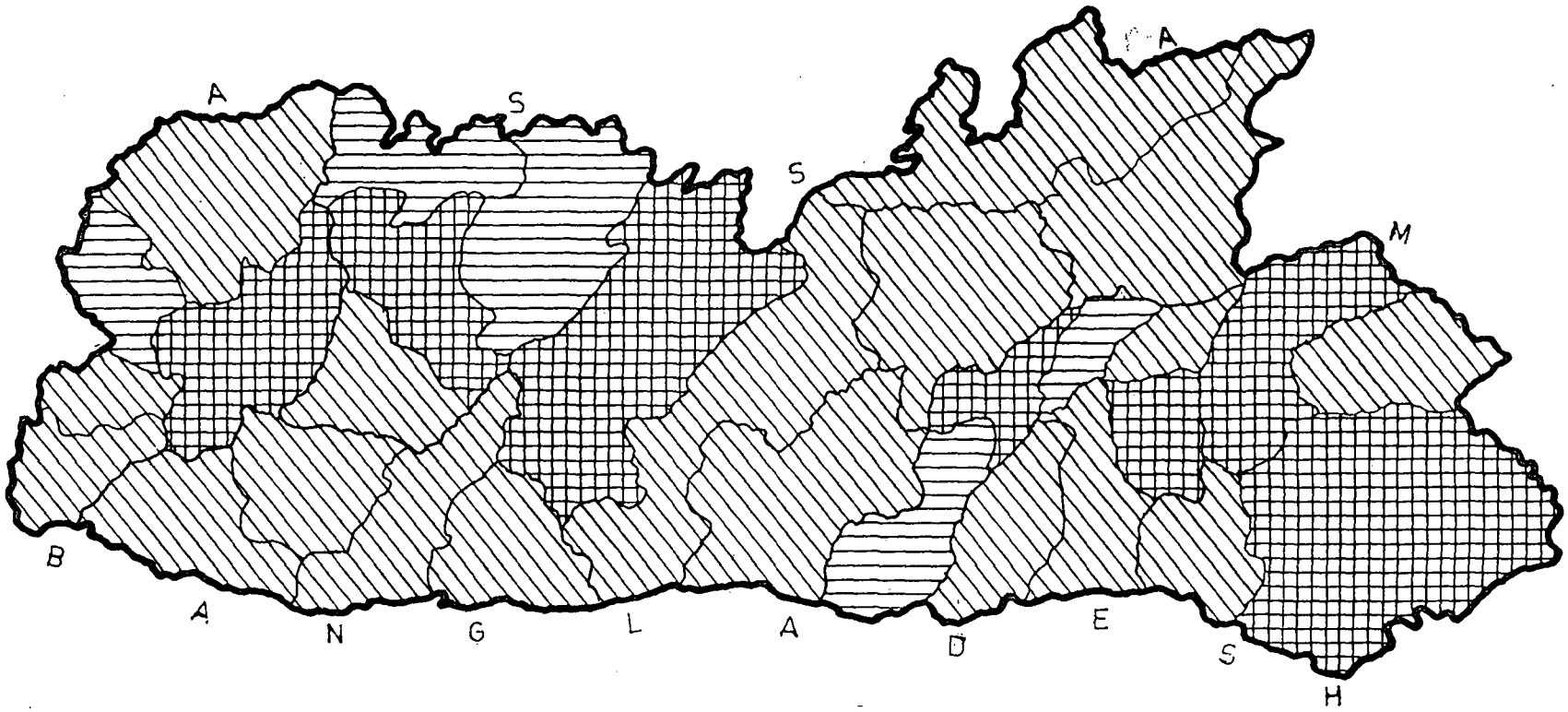
Source: Statistical Handbook, 1991, Meghalaya.

The structure of the workforce at the district level shows a high degree of variation. The cultivators account for over 70 per cent in the three districts of East Garo Hills, West Khasi Hills and West Garo Hills, whereas Jaintia Hills and East

Meghalaya

Distribution of Main Workers

1991



Khasi Hills have shown a low percentage of 59.20 and 27,57 per cent respectively. Surprisingly, agricultural labourers account for less proportion in East Garo hills and West Khasi Hills (i.e., only 4.63 and 1.86 per cent respectively). The proportion of agricultural labours is relatively high in Jaintia Hills with 15.18 per cent, East Khasi Hills 12.85 per cent and West Garo Hills 12.24 per cent. The other categories of workers, which are considered as others, are mainly that of services, business, and labourers. The percentage in this category of workers is high in the district of East Khasi hills, Jaintia hills and West Garo hills where it touches upto 38.94, 19.92, and 15.01 per cent respectively. Workers in the other categories are negligible except in the East Khasi hills district where the share of workers under livestock and forestry is 15.62 per cent.

The structure of the workforce at the Community Development Block level shows a high degree of spatial variation. This can be seen from the fact that Thadlaskein, Khliehriat, Mawphlang, Mawkynrew, Mawphlang, Mawshynrut, Songsak, and Rongram have more than 45 per cent main workers. The main workers are fewer in Community Development Blocks of Salsella, Dambo Rongjeng, Mawsynram where they constitute 35.7 and 37.18, 35.02, per cent respectively. The percentage of cultivators is higher in most of the Community Development Blocks i.e. 92.73 in Songsak, 89.0 in Mawshynrut, and 87.05 per cent in Rongram. Proportion of cultivators on the other hand is low in the Community Development Blocks of Pynursla with 1.21 per cent, Shella Bholaganj with 9.36 percent, Mawkynrew 15.40 per cent, and Mylliem with 7.29 per cent.

Agricultural labourer segment hardly crossed 15 per cent in all the blocks except Mawphlang where the percentage is as high as 37.48 per cent. Livestock, forestry activities seem to dominate in three Community Development Blocks namely Mawkynrew (69.33 per cent) Pynursla (66.09 per cent) and Shella Bholaganj (32.59 per cent). Mining and quarrying is an important activity only in Shella, Bagmara, and Amlarem Community Development Blocks, where over 2 per cent of the main workers are engaged in this activity.

3.4.2 *Tribal Population*

Tribal communities (i.e. the Scheduled Tribe Population) of the region display a very interesting profile in the concentration of population in the state. The Khasi people (Khynriam, Pnars, Bhoi, and Wars) chiefly populate the districts of East and West Khasi Hills and mainly the Garo communities populate Jaintia Hills and the Garo Hills. These tribal groups of Meghalaya constitute an important segment of the state's population differentiating their responses-economic, social and cultural- depending upon local variation in the environmental attributes of their respective habitats.

The 1991 Census recorded a total of 15,17,927 persons belonging to the category of scheduled tribes in Meghalaya. They accounted for about 86 per cent of the state's population. By 1991, the strength of the scheduled tribe population has increased to a certain extent. This is mainly due to natural increase in the growth of population and also partly due to immigration from other states.

It is clear from the table.3.7, and fig 3.11 that the concentration of tribal population is very high in the Mawkynrew community block supporting around 95 per cent of the tribal population. The Community Development Blocks of Chokpot, Mairang and Mawryngkneng, (with 99.3, 99, 99.62 and 98.42 per cent, respectively), have nearly the entire population consisting of the Scheduled tribes. The areas of relatively low concentration of tribal population are Mylliem, (59.70%). Selsella (55.3%) Zikzak (70.4%) and Dalu (87.7%) C.D. Blocks.

3.4.3 ***Demographic characteristics:***

The demographic aspects are characterised by a high level of unevenness in the distribution of population across the regions. More than half of the population is clustered in and around eight blocks i.e., Mylliem, Mawphlang, Mawryngkneng, Thadlaskein, Resubelpara, Selsella, Betasing and Ziksak community development blocks. There are some similarities among the blocks in the central plateau i.e., Mylliem, Mawryngkneng, and Thadlaskein. Favourable climate, location of urban centres and easy accessibility are some of the main factors for a high concentration of people in this area. The other areas viz. Resubelpara, Selsella, Betasing, and Ziksak too have attracted a large concentration of population. These areas are by and large coterminous with the plains of the Brahmaputra valley with an average altitude of 150 metres. This area is very fertile supporting prosperous agriculture lands and easy accessibility with other areas in the plains.

Meghalaya

Distribution of Rural Scheduled Tribe Population 1991

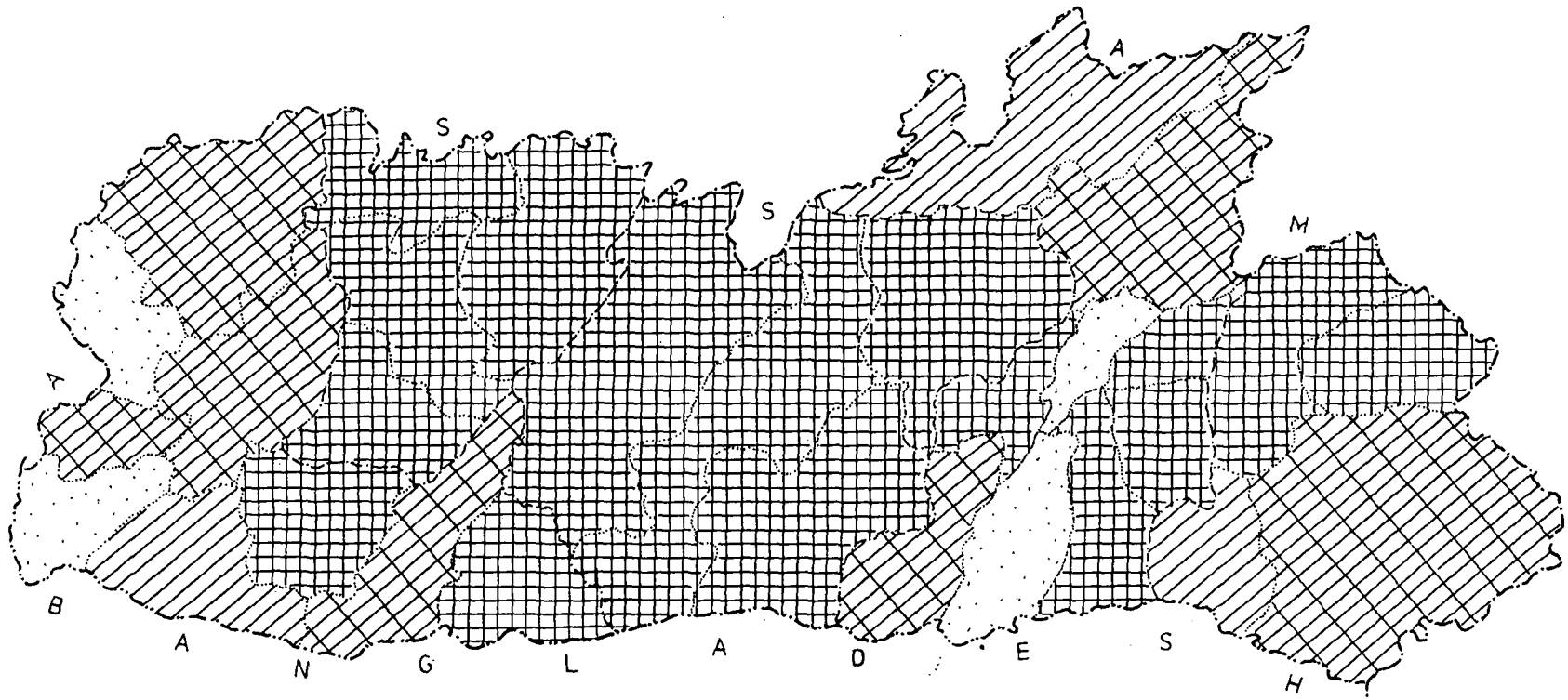


Fig 3.11

Moderate concentration of population is confined to 19 blocks widely distributed in the state. Most of these blocks are situated at an elevation of 450-1500m. Much of these areas are still covered with thick vegetation. However, blocks like Dadengiri, Nongpoh, and Bhoi-area have attracted a large concentration of population in the recent years. The sparse concentration of population is confined to four blocks, i.e., Rongara, Nongstoin, Mawkyrwat, and Khliehriat. These Community blocks are away from the main areas of attraction. They are the least developed with no proper roads and other such infrastructure facilities; most of these areas are still covered with thick vegetation.

3.4.4 ***Density:***

Meghalaya has an average density of 79 persons per square kilometres and can easily be classified as one of the high-density areas in hilly and mountainous tracts of the country. Mylliem block where the capital of Meghalaya, Shillong is situated is most densely populated with an average density of 1367 persons per sq. km. Besides, blocks like Mawphlang, Betasing, Selsella, Ziksak, Mawryngkneng, Thadlaskein display relatively high density. (Fig 3.12).

3.4.5 ***Literacy:***

Literacy is believed to be one of the most important parameters of socio-economic transformation as it paves the way for the attainment of the objectives of so-cio-economic development. However, it has been generally observed that the responses to literacy attainment in this state are not uniform across space or

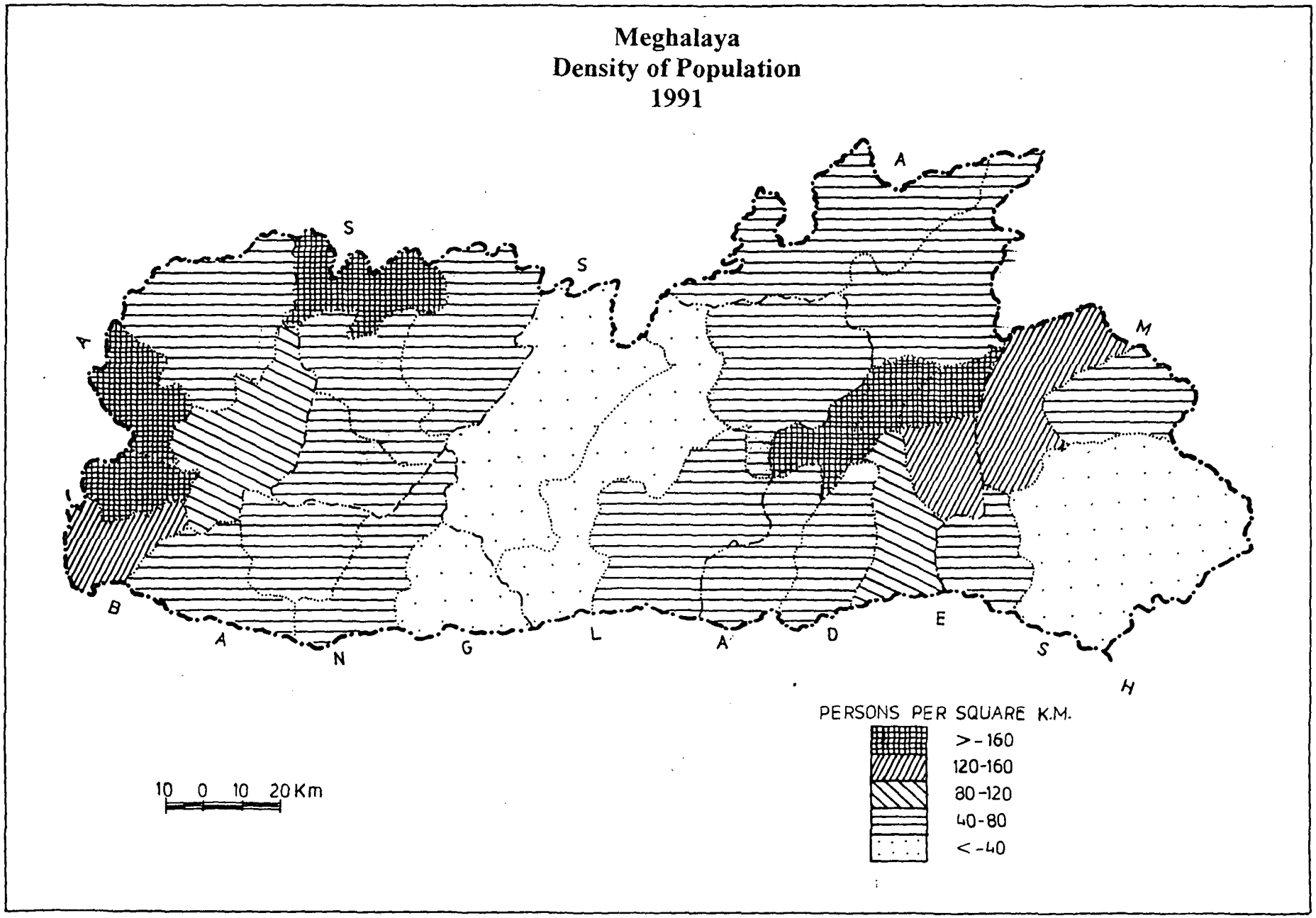

Meghalaya
Density of Population
1991
A
S
S
A
M
B
A
N
G
L
A
D
E
S
H
PERSONS PER SQUARE K.M.
>-160
120-160
80-120
40-80
<-40
10 0 10 20 Km

Fig 3.12

homogeneous in its social coverage. The levels of literacy depend on many factors, which ranges from physical constraints to structural disability imposed by socio-economic order.[12]

In a hilly state like Meghalaya where the subsistence economy still dominates and there is a lack of large surplus generation, constitutes a serious structural impediment in the universal spread of education. The working population by and large remains tied to the land and other resources with primitive technology and they do not feel the necessity of reading and learning as an aid to economic practices and development.

At the district level, literacy rates show a wide variation not only across the districts but also among the males and the females. Table 3.9 reveals that East Khasi hills district has the highest literacy of 60.04 per cent, followed by West Khasi hills district with 50.52 per cent. However, Jaintia hills district shows a very slow response to literacy (fig 3.13).

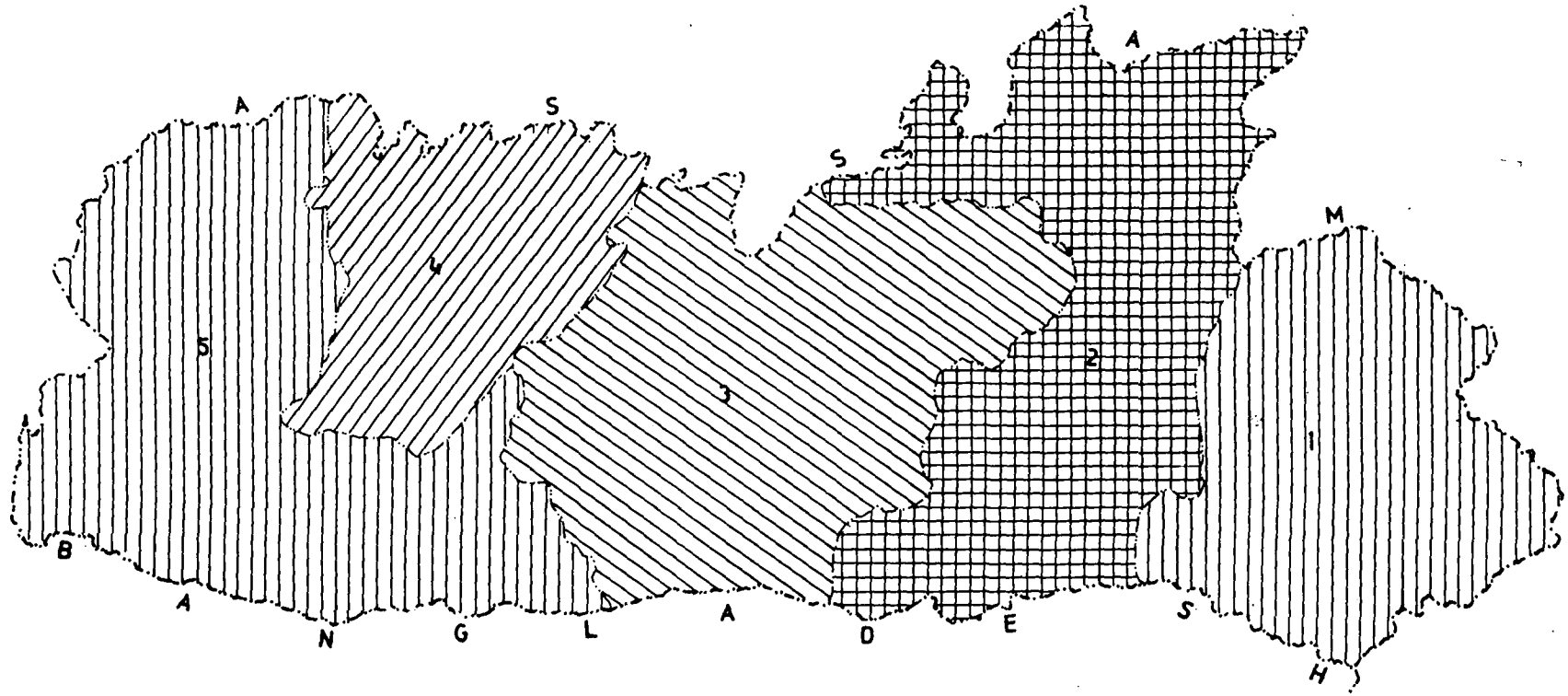
Table 3.9
Meghalaya: Percentage of Literates 1991.

District	Person	Male	Female
Jaintia Hills	35.32	34.37	36.31
East Khasi Hills	60.04	62.86	57.04
West Khasi Hills	50.52	52.98	47.94
East Garo Hills	48.38	54.7	41.7
West Garo Hills	39.32	46.93	31.32
Meghalaya	49.1	53.12	44.85

Source: Census of India, Meghalaya 1991.

[12] Almond D. Syiem1 996 : 'Determinants of Spatial Patterns of Literacy in Meghalaya-A Socio-Geography Analysis', *M.Phil. Dissertation (Unpublished).*

Meghalaya
Literacy Rate
1991



District

1. Jaintia Hills, 2. East Khasi Hills, 3. West Khasi Hills,
4. East Garo Hills, 5. West Garo Hills

Fig 3.13

In the case of males and females, the pattern remains identical where the literacy rate among women in Jaintia hills exceeds that of the men. In the other districts the literacy rate among males is above the rate recorded by their female counterparts. The districts having a low percentage of literacy show a higher female literacy rate. In the remaining, it shows higher a disparity with respect literacy rates among the males and the females.

The extent of spatial variations in literacy level is clearly revealed at the block level. Table 3.9 shows that C. D. Blocks in Jaintia hills and West Garo hills show a very low percentage of literacy and most of the blocks in these districts record less than 40 per cent literate. Most of the blocks located in the southern part of the state bordering Bangladesh are having a very high literacy rate i.e. more than 45 per cent literate. In quarter of the C.D. blocks distributed over Jaintia hills, Khliehriat C.D. block having a very low percentage of only 28.06. In East Khasi Hills district a very low percentage is found in Mawkynrew C.D. Block (i.e. 36.63 per cent). In East Garo hills, proportion of literate population is very low in Songsak Block (i.e. only 34.85 per cent) The highest percentage of literate is found in Mylliem Block where 78.88 per cent of the population is literate followed by Rongram block with 59.96 per cent literate.

Table 3.10
Meghalaya: Inter-Block Variation in Literacy Rate, 1991

Literacy Percentages	Total	Male	Female
<-30	2	2	8
30-40	10	3	6
40-50	12	14	12
>-50	6	11	4
Total	30	30	30

Source : Census of India , 1991.

A cursory look at the table 3.10 reveals that large proportions of the males are literate in most of the blocks. In two of the blocks in Jaintia hills the male literate are lower than 30 per cent, whereas in most of the other blocks in Khasi hills and Garo hills the male literate exceed 40 per cent.

It is evident from table 3.10 that in a majority of the blocks female literate account for a small proportion. Female literacy in Jaintia hills is higher than that of their male counterparts whereas, in the blocks of West Khasi hills and East Khasi hills female literacy shows a welcome improvement. Most of the blocks record less than 40 per cent literate except in Mylliem block where the female literacy rate far exceeds at 74.78 per cent.

3.5 Concluding Statement

The analysis of the resource base in the study area leads to the following broad conclusion:

First, The region has a rich natural resource endowment. The forest resource, which is the most significant resource, has a concentration in the western part of the area. Rongara, Dadengiri, Samanda, Dalu, and Bagmara C.D.Blocks (above - 50 per cent) as far as forest resource is concerned

Second, the region by and large is characterised by traditional agricultural practices. Practice of jhum cultivation is still prevalent in most parts of the state where the forest cover is still intact and that the people are still dependent on the nature as the chief source of livelihood. It can be seen that Community Development Block like Songsak, Rongara, Bagmara, Samanda and Dalu has more than 45 per cent of the area classified under jhum. It is interesting to note that Rongara and Dadengiri Community Development Block though covered with forest the influence of jhum is very small in comparison to blocks like Bagmara, Dalu, and Samanda, where the destruction of forests due to jhum is also very high.

The agro-ecological conditions are not so much favourable for generation of agrarian surplus. The area available for cultivation and the area actually cultivated constitutes only a small proportion of the total geographical area. It can be seen that the area for intensive cultivation lies in the western part of the study area. Blocks, which have more than 15 per cent area under net sown area, are Ziksak, Betasing, Selsella, and Resubelpara. Thadlaskein C.D.Block is the only block in the eastern part, which shows a larger net sown area.

Third, the density of population in the region is considered to be very high in a few pockets and marginal in most parts. High-density areas generally correspond to development blocks where the urbanisation level is high those blocks that have large percentage area under the net sown category.

Fourth, growth of population shows an increasing trend in C.D.Blocks like Selsella, Thadlaskein, Mawphlang, Samanda and Khliehriat has a population growth percentage of more than 50 per cent.

Fifth, occurrences of mineral resources like coal, limestone, sillimanite and clay are also available in most of the C.D.Blocks situated in the southern part of the region. Shella, Pynursla, Amlarem, Khliehriat and Bagmara have fair amount of mineral resources but there is hardly any evidence of any good industries linked with these resources.

Sixth, the structure of the workforce in the region shows that there is a high degree of variation. Cultivators are mostly concentrated in the districts that are rural in their population composition, whereas services account for a relatively larger chunk of the working population in the districts where the urban development is significant.

Seventh, highest concentration of tribal population is found in the rural areas.

Lastly, the state is characterised by a high level of disparity in the level of literacy attainment. At the district level the literacy shows that the male-female literacy responses is low in some areas but high in other areas. At the block level, the female segment shows varied responses in literacy attainment, out of which some of which exhibits better literacy than those of the males.

Chapter IV

Pattern of Urbanization in Meghalaya

4.1 Introductory Statement

In the previous chapter an attempt was made to analyze the resource situation in Meghalaya as a factor in the rural to urban migration. Availability, utilization and distribution of natural resources create necessary conditions for population mobility. Available evidences suggest that people move away from the resource poor or resource depleted areas to areas, which offer better economic opportunity. However, such a movement may be largely restricted within the rural space if urbanization is weak or offers opportunities, which may not be largely different from those available in the rural areas. But if there is a healthy urban development leading to a greater diversification in the economy and possibilities of upward economic mobility, the redistribution of population should take place largely through a stream that directs itself towards urban locations. In such a situation, the rural population experiences a decline in its growth with a corresponding rise in the levels of urban growth. The process gathers momentum as urban areas increase in their size, function and in economic diversification while their rural counterparts experience contrary features. The extent of urban growth is thus genetically linked to this process of rural to urban movement of people.

It is pertinent to note here that the intensity of this process would depend upon the nature of urbanization itself. The movement of rural people to urban areas shall

depend upon the actual and perceived advantages in the urban areas through pull factors. Otherwise, the rural urban stream may be weak or absent or may still take place under severe `push' factors operating in rural areas.

The present chapter endeavours to understand these aspects of rural to urban migration in an essentially tribal setting. The main objective of this chapter is to specifically examine the process of urban growth and its economic base with a view to getting an insight into its capacity to absorb the rural migrants. It is assumed here that the nature, pattern and economic strength of the urbanization would reveal itself as a factor in attracting/ repelling migration from rural areas.

The analysis is based on an understanding of the urban growth itself to indicate if it is more due to natural growth or due to addition taking place through rural immigrants. Secondly, the capacity of urban areas to attract rural migrants is examined by a reference to the occupational structure of the urban areas.

4.2 Urbanization and Migration

Urbanization may be conceived very comprehensively as a four-dimensional process: demographic, ecological, socio-technical, and economic. R.P. Mishra defines urbanization as "a process which reveals itself through temporal, spatial and sectoral changes in the demographic, social, economic, technological and environmental aspects of life in a given society. These changes manifest themselves in the increasing concentration of population in human settlements larger than villages, in the increasing involvement of people in secondary and tertiary production function and in

the progressive adoption of certain social traits which are typical of traditional societies".[1]

In a strictly demographic sense, urbanization refers to the proportion of a nation's population living in urban areas. Urbanization should be distinguished from urban growth. Urban growth merely refers to an increase in the total urban population, whereas urbanization refers to an increase in percentage of urban population to the total population. Thus, urbanization implies an increase in the urban population at a rate higher than that of the increase in the total rural population. This may happen mainly in two ways. The proportion of urban population may increase when the rate of natural increase in population in urban areas is higher than in rural areas. When the rate of natural increase in population in the urban areas is not higher than in the rural areas, the most important ways in which urbanization may take place is by a shift of population from rural areas to urban areas, i.e. through rural urban migration. It is in this context that W.S.Thompson describes urbanization as "the movement of people from communities concerned chiefly with agriculture to other communities, generally larger, whose activities are primarily centred in government, trade, manufacture and allied interests.[2] "Rural-urban migration is by far the major component of urbanization and is the chief mechanism by which all of the world's great urbanization trends have been accomplished."[3] A discussion of urbanization almost everywhere in the world "fundamentally is a discussion of net rural to urban migration, and an analysis of migration stimulating effects of various demographic, economic and social forces, which are at work."[4]

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[1] Misra,R.P. (1978) "Million Cities in India", (New Delhi) Vikas Publishing House Pvt. Ltd., p.16.

[2] W.S.Thompson 1967: "Urbanization" in *Encyclopaedia of Social Sciences,* Vol.15 p.189.

[3] Bogue, B.J. and Zachariah, K.C. (1962): "Urbanization and Migration in India" in Turner, Roy, *India's Urban Future* (Bombay) Oxford University Press, p.28.

[4] *Ibid*

Migration in any area refers to the changes in the total volume of population. The main factors on the changing of population may be affected either by the growth of population or by migration. In other words, migration is a major factor in changing the size and structure of population.

In order to understand the quantum of rural-to-urban migration one needs also to understand and examine the process of urbanization itself. Process of urban development all over the country is just a recent phenomenon. This is no different in the case of Meghalaya where the level of urbanization is relatively low and much of the migration continues to takes place largely across the rural space. The rural-urban migration may be small in quantity but very significant in quality as it reflects the departure from the traditional organization of the migrants. This would also mean a shift from the agricultural economy to the other types of services. This qualitative aspect of migration in the hilly and tribal dominated states of India provides the basis for an in depth understanding of the processes of urban development as to how the factor of rural-to-urban migration can play an important role in bringing about urban development.

4.3 **Urbanization in Meghalaya: A Historical Outline**

In this section, an attempt is made to analyze the extent of urbanization in Meghalaya and an in depth understanding of the pace of rural- urban migration in the region. It is evident from the analysis that the pace of urbanization has been rather slow over the past years, particularly during the colonial period.

The growth of urban centres in Meghalaya was controlled by many factors. With the demise of the colonial power, and the arrival of a representative government

there were significant changes in the social, political, and economic spheres of the tribal society. The gradual increase in a number of towns from the beginning of the twentieth century up to the year 1991 is shown in table 4.1.

Table 4.1
Meghalaya: Progress of Urbanization

Year	No of Town	Total Urban Population	Population of Additional Towns
1941	2	38,192	-
1951	2	58,512	-
1961	6	1,17,483	33,697
1971	6	1,47,170	
1981	12	2,41,333	35,326
1991	12	3,30,047	

Source : Census of India, Population Tables, 1991.

East Khasi Hills district with Shillong as the capital has contributed a major share to the growth of urban population in the state. East Khasi Hills alone claims a total of 2,31,143 persons residing in urban areas accounting for over 70 per cent of the total urban population of the state. The impact of urbanization is the highest in this district compared to any other district of the state.

It is to be noted here that the constituents of the Shillong Urban agglomeration are reckoned as separate towns and have been classified according to their own population and not according to the population of the agglomeration. There were just 2 towns during the period 1901 to 1951. These were the Shillong Municipality and the Shillong Cantonment with a total population of 58,512 persons only. Another set of four towns was added to the existing number of towns in 1961. They are Nongthymmai, Mawlai, Tura, and Jowai with a total combined population of 1,17,483

persons. In the year 1971, no new town was added to the existing number of towns but the size of urban population increased to a total of 1,47,170 per sons. In the year 1981 however six more towns were added to the existing six towns; namely Pynthorumkhrah, Madanrting, Cherrapunjee, Williamnagar, Bagmara, and Nongstoin town with a total combined population of 2,41,333 persons. The town of Pynthorumkhrah and Madanrting were treated as towns because of the expansion of Shillong Urban Agglomeration, whereas places such as Nongstoin, Williamnagar were the district headquarters and both do not satisfy the technical criteria of being a town. In 1991 no new towns have been added to the categories as town. However, the population in almost all those towns has increased to 3,30,047.

It is evident from the above analysis that the growth in urban population in the state as a whole is largely due to a proliferation in the number of towns rather than owing to increase in the urban population of existing towns. It is quite probable that the size of existing towns may be due to natural growth more than due to migration. At least at the aggregate level it appears that since the beginning of this century, migration from rural areas as factors in urban growth is rather weak in pushing the level of urbanization. However, this generalization needs to be viewed in its spatio-temporal context.

4.4 **Urbanization in Meghalaya: District Level Patterns**

Figures 4.1 reveals that the level of urbanization is highly varied in different parts of the state. In aggregate terms there appears to be very little change in the level of urbanization during 1981-91 decade in spite of an increase in the total urban population.

Table 4.2
Meghalaya: Inter-District Variation in The Level of Urbanization, 1981-91

District	%of Urban Population to Total Population	% of Urban Population to Total Population
	1981	1991
Meghalaya	18.06	18.7
Jaintia Hills	8.26	9.34
East Khasi Hills	35.35	34.74
West Khasi Hills	2.4	6.51
East Garo Hills	10.66	10.82
West Garo Hills	3.14	6.71

Source : Census of India 1981-91.

East Khasi Hills district where Shillong is the capital of the state of Meghalaya is located has the largest share of urban population (i.e., 34.74 per cent). The West Garo Hills district where the proportion of population is a little above 10 per cent follows this. Jaintia Hills contains less than 10 per cent urban people. The level of urbanization is much lower in the remaining two districts, i.e., around 6 per cent each.

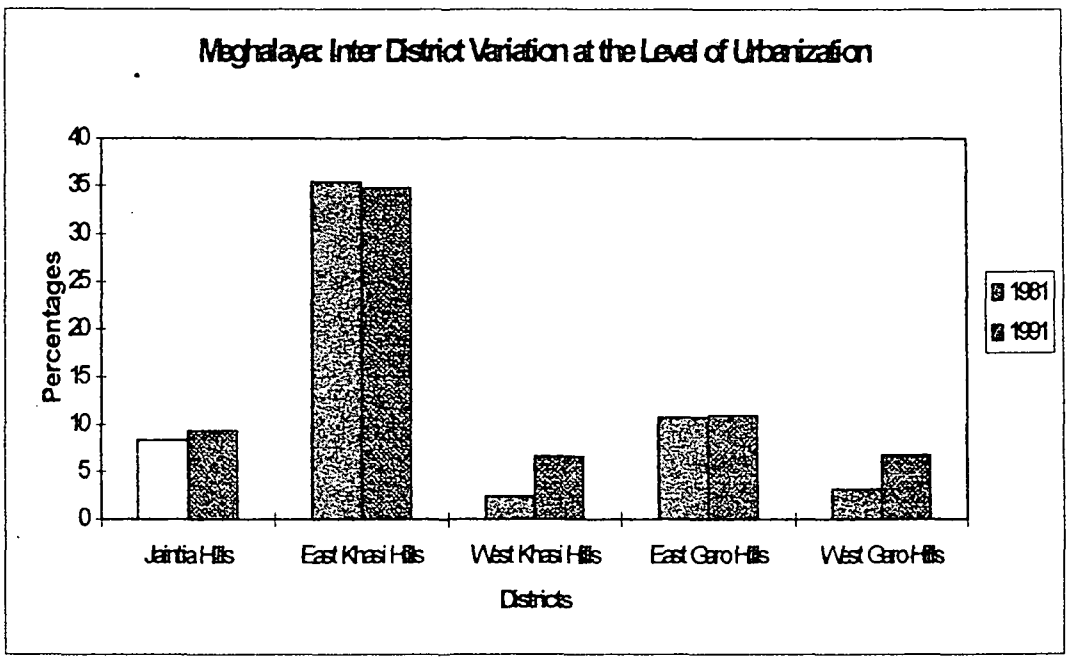

Fig. 4.1

A comparison with 1981 situation shows that the level of urbanization has undergone insignificant changes at the district level

Interestingly, the share of urban population in the total has fallen marginally in the case of East Khasi Hills indicating a higher growth rate in rural population compared to that of the urban. It is interesting however, that the older towns are characterized by stagnation in terms of urban growth while newly emerging urban centres have added significantly to their total population during the decade 1981-91.

It is evident at the district level that the level of urbanization remains at a low level in most parts of the state barring East Khasi Hills. The by and large static level of urbanization in most districts is indicative of identical growth rates in rural as well as urban areas - a fact which reveals little impact of rural to urban migration as a force in the progress of urbanization. This is however truer of districts containing relatively larger order urban centres indicating a substantial slowing down in the process of rural-urban migration.

It is imperative at this stage to examine the issue at lower aggregate levels such as the development blocks.

4.5 **Patterns of Urbanization at the Block Level**

A cursory examination of the level of urbanization at the Block Level reveals that urbanization is confined only to 7 out of a total of 30 blocks. Out of these only the Mylliem has attained a very high level of urbanization with 75.98 per cent of the population living in urban areas. The location of the capital town in this block is the obvious explanation. A little less than half of the population (46.74 per cent) lives in

urban areas in Rongram block under West Garo Hills district. In the remaining blocks, the level of urbanization is low, ranging between 16 and 30 per cent in 1991. Interestingly, with the exception of Nongstoin and Samanda blocks the proportion of urban population has registered a decline during 1981-91 period indicating a faster rural population growth compared to that taking place in the urban areas of these blocks. Thus, the pattern observed at district level is confirmed at the block levels too (fig 4.2).

Table 4.3.
Meghalaya: Progress of Urbanization at the Block Level, 1981-91

Blocks	% of Urban Population to Total Population	% of Urban Population to Total Population
	1981	1991
Meghalaya	18.08	18.7
Thadlaskein	28.9	26.27
Mylliem	76.02	75.98
Shella	16.68	16.98
Nongstoin	9.19	23.53
Rongram	50.41	46.74
Bagmara	20.22	17.72
Samanda	21.86	29.88

Source: Census of India, 1981-1991.

The above analysis reveals that the role of rural to urban migration as a factor in the process of urbanization is certainly weak, if not absent. It may be worthwhile to examine the differential growth rate of population in rural and urban areas in order to get a better understanding of the process of rural to urban migration.

4.6 **Growth of Population**

In the present section an attempt is made to analyze the patterns of population growth for total, rural and urban areas separately and at state, district and block levels.

Meghalaya

Progress of Urbanization at the Block Level
1991

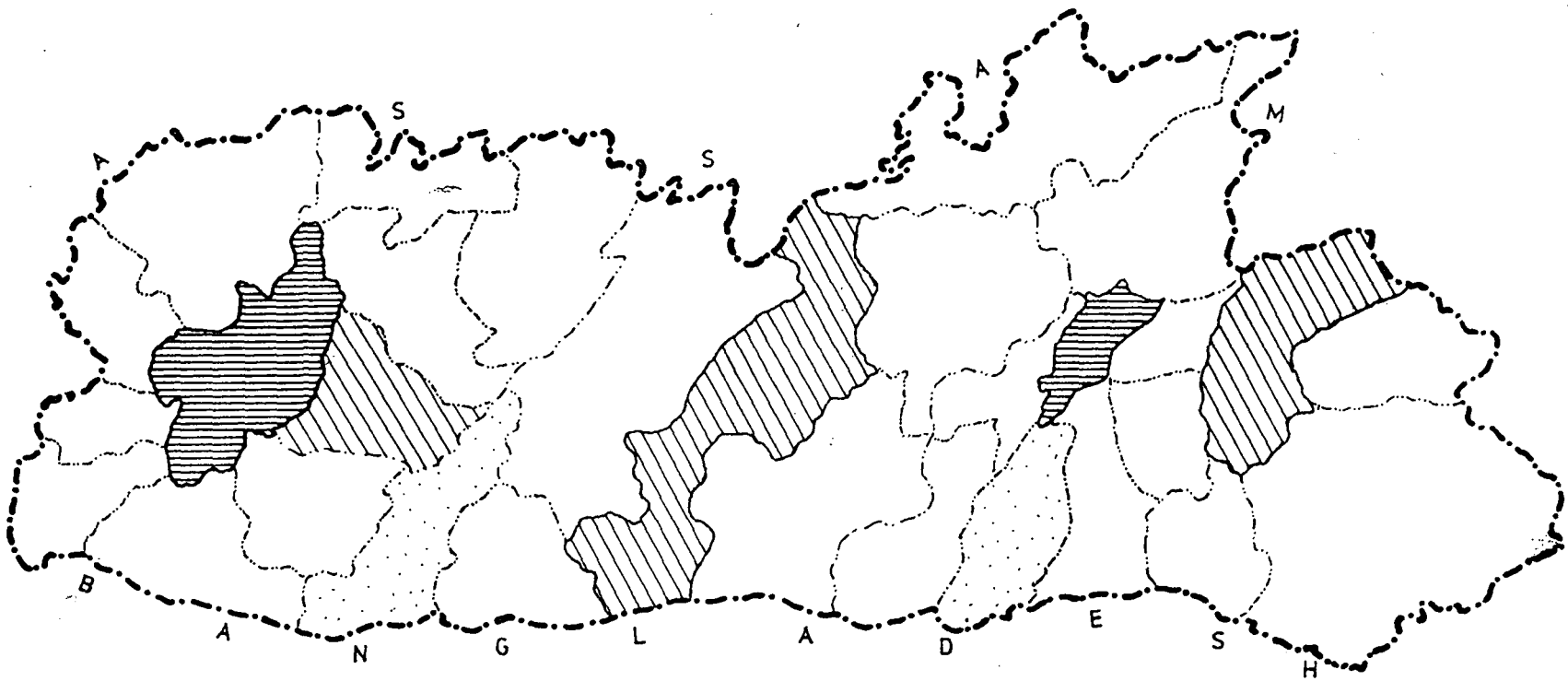

Fig 4.2

4.6.1. State Level:

Growth of population in urban areas takes place either due to natural growth of population or due to immigration. If we consider the growth rate of population as a whole, it stands at 32.86 per cent during the period 1981-91 decade. However, this growth rate is highly variable in rural as well as urban areas, as well as at different levels of spatial aggregation at lower levels.

4.6.2. Overall Growth Rate: District level

The table 4.4 and figure 4.3 depicts the rate of growth of population at the district level.

Table 4.4
Meghalaya: Inter-District Variation in Population Growth, 1981-91

District	Population1981	Population 1991	Change	Growth Rate (%)
Jaintia Hills	156402	220473	64071	40.96
East Khasi Hills	511414	665218	153804	30.07
West Khasi Hills	161576	220157	58581	36.25
East Garo Hills	136550	188830	52280	38.28
West Garo Hills	369877	480100	110223	29.79

Source : District Census Abstract, Meghalaya, 1981-91.

The above table reveals wide variation in the growth of population across the districts.

A comparison of the growth of population during the 1981-91 decade shows a steady change in the level of growth of population in different districts of the state. The most spectacular change in the growth of population has taken place in the Jaintia Hills and East Garo Hills district, i.e., 40,96 and 38.28 per cent respectively. The East Khasi Hills and West Khasi Hills district have experienced a rate of 30.07 and 36.25

per cent respectively. West Garo Hills district has registered the lowest growth rate where the population grew at a rate of 29.79 per cent only. (Fig. 4.3)

4.6.3. Overall Growth Rate: Block Level

The rate of population growth gets further accentuated at the block level. While some of the blocks with a very high level of urbanization experienced a larger increase in their population, some other blocks, which are entirely rural in their population composition too experienced similar growth rates. On the other hand, blocks with a long history of urban presence have experienced only a marginal rise in their population.

Table 4.5 reveals that the growth of population in the majority of the blocks is a little higher than the national average. The most spectacular change in population is seen in two C.D.Blocks of Resubelpara and Chokpot, where the growth of population is negative (-0.61 and -0.45 per cent respectively). The decline in the population of these two blocks may be attributed to out-migration during the 1981-91 decade.

Table 4.5
Meghalaya: Inter-Block Variation in Population Growth, 1981-91

Percentage Growth Rate	No of Blocks	
	Total	Rural
Negative	2	2
1-20	2	3
20-40	16	15
40-60	7	7
>-60	3	3

Source : Census of India, 1981-91.

It is significant to note that the level of growth of population is very marginal in three C.D.Blocks. For example Laskein, Mawsynram, and Rongara blocks

Meghalaya
Inter-District Variation in Population Growth
1991

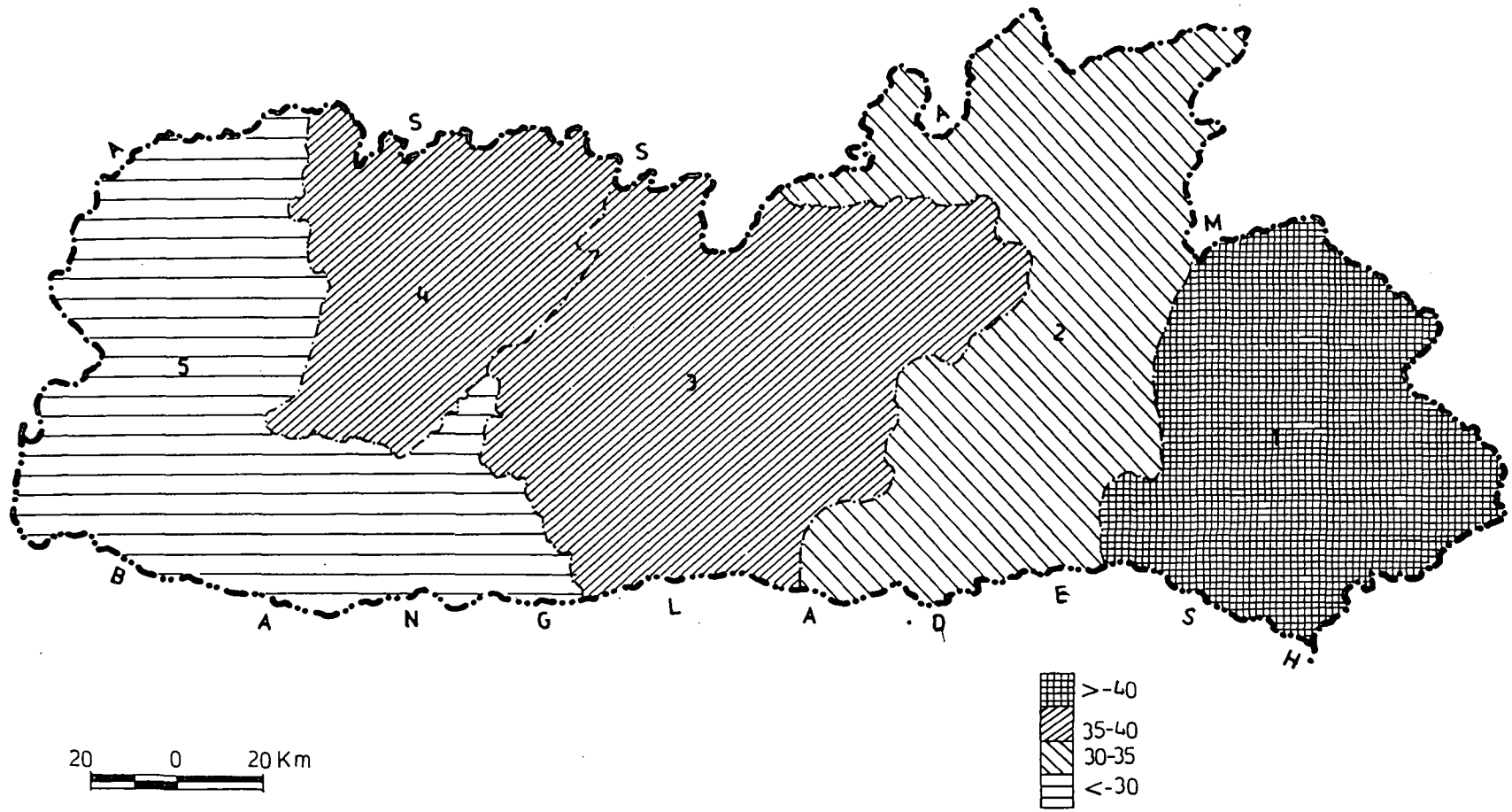

Fig 4.3

registered a rise in their population below 20 per cent. A great majority of the blocks, however, recorded a significant rise in their population ranging between 20-60 per cent. As many as 22 blocks registered such a rise in their population, notable among them being Khliehriat, Mawphlang, Mawkynrew, Mairang, Samanda, Nongstoin and Mawkyrwat.

Interestingly, an impressive growth in the size of population is observed in Thadlaskein and Selsella blocks where the population grew at a rapid pace i.e., 75.34 per cent, 76.77 per cent respectively. This impressive swing in the growth of population may be due to large natural growth rate as well as due to immigration from other areas during the decade.

4.7 **Rural Growth of Population**

In this section an attempt is made to analyze the pattern of population growth in the rural areas taking into account the growth rate at the state, districts and at the block levels.

4.7.1. State Level

Growth of rural population provides an understanding of the natural growth rate as well as effects of out-migration as rural areas are the potential areas from where people migrate to urban areas. When the rural areas experience a high growth in population, and when the rural areas cannot support the growing pressure of population, the stream of rural-urban migration develops leading to a slow growth rate in the rural areas. The growth of rural population in the state as a whole is 32.84 per cent during the decade between1981 and 1991, which closely resembles with the aggregate level.

4.7.2. District Level

Table 4.6
Meghalaya: Inter-District Variation in Rural Population Growth, 1981-91

District	Population, 1981	Population, 1991	Change	Growth rate (%)
Meghalaya	1094485	1444531	350045	32.84
Jaintia Hills	143479	199872	56393	39.30
East Khasi Hills	330614	434075	103461	31.29
West Khasi Hills	157696	205818	48122	30.51
East Garo Hills	132260	176626	44366	33.54
West Garo Hills	330437	428140	97703	29.57

Source: District Census Abstract. Meghalaya, 1981-91.

The growth of population at the district level is presented in table 4.6.

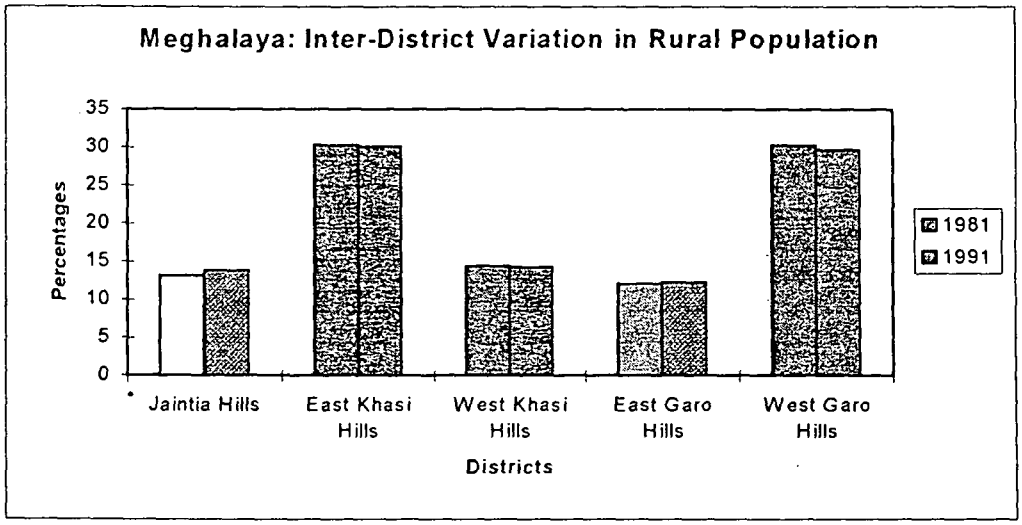

Fig. 4.4

It is evident from the table that the increase in rural population ranged between 29-40 per cent across the five districts of Meghalaya. The largest increase in the rural population took place in Jaintia Hills district where the rise was around 39.30 per cent in the preceding decade. The rural growth rate in population at the district level closely resembled the pattern obtained at the overall level. (fig 4.4)

4.7.3. Block Level

At the block level too the pattern in rural population growth was similar to that observed at the overall level. Except for two blocks where growth of rural population is negative (-0.61 per cent in the case of Resubelpara and -0.45 per cent in the case of Chokpot) all other blocks have registered a positive growth rate. (Table 4.7.and Figure 4.5)

Table 4.7
Meghalaya: Inter-Block Variation in Rural Population Growth, 1981-91

Percentage Growth Rate	Number of Blocks
Negative	2
1-20	3
20-40	15
40-60	7
>-60	3

Source : Census of India, 1981-91

The blocks which experienced a very high growth rate are Thadlaskein, Selsella and Bagmara experiencing more than 60 per cent of the rural growth. The blocks, which had a high growth rate, are the Khliehriat (51.43 per cent). Mawphlang (58.50 per cent), Mawkynrew (47.78 per cent), Mairang (40.14 per cent), Nongstoin (44.70), Mawshynrut (42.91 per cent) and Rongram (41.72 per cent). The blocks which had a considerable growth rate are Amlarem (37.68 per cent), Nongpoh (27.82 per cent), Ri Bhoi (27.12 per cent), Mawryngkneng (32.36 per cent), Mylliem (28.16 per cent), Shella (24.85 per cent), Pynursla (38.73 per cent), Mawkyrwat (20.70 per cent), Dambo-Rongjeng (35.78 per cent), Songsak (32.08 per cent), Dadengiri (28 per cent), Betasing (23.25 per cent), Ziksak (33.15 per cent) and Dalu (28.88 per cent).

Meghalaya
Inter Block Variation in Rural Population Growth, 1991

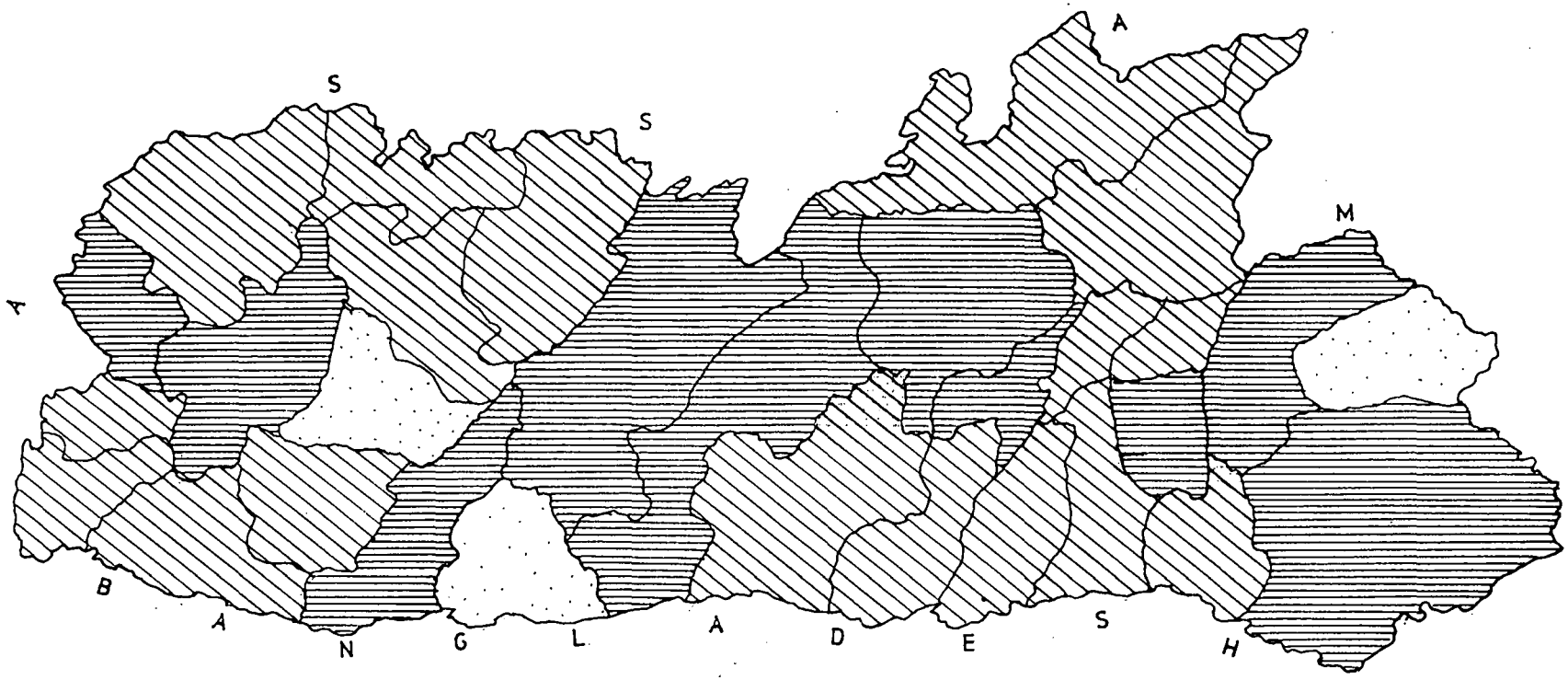

Fig 4.5

The blocks which had a low growth rate (i.e.,less than 20.00 per cent) are Laskein (0.06 per cent), Samanda (18.01 per cent) and Rongara (18.37 per cent)

4.8 **Urban Growth of Population**

It is pertinent now to examine the urban component of the population in respect of their population growth.

4.8.1. State Level

Urban growth of population at the state level takes place due to the natural growth of population or due to migration. The growth of urban population at the state level is 108.64 per cent during the decade 1981-91. Of these, different urban areas show-varying trends in their growth rate indicate operation of these two factors differently.

4.8.2. District Level

Looking at the figure at the district level it is clear that the urban population has registered impressive gains during 1981-91.

Table 4.8
Meghalaya: Inter-District Variation in Urban Population Growth, 1981-91

District	Population, 1981	Population, 1991	Change	% Growth Rate
Jaintia Hills	12923	20601	7878	59.41
East Khasi Hills	180800	231143	50343	27.84
West Khasi Hills	3880	14339	10459	269.56
East Garo Hills	4290	12004	7914	179.81
West Garo Hills	39440	51960	12520	31.74

Source : District Census Abstract, Meghalaya, 1981-91.

It is evident from the table 4.8 and figure 4.6 that at the district level, the increase in the urban population is extraordinary in the districts of West Khasi Hills and East Garo Hills. These alarming growth rate at the two districts may be due to the creation of the two headquarters, namely Nongstoin and Williamnagar creating a conducive condition for large-scale immigration of people. This shows that the rate of rural-to-urban migration is very high and it dominated the streams of migration during the decade 1981-91. The growth of urban population at Jaintia Hills district is also relatively high (59.41 per cent) This increase in the growth of urban population reveals that the natural growth rate is also high and the levels of rural-to-urban migration continues to be impressive.

East Khasi Hills and West Garo Hills district where the main centres of Shillong and Tura are situated are characterized by a slow growth of urban population. Much of this increase may be attributed to natural growth alone while the rural urban migration as a factor in the growth of urban population in the two large townships located in these districts may be of lesser significance.

Meghalaya
Inter-District Variation in Urban Population Growth
1991

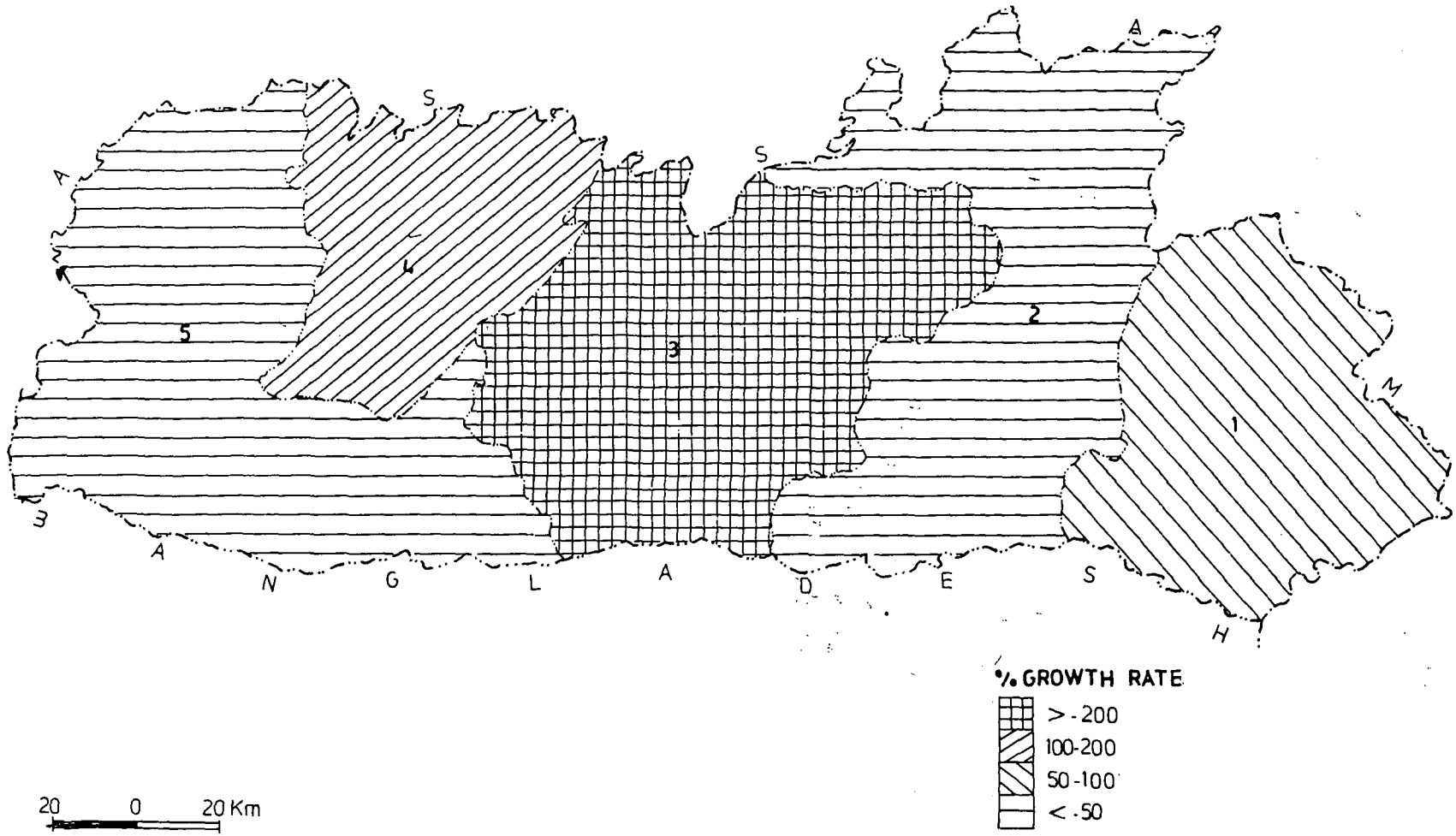

Fig 4.6

4.8.3. Block Level

Table 4.9
Meghalaya: Inter-Block Variation in Urban Population Growth, 1981-91

Blocks	Population, 1981	Population, 1991	Change	% Growth Rate
	1981	1991		
Thadlaskein	12923	20599	7676	59.39
Mylliem	174703	223366	48663	27.85
Shella	6097	7777	1680	27.55
Nongstoin	3880	14339	10459	269.56
Samanda	4290	12004	7714	179.81
Rongram	35257	46066	10809	30.65
Bagmara	4183	5894	1711	40.9

Source : District Census Abstract, Meghalaya, 1981-91.

The growth in urban population at the block level may be seen as an important indicator in understanding the regional pattern in urbanization and the impact of rural urban migration. Table 4.9 and figure 4.7 reveals that Nongstoin and Samanda C.D.Blocks have the largest increase in urban population during the decade 1981-91 (269.56 per cent and 179.81 per cent) respectively. This unprecedented rise during the decade can be explained only by assuming that the rural to urban migration is very strong. The fact that these blocks have large increase in rural population too leads to an understanding that the natural rate of growth in these two blocks is also very high. Thadlaskein C.D.Block (59.39 per cent), situated in the eastern part of the state, has also registered an impressive growth rate as far as the growth of urbanization is concerned. Sign of a strong stream of rural-urban migration also can be observed due to the fact that the rural growth rate too is considerable.

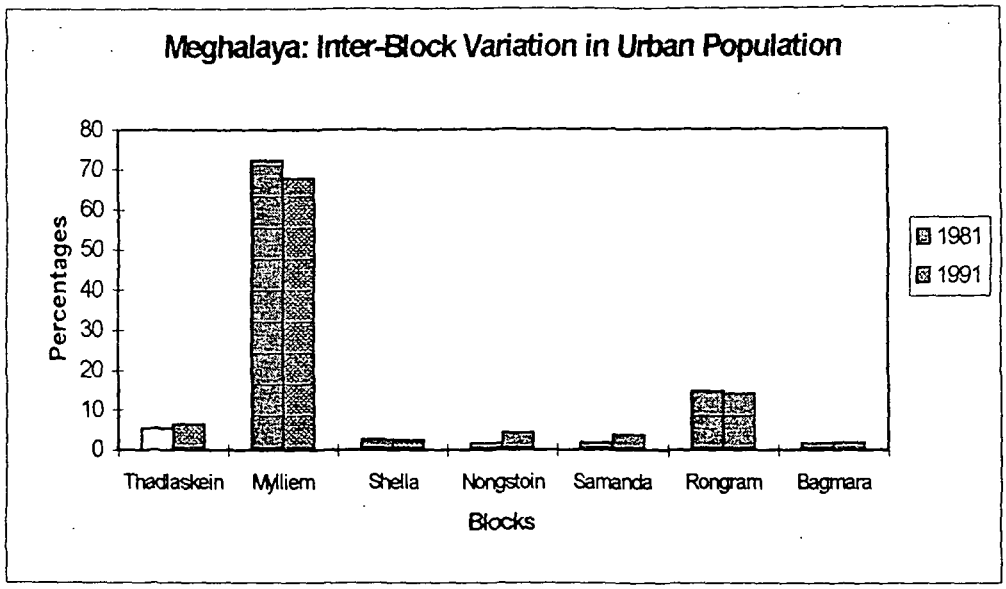

Fig. 4.7

Mylliem C.D.Block (27.85 per cent), Shella C.D.Block (27.55 per cent) Rongram (30.65 per cent) and Bagmara (40.90 per cent) have registered a very slow growth of their urban population during the decade 1981-91. This slow growth of urban population is due to the fact that rural-urban migration in Shillong, Tura and Bagmara continues to be weak during the recent decade.

4.9 **Urban Economic Base**

It is evident from the above analysis that the stream of rural to urban migration in Meghalaya continues to be weak, particularly in the case of urban areas of large size. The smaller order urban centres, which have appeared in the recent times, are growing at a faster rate indicating a strong force of movement of rural people into these newly emerging towns. On the other hand, the large-sized urban centres are attracting less rural people into them. This may be due to the fact that these urban centres have

reached a level of saturation as far as the economic opportunities they can offer. As is well known all these towns are essentially administrative in character offering economic opportunities in the tertiary sector only which not only has a limited scope to absorb people seeking employment, it also has a weak material base.

It may be worthwhile at this stage toanalyze the occupational structure of the towns in Meghalaya, which will throw some light as to their capacity to absorb the rural immigrants. The analysis first takes into account the industrial classification of the urban working force and then analyzes the occupational structure of these workers at three digital levels.

4.9.1. Industrial Classification of Urban Workers

Table 4.10
Meghalaya: Proportion of Urban Main Workers, 1971-91

Town/Cities	1971	1981	1991
Jowai	33.3	35.45	33.24
Shillong	32.84	20.78	32.74
Nongstoin	_	41.46	30.82
Williamnagar	_	33.82	29.54
Tura	27.81	24.87	26.65
Bagmara	_	29.23	27.87

Source: Census of India, 1981,81,91.

A cursory look at the table 4.10 reveals that the urban economy has extremely limited capacity to absorb labour force. The proportion of main workers in the total population varies between 26 to 34 per cent. This proportion is around a third of the total population in Shillong and Jowai and around 30 per cent in Nongstoin and

Williamnagar. But only around 26-27 per cent of the population is absorbed as main workers in Tura and Bagmara towns. In any case, the proportion of workforce is low in nearly all towns and cities relegating a very high percentage of the labour force into marginal or non-worker status. With the exception of Tura, the larger order urban centres namely Shillong and Jowai record a relatively larger proportion of main workers in their total population in the year 1991. The newly established towns however have varied patterns. Interestingly, the proportion of main workers in the total population is falling over time in a majority of towns with the notable exception of Shillong and Tura - a fact sufficiently indicative of restrictive economic opportunities in most towns of Meghalaya (figure 4.8).

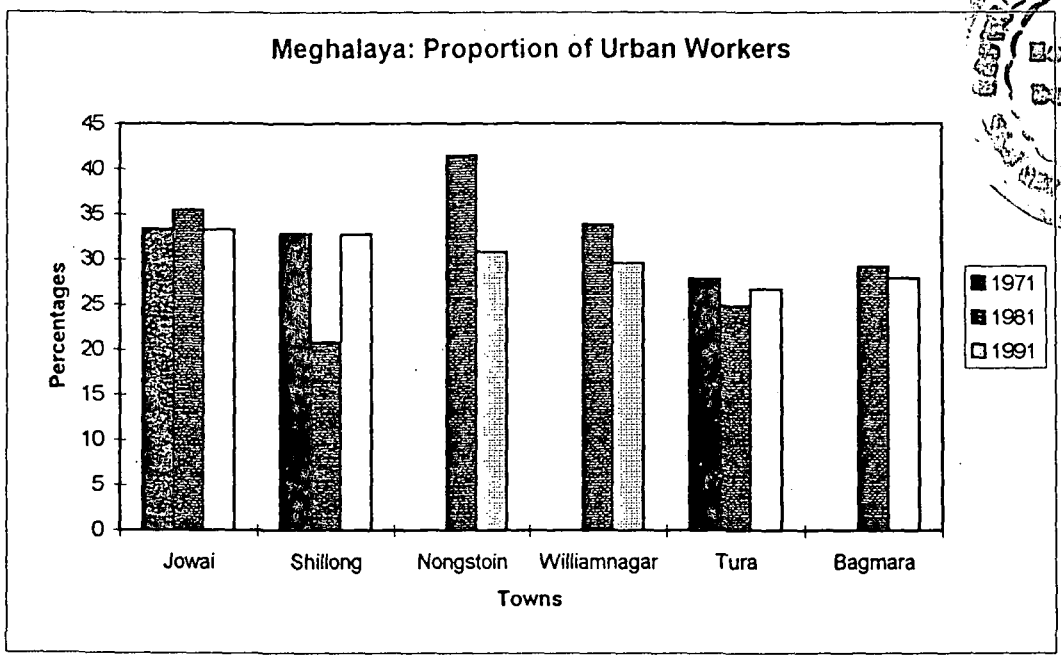

Fig. 4.8

4.9.2. Industrial Classification of Urban Workers

It is rather interesting that a significant proportion of the urban workers in Meghalaya is still tied to agricultural occupations either as owner cultivators or

agricultural labourers (Table 4.11). The proportion of agricultural workers is the maximum in Williamnagar, i.e. 40 per cent workers recorded as cultivators and agricultural labourers. Nongstoin town too has around a third of its workforce engaged in agricultural activity while this proportion is a little less than 22 per cent in Bagmara. Significantly all these towns are not only small in their population size but also have acquired urban status only recently. On the other hand, major towns like Shillong, Jowai and Tura record a very insignificant proportion of their workforce in agricultural occupations. However, in the case of Tura, the proportion of agricultural workers constitutes a little over 10 per cent of its total workforce. Excepting Williamnagar, nearly all towns of Meghalaya are experiencing a rapid decline in the proportion of agricultural workforce over the period 1971-91.

Such a large proportion of agricultural workforce in smaller order urban centres reveals little diversification in their economies. Yet these are the centres which seem to have attracted much rural population into them. The rural to urban stream of migration in these areas may be unrelated to economic opportunities available. Another interesting fact that emerges from the table 4.11 relates to an extremely small proportion of the workforce engaged in manufacturing sector. Even Jowai, which had a significant 8.67 per cent of the workforce, engaged in this sector experienced a net decline over the period 1971-91. In all the towns, the manufacturing sector accounts for less than 2.5 per cent of main workers in the year 1991.

Table 4.11
Meghalaya: Industrial Classification of Urban Main Workers, 1971-91

Town/Cities	Cultivators	Agricultural Labourers	Livestock,fishery,hunting,plantation,orchard	Manufacturing,processing, repairs,servicing,household industry	Others
Jowai					
1971	3.63	3.39	2.81	8.67	82.13
1981	1.00	0.89	3.25	3.25	91.61
1991	1.53	0.46	0.58	0.43	97.43
Shillong					
1971	2.09	2.50	1.84	1.78	91.79
1981	2.10	3.41	-	1.59	92.90
1991	1.24	1.81	0.54	0.54	94.61
Nongstoin					
1971					
1981	29.95	4.90	3.23	3.23	58.69
1991	18.41	14.07	2.48	1.49	63.55
Williamnagar					
1971					
1981	14.74	16.12	2.34	2.34	64.46
1991	34.04	5.04	2.54	2.53	55.85
Tura					
1971	3.87	0.58	0.74	1.76	93.05
1981	6.43	1.53	1.08	0.86	90.1
1991	3.09	7.42	3.30	0.56	85.63
Bagmara					
1971					
1981	21.83	2.69	-	0.08	75.4
1991	15.94	5.66	2.13	1.58	74.69

Source : Census of India 1971,81,91.

An excessive concentration of main workers in `other workers' characterised nearly all towns of Meghalaya. The proportion exceeds 85 per cent in the larger order towns while it ranges between 50-70 per cent in the newly emerging small sized towns, which continue to absorb a relatively high proportion of workers in agricultural work.

Within this category however bulk of the workforce is concentrated in `other services' which ranges between 35 to 60 per cent of all main workers. Mining and

quarrying as an activity absorbs less than one per cent of the main workers in all towns/cities. Manufacturing in the modern sector has a significant 6-9 per cent workers found in all small towns like Bagmara and Williamnagar. It appears that many towns in Meghalaya absorb a higher proportion of workers in the trade and commerce category, the proportion being as high as 22.34 per cent in Jowai, 21.18 per cent in Bagmara and 19.64 per cent in Shillong. Even Tura accounts for over 17 per cent of its workforce employed in this activity. Only Nongstoin and Williamnagar have a relatively low proportion of the main workers engaged in this category.

Table 4.12
Meghalaya: Distribution of Other Workers,1971-91

Towns	Mining/ Quarrying	Manufacturing	Construction	Trade & Commerce	Transport & Comm.	Other Services
Jowai						
1971	-	10.19	8.91	13.44	6.85	25.52
1991	0.21	7.10	3.53	22.34	4.36	59.89
Shillong						
1971	-	8.74	10.51	17.73	8.00	52.29
1991	0.75	8.29	5.59	19.68	6.66	53.64
Nongstoin						
1971	-	-	-	-	-	-
1991	0.04	3.5	6.58	11.22	2.91	39.30
Williamnagar						
1971	-	-	-	-	-	-
1991	0.056	2.7	5.83	7.97	2.81	36.48
Tura						
1971	-	4.55	4.24	17.32	2.48	64.46
1991	0.99	4.76	5.54	17.17	6.35	50.91
Bagmara						
1971	-	-	-	-	-	-
1991	0.06	5.29	8.58	21.18	1.70	37.88

Source : Census of India 1971,91.

Transport and communication category absorbs a little over 6 per cent workforce only in Shillong and Tura. Elsewhere the proportion of workforce engaged in this sector is less than 5 per cent.

Over 50 per cent of the workforce finds itself in other services in the three major towns of Shillong, Jowai and Tura while this proportion ranges between 37-40 per cent in the remaining three towns of smaller size.

It is evident from the above analysis that it is the tertiary sector, which mostly absorbs the labour force while the opportunities available in the other sectors of the urban economy, is highly restricted. As it is well known, this sector has a weak economic base and appears to be restrictive for migrants coming from rural areas.

It is pertinent at this stage to scrutinize occupational composition of the working force in these towns more closely with a reference to the three digital classifications of workers in the scheme forwarded by the NIC. However, since the data is only available for urban areas, the following section utilizes such data to generalize the patterns for individual towns. In the context of Meghalaya it poses no serious problem as the districts contain only one or at the most two towns in each of them.

4.10 **Urban Occupational Structure**

In this section an attempt has been made to understand the classification of workers in the urban areas of the entire district of Meghalaya.

The workers have been divided on the basis of individual occupations such as agriculture, hunting and fishery, followed by mining and quarrying, manufacturing

and repairs, electricity, gas, water, construction, wholesale trade in food, textiles, beverages, intoxicants, transport, storage and communication, financing, insurance, real estate, and business services, community social, and personal services.

At the second level of classification the workers have been grouped on the basis of major group of services as presented below:

1. Public administration and Defence services.
2. Education, Scientific and Research services.
3. Retail trade in food articles and Beverages.
4. Construction.
5. Land Transport.
6. Personnel Services.
7. Medical and Health.
8. Repairs.
9. Communications.
10. Retail trade in others.
11. Restaurants and Hotels.
12. Retail trade in Textiles.
13. Other Minor Services.

At the third level of classification workers have been divided on the basis of minor groups, which includes services like Public services, Construction, Educational Services, Domestic, Health and Medical, Manufacturing Services and others.

4.10.1. District Level Pattern

At the aggregate level, more than 50 per cent of the total workers is occupied in works under community, social, and personal services, this rate of percentage being marginally lower than the percentage of other services.

In Jaintia Hills however, nearly 52 per cent (51.96 percent) of the urban workforce is engaged in community, social and personal services, followed by manufacturing and repairs, and wholesale trade etc, with 17.48, and 12.79 per cent respectively. The rest would constitute a percentage of less than 12 per cent.

Even in the East Khasi Hills district the proportion of worker in community, social, personal services constitutes nearly 50 per cent. This is followed by wholesale trade in food, textiles, live animals, beverages intoxicants with 16.73 per cent; manufacturing and repairs with 10.32 per cent; transport, storage and communication with 7.76 per cent, and construction with 7.57 per cent. The remaining occupations absorb around 10 per cent of the working force.

The West Khasi Hills absorbs more than half of its working force in community and personal services. This is followed by construction which employs 14.31 per cent; manufacturing and repairs 10.68 per cent.

Table 4.13
Meghalaya: Distribution of Workers in Major Divisions,1991

Division	J.Hills	E.K. Hills	W.K. Hills	E.G. Hills	W.G. Hills
Division 'O' Agriculture, Hunting, Fishery	2.60 (5)	3.21 (6)	6.77 (5)	12.06 (3)	4.48 (6)
Division '1' Mining & Quarrying	0.13 (9)	1.20 (9)	1.18 (8)	- (9)	0.35 (9)
Division '2&3' Manufacturing, Repairs	17.48 (2)	10.32 (3)	10.68 (3)	6.68 (5)	6.98 (5)
Division '4' Electricity, Gas, Water	0.19 (8)	1.91 (8)	4.19 (6)	1.30 (8)	1.05 (8)
Division '5' Construction	10.96 (4)	7.57 (5)	14.31 (2)	16.35 (2)	11.72 (3)
Division '6' Wholesale Trade in food, textile, live animals, beverages, intoxicants	12.79 (3)	16.73 (2)	9.83 (4)	10.87 (4)	17,94 (2)
Division '7' Transport, Storage, Communication	2.09 (6)	7.76 (4)	2.10 (7)	1.49 (7)	6.99 (4)
Division '8' Financing, Insurance, Real Estate, Business Services	1.26 (7)	2.15 (7)	- (9)	1.69 (6)	1.39 (7)
Division '9' Community, Social Personal Services	51.96 (1)	49.15 (1)	51.04 (1)	49.56 (1)	49.10 (1)

Source : District Census Abstract, Meghalaya, 1991.

(figures in parenthesis indicate the relative rank of an occupation)

In East Garo Hills, apart from community, social and personal services which is very high as in all the districts construction and agriculture constitutes the most dominant occupations which absorb 16.35 and 12.06 per cent respectively. This is followed by services like wholesale trade in food textile, live animals, beverages, and intoxicants, which employs about 10.87 per cent of the urban workforce.

In West Garo Hills Community, social and personal services constitute the dominant occupation (49.10 per cent) and is followed by services like wholesale trade

in food textiles, live animals, beverages and intoxicants which too absorb 17.94 per cent of the urban working force. The other services, which are classified as construction, have a share of 11.72 per cent. Manufacturing and repairs, transport storage and communication contributed to a little less than 7 per cent in the total working force in urban areas.

It is fairly evident that most of the towns in Meghalaya absorb the working force in occupations, which are in the tertiary sector. The most important occupation which absorbs the working force in these areas pertain to community, social and personal services. These services occupy the first rank in all the urban areas and absorb around 50 per cent of all working force. The other important occupations have been construction activities, manufacturing and repair works as also wholesale and retail trade. The variations in the relative position of these occupations in different towns are only marginal.

4.10.2. Major Groups

An analysis of the occupational structure of the urban workforce by a reference to the major group shows the dominance of public administration and defence services, is quite high in all the towns of Meghalaya. The share is 25.58 per cent in the towns in Jaintia Hills, 24.44 per cent in the towns of East Khasi hills, 30.43 per cent in the towns of West Khasi hills, 28.71 per cent in the towns of East Garo Hills and 23.38 per cent in the towns of West Garo Hills.

Table 4.14

Meghalaya: Urban Occupation Structure (Major Group), 1991

Occupation	Percentage Employed
Jaintia Hills	
1. Public administration and defence services	25.58 (90)
2. Construction	10.92 (50)
3. Services not elsewhere classified	9.83 (99)
4. Manufacture of textile products including wearing apparel other then footwear	6.16 (26)
5. Manufacture of wood and wood products	5.91 (27)
6. Retail trade in food, food articles, beverages, tobacco intoxicants	5.60 (65)
7. Personal services	5.25 (96)
8. Education, scientific and research services	4.98 (92)
9. Retail trade in textiles	3.55 (66)
10. Medical and health services	3.51 (93)
11. Repair	2.78 (39)
12. Land transport	2.42 (70)
East Khasi Hills	
1. Public administration and defence services	24.44 (90)
2. Education, scientific and research services	7.90 (92)
3. Retail trade in food, food articles, beverages, intoxicants	7.35 (65)
4. Construction	7.19 (50)
5. Land transport	5.21 (70)
6. Personal services	4.06 (91)
7. Medical and health services	3.03 (93)
8. Repair	2.78 (39)
9. Communications	2.46 (75)
10. Retail trade in others	2.39 (68)
11. Restaurants and hotels	2.31 (69)
12. Retail trade in textiles	2.22 (66)
West Khasi Hills	
1. Public administration and defence services	30.43 (90)
2. Construction	14.12 (50)
3. Agricultural services	5.34 (03)
4. Restaurants and hotels	4.86 (69)
5. Manufacture of textile products including wearing apparel other than footwear	4.48 (26)
6. Sanitary services	4.38 (91)
7. Medical and health services	4.29 (93)
8. Electricity	4.20 (40)
9. Education, scientific and research services	4.10 (92)
10. Services not elsewhere classified	3.14 (09)

11. Retail trade in food, food articles,beverages, tobacco, intoxicants	3.14 (65)
12. Personal services	2.57 (99)
East Garo Hills	
1. Public administration and defence services	28.71 (90)
2. Construction	16.25 (50)
3. Agriculture services	9.77 (03)
4. Medical and health services	5.78 (93)
5. Education, scientific and research services	5.48 (92)
6. Sanitary services	4.58 (91)
7. Manufacture of wood and wood products	4.28 (27)
8. Restaurants and hotels	4.18 (69)
9. Retail trade in food, food articles, beverages, tobacco, intoxicants	4.08 (65)
10. Services not classified elsewhere	1.99 (99)
11. Personal services	1.79 (96)
12. Banking and similar type of financing institution	1.69 (80)
West Garo Hills	
1. Public administration	23.30 (90)
2. Construction	11.37 (50)
3. services not elsewhere classified	8.16 (99)
4. Retail trade in food, food articles, beverages, tobacco, intoxicants	7.45 (65)
5. Education, scientific and research services	7.01 (92)
6. Land transport	5.80 (70)
7. Personal services	4.73 (96)
8. Medical and health services	3.76 (93)
9. Retail trade in others	3.00 (68)
10. Agricultural services	2.38 (03)
11. Banking & similar type of financing institution	1.19 (80)
12. Communication	1.16 (75)

Source : District Census Abstract 1991.

Occupations like construction occupies a prominent place in all where except one district and employ a very high proportion of the workforce in East Garo Hills i.e. around 16.25 per cent, This is followed by West Khasi hills with 14.22 per cent. West Garo Hills 11.37 per cent, Jaintia Hills 10.92 per cent and East Khasi Hills with 7.19 per cent. Interestingly construction occupies the fourth rank in East Khasi Hills district

where educational, scientific and research activities account for around 8 per cent of the workforce. Thus, it is evident that much of the workforce in Shillong is confined to administration, defence and educational occupations.

Educational services employ relatively high proportion of the workforce in the district of East Khasi Hills and West Garo Hills. The percentage share under this category of services is 7.90 and 7.01 per cent respectively.

In terms of retail trade in food, food articles beverages and intoxicants, more than 7.35 per cent of the workforce is engaged in these activities in East Khasi Hills towns while the share in West Garo Hills is 7.45 per cent. A very small portion of the urban workforce is engaged in retail trade in other districts. It is evident thus that trade and business is well developed in Shillong and Tura towns only.

A cursory examination of the distribution of urban workers (major group) reveals that a very small portion of the workforce is engaged in services like Transport, Personal services, Restaurant and Hotels, Medical Health Services and others are as little as 5 per cent. However manufacturing sector seems to be relatively developed. This can be seen in the district of Jaintia Hills and West Khasi Hills district with 6.16, 4.48 per cent respectively engaged in manufacturing activities.

4.10.3. Minor Group

In the case of minor group, West Khasi Hills has 28.24 per cent of the total urban workers engaged in the services classified as public services in the state government

including police services. This is followed by East Garo Hills with 27.81 per cent, Jaintia Hills with 17.55 per cent, East Khasi Hills with 13.37 per cent and West Garo Hills with 13.0 per cent.

Table 4.15
Meghalaya: Urban Occupational Structure (Minor Group), 1991

Occupation	Percentage Employed
Jaintia Hills	
1. Public administration in State Government including Police services	17.59
2. Services not elsewhere classified	9.83
3. Construction and maintenance of roads, railways, bridges, tunnels, pipeline, ports, harbors, runways.	8.65
4. Manufacture of all types of textile garments including wearing apparel	5.95
5. Public service in local bodies, department and offices engaged in Administrations like local taxation, business regulations, etc.	5.29
6. Educational services rendered by non technical college, school, units and other institutions.	4.76
7. Manufacture of wooden furniture and fixtures	4.25
8. Domestic services	4.07
9. Grain and grocery stores	3.54
10. Medical and health services rendered by organization and individuals such as hospitals, dispensaries, sanitoria	3.47
11. Dealers in textiles not ready made	2.78
12. Construction and maintenance of building	2.18
East Khasi Hills	
1. Public services in State Government including Police services	13.37
2. Public services in the Union Government including defence services	11.00
3. Educational services rendered by Non Technical College, School, University and other Institution	5.64
4. Domestic services	4.64
5. Services not elsewhere classified	4.28
6. Construction and maintenance of building	3.90
7. Construction and maintenance of roads, railways, bridges, tunnels, pipeline, ports, harbours, runways.	3.14
8. Grain and grocery store	2.89
9. Health and medical services rendered by organization and individuals such as hospitals, dispensaries, sanitoria, nursing home.	2.77
10. Research and scientific services such as those rendered by institutions & laboratories engaged	2.05
11. Restaurant, cafes and other eating drinking places	1.90
12. Manufacture of all types of textiles garment including wearing apparel	1.85

West Khasi Hills	
1. Public services in State Government including Defence Services	28.24
2. Construction and maintenance of roads, railways, bridges, tunnels, pipeline, ports, harbours runways.	11.93
3. Restaurants, cafes and other eating and drinking places	4.86
4. Manufacture of all types of textile garments including wearing apparel	4.10
5. Educational services rendered by non technical College, School, University and other Institution	4.00
6. Services not elsewhere classified	3.15
7. Medical and health services rendered by organization and individuals such as hospitals dispensaries, sanitoria, nursing home, child welfare, clinics, allopathy, ayurvedic, unami, homeopathy, practitioners etc	2.86
East Garo Hills	
1. Public services in State Government including Police Services	27.81
2. Construction and maintenance of roads, railways, bridges, tunnels, pipelines, ports, harbours and runways	12.26
3. Educational services rendered by non technical College, School, University & other Institution	5.48
4. Sanitation and similar services such as garbage and sewage disposal operation of drainage systems and other types of works connected with public health and sanitation	4.58
5. Health and medical services rendered by organization & individuals such as hospitals, dispensaries, sanitoria, nursing home, child welfare, clinics	4.48
6. Restaurants, cafes and other eating drinking places	3.58
7. Grain and grocery store	2.79
8. Services not elsewhere classified	1.99
9. Planting replanting and conservation of forest	1.29
West Garo Hills	
1. Public services in State Government including police services	13.00
2. Services not elsewhere classified	8.16
3. Construction and maintenance of roads, railway bridges, tunnels, pipel;ines, ports, harbours, runways, etc	7.49
4. Public service in the union Government service, defence services	6.61
5. Educational services rendered by non technical collge, school, university and other institution	6.54
6. Construction and maintenance of building	3.85
7. Domestic services	3.68
8. Grain and grocery store	3.50
9. Dealers in firewood, coal and kerosine oil	3.18

Source : District Census Abstract,1991

The share of Police services in the Union Government including Defence services is also quite high in East Khasi Hills district with 11.00 per cent

Occupation like construction and maintenance of roads, bridges, pipelines etc absorb a significant proportion of urban workforce in three districts namely East Garo Hills, West Khasi Hills and Jaintia Hills. This is due to the facts that after the creation of these three districts new towns have developed and construction work constitute a dominant position in such a situation.

Services like Educational Research Services play an important role in the contribution to the total percentage of workers. This can be seen that educational services in the East Khasi Hills and West Garo Hills are quite high (above 5 per cent), i.e., 6.4 per cent in West Garo Hills and 6.4 per cent in East Khasi Hills other district registered a percentage of about 4 per cent.

When occupations in minor group are examined, it is interesting to note that domestic service claims a significant position in urban areas of Meghalaya. Around 3 to 4 per cent of all urban workers are employed in this sector.

It is possible that people who are engaged in these kinds of services are usually migrants from the rural areas. A majority of the people are engaged in these services are females. In the case of these districts where agriculture absorbs significant percentage of the urban workforce, the proportion of domestic service is negligible.

Health and Medical Services employs a small proportion in comparison with other services. East Khasi Hills district employs 2.77 per cent of the urban workers in

this sector while Jaintia Hills has 3.47 per cent and East Garo Hills has 4.48 per cent of the urban workers employed in health and medical services.

4.11 **Concluding Statement**

The above analysis of the pattern of urbanization and the urban economic base which play a crucial role in inducing rural to urban migration lead to the following broad generalizations:

i. the state is experiencing urban growth in recent years only.

ii. the level of urbanization is quite low compared to many other states of India.

iii. the spatial variation in the share of urban population shows wide variations at district and development block level.

iv. only a few urban centres are of large size and create condition of primacy.

v. The growth of urban population appears to be more due to natural increase rather than migration.

vi. The larger order urban centres are characterized by slow growth in their population while the newly emerging towns are adding to their population primarily due to small base of their population.

vii. The urban economic base is largely in favour of tertiary sector with an accent on administration and informal job opportunities. Both these have very little potential to absorb large number of rural migrants.

Chapter V

Rural to Urban Migration in Meghalaya: Analysis of Census Data

5.1 Introductory Statement

One of the major effects of migration in any area refers to a change in the total volume of population. The change is effected either by differential in birth and death rates (natural growth) or by migration. Thus, an area gains or loses population through in-migration or out-migration. In other words, migration is a major factor in changing the size and the structure of the population. The movement process affects the areas to which the migrants have moved and areas which they have left.

The Census has classified migrants either by their `place of last residence' or by their `place of birth'. Both these type[1] are considered in the analysis.

The volume of rural-urban migration is a response to the varying resource potential of the study area.

Areas with fragile resource bases, such as those traditionally practice shifting cultivation, areas which are experiencing widespread deforestation and the areas with

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[1] Place of birth: When a person born in the village or town where he or she is being enumerated.
Last Residence: The answer to this question will have to be filled in respect of every person, if he or she had another or normal residence irrespective of his or her place of birth, before he or she come to the present place where he or she is enumerated. Even if a person was born at a place of enumeration but because he or she works or studies, etc., he or she had shifted subsequently to another village or town and had come back again to the place of enumeration, he or she should be deemed to have another place of residence prior to this or her enumeration here. The immediate previous village or town residence is relevant only if, he or she had been outside the village or town of enumeration and not simply in another house or locality in the same place. Similarly, if a person is enumerated at a place other than his place of birth and if he had no another place of normal residence before coming to the place of enumeration, the place of birth would be the place of last residence.

a large scale exhaustion of mineral resources are experiencing migration to the urban areas in search of livelihood.

The nature of rural-urban migration in areas where the resource base is better utilized is characterized by a positive selection of the migrants who may improve their position by moving to towns; some of them will migrate as students to improve their socio-economic status.

The stream of migration is not sex selective due primarily to the fact that the region has the prevalence of matrilineal system. However, in some areas the sex selectivity may be more due to individual migration for education, government employment etc.

A study of the patterns of migration based on Census data available from 1981 Census enumeration[2] leads to the following broad generalizations as outlined below[3]:

- A very high proportion of the immigrants in Meghalaya is concentrated in one district, i.e., East Khasi Hills district where Shillong is located.

- Inter-district migration in the share of migrants seems to be closely related with the size of the urban segment of the population in the districts. There exists a positive association between the size of migrants and that of the urban population.

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[2] In spite of the best efforts, Census data on Migration could not be available for the year 1991 till the time of writing this report.

[3] Nengnong, D.D., 1991: "Rural Urban Migration in Meghalaya", *M.Phil Dissertation (Unpublished)*, Department of Geography, NEHU, Shillong, pp. 44-99.

- Bulk of the migration and related redistribution of population is of intra-state origin. The intra-state migration thus accounts for a very high share of the total migrants.

- The migrants from outside the state are almost exclusively concentrated in East Khasi Hills. In fact, larger the distance, the greater is the concentration of migrants in the district.

- Out of the total migrants from outside the state, the migrants from Assam have a greater diversity in their distribution. Migrants from other states tend to concentrate only in East Khasi Hills district.

- The male migration closely resembles the aggregate pattern.

- A relatively larger proportion of female migrants is found in East Khasi Hills district compared to their male counterparts.

5.2 **Streams of Migration**

As is well known the rural-to-rural stream at the all India level dominates in terms of the share of migrants in all the four streams. This is understandable considering the largely rural character of the country, which has a recent experience of urbanization. The case is no different in the North-East in general and Meghalaya in particular. The level of urbanization in this part is abysmally low and whatever migration takes place is largely across the rural space. Thus, in terms of quantity, rural to rural stream is expected to dominate the migration pattern in this part of the country too. The rural to urban stream may be small in terms of quantity but very significant in terms of quality

as it reflects a departure from the traditional organization of migration behaviour in a predominantly agricultural economy to occupations in the non-agricultural sectors. This also means a shift from the agricultural economy to occupations in the non-agricultural sectors. This qualitative aspects of migration in this underdeveloped hilly and tribal dominated state of India provides the basis for an in depth study of rural to urban stream of migration.

In this chapter, an attempt is made first to analyze the pattern inherent in different streams of migration and then an in depth understanding of the causes and types of rural-to-urban migration.

5.3 **Distribution of Migrants by Streams of Migration**

Table 5.1 indicates the size of migration in each of the four streams in different districts. It is evident from the (Table 5.1 and Figure 5.1) that the rural-to-rural stream dominates all the streams. At the state level nearly 61 per cent of all migrants (by place of last residence) have moved from one rural area to another. On the other hand, only 16.95 per cent have reported to have moved from rural to urban areas. The proportion of inter-urban migrants is relatively more significant with nearly 15 per cent of all migrant having changed residence from one urban area to another. urban-to-rural stream is insignificant with only 7.12 per cent of all migrants recorded in this category.

Meghalaya
Distribution of Migrants by Streams of Migration
1981

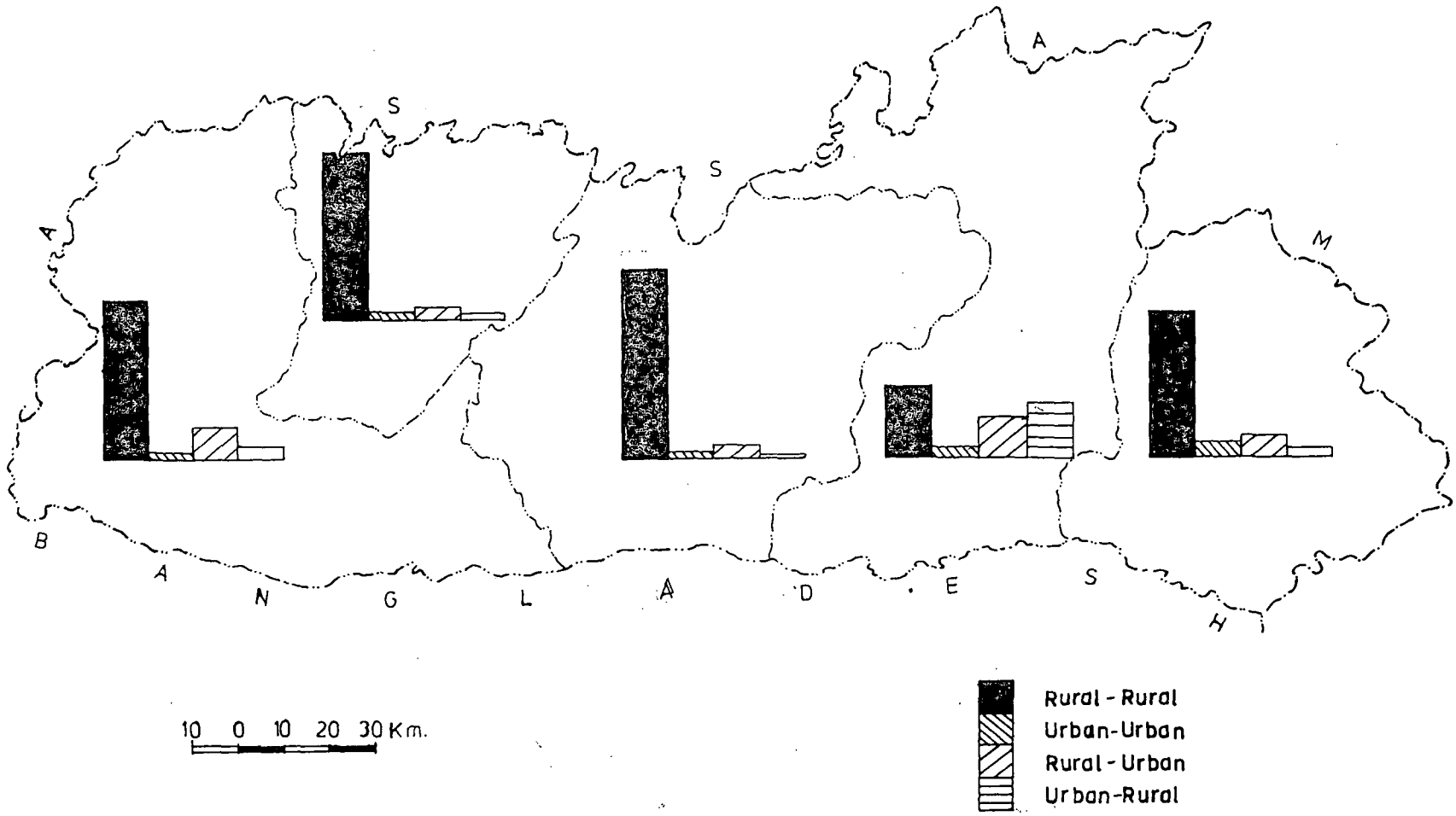

Fig 5.1

Table 5.1
Meghalaya: Distribution of Migrants Classified by Stream, 1981

District	Total Migrants	Rural-Rural	Urban-Urban	Rural-Urban	Urban-Rural	Diversity Index
Meghalaya	291543	178277 (61.14)	20762 (7.12)	49427 (16.95)	43077 (14.77)	0.57
Jaintia Hills	25019	19421 (77.62)	1542 (6.16)	2772 (11.07)	1284 (5.13)	0.37
East Khasi Hills	128047	49676 (38.79)	14167 (11.06)	28786 (22.48)	35418 (2766)	0.71
West Khasi Hills	16079	22635 (88.45)	830 (3.24)	1588 (6.21)	537 (2.10)	0.21
East Garo Hills	29464	25001 (88.85)	1216 (4.13)	2113 (7.17)	1134 (3.85)	0.27
West Garo Hills	83423	61544 (73.77)	3007 (3.60)	14168 (16.98)	4704 (5.64)	0.42

Source: Census of India, Migration Tables, Meghalaya, 1981.
(figures in parenthesis are in percentage)

The pattern at the district level, however, is quite different. For example the share of rural-to-rural stream ranges between 38.79 and 88.45 per cent at the district level. East Khasi Hills district has the lowest proportion of rural-to-rural migrant population while the migration in West Khasi Hills district takes place largely across the rural areas (i.e. 88.85 per cent).

In the sphere of rural-to-urban migration a little over a fifth (22.39 per cent) of all migrants of East Khasi Hills district is from rural areas. The proportion is about one sixth (16.96 per cent) in West Garo Hills district. Interestingly, Jaintia Hills district has a very significant stream of rural to urban migration which is about 11.07 per cent. The rural-to-urban stream is insignificant in the remaining two districts.

As much as 27.66 per cent of all the migrants in East Khasi Hills district has moved from one urban area to another. In the remaining districts inter-urban migration constitutes only a small proportion of the total volume of migration.

The urban-to-rural migration in India is yet to record its significance. The case in Meghalaya is no different. However, East Khasi Hills district contains a relatively high proportion of urban-to-rural stream of migration which accounts for 11.06 per cent of all migrants.

In terms of Rural-Urban stream of migration, this stream appears to be very well developed in East Khasi Hills district and fairly well developed in East Garo Hills district. It is a significant stream in Jaintia Hills district too. In terms of overall composition, East Khasi Hills district shows a highly diversified composition of various streams of migration, the diversity index (calculated after Greenberg's method)[4] being as high as 0.71. This is the only district which shows a higher diversity index in all the four streams obtained at the state level, i.e., 0.57. The stream composition is relatively more diverse in West Garo Hills district (0.42) followed by Jaintia Hills district (0.37). In the remaining two districts the composition of various streams of migration is marked by the dominance of a single stream (Table 5.1), i.e., the Rural to Rural stream.

Studies on migration behaviour points out sex differentials in all the streams of migration for as is well known all migration tends to be selective. It is proposed now to examine the distribution of male and female migrants in various streams of migration into Meghalaya both at aggregate and district levels.

5.4 **Male-Female Differential**

A cursory examination of Table 5.2 reveals that the distribution of male migrants in the four streams closely resembles the aggregate pattern both at the state and the

[4] Joseph. H. Greenberg 1980: *An Exploration of India* Cornell, Ithaka, New York, pp. 235-238.

district level. A few notable features of difference may be outlined. Relatively less proportion of males in Jaintia Hills district is represented in rural-rural stream with a corresponding rise in the urban-rural and urban-urban stream. On the other hand, there is a slight rise in the proportion of male migrants in the rural-rural stream in East Khasi Hills district with a corresponding decline in rural-urban stream. Similarly, male representation in the rural-urban stream is marginally less compared to the aggregate picture in West Khasi Hills district. (Figure 5.2)

Table 5.2
Meghalaya: Distribution of Male Migrants Classified by Streams, 1981

District	Total Migrants	Rural-Rural	Urban-Rural	Rural-Urban	Urban-Urban
Meghalaya	164063	101726 (62.00)	12099 (7.37)	26469 (16.13)	23969 (14.60)
Jaintia Hills	11886	8725 (73.40)	1027 (8.64)	1369 (11.52)	765 (6.44)
E.K.Hills	71653	28766 (40.14)	7950 (11.09)	15394 (21.48)	19593 (27.34)
W.K.Hills	16079	14286 (88.84)	526 (3.27)	897 (5.58)	370 (2.30)
E.G.Hills	17319	14619 (84.41)	797 (4.60)	1192 (6.88)	711 (4.11)
W.G.Hills	47276	35330 (74.73)	1799 (3.81)	7617 (16.11)	2530 (5.35)

Source: Census of India, Migration Tables, 1981.
(figures in parenthesis are in percentage)

On the other hand, the distribution of female migrants (Table 5.3) shows a relatively larger proportion in the rural-to-urban stream. At the aggregate level only 16.95 per cent of all migrants have changed their residence from rural to urban areas. In the case of males the share was 16.13 per cent. But in the case of female the share is higher at 18.00 per cent.

At the district level however, Jaintia Hills district shows a relatively low of female representation of migrants in rural-urban stream. The share is only 10.68 per cent compared to 11.52 per cent for male and 11.07 per cent at the aggregate level. A large proportion of female migrants is found in rural-to-urban stream in East Khasi Hills district, their proportion is nearly a quarter (23.77 per cent) of all female

Meghalaya

Distribution of Male Migrants Classified by Streams
1981

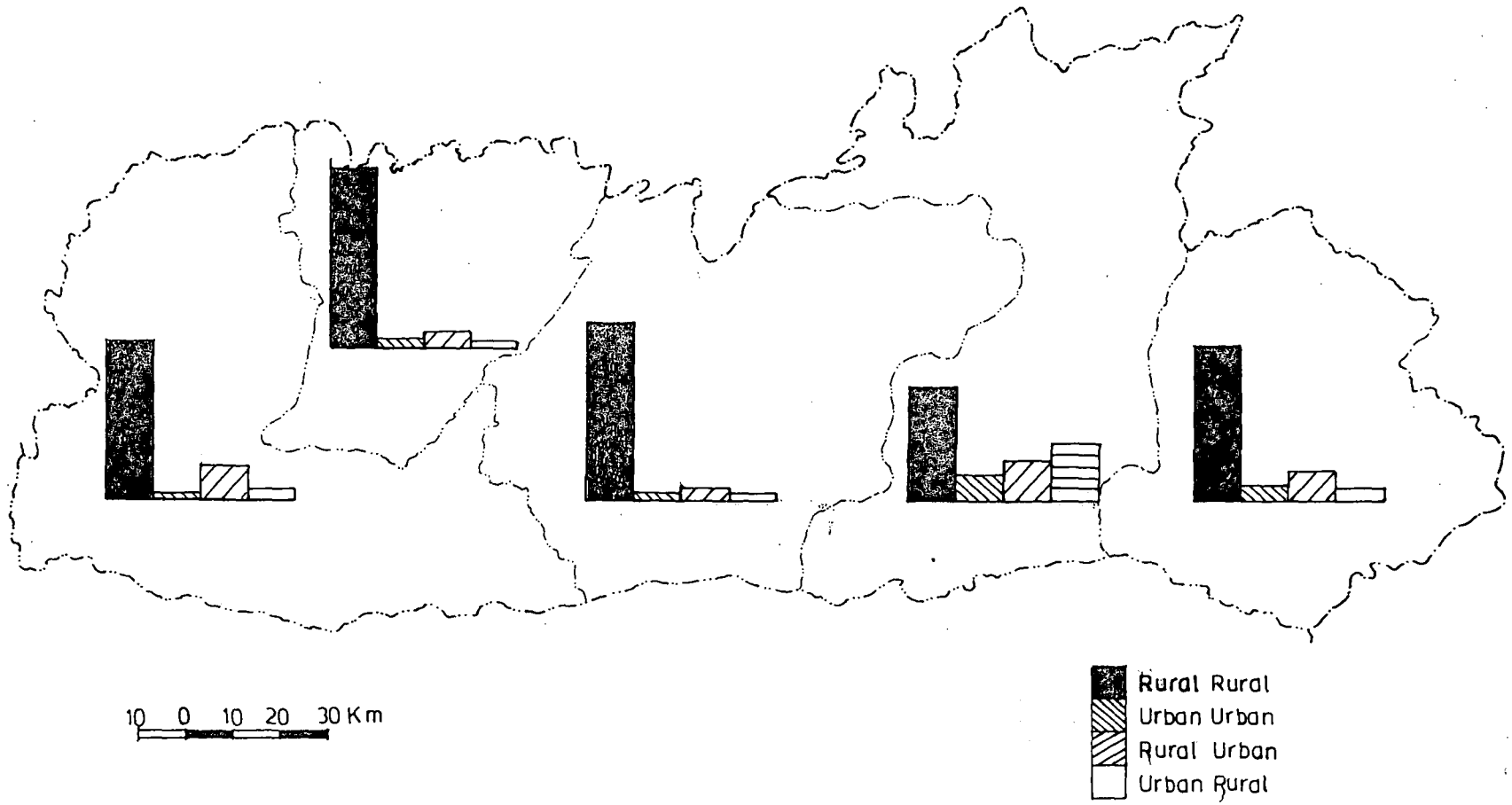

Fig 5.2

Meghalaya
Distribution of Female Migrants Classified by Streams
1981

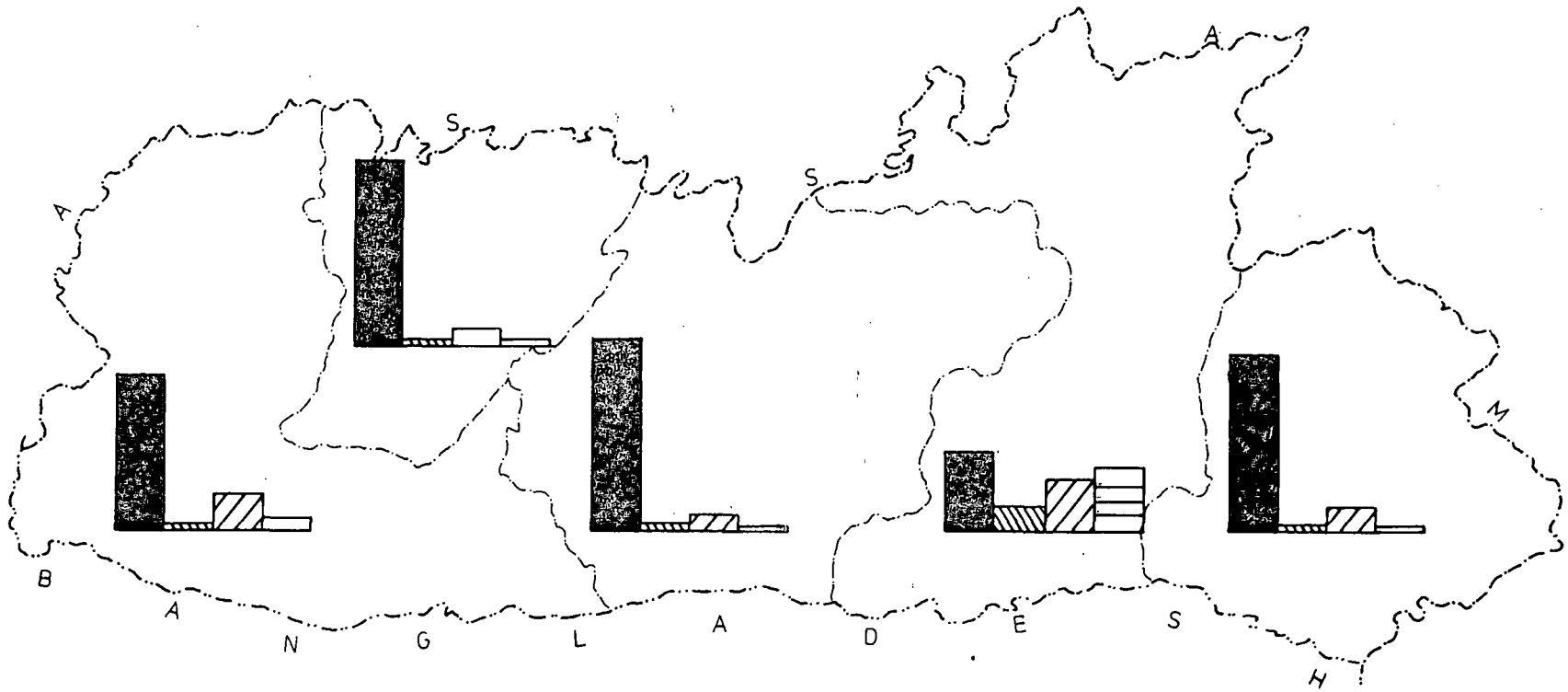

Fig 5.3

migrants in the district compared to 21.48 per cent in the case of males. West Garo Hills district too presents a similar picture.

Table 5.3
Meghalaya: Distribution of Female Migrants Classified by Streams, 1981

District	Total Migrants	Rural-Rural	Urban Urban	Rural-Urban	Urban-Rural
Meghalaya	127280	76511 (60.11)	8663 (6.81)	22958 (18.00)	19108 (15.01)
Jaintia Hills	13133	10696 (81.44)	515 (3.92)	1403 (10.68)	519 (3.95)
E.K.Hills	56344	20910 (37.11)	6217 (11.03)	13392 (23.77)	15825 (28.09)
W.K.Hills	9511	8349 (87.78)	304 (3.20)	691 (6.77)	167 (1.64)
E.G.Hills	12145	10382 (84.48)	419 (3.45)	921 (7.58)	423 (3.48)
W.G.Hills	36147	26214 (72.52)	1208 (3.34)	6551 (18.12)	2174 (6.01)

Source: Census of India, Migration Tables, 1981.
(figures in parenthesis are in percentage)

In the case of rural-to-rural stream, the females show a larger representation in Jaintia Hills district and East Garo hills district when compared with the aggregate pattern. Their share, however, shows a marginal decline in East and West Khasi Hills district. There is a general decline in the distribution of females in the urban to rural stream in the state as well as in the districts. But in the case of urban-urban stream, the female representation is more at the state level, and in East Khasi Hills district and West Garo Hills district. The remaining districts register an overall decline. (figure 5.3)

5.5 Sex Composition of Migrants

In terms of sex composition the females account for a very significant proportion in all the streams. At the district level males outnumber females in all the four streams of migration. Interestingly in the rural to urban stream, the females are far more numerous as compared to the other three streams of migration. As much as 46.5 per cent of all the rural-to-urban migrants consists of the female. Generally, it is this

stream which tends to be male selective. But in Meghalaya, the intensity of male selectiveness of rural-urban migration stream is less conspicuous. The deviation from the all-India pattern in this respect is significant indication of a higher overall status enjoyed by women in this region. [Table 5.4 and Fig. 5.4 (a & b)].

Table 5.4
Meghalaya: Sex Composition of Migrants in Various Streams (in %)

District	Rural-Rural		Urban-Rural		Rural-Urban		Urban-Urban	
	Male-Female		Male-Female		Male-Female		Male-Female	
Meghalaya	57.06	42.04	58.30	41.7	53.50	46.5	55.60	44.4
Jaintia Hills	44.9	55.1	66.6	33.4	49.4	50.6	59.5	40.5
E.K.Hills	57.9	42.1	56.1	43.9	53.5	46.5	55.3	44.7
W.K.Hills	63.1	36.9	63.4	36.6	56.5	43.5	68.9	31.1
E.G.Hills	58.5	41.1	65.5	34.5	56.4	43.6	62.7	37.3
W.G.Hills	57.4	42.6	59.8	40.2	53.8	46.2	43.8	46.2

Source: Census of India, Migration Tables, Meghalaya, 1981.

In the rural-rural, urban-urban and urban-rural streams, the females account for 42.04 per cent, 44.40 per cent and 41.70 per cent of all migrants respectively. It is significant to note that in no case the share drops below 40 per cent at the state level.

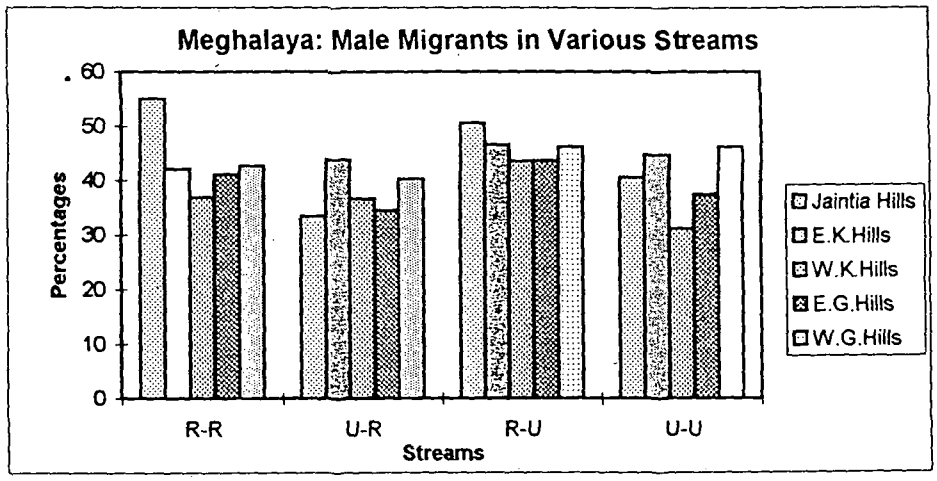

Fig. 5.4 (a)

Significantly, males and females are found in equal numbers in the rural-urban stream of migrants in Jaintia Hills district. In the West Khasi Hills district and East Garo Hills districts, the females constitute a smaller proportion accounting for about 43.5 per cent of all migrants. The remaining two districts show a share close to the state average. In the case of urban to urban migration, the composition is largely in favour of males in West Khasi Hills and East Khasi Hills districts. In the remaining districts the females account for over 40 per cent of all migrants.

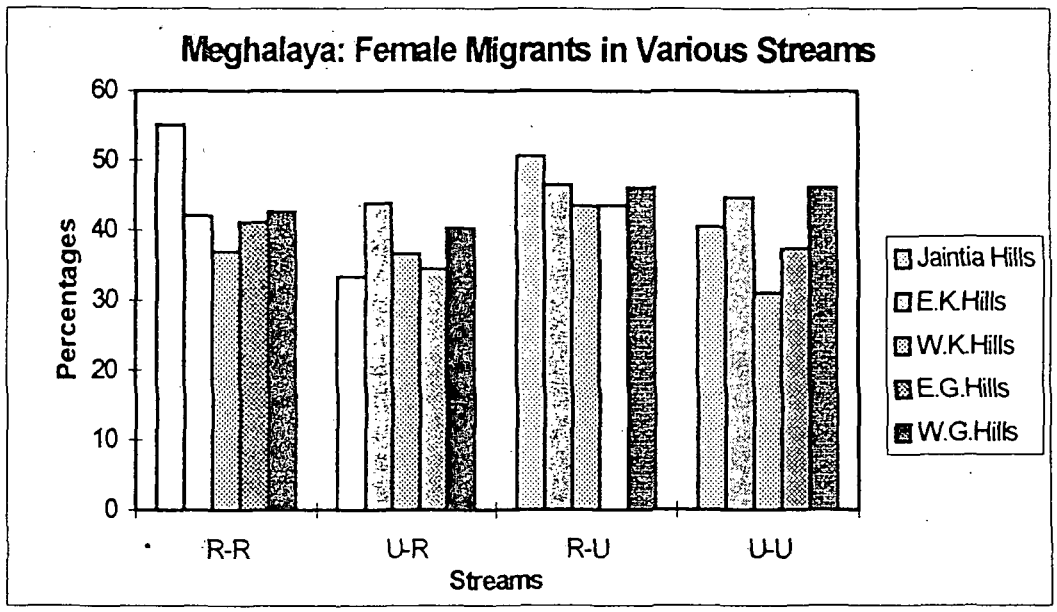

Fig.5.4 (b)

The dominance of males in the urban-to-rural stream is found in all the districts except in East Khasi Hills and West Garo Hills district where the females constitute over 40 per cent of all migrants.

5.6 **Rural to Urban Stream**

After having examined the distribution and sex composition in various streams it is imperative at this stage to examine a little more closely the rural-urban stream. An

attempt is made here to analyze the distribution of rural-to-urban migrants classified by distance and sex composition.

Table 5.5
Meghalaya: Distribution of Rural-Urban Migrants by Place of Last Residence, 1981

District	Intra	Inter	Total	Assam	Bihar	Others	Total	G.Total
Meghalaya	24595 (49.76)	7424 (15.02)	32019 (64.75)	6843 (13.84)	4570 (9.25)	5998 (12.13)	17411 (35.22)	49430 (100)
Jaintia Hills	2056 (74.17)	340 (12.24)	2396 (86.43)	164 (5.92)	136 (4.91)	76 (2.74)	376 (13.57)	2772 (100)
E.K.Hills	11850 (41.16)	4880 (16.96)	167730 (58.12)	3655 (12.70)	3549 (12.32)	48.53 (16.86)	12057 (41.88)	28787 (100)
W.K.Hills	1207 (76.06)	263 (16.57)	1470 (92.63)	71 (4.47)	32 (2.02)	14 (0.88)	117 (1.37)	1587 (100)
E.G.Hills	981 (46.43)	658 (31.14)	1639 (77.57)	418 (19.78)	38 (1.80)	18 (0.85)	474 (22.43)	2113 (100)
W.G.Hills	8500 (59.99)	1285 (.07)	9785 (69.06)	2533 (17.88)	815 (5.75)	1036 (7.31)	4384 (30.94)	14169 (100)

Source :Census of India, Migration Tables, Meghalaya, 1981.
(figures in parenthesis are in percentage)

At the aggregate level, bulk of the rural-to-urban migration consists of intra-state origin. This type accounts for about 64.8 per cent of all rural to urban migration in Meghalaya, the remaining having come from other states of India. At the district level however, nearly all of the rural-urban migrants (92.63 per cent) in West Khasi Hills district are of intra state origin (Table 5.5 and figure 5.5). The share of intra state rural to urban migrants is also high (86.44 per cent) in Jaintia Hills too. Except for East Khasi Hills district where a very significant proportion (nearly 42 per cent) of the rural-to-urban migrants is from outside Meghalaya, all other districts show a dominance of rural-to-urban migration which is of intra-state origin.

The rural-urban migration involving intra district movement accounts for very large share i.e., nearly half of all Rural-Urban migration. The share however goes upto 76 per cent in West Khasi Hills district and upto 74 per cent in Jaintia Hills. It is about

Meghalaya

Distribution of Rural Urban Migrants by Place of Last Residence 1981

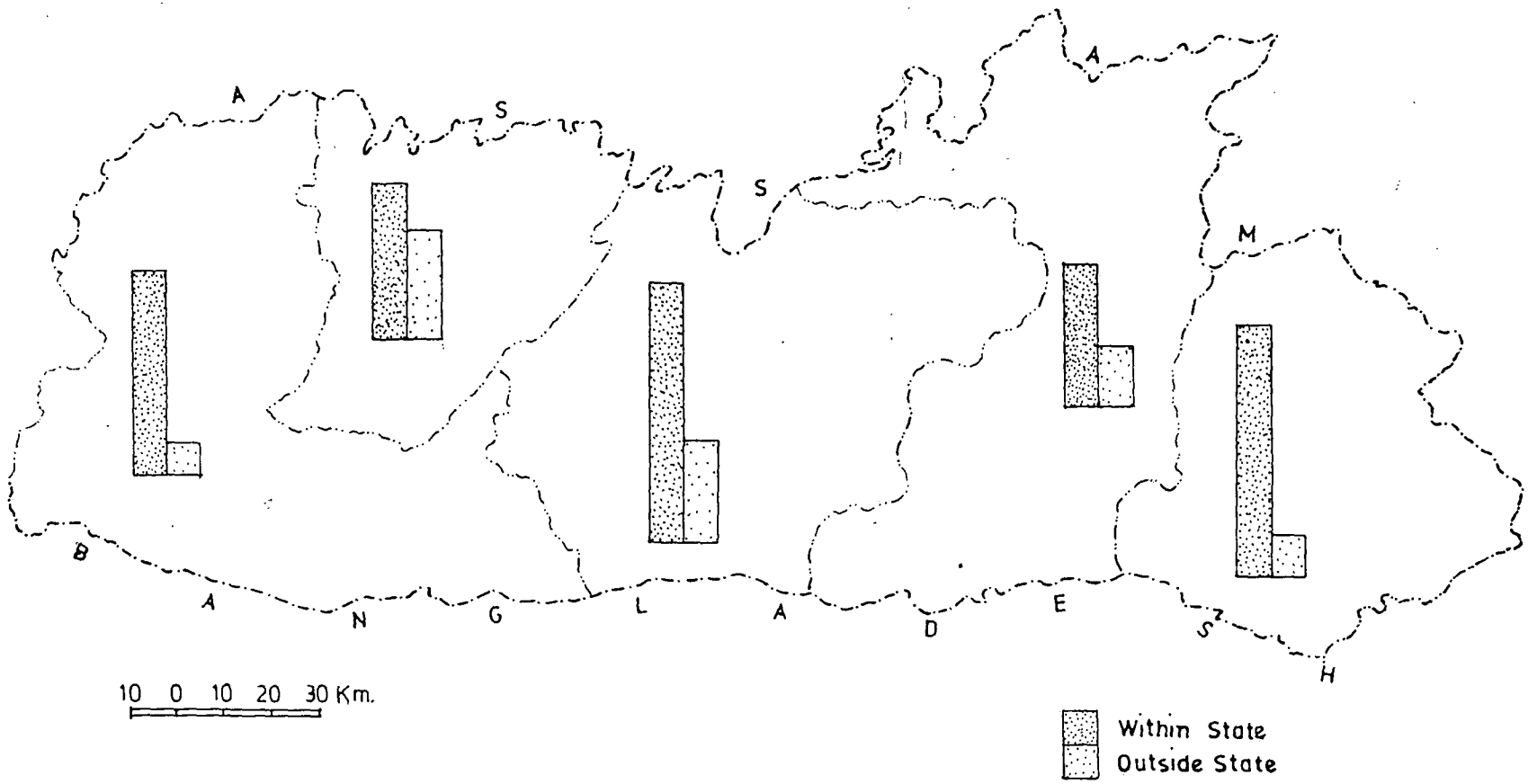

Fig 5.5

60 per cent in West Garo Hills district. Significantly, inter-district rural-urban migration stream accounts for over 31 per cent of all rural-urban migration in East Garo Hills district. In the Khasi Hills districts the inter-district rural-urban migration accounts for about a sixth of all rural-urban migration in these districts.

In terms of inter-state migration about 14 per cent of all migrants from rural areas coming to urban centres in Meghalaya are from Assam. The Assamese rural-urban migrants account for nearly a fifth of all rural-urban migrant in the East Garo Hills district and their share is a little less (i.e.,17.88 per cent) in West Garo Hills district. The percentage of Bihari migrants from the rest of India is very high (12.32 per cent) in East Khasi Hills district.

5.7 **Sex Composition of Rural-Urban Migrants**

The proportion of male rural-to-urban migrants of inter-state origin is relatively larger at the state level accounting for about 42.2 per cent of all male migrants from rural areas. But this is largely due to a very large concentration (51.6 per cent) of male migrants from outside the state in only one district, i.e., East Khasi Hills district (Table 5.6 and figure 5.6). However, compared to the aggregate pattern, males from rural origin from outside the state are more in all the districts with a comparable decline in the intra-state rural-urban male migration. For example, the intra-state male migration in rural-urban stream comes down to 80.5 per cent in Jaintia Hills district. However, the difference is most marked in East Khasi Hills district wherein only 48.41 per cent of all Rural-Urban migrants among the males are of intra-state origin.

Table 5.6
Meghalaya: Distribution of Rural-Urban Male Migrants by Place of Last Residence, 1981

District	Intra	Inter	Total	Assam	Bihar	Others	Total	G.Total
Meghalaya	11716 (44.26)	3589 (13.56)	15305 (57.81)	3942 (14.89)	3537 (13.36)	3688 (13.95)	11167 (42.18)	26472 (100)
Jaintia Hills	938 (68.51)	164 (11.98)	1102 (80.50)	110 (8.03)	108 (7.89)	49 (3.58)	267 (19.50)	1369 (100)
E.K.Hills	5255 (34.13)	2198 (14.28)	7483 (48.41)	2132 (13.85)	2748 (17.85)	3062 (19.89)	7942 (51.59)	15359 (100)
W.K.Hills	618 (68.89)	192 (21.40)	810 (90.30)	47 (5.23)	30 (3.34)	10 (1.11)	87 (9.70)	897 (100)
E.G.Hills	528 (44.30)	370 (31.40)	898 (75.33)	256 (21.48)	25 (2.10)	13 (1.09)	294 (24.66)	1192 (100)
W.G.Hils	4377 (57.46)	666 (8.74)	5043 (66.20)	1396 (18.33)	626 (8.22)	553 (7.26)	2575 (33.80)	7618 (100)

Source: Census of India, Migration Tables, Meghalaya,1981.
(figures in parenthesis are in percentage)

The share of intra-district rural to urban male migrants varies between 34.13 per cent in East Khasi Hills district and 68.51 per cent in Jaintia Hills. Inter-district rural to urban male migrants account for a smaller share except in the case of East Garo Hills where it is as high as 31 per cent. Male rural to urban migrants from other states account for a relatively larger share in all the districts.

The female rural-to-urban migrants are far more numerous in the intra-state category. Compared to an aggregate share of 64.78 per cent and male's share of only 57.81 per cent, the intra-state movement of females from rural to urban areas accounts for nearly 73 per cent at the state level. Nearly all of the rural to urban female migration takes place within the state (intra-state or inter-district) in West Khasi Hills district (i.e.95.65 per cent) and Jaintia Hills (i.e. 92.23 per cent) most of which is intra-district in character involving short distance journey. Interestingly, West Garo Hills district has a larger share (i.e. 27.61 per cent) of inter-state female migrants in the rural urban stream which includes 7.4 per cent of female migrants from other states of India excluding Assam and Bihar. Even in East Khasi Hills the females, unlike their

male counterparts, account for a very large proportion of their rural-urban migration in the intra state category.

Table 5.7
Meghalaya: Distribution of Rural-Urban Female Migrants by Place of Last Residence, 1981

District	Intra	Inter	Total	Assam	Bihar	Others	Total	G.Total
Meghalaya	12879 (56.10)	3835 (16.7)	16714 (72.8)	2901 (13.01)	1033 (44.99)	2310 (10.06)	6244 (27.20)	22958 (100)
Jaintia Hills	1118 (72.69)	176 (12.54)	1294 (92.23)	54 (3.85)	28 (1.99)	27 (1.92)	109 (7.77)	1403 (100)
E.K.Hills	9277 (46.41)	6595 (33.00)	15872 (79.41)	1523 (7.62)	801 (4.01)	1791 (8.96)	4115 (26.59)	19987 (100)
W.K.Hills	589 (85.36)	71 (10.29)	660 (95.65)	24 (3.47)	2 (0.28)	4 (0.57)	30 (4.34)	690 (100)
E.G.Hills	453 (44.19)	288 (31.27)	741 (80.46)	162 (17.59)	13 (1.41)	5 (0.54)	180 (19.54)	921 (100)
W.G.Hills	4123 (62.94)	619 (9.45)	4742 (72.39)	1137 (17.36)	189 (2.89)	483 (7.37)	1809 (27.61)	6551 (100)

Source : Census of India, Migration Tables, 1981.
(figures in parenthesis are in percentage)

The share is as high as 79.41 per cent of all rural-urban female migrants in East Khasi Hills district. The only notable feature however is that the inter-district migration among females constitute a significant proportion in this district which is a little more than a quarter of all rural-urban female migration into the district. In general, bulk of the female rural-urban migration is confined within the state, the inter-state category accounting for only a small proportion of all rural-urban female migration (Table 5.7 and figure 5.7).

5.8 Sex Composition

An interesting observation of the sex composition of the rural-urban migration stream relates to the dominance of women in the intra-state category. The opposite however is

Meghalaya

Distribution of Rural-Urban Female Migrants by Place of Last Residence

1981

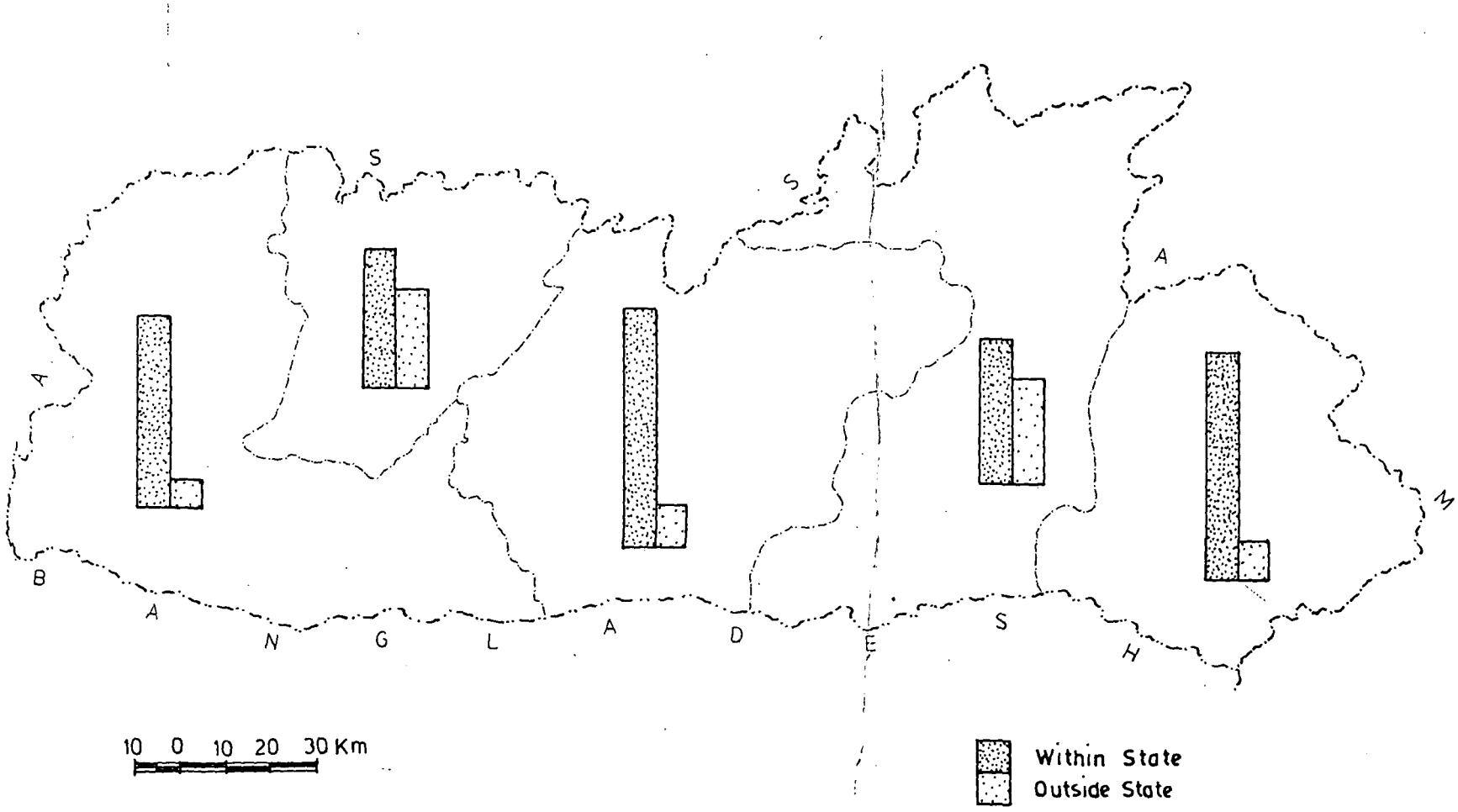

Fig 5.7

the case with the inter-state movement with males outnumbering females in large measure.

At aggregate level however there is an excess of males in the rural-urban stream (Table 5.8). But the differential is not very high. The males constitute 53.55 per cent of all Rural-Urban migrants in the state while the females account for the remaining. This pattern is identical at the district level except in Jaintia Hills where the rural-urban stream consists of nearly equal number of males and females.

Table 5.8
Meghalaya: Sex Composition of Rural-Urban Migrants (%), 1981

District	Intra	Inter	Total	Assam	Bihar	Others	Total	G.Total
Meghalaya								
Male	47.63	48.34	47.80	57.61	77.40	61.49	64.14	53.55
Female	52.37	51.66	52.20	42.29	22.60	38.51	35.86	46.45
Jaintia Hills								
Male	46.60	48.23	46.00	67.07	79.41	64.47	71.01	49.39
Female	53.40	51.77	54.00	32.93	20.59	35.53	28.99	50.61
E.K.Hills								
Male	44.34	45.04	44.55	58.33	77.43	63.09	65.87	53.48
Female	55.66	54.96	55.45	41.67	22.57	36.91	34.13	46.52
W.K.Hills								
Male	51.20	73.00	55.10	66.20	93.75	71.43	74.36	56.52
Female	49.80	27.00	44.90	33.80	6.25	28.57	25.64	43.48
E.G.Hills								
Male	53.82	56.23	54.79	61.24	65.79	72.22	62.02	56.41
Female	46.18	43.77	45.21	38.76	34.21	27.78	37.98	43.59
W.G.Hills								
Male	51.49	51.83	51.53	55.11	76.81	53.38	58.74	53.77
Female	48.51	48.17	48.47	44.89	23.19	46.62	41.26	46.23

Source: Census of India, Migration Tables, 1981.

The female migrants generally outnumber males in the rural-urban stream within the state. The females account for nearly 52 per cent of all Rural-Urban migration taking place within Meghalaya. The pattern at the district level however is modified to some extent. In Jaintia Hills and East Khasi Hills, the females outnumber

Meghalaya
Distribution of Rural-Urban Male Migrants by Place of Last Residence
1981

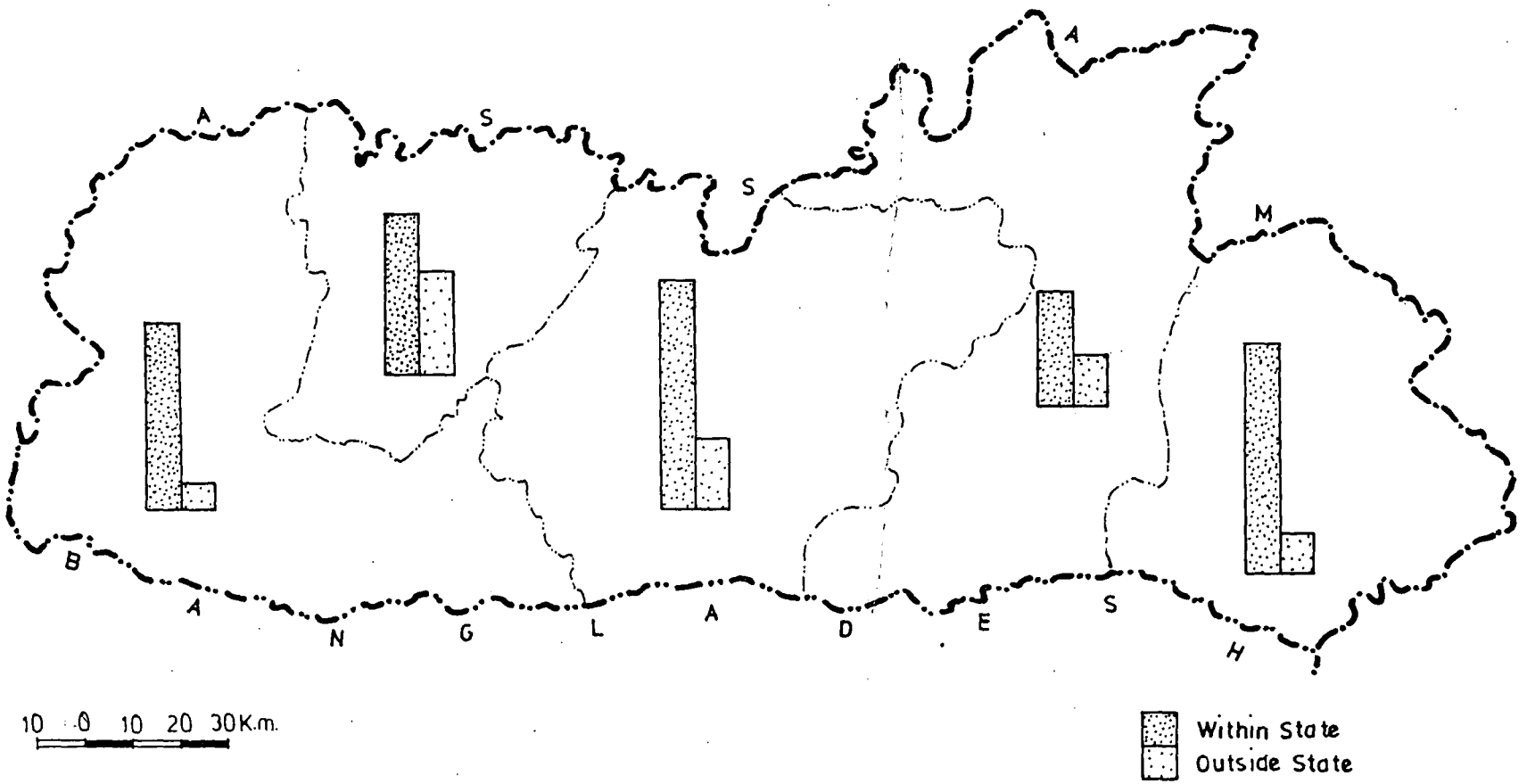

Fig 5.6

males in rural-urban migrants of intra-state origin. The numerical dominance of females is particularly significant in East Khasi Hills district where the males contribute only 44.5 per cent of all rural-urban migrants of intra state origin. In the remaining three districts the males marginally outnumber females (Fig. 5.8).

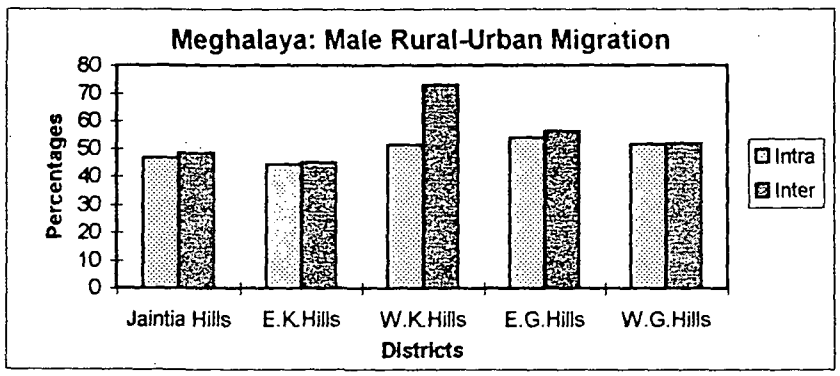

Fig. 5.8

The pattern remains identical in the case of intra district as well as inter-district migration from rural to urban areas. The notable exception however is in West Khasi Hills in which the males constitute an overwhelming dominance in the rural-urban stream of the inter district category accounting for 73 per cent.

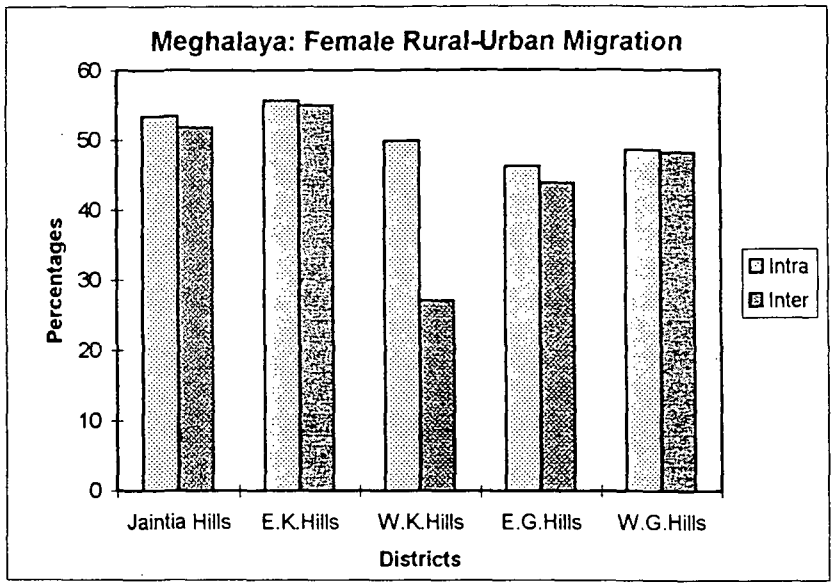

Fig. 5.9

The rural-urban stream of migrants from outside Meghalaya largely consists of males. The females contribute a little over one third of all migration from outside Meghalaya. Their share is about one fourth in West Khasi Hills. However, West Garo Hills has a better sex ratio among the rural-urban migrants into the district from outside the state. The females account for 41.26 per cent of all rural-urban migrants from outside the state. The East Garo Hills too has a significant female component in the stream accounting for nearly 38 per cent.

Among the migrants from outside the state in Rural-Urban stream, the Bihari migrants largely consists of males only, females accounting for a meagre 22.60 per cent at the district level.

5.9 **Causes of Migration**

Migration occurs as a results of decisions made by individuals in the light of what they perceived as the objective. Thus, there are cases where migration may occur despite lack of a clear objective reason for it. Nevertheless, the reason for migration are many and varied. Broadly, the factors influencing migration can be classified into five groups:

a. Economic factors
b. Social and cultural factors
c. Demographic factors
d. Political and Institutional factors

a. *Economic factors*

The most important factor in migration is the economic motive in which the migration takes place from economically depressed region to economically prosperous areas. The motive obviously is to improve the economic condition of the migrants.

b. *Social and cultural factors*

Social and cultural factors also play an important role in decision to migrate. The quest for independence, the desire to break away from traditional constraints of social organization, conflict among the family members for one reason or the other or the feeling of being isolated etc may cause migration especially among the younger generation. Improved communication such as transportation, modernizing impact of the radio, television, cinema, urban oriented education, rural-urban interaction and the resultant changes in social values, attitudes are allurement of what is called "bright-

lights"[5] i.e., social facilities of the town may pull rural folks. However migration is considerably influenced by factors such as closeness of cultural contacts, cultural diversity etc.

c. ***Demographic factors***

The divergent rates of population increase between different areas of the country have been found to be a stimulant to internal migration. Fertility and rates of natural increase in population are generally higher in rural areas. The reduction in the mortality rate and concomitant high rates of population growth would drift the population towards the city or areas experiencing lower growth rates in population.[6]

d. ***Geographical and Physical factors***

Geographical and Physical factors such as distance, natural barrier, size of the country, weather and climatic conditions, meteorological disasters like flood and drought, etc have also been found to influence the movement of people.[7]

e. ***Political and Institutional factors***

Political and Institutional factors such as Government policy towards migration may encourage or discourage the movement of people. For instance, the adoption of jobs for the sons of the soil policy by the government may trim the migration of people from other states.

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[5] Cherunilam, Francis, 1984: *Urbanization in Developing Countries*, Himalayan Publishing House, pp.53-57.

[6] *Ibid.*

[7] *Ibid.*

However, it should be noted that the force behind migration is actually a combination of one or more of such factors as these factors themselves are intricately related to each other.

The process of migration in North-East India in general and Meghalaya in particular is a recent phenomenon primarily due to low level of integration with the rest of the country. The second factor relates to the dominance of tribal customs and values and lack of well developed urban system for very long. Good transport network and high rates of rural growth of population too were missing in the past. All these factors contributed to the low level of migration in the state involving long distance change of residence. However the situation is rapidly changing as the state in recent years has experienced substantial growth of urban areas with accompanying low potential for agriculture in rural areas which continues to be primitive and is forcing people to migrate to cities for employment as well as for education and for many other reasons. Given the background it may be interesting to analyze major reasons for migration in Meghalaya on the basis of 1981 Census information.

5.10 **Causes of Migration, 1981**

The 1981 Census has classified the reasons for migrations into four broad groups. These are (i) employment, (ii) education, (iii) marriage, (iv) family moved and (v) unclassified. Howsoever unsatisfactory and inadequate it may be the classification at least provides the basis to understand the relative strength of some of the important causes of migration in Meghalaya. The data has been further classified to analyze sex differentials in causes of migration as well as the relative importance of various causes as far as the long and short distance migration is concerned.

Table 5.9 presents a broad overview of the distribution of migrants classified according to the reasons for their migration.

Table 5.9
Meghalaya: Distribution of Migrants Classified by Reasons of Migration and Length of Migrant Status, 1981

Reasons	Total Migrants	Length of Migrant Status	
	(Percentage)	< 5 Years (%)	5 Years (%)
Employment	13.44	12.17	19.26
Education	5.28	3.83	10.25
Family Moved	35.57	40.12	36.62
Marriage	19.56	26.04	14.04
Others	26.13	17.8	19.8

Source: Census of India, Migration Tables, 1981.

It is evident from the above table that the single largest cause for migration is the movement of family accounting for over 35 per cent of all migrants. It is interesting to note that this share is more i.e., 40.12 per cent among the recent migrants (having migrated less than five years ago) than the older migrants (five years or more). The second most important cause of migration is the unclassified ones which includes causes other than employment, education, movement of family and marriage. Expectedly, marriage is responsible for a significant proportion, i.e., nearly a fifth of all migration in Meghalaya. This may be a part of the rural urban stream involving short distance migration. While the importance of employment as the cause of migration has been stressed in all literatures dealing with migration, it is of relatively less importance in the case of this hill state accounting for only 13.14 per cent of all migrants. However, there are remarkable differences in the relative importance of these causes in terms of older and recent migration. Among the older migrants, employment accounted for nearly a fifth of all migration. On the contrary, employment as a cause for migration is much less important among the recent migrants i.e. 12.17 per cent of all migration. It is likely that while importance of

employment continues to be a significant cause for migration, causes other than employment have diversified in recent years (Fig. 5.10).

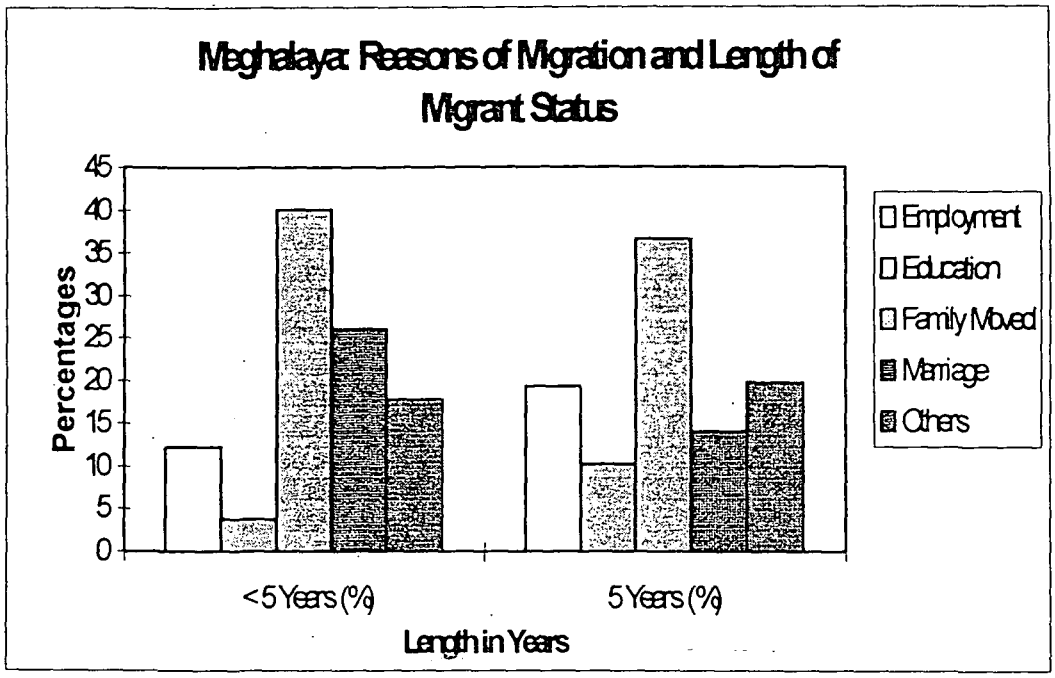


Fig. 5.10

A little over 5 per cent of all migrants reported the cause of their migration as education. However, the share is much higher among the older migrants. Over 10 per cent of those who migrated for over five years stated education as their cause for migration.

The dominance of the movement of family as the reason for migration is indicative of rural-urban stream of migration while the proportion which migrated due to marriage may have largely taken place within rural areas. Relatively low proportion of migration for employment indicates that the economy remains largely self-sufficient and the operation of `push' factors is operating at a low key.

5.11 Sex Composition

Table 5.10
Meghalaya: Sex Composition of Migrants Classified by Reasons and Duration of Migrant Status, 1981

Reasons	Total Migrants		Length of Migrants Status			
	Percentage		Below 5 Years (%)		Above 5 Years (%)	
	Male	Female	Male	Female	Male	Female
Employment	11.19	2.29	15.82	3.44	10.70	1.98
Education	3.06	2.22	5.88	4.37	2.11	1.46
Family Moved	15.89	19.68	15.81	20.81	17.91	21.71
Marriage	11.51	8.05	7.61	6.43	14.50	9.78
Others	15.67	10.46	12.35	7.45	12.01	7.81
Total	57.34	42.66	57.47	42.53	57.26	42.74

Source: Census of India, Meghalaya Migration Table , 1981.

It is clear from the Table 5.10 and figure 5.11 and 5.12 that females constitute as much as 42.66 per cent of all migrants and there is no differences in this regard as far as the older or recent migrants are concerned. However male-female differences in migration is remarkably clear when the causes of their migration are considered. Only 2.29 per cent females reported employment as the cause for migration only 11.19 per cent males recorded the same as the reason. Male-female differential in migration for educational purposes is insignificant. Females outnumber the males in migration caused by movement of the family. It is interesting to note that unlike the rest of the country migration due to marriage is more among males than for the females primarily due to the prevailing matrilineal social system in the state wherein marriages in most cases are matri-local.

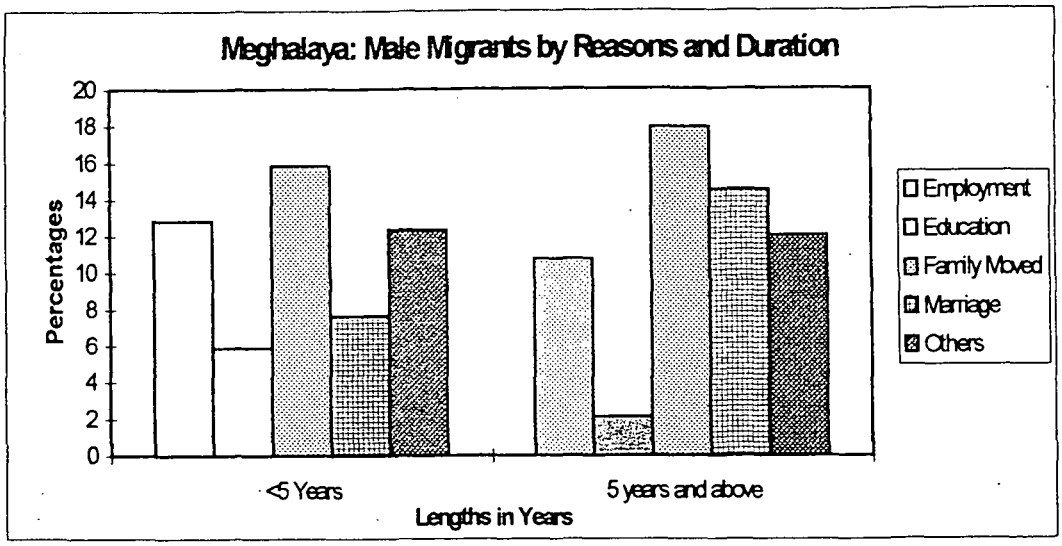


Fig. 5.11

The picture in the case of recent as well as the older migrants remains by and large the same as that of the overall pattern. However, there is a notable exception. This is with respect to the marriage migrations. Among the recent migrants, the male-female differences in migration arising out of marriage is less significant compared to the older migrations.

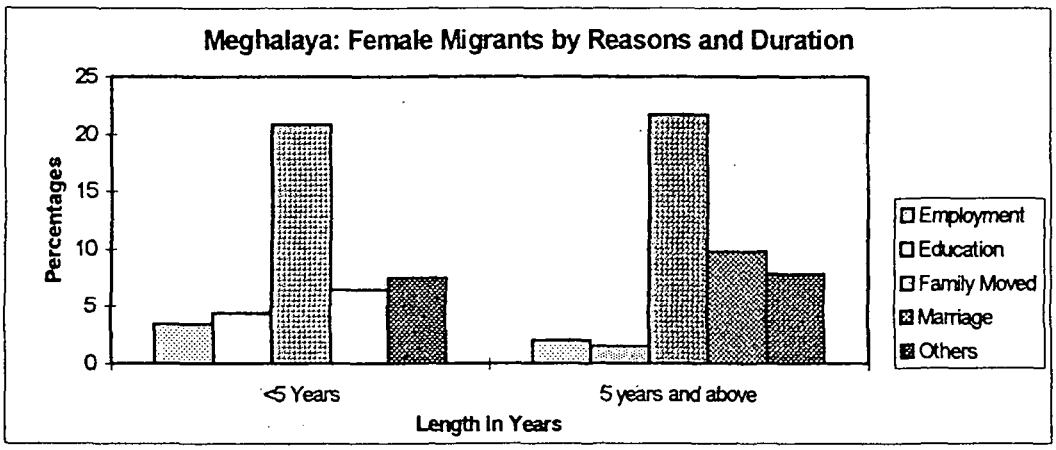


Fig. 5.12

5.12 Causes and Types of Migration

Table 5.11
Meghalaya: Causes of Migration Classified by Types of Migrants

Types of Migration	Employment	Education	Family Moved	Marriage	Unclassified	Total
Last Residence elsewhere in India	36797 (12.91)	16557 (5.67)	104962 (35.96)	60236 (22.90)	72385 (25.82)	291837 (100.00)
With State of enumeration	19613 (9.11)	11842 (5.50)	78933 (36.67)	49289 (22.90)	55578 (25.82)	215255 (100.00)
State in India beyond State of enumeration	18084 (22.41)	4813 (5.96)	26028 (32.25)	15059 (18.66)	16704 (20.70)	80688 (100.00)
Other countries	5551 (18.55)	433 (1.44)	9471 (31.65)	2686 (8.97)	11782 (39.37)	29923 (100.00)
Total	43268 (13.45)	16990 (5.28)	114433 (35.57)	62922 (19.56)	84067 (26.13)	321680 (100.00)

Source: Census of India, Migration Tables, 1981.

(figures in parenthesis are in percentage)

A cursory examination of Table 5.11 and Figure 5.13 reveals that employment as a cause of migration differs substantially among different types of migrants; viz. intra-state, inter-state and international. While as much as 13.45 per cent of all the migrants declared employment as the cause of their migration, the proportion was much higher, i.e., 22.41 per cent and 18.55 per cent among those who came to Meghalaya from other states of India and from outside India, respectively. The extent of migration within Meghalaya on account of employment seems negligible with only a little over 9 per cent recording employment as the motive for the migration.

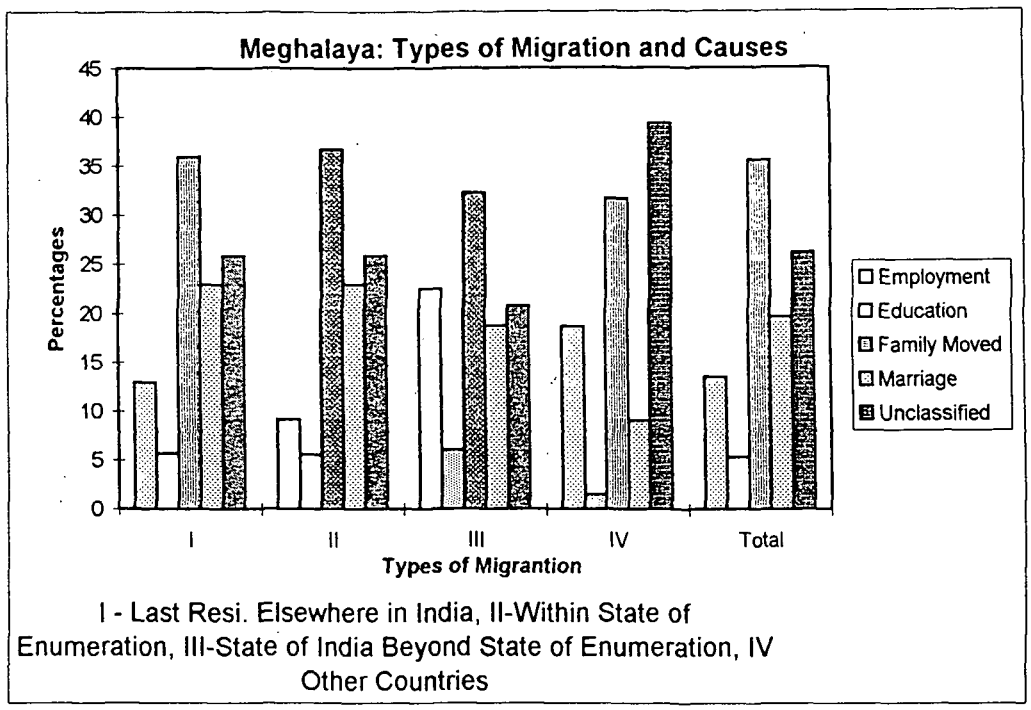


Fig. 5.13

Migration from outside the country for the purpose of education is highly insignificant. On the other hand there is a remarkable consistency in the proportion of migrants across all categories on account of the movement of the family. These vary between 31.65 per cent among migrants from other countries and 36.67 per cent among migrants of intra-state origin. Marriage as a cause of migration is also a relatively less important factor among the migrants from other countries.

5.13 **Concluding Statement**

The forgoing analysis on the cause of migration in Meghalaya brings out the following interesting observations which are summarized below:

i. Considering the difficulties of the terrain conditions, the low level of urbanization in an essentially tribal economy characterized by subsistence agriculture, the extent of rural-to-urban migration in Meghalaya may be considered as phenomenal. However, it is significant to note that only one or two districts have a very significant proportion of rural-to-urban migrants while in the majority of the

districts this stream continues to be weak, primarily due to low level of urban development in these districts. The former category includes East Khasi Hills district and West Garo Hills.

ii. The analysis of the composition of various streams in the five districts showed a highly diversified pattern in these two districts while in the remaining three districts the rural-to-urban stream dominates the migration scenario.

iii. A significant feature of the sex composition of various streams of migration in Meghalaya shows that unlike the situation in the rest of the country, women constitute a very significant proportion of migrants in all the streams.

iv. The analysis of the pattern of rural-to-urban migration leads to the following road observations:

v. Bulk of the migration take place within the state, the origin being either within the district or between the districts, the former being dominant than the latter indicating small distance migration into the urban areas.

vi. Most of the migrants coming from rural areas of the state outside Meghalaya is concentrated in East Khasi Hills district. This is possibly due to the location of the state capital in the districts.

vii. Male rural-to-urban migrants are slightly more in the inter-state category with a corresponding fall in their share in the intra-state category. On the other hand, most female migrants from rural areas coming to urban centres have origin within the state.

viii. The sex composition of the stream shows diverse patterns in intra-state and inter-state categories. The females outnumber males or constitute a very large proportion in the former, while the males predominate in the long distance rural-urban migration (inter state). The numerical dominance of females in the intra district and inter-district migration involving short/medium distance migration is particularly revealing in the sense that the sex-selectivity of rural to urban migration is far less prevalent in the state.

ix. Economic forces do not seem to be a major cause of migration within the state. Thus, it may be assumed that the `push factors' do not seem to operate vigorously in this part of the country. The cities are probably functioning as `pull' areas as evident from the fact that movements of family is the largest single cause for migration.

x. Female migration for economic reasons is remarkably low indicating that much of their migration is associational in nature. However the extent of female migration on account of economic reasons within the state is substantial.

xi. Males predominate in migration due to marriage. This is at variance with other parts of the country where females constitute an overwhelmingly large proportion of all migration on account of marriage. The opposite is picture within Meghalaya due to the prevalence of matrilocal system of marriage.

xii. In terms of sex differentials in each of the causes independently, the pattern is highly varied in relation to the nature of migration, viz., intra-state, inter-state and international. The extent of sex differential is much lower in each of the case of intra-state migration.

Chapter VI

Resource Base and Rural-Urban Migration in Meghalaya

6.1 Introduction

Rural-urban migration has become more prominent in the developing nations where the unequal growth in the resource base, infrastructural facilities and other related developments have accentuated the gap between the rural and urban areas. In this context, the case of the hilly and tribal areas is of crucial significance as they are characterized by a low level of socio-economic development and are increasingly unable to support the ever increasing growth in population which has been a primary cause in pushing people to the urban areas in search of a better life. Absence of a large-scale migration in the hilly and tribal areas in the past contributed to a lack of interest in such studies by the social scientists. However, recent years have witnessed an increasing trend in the redistribution of population in such areas owing to a host of factors similar in many respects to other areas as well as specific to the hilly and tribal areas in some others. An important stream worth serious academic attention pertains to the small but significant flow of the hilly and tribal people living in rural areas to move into newly emerging urban centres.

Based on the data generated through intensive fieldwork conducted in different areas of the Meghalaya Plateau, the present chapter aims at identifying the volume, characteristics and causes of rural to urban migration. The study assumes that the diverse resource base of this region indicating its capacity to retain or absorb the growing population is a significant factor in explaining the patterns of rural to urban migration. The study further assumes that the urban areas in the region have more or less similar economic base and therefore inter-urban differences in the socio-economic

characteristics may not be of significance in determining the extent and type of rural urban migration.

Based on the above assumptions, the study is carried out by selecting a few villages representing diverse resource areas in the state and collecting information pertaining to rural migrants.

6.2. **Selection of the Sample Villages**

Table 6.1: Sample Villages – Geographical Location

Name	Block	District	Location	Resource Base
Mawrong	Umsning	Ri Bhoi	Northern Part	Subsistence Agriculture
Myrdon Nongbah	Umsning	Ri Bhoi	Northern Part	Subsistence Agriculture
Umran Niangbyrnai	Umsning	Ri Bhoi	Northern Part	Subsistence Agriculture
Laitkor	Mylliem	East Khasi Hills	Central Part	Urban Fringe
Nongtalang	Amlarem	Jaintia Hills	Southern Part	Agro-Forestry
Patharkhmah	Umling	Ri Bhoi	Western Part	Shifting Cultivation
Sutnga	Khliehriat	Jaintia Hills	Eastern Part	Mining

In order to get an insight into a better understanding of the process of rural to urban migration in different resource context, a few villages have been selected for intensive fieldwork and for analyzing the causes, consequences and factors of rural-urban migration. As many as seven villages have been selected for this purpose (fig 6.1). These villages are Myrdon Nongbah, Mawrong, Nongtalang, Sutnga, Umran Niangbyrnai, Laitkor, and Patharkhmah. Geographical location as well as economic resource base of these villages reveal a contrasting characteristics. Four of the villages are located in different Development Blocks while three villages fall under the same block. As many as four villages namely Mawrong, Myrdon Nongbah, Umran Niangbyrnai and Patharkhmah are located in Ri Bhoi district while Laitkor village is

Sample Villages
Location Map

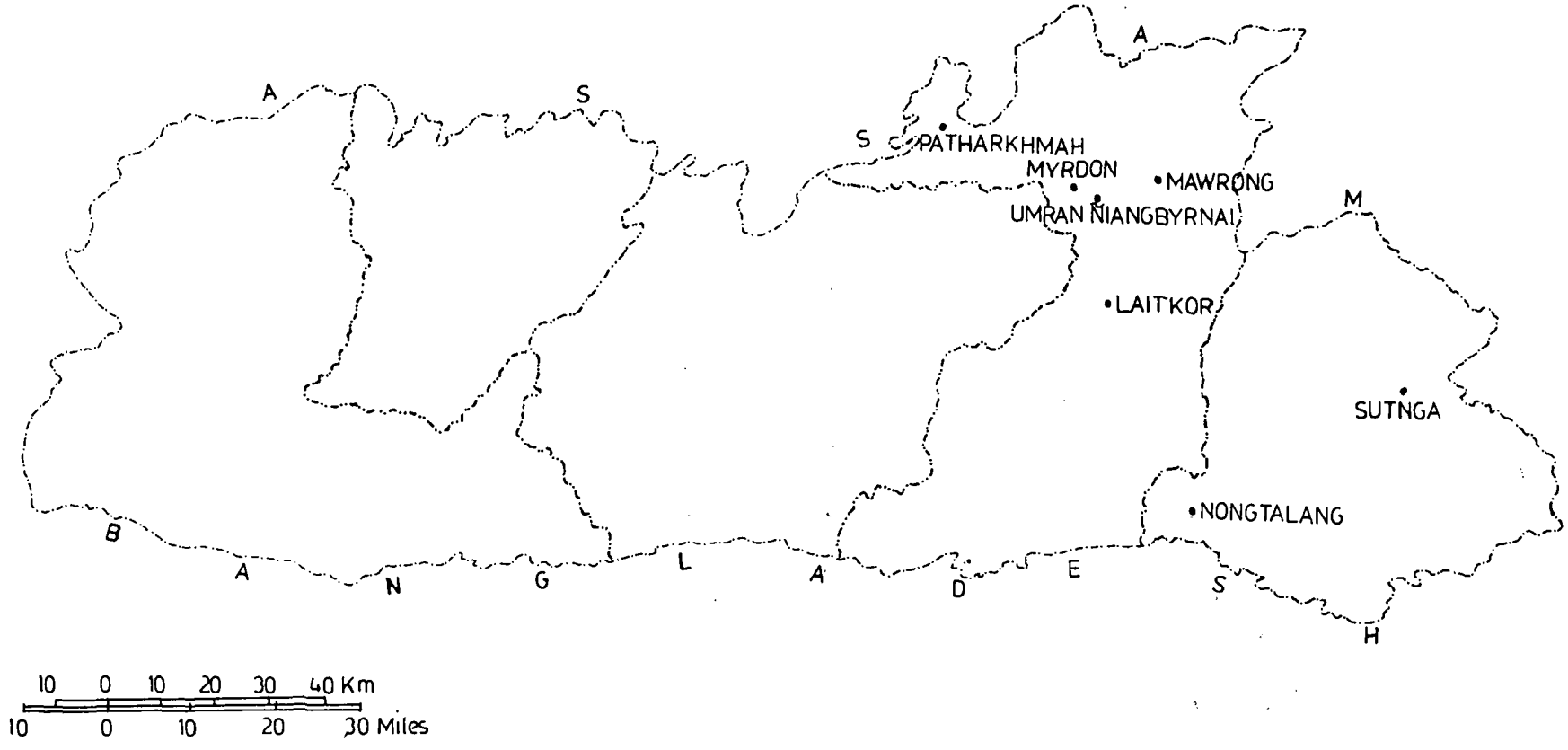


Fig 6.1

located in East Khasi Hills and Nongtalang and Sutnga villages are located in Jaintia Hills. The last two named villages are situated around 45 kilometers away from Jowai Town while Laitkor happens to be a fringe village to Shillong. The remaining villages are situated between 35 to 50 kilometers away from Shillong.

The selection of the villages is based on the diverse resource base that they represent. For example, three villages namely Mawrong, Myrdon Nongbah and Umran Niangbyrnai are all characterized by subsistence agricultural practice and a single cropping season. However, Mawrong and Umran Niangbyrnai contain a relatively high proportion of agricultural labourers in their occupational composition and both these villages experienced an extraordinarily high population growth in recent times. The Laitkor village represents a typical example of a fringe village to Shillong urban agglomeration experiencing a high degree of urban influence on its economy. This village has had a negative growth in its population. The economic life in Patharkhmah village is dominated by shifting cultivation while a significant proportion of its workforce is engaged in services. Nongtalang and Sutnga are the two villages from Jaintia hills which are typical examples of a forest based economy. However, the former has agro-forestry as a significant resource base coupled with a high proportion of its working population engaged as agricultural labourers and the population growth rate is quite substantial. The later village on the other hand has a significant impact of mining, though the population growth rate too is very high.

Table 6.2: Sample Villages: Distance from the Nearest Town(in Kms)

Name	Shillong	Jowai	Mairang	Connection
Mawrong	47			1 km katcha
Myrdon Nongbah	46			7 km katcha
Umran Niangbyrnai	36			1 km katcha
Laitkor	7			Pucca
Nongtalang	106	44		Pucca
Patharkhmah	98		47	Pucca
Sutnga	104	47		Pucca

Source: Village Survey, 1996

Given below is a detailed description of the general characteristics of the selected villages.

6.2.1 ***Mawrong***

Mawrong lies in the Umsning C.D.Block. The village is 47 kilometres away from Shillong and 17 kilometres from the nearest market centre called Umsning. The village is situated at an elevation of 950 metres above the mean sea level. The total area of the village is half a square kilometre with a population of 767 persons. The village is predominantly inhabited by the Khasi tribe except a handful of Nepalese households.

The area generally has rugged topography and highly dissected surface due to the presence of rills, gullies, streams and rivers. The existence of almost flat hills of moderate gradient is also an important topographical features of the area. Between the hills are valleys which are formed due to the deposition of sediments by streams during the rainy seasons.

The drainage system in the area is by and large controlled by the geological structure of horizontal strata formation. A number of streams drain this hillock village. The important rivers draining the area are the river Umwang and its tributaries, river Umsohmanong and river Umran and its tributaries. All the streams are perennial in nature. The volume of water however greatly reduces from rainy season to winter season.

The cropping pattern of the village is by and large oriented towards the market. There is a massive cultivation of broom stick and ginger. Cultivation of paddy is concentrated in the jhum land and is of subsistence nature. Cultivation of winter vegetables is negligible.

The occupational structure in the village is dominated by agricultural workers. There is a marginal shift in the occupational structure towards services in recent times.

6.2.2 *Myrdon Nongbah*

Myrdon Nongbah is located on the southern part of the Ri Bhoi District. This village is situated on a hill top with steep slopes both on the southern as well as the eastern sides. Situated at an elevation of 800-900 metres from the mean sea level, the total area of the village is about 1 square kilometre approximately supporting a population of 474 persons. The village is located 46 km away from Shillong and 13 km away from Umsning, the Block headquarter. The village is not yet connected with good road.

Table 6.3: Sample Villages - Land Use (%)

Name	Area Under Forest	Area Under Crop	Area Under Jhum	Area Under Terrace
Mawrong	30	40	5	0
Myrdon Nongbah	40	30	10	0
Umran Niangbyrnai	50	30	10	5
Laitkor	40	40	0	0
Nongtalang	80*	15	5	0
Patharkhmah	25	25	40	0
Sutnga	40	30	0	0

Source: Village Survey, 1996

* includes horticulture

Myrdon Nongbah is a part of the Central upland zone of the Meghalaya plateau. The area represents a rugged topography with an existence of hills of moderate gradient and a very small percentage of flat land. The western part is moderately steep while the eastern part is gentler.

The soil of this area can be classified under hill top soil and valley soil which is lateritic in character. Soil in the hill top are quite thin especially in those areas where there are massive destruction of forest. The area has a mixed type of vegetation where deciduous type of trees are dominant, Plantation of pine trees are also found in some areas.

Table 6.4: Sample Villages - Ecological Setting

Name	Nature of Topography	Soil Types	Type of Trees
Mawrong	Situated on top of the hill with existence of flat hill of moderate gradient	Laterite, Dark brownish	Mixture of deciduous, Planted pine trees, Presence of sal and bamboo etc
Myrdon Nongbah	Situated on top of the hill with existence of flat hill, areas facing west are quite steep	Laterite, Red brownish type	Sal, Bamboo and Pine
Umran Niangbyrnai	Flat and gentle slope	Hill soil, Valley soil.	Sal, Bamboo and Pine
Laitkor	Situated at an altitude of 1900 metres	Forest soil	Pine,Diengsohphie,Rhododendron etc
Nongtalang	Situated on top of a hillock	Dark brown Laterite, Forest soil	Jack fruit, Wild rubber, Sal, Bamboo, Diengblei etc
Parharkhmah	Valley topography, River Khri is flowing in the middle of the village	Dark brown, Light brown Laterite	Sal, Bamboo, Dieng rai, Diengsohot
Sutnga	Rugged topography and undulating hills	Brownish type, Laterite	Pine,Wild rubber etc

Source: Village Survey, 1996

The location of the village and the agro-climatic conditions favour agriculture as the dominant mode of living in the village. The village has a large percentage of the workforce absorbed into subsistence agricultural practice. Agriculture is practised by 80 per cent of the village population. Most of them produce some quantity of ginger, paddy and broomstick for their survival. Since the method of cultivation is primitive, the farmers largely depend upon the monsoon. If not on a large scale, much of the ginger and broomstick is primarily produced for the market. More than 45 per cent of the area is under cultivation and 40 per cent under forest cover. The percentage of jhum land is rather small.

Myrdon Nongbah has more than 63 per cent main workers of which over 96 per cent is classified as cultivators and a little over 2 per cent is agricultural labourers while one per cent of the working force is engaged in services.

The village has an exclusive tribal population comprising of the Khasi people of Bhoi origin. The population has been increasing very rapidly especially during the last two decades i.e. over 39 per cent. Consequently, the household size also has increased from 5.0 to 5.15. It is pertinent to note that the literacy rate is decreasing during the last two decades i.e., from 17.06 per cent during the year 1971 to 7.59 per cent during the year 1991.

6.2.3 *Umran Niangbyrnai*

Umran Niangbyrnai is situated along the southern part of Ri Bhoi District along the Shillong-Guwahati National highway. The village is generally located on a gentle slope but a relatively steeper slope facing the eastern part. It is situated 36 kilometres away from Shillong at an elevation of 800-845 metres above the mean sea level. The total area of the village is about 1 square kilometre, supporting a population size of 400 persons.

Table 6.5: Sample Villages – Cropping Pattern

Name	Crops Produced	Type of cropping	Production
Mawrong	Paddy, Ginger, Sweet Potato, Beans and Broom	Single Cropping	Largely Subsistence
Myrdon Nongbah	Paddy, Ginger, Sweet Potato, Beans and Broom	Single Cropping	Subsistence
Umran Niangbyrnai	Paddy, Ginger, Sweet Potato, Beans, Vegetables and Broom	Single Cropping	Subsistence
Laitkor	Potato, Cabbage, Maize, Vegetables	Double Cropping	Commercial
Nongtalang	Millet, Yam, Potato, Betel Nut, Betel Leaf, Oranges etc	Single Cropping	Highly Commercial
Patharkhmah	Paddy, Ginger, Vegetable, Broom, Yam, Sesame.	Double Cropping	Largely Subsistence
Sutnga	Paddy	Single Cropping	Subsistence

Umran Niangbyrnai falls under the central upland zone of the Meghalaya plateau. The village represents a varied topography with the existence of flat hills of moderate gradient that is an important topographic feature of the area.

Table 6.6: Sample Villages – Crops grown by Seasons

Name of the Village	Season I	Season II	Subsistence
Mawrong	Paddy, Vegetable, Ginger, Bamboo etc	Vegetable	Paddy
Myrdon Nongbah	Paddy, Ginger, Broomstick	French Bean, etc	Paddy
Umran Niangbyrnai	Paddy, Ginger, Sweet Potato, Yam	French Bean, etc	Paddy, Sweet Potato, Yam
Laitkor	Potato, Cabbage, Maize, etc	Potato, Pea, cabbages	Potato
Nongtalang	Millet, Yam, Potato,	Oranges, Black Pepper etc	Potato, Sweet Potato, Yam
Patharkhmah	Paddy, Ginger, Broomstick, Sesame etc	nil	Paddy
Sutnga	Paddy	nil	Paddy

The area has a mixed type of vegetation where deciduous trees predominate. Dominant vegetation includes bamboo, sal etc.

The village has around 40 per cent of the area under forest cover, 30 per cent area is under crops. Mostly paddy is grown as a single crop. There has been a marked improvement in the recent times in the production of vegetables as a winter crop after the paddy is harvested. The workforce almost entirely consists of agricultural workers including owner cultivators and agricultural wage earners.

The village supports around 400 people. However, the rate of population growth is phenomenal during the last two decades i.e. 316 per cent during 1971-91 decades. The tribal segment accounts for 82 per cent of the total population in the village. Over 35 per cent of the population are literate.

6.2.4 ***Laitkor***

Laitkor village is located in the Mylliem C.D. Block. The village is located 7 kilometres away from Shillong and is situated at an elevation of 1660 metres above the mean sea level. The total area of the village is about 2 square kilometres supporting a population of 1095 persons. The village is predominantly inhabited by the Khasis.

Laitkor village falls under the Shillong group of the central upland plateau. The topography of the village is highly varied with the presence of dissected surface and the presence of streams and gullies. The existence of the flat hills of moderate gradient, though the area is situated on the top of the hills, is an important topographical feature.

Table 6.7: Sample Villages – Forest Use

Name	No. of Families Dependent Largely on Forest	Nature of Dependence
Mawrong	50 Families are partially dependent	Collection of firewood
Myrdon Nongbah	25 Families are partially dependent	Charcoal, firewood, broom
Umran Niangbyrnai	20 Families are partially dependent	Firewood and Charcoal
Laitkor	Hardly	Firewood
Nongtalang	150 families are dependent on agro forestry	Plucking of leaf, nut etc
Patharkhmah	60 families are dependent on forest as workers	Timber
Sutnga	nil	nil

Source: Village Survey, 1996

The village falls under the sub-tropical pine zone where pine trees are the dominant species. There are also mixed types of vegetation in a few patches where the indigenous types of species are still available. The common species include pine, sal, rhododendron, sohphoh khasi and sohphoh nongkhlaw etc.

Table 6.8: Sample Villages – Mining Activities

Name	Type of Mining	No. of Families Depending on Mining
Mawrong	nil	nil
Myrdon Nongbah	nil	nil
Umran Niangbyrnai	nil	nil
Laitkor	Stone quarry	20 families are partially dependent
Patharkhmah	nil	nil
Nongtalang	Coal Mining	3 families are partially dependent
Sutnga	Coal Mining	200 families are fully and partially dependent

Source: Village Survey, 1996

In this village, much of the area is still under forest cover while the remaining is the cultivable land. Crops like cabbages, cauliflower, potato etc are extensively grown as it has a growing demand in the nearby urban market of Shillong with which the village has developed definite linkage owing to its spatial proximity.

Since the village is very close to the city, the occupational structure also is quite different compared to other selected villages located away from the city. It is evident from the table 6.10 that a little over 28 per cent of the population is engaged in manufacturing, 23.63 per cent in other services and a little over 15 per cent is engaged as agricultural workers.

Laitkor village has more than 93 per cent tribal population while around 6 per cent of the population is of non tribal origin. There is a negative growth of population by 18.40 per cent and a positive growth in the proportion of literate from 19.25 per cent during 1971 to 44.01 per cent during 1991.

6.2.5 *Nongtalang*

Nongtalang is situated in the extreme southern border of Meghalaya adjacent to Bangladesh. The total population of the village is about 2754 of which 1327 are males

and 1427 are females. The village is dominated by the Khasis (pnar war). This tribal community presents a distinctive ethnicity both racially and linguistically.

The village is situated on the top of a hill, facing Bangladesh in the southern part. Some of the households are shifted to another hill. The village is characterized by steep slope in the southern part where numerous perennial streams flow. The agro-climatic conditions provide an ideal condition for the cultivation of betel nut, betel leaf and bay leaf, the produces of which mainly reaching the market.

The ecological condition of the village with all the foliage cover which is still intact is in favour of an agricultural system. The topography along with the forest cover has led to the combination of agriculture-cum forestry as an important economic pursuit.

In the northern part of the village jhum is practiced for the cultivation of yam, millet, sweet potato, potato etc which lead to massive destruction of forest cover. The forest cover in whole of the northern part is destroyed by jhum cultivation followed by the cultivation of broom-stick grasses. In the southern part of the village the situation is different where there is a combination of agriculture cum forestry; betel nut, betel leaf and bay leaf are grown together in the forest.

Excessive rainfall has greatly helped the villagers with a very thick cover of vegetation rich in different types of species. The village has 80 per cent area under forest cover. Most of the forest area belongs to the villagers and almost all the families have got their own forest-cum agricultural land, big or small except in some parts where the forest belongs to the Lyngdoh clan. The types of trees include sal, nahor,

jackfruit, chestnut, diengjri, tluh, diengan, lalong, bay leaf, wild-pepper, broomstick, etc. The main occupation of the people in the village is agriculture and horticulture. Jhum cultivation is however present in the northern part of the village. Around 60 per cent of the population in the village is engaged in agriculture. There is a marked improvement in the field of animal husbandry as the share of this sector has gone up to 22.28 per cent.

Table 6.9: Sample Villages – Households Engaged in Services

Name	No. of Households Engaged in Services	Types of Services
Mawrong	40 families	Teaching, Govt. Services
Myrdon Nongbah	3 families	Private
Umran Niangbymai	15 families	Govt. Service and Private
Laitkor	75 families	Govt. Service and Private
Nongtalang	40 families	Govt. Service and Private
Patharkhmah	10 families	Govt. Service
Sutnga	200 families	Govt. Service and Private

Source: Village Survey, 1996

With the development of transportation that now connects the main centres located at Jowai, Shillong and Dawki; prices of commodities like betel nut, betel leaf, etc are remunerative. This has brought prosperity to the people in the village. With a sound production base providing opportunities in their own field itself, the economy is gradually becoming self sufficient and most of the people are concentrating in the field of production.

Nongtalang village has experienced a population growth rate of over 82 per cent during the last two decades. Nearly the entire population belongs to tribal communities. The household size has marginally declined. Around 36 per cent of the population is literate.

6.2.6 *Patharkhamah*

Patharkhmah village is located in the Umling C.D. Block and is situated in the western part of the Ri Bhoi District bordering Assam. The village stretches for nearly 6 kilometres from west to the east and around 2 kms from north to the south supporting a total population of 426 persons. The village is 98 kms away from Shillong and 47 kms from Mairang- the nearest urban centre. The village however is well connected by road.

The village forms a part of the valley to which the river Khri is flowing in the heart of the village. To the south of the village there is a confluence of two rivers, the Khri and the Khri Synia. To the east of the village lies the steep undulating hills which rises up to a height of 3000 feet. To the west the hills are generally gentle till it reaches the plains of Assam.

Table 6.10: Sample Villages - Occupational Structure (in %)

Name of the Village	Total Worker	Culti-	Agril Labour	Live-stock	Mining	HH Industry	Manuf.	Const	Trade	Tran	Others
Mawrong	44.06	51.78	27.22	0	0	0	0	0	2.07	0	18.64
Myrdon Nongbah	63.29	96.33	2.33	0	0	0	0	0	0.34	0	1
Umran Niangbyrnai	48.25	60.62	26.42	0	0	0	0	0	0.51	1.56	10.89
Laitkor	36.71	8.95	15.67	10.45	0.24	0.49	28.36	2.98	7.72	1.49	23.63
Nongtalang	38.3	16.03	43.04	22.28	0.09	0.29	1.05	0.67	3.61	0.85	11.19
Patharkhmah	38.26	71.16	1.23	1.23	0	0	0	0	0	0	27.61
Sutnga	34.32	50.07	13.35	0	1.82	0	0.15	2.44	6.07	0	26.1

Source: District Census Report, Meghalaya, 1991
Note: Cult. – Cultivators, Agri – Agricultural, HH – Household,
Manuf.–Manufacturing, Const.–Construction, Tran–Transport & Communication

Patharkhmah village is a part of the central upland plateau. The average elevation of the area ranges from 200 metres to 600 metres above the mean sea level. The lowest elevation can be found in the foothills where the altitude is as low as 100

to 200 metres whereas the highest part rises upto 621 metres. The area as a whole falls under the valley. To the east of the village the gradient is quite steep. The valley is formed by the deposition of sediments by the streams.

The drainage system of the village is controlled by the geological structure of its formation. A number of streams drain to the river Khri. The important streams are Umshait and Umpirtha, the volume of streams greatly reduces from summer to winter season.

The village as a whole is very fertile, though the fertility of the soil has greatly reduced during the recent years due to heavy soil erosion accentuated by massive exploitation of the forest resources. The soil in the eastern part is red in colour whereas in the southern part it is light grey to grey.

Table 6.11: Sample Villages - Ethnic Composition

Name	Total Population			Tribal Population (in %)			Non Tribe Population (in %)		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Mawrong	767	369	398	94.78	89.15	100.00	5.22	10.84	0.00
Myrdon Nongbah	474	230	244	100.00	100.00	100.00	0.00	0.00	0.00
Umran Niangbymai	217	183	400	82.00	78.34	86.33	18.00	21.65	13.66
Laitkor	1095	545	550	93.24	88.25	98.18	6.76	11.74	1.82
Nongtalang	2754	1327	1427	99.56	99.17	99.93	0.44	2.50	0.07
Patharkhmah	426	238	188	91.55	88.65	95.21	8.45	11.34	4.78
Sutnga	1920	943	977	99.79	99.79	99.79	0.21	0.21	0.20

Source: District Census Report, Meghalaya, 1991

The percentage of area under vegetative cover is less than 10 per cent. Jhum land covers an area of more than 25 per cent. More than 40 per cent of the area is virtually a waste land while the total cultivable land is only 20 per cent. Among the important trees found in this village are sal of different types and bamboo etc.

The village produces hill rice and valley rice of the different variety. In the jhum land, rice is cultivated with other crops like pumpkin, sesame, vegetables and yam whereas in the valley, paddy can be cultivated in two seasons. Ginger and broom are seasonal crops and are mainly produced for the market.

The occupational structure consists of more than 70 per cent of the working population engaged in agriculture and 27.61 per cent in services linked to forest and allied activities.

Patharkhmah has a little over 90 per cent tribal communities namely the Rabhas and the Hajongs who are living there for centuries. A little over 8 per cent of the population belong to non-tribals.

The village contains 102 households supporting a population of 426 persons. The population growth rate has been rather very high i.e. around 50 per cent during the decade 1971-1991. The village has 45.77 per cent literates.

6.2.7 ***Sutnga***

Sutnga falls under Jaintia hills district. The village is located 104 kilometres away from Shillong. It is situated at an elevation of 1500 metres above the mean sea level. The village supports 1500 people dominated by the Khasis (pnar).

The topography and agro-climatic condition in the village do not favour intensive cultivation. Rugged, undulating and wet climatic conditions as well as the massive exploitation of resources restrict possibilities of agricultural development.

Over 60 per cent of the population is engaged in agriculture. There is a marked development in trade, construction and other services. There has been an abrupt shift in the occupational structure as most of the population began to divert to coal mining.

The village has the largest concentration of tribal population. However, the ethnic composition is undergoing significant changes with an incursion of people from outside as a consequence of mining activities. This has also resulted in a sharp increase in the population number in the past two decades i.e. 1971-91. The level of literacy however remains substantially low.

6.3 **Rural-Urban Migration in Meghalaya: Village Level Study**

The above description of the selected villages only provides a background to a deeper understanding of the quality and the quantity of migration process in a hilly and tribal region experiencing recent urban growth and associated movement of the rural people into these emerging urban centres. As has been pointed out earlier, the underlying processes should be linked to the resource base of the rural areas and as such the villages have been selected representing diverse resource potential in different areas.

As is evident from Table 6.12 the migrants segment from among the total population in the selected villages who have moved to any urban centre is less than 20 per cent. The proportion is the smallest i.e. 2.35 per cent in Mawrong which is located away from the urban agglomeration. The village is indeed a typical case representing subsistence agriculture coupled with a high population growth rate in recent years. The males predominate in the rural to urban migrant stream in this village.

Table 6.12: Sample Villages - Proportion of Migrants

Name of the village	Total Population			% of Migrants		
	Male	Female	Total	Male	Female	Total
Mawrong	369	398	767	2.98	1.76	2.35
Myrdon Nongbah	230	244	474	8.7	7.38	8.02
Umran Niangbyrnai	217	183	400	10.14	18.66	11.75
Laitkor	545	550	1095	9.36	11.09	10.96
Nongtalang	1327	1427	2754	12.2	23.54	18.08
Patharkhmah	238	188	426	18.91	3.72	12.21
Sutnga	943	977	1920	23.01	13.61	18.22

Source: Village survey, 1996

On the other hand, the extent of migration is the highest in Sutnga village in Jaintia hills which is characterized by an economy based on mining and a high proportion of the working force engaged in government services. It is probable that mining activity in the area has brought prosperity to a section of the people who are migrating to the towns. However overwhelming proportion of these migrants consist of males.

In the three villages namely, Mawrong, Myrdon Nongbah and Umran Niangbyrnai, characterized by subsistence agriculture, the migrant proportion is highly variant. While Umran Niangbyrnai and Myrdon Nongbah has a higher proportion of migrants around 11.75 and 8.02 per cent respectively to the city, Mawrong has a migrant section of around 2.35 per cent only. Interestingly, the migrant stream in the former two villages have a larger proportion of females.

A very large proportion of rural to urban migrant is also seen in Nongtalang village characterized by Agro-forestry and much away from the urban influence. Unlike Sutnga which too experienced a large stream of rural to urban migration, the migrant segment largely consists of females in Nongtalang

In the jhum dominated Patharkhmah village in the Ri Bhoi district, the migrant proportion is relatively high i.e., 12.21 per cent. Interestingly, the male migrant constitutes the bulk of the total migrant segment in this village.

The proportion of the migrant segment, i.e. 10.96 per cent is relatively low in Laitkor, the village located very close to Shillong urban agglomeration. This village indeed has a typical fringe character which perhaps does not encourage much migration to the city as people feel that they are part and parcel of the urban network of Shillong. Interestingly, those who have migrated largely comprise of women folk. It may be summarized here that the volume of rural to urban migration is more in resource areas like mining, agro-forestry and to an extent in areas dominated by jhum. On the other hand resource areas comprising of subsistence agriculture appear to retain much of the population. However, within subsistence agriculture, there are variations as evident from a relatively high level of outmigration from Umran Niangbyrnai which too has a largely subsistence agricultural resource base. The fringe location permits a moderate level of outmigration.

Table 6.13: Sample Villages - Extent of Migration by Households

Sample Village	No of Households	Households having migrants	No. of outmigrants	Households with at least one migrant member(%)
Mawrong	125	11	18	8.8
Myrdon Nongbah	72	12	38	16.67
Umran Niangbyrnai	92	15	47	16.3
Laitkor	116	40	120	38.48
Nongtalang	480	166	498	34.58
Patharkhmah	243	17	52	6.99
Sutnga	487	116	350	23.82

Source: Village survey, 1996

When examined with a reference to the households experiencing outmigration (Table 6.13) it is clear that such households range between 7 and 35 per cent of all households in all the selected villages. Nongtalang and Laitkor villages record highest number of households experiencing outmigration i.e. 35 per cent. This is interesting in view of the contrasting socio-economic characteristics of these two villages. While Nongtalang is situated away from any urban influence and with a resource base of agro-forestry, Laitkor is a fringe village characterized by high level of urban influence. Sutnga, a village characterized by mining activities has a large proportion of households experiencing outmigration, i.e. around 24 per cent. Umran Niangbyrnai and Myrdon Nongbah- both characterized by subsistence agriculture have around 17 per cent households having at least some outmigration. The jhum dominated Patharkhmah as well as subsistence agriculture dominated Mawrong village contain migrant households ranging between 7-9 per cent.

The most notable feature is found in Patharkhmah, where the proportion of migrants is very high but the number of families experiencing migration is much less which indicates that much of the migration involves family movement.

It has already been pointed out that the total quantum of migration from the rural to the urban is low in almost all the selected villages. However, certain emerging trend with regard to the resource base may be indicated by the variation observed. It appears that the dependence on forest and mining as well as jhum is likely to accentuate out-migration of the rural people. Subsistence agriculture coupled with high population growth too appears to be another resource base which in future is going to aggravate a serious man-land imbalance to cause out-migration.

While the total quantum of migration in the selected villages is not very significant, it may be worthwhile to examine the characteristics and causes of those who have migrated out to the towns as a significant clue to the process of rural urban migration in Meghalaya. Such an exercise is made below classifying the villages according to their dominant resource base.

6.4 Migration and Subsistence Agriculture

As many as three villages have been selected with a resource base characterized by single cropping and subsistence agriculture. Of the three, villages namely Umran Niangbyrnai and Myrdon Nongbah show a large percentage of the migrants in the age group of 20-29. On the other Mawrong village sends a large proportion of the male migrants belonging to the age group of 20-29 (nearly 82 per cent), whereas a greater proportion of the female migrants are confined to the 10-19 years of age. Around 29 per cent of the females are distributed in 0-9 and 20-29 years age-group which mean that both children and young female adults have moved out. Males are immobile below the age of 10 years. Likewise, in the 30-39 age group 9 per cent males have move out while no female in this age-group has outmigrated Table 6.14 and Fig. 6.2).

Table 6.14: Mawrong, Myrdon Nongbah and Umran Niangbyrnai : Age and Sex Classification of the Migrants (in%)

Age Group	Male	Female	Total
Mawrong			
0-9	0	28.5	11.11
10-19	9	43	22.22
20-29	82	28.5	61.11
30-39	9	0	5.56
Myrdon Nongbah			
10-19	30	33.33	31.58
20-29	70	66.67	68.42
Umran Niangbyrnai			
10-19	9.09	8	8.51
20-29	90.91	92	91.49

Source: Village survey, 1996.

Age-Sex Pyramid

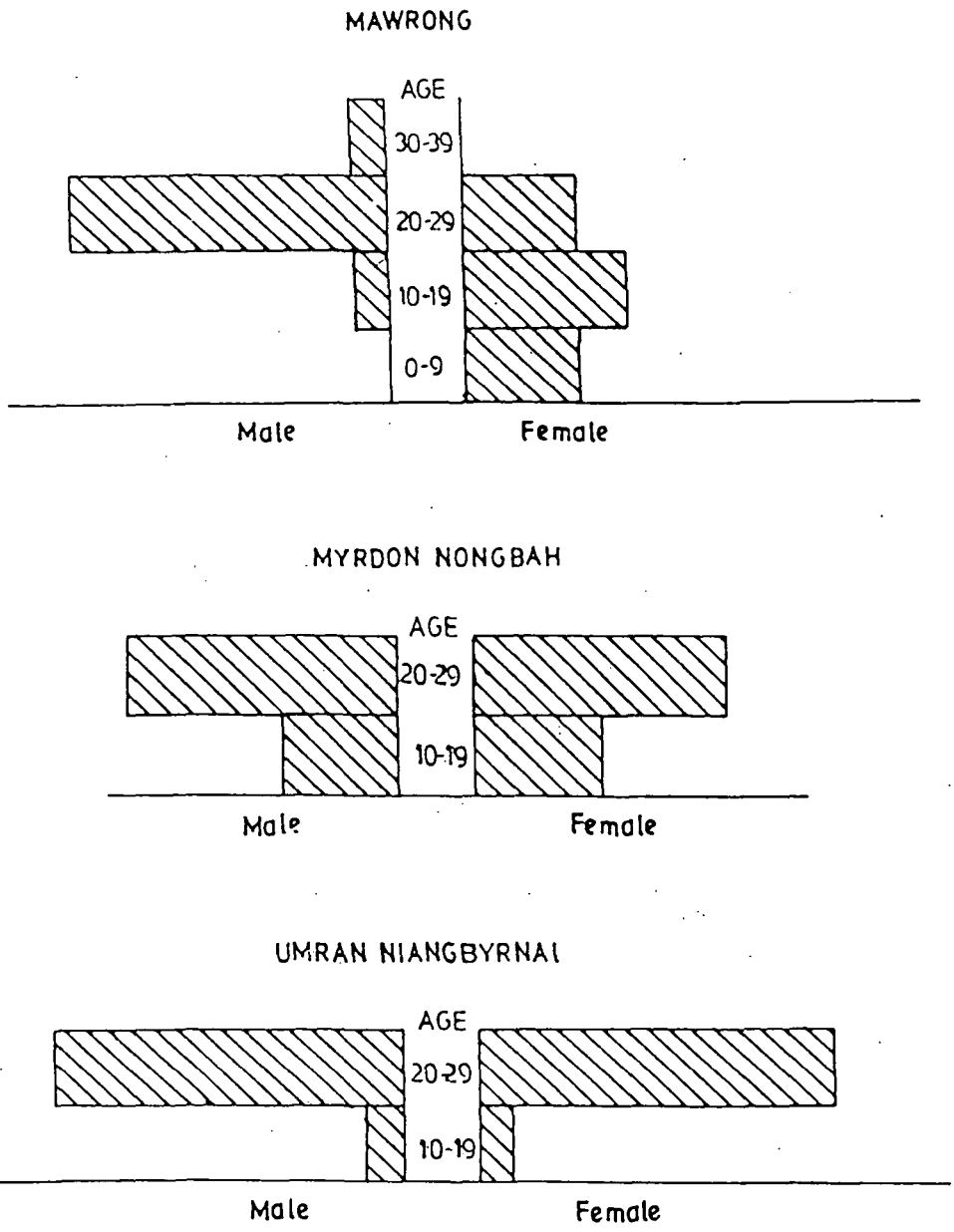


Fig. 6.2

In the remaining two villages, there is little variation in the sex-distribution of migrants in different age-groups. However, much of the migration is confined to 20-29 age group.

As far as the causes are concerned, Umran Niangbyrnai has just two causes clearly distinguished for males and females. While males have migrated for employment, the females have migrated due to marriage. In Myrdon Nongbah employment is the major cause of migration for both the men and the women. Education and movement of family each account for a quarter of all migration as significant causes. There is hardly any male-female difference in the causes of migration in this village (Table 6.15).

Table 6.15: Mawrong ,Myrdon Nongbah and Umran Niangbyrnai: Causes of Migration (in%)

Causes	Male	Female	Total
Mawrong			
Marriage	18.79	0	11.11
Employment	36.36	0	22.22
Education	45.45	57.14	50
Family Moved	0	42.86	16.67
Myrdon Nongbah			
Employment	50	50	50
Education	25	27.27	27.27
Family Moved	25	22.23	22.23
Umran Niangbyrnai			
Marriage	0	80	42.55
Employment	90.91	12	48.93
Family Moved	9.09	8	8.52

Source: Village survey. 1996

In Mawrong, the causes of migration are much diverse. Interestingly, education emerges as a single major cause of migration for both the males and the females accounting for 50 per cent of all migration. The females have migrated out for

education and family moved, whereas male migration in this village is due to education, employment and to some extent marriage.

Table 6.16 (a): Mawrong, Myrdon Nongbah and Umran Niangbyrnai: Occupation of the Migrants before Leaving (in%)

Occupation	Male	Female	Total
Mawrong			
Cultivator	27.27	0	16.67
Agri-Labourer	9.09	0	5.56
Student	54.55	57.14	55.55
Dependent	9.09	42.86	22.22
Myrdon Nongbah			
Cultivator	50	100	71.42
Agri-Labourer	25	0	14.29
Dependent	25	0	14.29
Umran Niangbyrnai			
Cultivator	50	68	59.57
Agri-Labourer	27.27	0	12.77
Dependent	22.23	32	27.66

Table 6.16 (b): Mawrong, Myrdon Nongbah and Umran Niangbyrnai: Occupation of the Migrants after Leaving (in%)

Occupation	Male	Female	Total
Mawrong			
Labourer	18.11	0	11.11
Government Service	27.27	0	16.67
Student	45.45	57.14	50.5
Business	9.09	0	5.56
Dependent	0	42.86	16.66
Myrdon Nongbah			
Labourer	25	88.89	55.26
Government Service	50	0	26.32
Student	25	0	13.16
Dependent	0	11.11	5.26
Umran Niangbyrnai			
Labourer	9.09	12	10.64
Government Service	81.82	12	44.68
Dependent	9.09	76	40.68

Source Village Survey, 1996.

As far as the occupation is concerned, in the two villages of Umran Niangbyrnai and Myrdon Nongbah, there is a clear shift from cultivator category

towards wage labour and government service in the towns. The males are found in occupations such as carpentry, wage labour, government service, petty trade , business and as students, whereas the females are largely concentrated either as students or as dependents [Table 6.16 (a, b)].

Table 6.17: Mawrong, Myrdon Nongbah and Umran Niangbyrnai: Duration of Migration and Percentage of Literates and Illiiterates (in %)

	Illiterate			Literate		
MAWRONG						
Duration (years)	Male	Female	Total	Male	Female	Total
0-5	0	0	0	50	50	22.22
5-10	0	0	0	33.33	66.67	16.67
10-15	0	0	0	62.5	37.5	44.44
15+				100	0	16.67
MYRDON NONGBAH						
0-5	55.55	45.45	52.94	50	50	80
5-10	0	0	0	50	50	20
UMRAN NIANGBYRNAI						
0-5	60	40	22.22	45.71	54.29	77.78
5-10	0	0	0	0	100	22.22

Source: Village Survey, 1996

The process of rural-urban migration in Umran Niangbyrnai and Myrdon Nongbah is of recent origin, not more than 10 years. However in Myrdon Nongbah those who have migrated to the town consist of both literates as well as illiterates while those of Umran Niangbyrnai are all literates. The village Mawrong has a long history of rural-urban migration and some of the migrants have migrated out for over 15 years. Significantly, all those who have migrated to the town consist of literate people.

Table 6.18: Mawrong, Myrdon Nongbah and Umran Niangbyrnai: Frequency of Visits (in%)

Frequency	Male	Female	Total
MAWRONG			
Once in a year	9.1	42.5	22.2
Twice a year	45.45	57.1	50
Once/twice a month	45.45	0	27.8
MYRDON NONGBAH			
Twice a year	40	50	44.73
Once/twice a month	60	50	55.27
UMRAN NIANGBYRNAI			
Once in a year	9.1	12	10.64
Twice a year	45.45	36	40.42
Once/twice a month	45.45	52	48.94

Source: Village Survey, 1996.

As far as the contact of the migrants with the village is concerned, all the three villages show that the migrants continued to have significant link with the villages from where they have moved out.

6.5 Urban Fringe and Migration

Table 6.19: Laitkor - Age and Sex Classification of the Migrants (in%)

Age Group	Male	Female	Total
0-9	25.42	32.79	29.17
20-29	71.19	62.29	66.67
30-39	3.39	4.92	4.16

Source: Village Survey, 1996.

Contrary to expectation Laitkor village, located in an urban fringe near Shillong experiences very little migration to the nearby urban centre. Those who have migrated mostly belong to the age group of 20-29. There is also a small percentage of

the migrant belonging to the age group of 10-19 and a very meagre percentage in the 30-39 age group (Table 6.19 and Fig. 6.3).

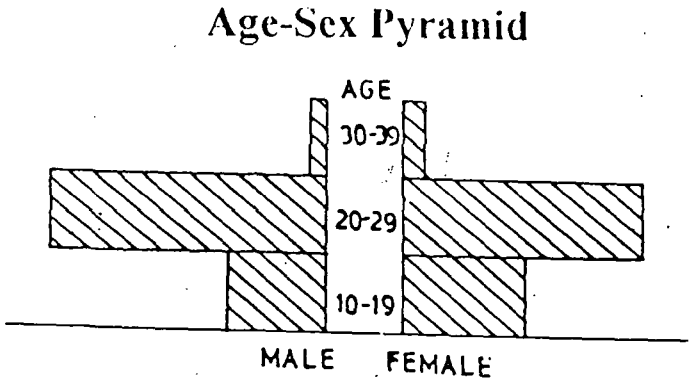


Fig. 6.3

Table 6.20: Laitkor - Causes of Migration (in %)

Cause	Male (%)	Female(%)	Total (%)
Marriage	44.07	47.54	45.84
Employment	50.85	44.26	47.5
Education	1.69	4.92	3.33
Family Moved	3.39	3.28	3.33

Source : Village Survey, 1996

As far as the causes of migration are concerned, much of it is due to employment and marriage. These two major causes account for a share of a little over 45 per cent each and a very small proportion (around 5 per cent) of the migrants reported education and movement of family as the causes for migration.

Table 6.21 (a): Laitkor-Occupation among Migrants before Leaving (%)

Occupation	Male	Female	Total
Cultivator	6.78	0	3.33
Agri-Labourer	67.79	16.39	41.67
Student	16.95	9.84	13.33

Table 6.21 (b): Laitkor - Occupation among Migrants after Leaving (%)

Occupation	Male	Female	Total
Labourer/Carpenter	50.84	27.87	30.84
Government Service	23.73	0	11.67
Student	16.95	9.84	13.33
Dependent	8.48	78.69	44.16

Source : Village survey, 1996

The occupational structure of the migrants before leaving the village for the urban location consisted mostly of agricultural labourers (67.79 per cent). It is interesting to note that nearly 17 per cent of those who migrated out were students.

Table 6.22: Laitkor - Frequency of Visits (in %)

Frequency	Male	Female	Total
Once a year	6.78	4.92	5.83
Twice a year	8.48	16.39	12.5
Once/twice a month	84.74	78.69	81.67

Source: Village survey, 1996.

It is evident from the table 6.21 that over 50 per cent of the male who have migrated to the city have been absorbed in the labour force mainly as skilled labour in the carpentry section. A little over 20 per cent (23.73 per cent) of the male migrants have found their way into the government service sector and around 17 per cent remain as student. It is interesting to note that female migrants in the urban fringe are mostly dependent accounting more than 78 per cent.

Table 6.23: Laitkor - Duration of Migration and Percentage of Literate and Illiterate (in %)

	Illiterate			Literate		
Duration (years)	Male	Female	Total	Male	Female	Total
0-5	44.44	55.56	17.47	47.06	52.94	82.53
5-10	0	0	0	67.7	35.3	17.47

Source: Village Survey, 1996

The frequency of visit of the migrant segment to their traditional village is very frequent and is almost once or twice in a month. The duration of the migrants are of a very recent origin. A little over 80 per cent of the migrant segment consist mostly of literates and a little less than 20 per cent are illiterate but largely of a very recent origin.

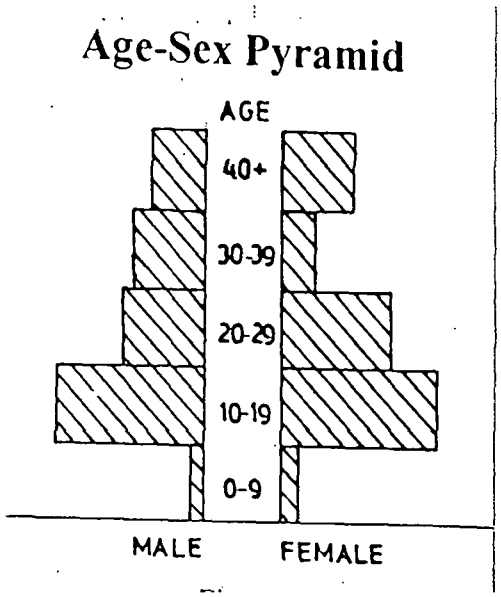
6.6 **Agro Forestry and Migration**

A very high proportion of its population migrating to the urban centre characterizes the village Nongtalang with a resource base of agro-forestry. The resource base is probably responsible for a forced outmigration as is evident from the fact that migration takes place from almost all age group. Bulk of the migration takes place however in the age group of 10-19 and 20-29 (Table 6.24 and Fig. 6.4).

Table 6.24: Nongtalang - Age and Sex Classification of Migrants (in %)

Age Group	Male	Female	Total
0-9	3.7	3.86	3.81
10-19	38.27	40.78	74.47
20-29	23.45	27.68	26.3
30-39	19.76	9.23	12.65
40+	14.83	18.45	17.27

Source : Village Survey, 1996



The causes of migration to the urban centre is also equally varied. The male migration is confined to reasons connected with education (65.46 per cent) followed by employment with a little over 20 per cent of all the migrants reporting this as the cause of their migration.

Table 6.25: Nongtalang - Causes of Migration (in %)

Causes	Male	Female	Total
Marriage	0	16.67	11.24
Employment	22.22	22.32	22.29
Education	77.78	59.52	65.46
Family Moved	0	1.49	1.01

Source : Village survey, 1998

Female migration is more varied as far as the causes of migration is concerned. Bulk of the migration among the females as also of male is due to education followed by employment. Marriage and movement of family too account for a substantial outmigration of the female segment. Most of those who migrated out were students.

It appears that the migrant segment is found in a wide variety of occupations in their urban location. Bulk of them is found in the urban setting as students. However, many of them have found themselves in government service, business and teaching occupations too. It is interesting to note that none of the migrant people is found in the wage labour category after their migration.

Table 6.26 (a): Nongtalang-Occupation of the Migrants Before Leaving (%)

Occupation	Male	Female	Total
Agri-Labourer	3.09	0	1.01
Student	92.59	92.26	92.37
Dependent	4.32	7.74	6.62

Source : Village Survey, 1996

Table 6.26 (b): Nongtalang-Occupation of the Migrants After Leaving (%)

Occupation	Male	Female	Total
Teacher	0	13.7	9.24
Govt. Service	19.75	25	23.29
Student	61.73	50	53.82
Business	11.73	5.65	7.63
Dependent	6.79	5.65	6.02

Source: Village Survey, 1996

Nearly the entire migrant segment consisted of students before migrating. This is true for both males and females in this village. Only a small proportion of the male migrants had agricultural labour as their occupation before leaving for an urban location. Around 7 per cent females and 4 per cent males were dependents before migrating.

Table 6.27: Nongtalang - Frequency of Visits (in %)

Frequency	Male	Female	Total
Once in a year	11.73	14.29	13.46
Twice a year	80.86	74.4	76.51
Once/twice a year	7.41	11.31	10.04

Source : Village survey, 1996

Educational opportunity in the urban areas absorb much of the migrants find teaching as an occupation in the urban areas while both males and females are also absorbed to some extent in government services too. Business too is an attractive occupation in the urban areas for those migrants from the village who have decided to shift to urban areas.

Generally speaking, the migrants from the village have been absorbed into various sectors of the urban economy which appears to be a positive selection.

As far as the contacts with the original village are concerned, bulk of the migrants is not in a position to frequent visits to the villages, which they have left. Most of them visit their village either once or twice a year and a very small section made their visit of once or twice a month to the village.

Bulk of the migrants comes with a literate background. The stream of migrant to urban areas is of a very long duration as a substantial segment of the migrant people has left the village more than 15 years ago.

Table 6.28: Nongtalang- Duration of Migration and Literacy Attainment Among Migrants (%)

	Illiterate			Literate		
Duration	Male	Female	Total	Male	Female	Total
0-5	0	0	0	40.98	59.02	25.26
5-10	0	100	8.02	22.09	97.91	35.61
10-15	0	0	0	50.58	49.42	17.6
15+	0	0	0	29.81	70.19	21.53

Source : Village survey, 1996

6.7 Shifting Cultivation and Migration

One village, namely Patharkhmah with a resource base dominated by shifting cultivation has been selected for in-depth study. The age composition of the migrants in the village is confined to the adult segment only i.e. 20-29 years of age (Table 6.29 and Fig. 6.5).

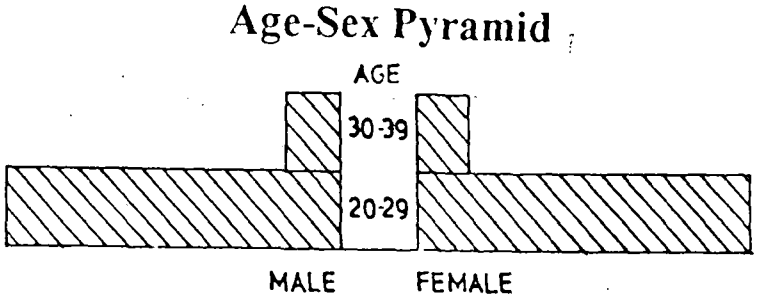


Fig. 6.5

Table 6.29: Patharkhmah- Age and Sex Classification of the Migrants (%)

Age group	Male	Female	Total
20-29	86.67	85.71	86.54
30-39	13.33	14.29	13.46

Source : Village Survey, 1996

Table 6.30: Patharkhmah - Causes of Migration (in %)

Causes	Male	Female	Total
Employment	28.89	71.43	34.62
Education	57.78	28.57	53.84
Family Moved	13.33	0	11.54

Source : Village survey, 1996

Table 6.31 (a): Patharkhmah- Occupation of the Migrants Before Leaving (in %)

Occupation	Male	Female	Total
Students	84.44	85.71	84.62
Dependent	15.56	14.29	15.38

Table 6.31(b): Patharkhmah - Occupation of the Migrants After Leaving (in %)

Occupation	Male	Female	Total
Govt. Service	28.89	71.42	34.62
Students	60	14.29	53.85
Dependent	11.11	14.29	11.53

Source: Village survey, 1996

Table 6.32: Patharkhmah - Frequency of Visits (in %)

Frequency	Male	Female	Total
Once in a year	15.56	14.29	15.38
Twice a year	71.11	71.42	71.15
Once/twice a month	13.33	14.29	13.46

Source: Village survey, 1996

Table 6.33: Patharkhmah-Duration of Migration and Literacy Attainment Among Migrants (%)

	Illiterate			Literate		
Duration	Male	Female	Total	Male	Female	Total
0-5	100	0	100	83.33	16.67	89.36
5-10	0	0	0	100	0	10.64

Source: Village survey, 1996

Interestingly, there is little variation as far as the sex composition is concerned. As far as the causes of migration is concerned, much of the migration is due to education and employment. Those who migrated to the town were students before leaving. In the urban area some of them continue to be student while a few of them have found themselves employed in government services.

As is evident from the frequency of visits those who left the village have less contacts with the village they have left which is not more than once or twice a year. The migrant segment consists of the literates only and the migration is of a recent origin.

6.8 **Mining, Forestry and Migration**

One village namely Sutnga was selected to represent a resource base dominated by mining and forestry. The village is characterized by a relatively large proportion of migration to the urban centre. The process of migration is firmly established in the village as is indicated by a distribution of migrants of both male and female migrants in all age groups. However a large proportion of the migrants belong to the older age group i.e., over 30 years of age (Table 6.34 and Fig. 6.6).

Table 6.34: Sutnga - Age and Sex Classification of Migrants (in %)

Age group	Male	Female	Total
0-9	10.14	6.02	8.57
10-19	4.14	6.02	4.86
20-29	12.44	20.3	15.43
30-39	24.38	33.83	28.28
40+	48.4	33.83	42.86

Source : Village Survey, 1996.

The migration to the urban centres is caused by a variety of factors, the most dominant factor being employment followed by movement of family and marriage.

Interestingly, education as a cause for migration is not a significant factor in this village unlike all other villages discussed so far.

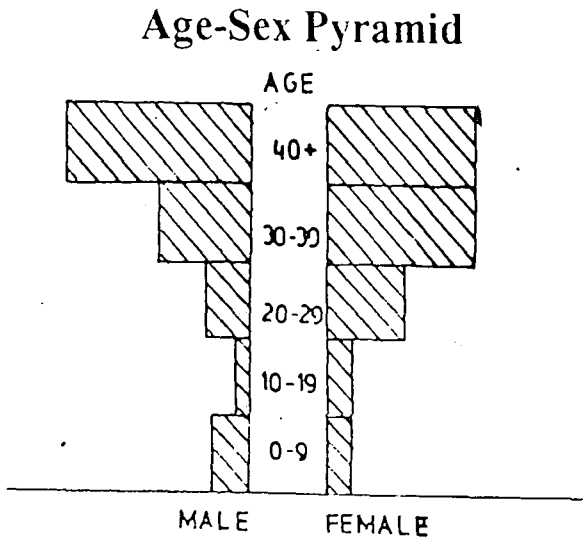


Fig. 6.6

Table 6.35: Sutnga - Causes of Migration

Causes	Male	Female	Total
Marriage	15.22	20.3	17.14
Employment	60.36	40.6	52.86
Education	4.14	6.02	4.86
Family Moved	20.28	33.83	25.14

Source : Village Survey, 1996

The occupational structure of the migrants before leaving the village is highly diverse. Most of the migrants who migrated to the city were students and a small percentage belong to the dependent category. Interestingly, the female migrants from the mining village does not seem to be active before moving to the town and most of them were either dependents or students.

Table 6.36 (a): Sutnga – Occupation of the Migrants Before Leaving

Occupation	Male	Female	Total
Cultivator	7.37	0	4.48
Labourer	28.12	0.76	17.71
Student	40.09	46.61	42.57
Dependent	24.42	52.63	35.14

Table 6.36 (b): Sutnga – Occupation of the Migrants After Leaving (in %)

Occupation	Male	Female	Total
Student	4.61	4.51	4.58
Govt. Service	52.07	51.88	52
Business	10.6	13.53	11.71
Labourer	16.14	10.53	14
Dependent	16.58	19.55	17.71

Source : Village Survey, 1996

The occupational structure after leaving the village. It can be seen that bulk of the migrants have been absorbed in the government services after leaving the village. A very significant proportion of the migrants are still remain as daily wage labourer, whereas a small proportion of the migrants is being engaged in the business activities. As a consequences of the family movement a large chunk of the migrant population is still dependent.

Table6 6.37: Sutnga - Frequency of Visits (in %)

Frequency	Male	Female	Total
Once in a year	40.09	46.61	42.57
Twice a year	32.26	33.84	32.86
Once/twice a month	27.65	19.55	24.57

Source: Village Survey, 1996

It is interesting to note that only a small quarter of those migrated to the towns retain definite links with the rural areas they have left, while the remaining three quarter of the migrants are slowly loosing contacts with the place of origin as evident from the frequency of visits.

Table 6.38: Sutnga - Duration of Migration and Literacy Attainment Among Migrants (in %)

	Illiterate			Literate		
Duration	Male	Female	Total	Male	Female	Total
0-5	0	0	0	54.55	45.45	12.75
10-May	0	0	0	59.46	40.54	21.45
15-Oct	0	0	0	52.54	47.46	34.2
15+	0	3.78	4.39	79.82	20.18	31.6

Source : Village Survey, 1996.

Most of the migrants are literates and rural to urban migration in the village has been a long affair as a significant proportion of the migrants have left the village more than 10-15 years before.

6.9 **Concluding Statement**

The analysis based on case studies of selected villages depending upon the dominant resource base leads to the following broad conclusions:

i. The three villages, namely Mawrong, Myrdon Nongbah and Umran Niangbyrnai characterized by a single cropping and subsistence agriculture

show migrants belonging to the age group between 20-29. However, Mawrong has migrants in all age groups.

ii. Umran Niangbyrnai has employment as the major cause of migration. However in Myrdon Nongbah and Mawrong, the major causes of migration is due to education and employment respectively.

iii. Male migration find themselves in a wide variety of occupation, whereas female migrants are being absorbed as students and dependents.

iv. The process of migration among the two villages of Umran Niangbyrnai and Myrdon Nongbah comprises of both literates and illiterates, whereas in the case of Mawrong village it is only the literates who always decide to migrate.

v. The village located in an urban fringe experience very little migration and those who have migrated to the urban centres belong to the younger age group.

vi. Migration from the agro-forestry dominated area is characterized by a high proportion of migrants migrated to the city, involving migration from all age group. The causes and reasons for migration are mainly due to education. Bulk of the migrants comprise of the females and most of them are found in a wide variety of occupation in urban location.

vii. The village Patharkhmah with its resource base dominated by shifting cultivation reveals that the entire migrant segment comprises of the males where education and employment are the major causes of migration. Those who left the village have less contacts with the villages they left. Migrant segment in this category comprises mostly of the literates.

viii. Migrants with mining as the major resource base has much pervasive migration as indicated by a fair distribution of both males and females in all age groups. Rural-urban migration in this category is due to employment and movement of family, where education as the cause of migration is not a significant factor.

ix. The occupational structure is highly diverse where most of them are being absorbed as wage earners, in petty trade and to some extent in government service.

x. It may be concluded that the fringe location of a village nearer to a large urban centre arrests the process of rural to urban migration. On the other hand, remote villages characterized by forest based economy tends to accelerate the process of migration. Likewise, villages continuing with agro-forestry cultivation and mining too are experiencing relatively higher migration to towns.

xi. The situation is not very clear with regard to subsistence agricultural practice. It may be worthwhile to comment that the primitive economies based on forestry, mining and jhum cultivation are becoming unsustainable as a resource base forcing a feeble but distinct stream of rural urban migration.

xii. This conclusion is further substantiated by the fact that these villages have experienced migration of people to urban areas for a much longer period of time than areas with subsistence resource base. Moreover, the migration in those areas are less age and sex selective indicating family movement. As far as the occupational change is concerned, there appears to be attempts on the part of the migrants to improve their economic conditions as a larger proportion of them are found in government services or as students. But the worse seems to be happening in areas characterized by mining activities. Many of the migrants from these areas find themselves in the small odd job in government service or as petty traders and wage earners.

xiii. An interesting fact that emerges from the above study relates to marriage patterns in tribal areas as it changes with migration to urban areas. As has been pointed out earlier, the tribal people in Meghalaya practice a matrilocal marital system wherein the husband moves to the wife's residence after marriage. By implication, marriage related migration should confine to male only. But in the process of rural to urban migration this traditional system appears to be broken as many women do migrate to towns with marriage as a major cause of their migration. Examples can be drawn from almost all types of resource areas notably Umran Niangbyrnai, Laitkor, Nongtalang and Sutnga villages. The only exception are the remaining three villages

Chapter VII

Summary and Conclusion

A survey of the conclusion and findings of the research is presented in this concluding chapter. Researchers on rural to urban migration in India generally emphasise on the conditions of the rural areas as stagnating as agriculture can no more accommodate the ever increasing population pressure or that the urban areas are attracting surplus rural population to look for a non-agrarian employment. Emphasis is laid on their socio-economic status, direction and length of migration, literacy levels, age and sex distribution and many other characteristics. But little effort is made on analysing the process of rural to urban migration as it unfolds itself in different geographical conditions. Needless to emphasise, the problem of rural to urban migration has to be understood in its distinct geographical context in which it takes place.

Tribal areas in India in general and in Meghalaya in particular are characterised by a low level of socio-economic development on account of the operation of the development processes - both exogenetic and endogenetic at a low key forcing majority of the tribal population to live at a subsistence level, generally considered as a serious constraint on large scale redistribution of population. The tribal social structure too is based more on ethnic and clan bond, which also is viewed as restrictive to large-scale migration.

Urban development in Meghalaya is a recent phenomenon and is more externally induced to perform administrative functions and thus not related to any structural transformation of the rural economy.

Much of the tribal areas particularly in the North East continues to subsume numerous economic modes ranging from forest based hunting and gathering to the practice of shifting cultivation in a large tract of land while settled, subsistence production characterise the agrarian mode in a few select pockets. Spotty development of cultivation of commercial crops is also a recent phenomenon as a direct consequence of urban influence on neighbouring villages.

The present research endeavours to measure the extent of rural to urban migration and its characteristics in Meghalaya. It also identifies the factors in the processes of rural to urban migration. The emphasis is however laid on the processes inherent in the redistribution of population between rural and urban areas with a special reference to the resource potential in different areas which the study assumes to exercise significant influences on relocation people between the rural and the urban.

The Meghalaya plateau, located in the North-eastern part of India has been selected for an in-depth study of the processes of rural-urban migration for the reasons that (I) the area is dominated by tribal population, (ii) the region presents striking contrasts in its resource base depending upon the varying ecological conditions and their utilization and (iii) the region supports a few large urban centres.

The broad objectives of the research were to measure the extent of rural to urban migration and its characteristics, to isolate factors of rural to urban migration operative in hilly and tribal areas and to explain the process of rural urban migration in a tribal setting.

The study was undertaken with the help of data collected from secondary sources as well as supported by field based information through intensive door to door survey of households from sample villages located in diverse eco-regions.

The study assumed that the volume of rural to urban migration is a response to the varying resource potential of the study area. Areas with fragile resource base such as those traditionally practising shifting cultivation, areas which are experiencing widespread deforestation and the areas with a large scale exhaustion of mineral resources are likely to experience migration to urban areas in search of livelihood.

It is also likely that the nature of rural to urban migration in areas where natural resource base is better utilised may be characterised by a positive selection of migrants who may improve their economic position by moving to towns; some of them migrating as students to improve their socio-economic status.

The stream of migration is not excessively sex selective due primarily to the fact that the region has the prevalence of matrilineal system. However, in some areas

the sex selectivity may be more prominent due to individual migration for education, government employment, etc.

The study was structured in the following way. The initial chapter was devoted to a presentation of the research design. Considering the volume of researches already conducted on migration, the second chapter provided an overview of literatures available in this area of research. Since the study is mainly addressed itself to rural-urban migration in a resource context, an attempt was been made to evaluate the resource situation in Meghalaya in the third chapter. The fourth chapter was devoted to a study of the urban growth and urbanization level as well as the urban economic base as it was felt imperative in understanding the process of rural to urban migration. The emphasis was laid on the potential of urban areas in attracting and absorbing rural migrants. Spatial patterns in rural-urban migration was analysed in detail in the fifth chapter based on data available in 1981 Census. The data collected from sample villages were analysed in the sixth chapter. The villages represented diverse resource base of Meghalaya and migration data collected from these villages were profitably utilized to test validity of hypotheses formulated. The final chapter provides a brief summary of the findings of the research.

It was clear from the overview of literature that migration behaviour, particularly rural to urban migration in hilly and tribal areas of the country attracted much less attention by researchers than desired. This might have been due to a pervasive perception that the process of migration in hilly and tribal areas is of little

consequence based on an assumption of relative immobility among the tribal segment of population particularly in the North-Eastern region. Moreover, much of the migration studies in the hilly and tribal areas has been attempted in a conventional demographic frame without a reference to manifestation of vital geographic factors-both physical as well as socio-economic. Variation in the rural resource base, dwindling and unsustainable economic practices in some areas and fast pace of urbanization in hilly and tribal areas of India are some of the important geographical factors which have not been taken too seriously as forces engendering migration.

The analysis on the resource base in the study area revealed that the region has a rich natural endowment. The forest resource, which is the most significant resource, has its concentration in the western part of the region. The region by and large is characterised by traditional agricultural practices. Practice of jhum cultivation is still prevalent in most of the blocks where the forest cover is increasingly degraded and that the people continues to depend on the nature as their source of livelihood. It can be seen that Community Development block like Songsak and Dalu have more than 45 per cent area under jhum. It is interesting to note that Rongara and Dadengiri Community Development block, though covered with forest, the influence of jhum is very small in comparison with Blocks like Bagmara, Dalu and Samanda, where the destruction of forest due to jhum is also very high.

The ecological conditions are not much favourable for generation of agrarian surplus. The area available for cultivation and the area actually cultivated constitute

only a small and negligible proportion of the total geographical area. It can be seen that the area for intensive cultivation lies in the western part of the study area. Blocks having more than 15 per cent net sown area are Ziksak, Betasing, Selsella and Resubelpara. Thadlaskein C.D. Block is the only block in the eastern part, which has a relatively larger proportion of the net sown area.

The density of population in the region is very high in a few pockets and marginal in most of the blocks. High density of population is confined to those areas where the level of urbanization is high and in the blocks that have a large percentage under net sown area. This can be seen in blocks like Betasing, Selsella and Resubelpara. In spite of difficulty terrain and lack of agrarian potential, the growth of population is relatively high in most parts of the region. The growth of population has been extra-ordinarily high in Community Development blocks like Selsella, Thadlaskein. Mawphlang, Samanda and Khliehriat with a population growth rate of more than 50 per cent in recent years.

Occurrences of mineral resources like coal, limestone, silimanite and clay is also available in most of the Community Development blocks situated in the southern part of the region. Shella Bholaganj, Pynursla, Amlarem, Khliehriat and Bagmara have a fair amount of mineral resources but there is hardly any evidence of industries linked with these resources.

The structure of the workforce in the region shows that there is a high degree of variation. However, subsistence agricultural practice continues to absorb bulk of the working population in this sector mostly as owner cultivators. Service sector is more developed in the districts where urban development is on the rise.

The ethnic composition of the population is characterized by the dominance of Scheduled Tribe population in the rural areas. Inter-state migration has been responsible for a relatively higher concentration of non-tribal segment in a few urban centres

The state as a whole is characterised by a high level of literacy attainment. But much of it is confined to urban areas whereas literacy attainment in rural areas remains at a low level. As a result, there are significant variation in literacy rates across districts and development blocks. A remarkable feature of literacy situation in the state refers to a lack of significant male-female disparity in literacy attainment levels. Female literates outnumber their male counterparts in a few areas, particularly in Jaintia Hills. Garo Hills district however display a much less female literacy rates.

Analysis of the pattern of urbanisation and the urban economic base in Meghalaya revealed that the state is experiencing urban growth in recent years only. The level of urbanization too remains at a low level compared to many other states of India. The spatial pattern of urbanization is characterized by wide variations at the district and development block level. Only a few urban centres are of large size and

create conditions of primacy. Analysis of growth of urban population revealed that it is more due to natural increase. The increase in the size of urban population is also due to a proliferation in the number of towns. Both these factors indicate a marginal impact of rural to urban migration in pushing up the level of urbanization. In many blocks the rate increase in the urban population is out-paced by the increase in rural population.

The larger order urban centres are characterised by slow growth in their population while the newly emerging towns are adding to their population primarily due to small base of their population. The urban economic base is largely in favour of tertiary sector with an accent on administrative and informal job opportunities. Both these have very little potential to absorb large number of rural migrants. As a whole, the urban development in this hilly and tribal region does not provide an adequate base for encouraging large scale rural to urban migration.

An analysis of the migration data as available in the Census of India, 1981 reveals that much of the migrant population is confined to just one district i.e. East Khasi Hills where Shillong is located. Inter-district migration seemed to be closely related with the size of urban segment of population in the districts indicating a positive association between the size of migrants and the urban population. A very large proportion of the migrants had their origin within the state indicating a redistribution of population mostly confined to the state. The few migrants who came from outside the state were by and large concentrated in Shillong only.

As regards the rural-to-urban migration, the stream is significant only in two districts containing sizeable urban population. These two districts are East Khasi Hills and West Garo Hills. Unlike the rest of the country, all the migration streams including the rural-to-urban are less sex selective. The fact that much of the rural-to-urban migration is of intra-district origin, the migration appears to be of small distance only. It is quite likely that rural areas in close proximity to the urban areas have a greater propensity in sending migrants to the nearby urban centres. Rural migrants from outside the state are greatly concentrated in Shillong – the state capital. The sex composition of rural-to-urban migrants reveals diverse patterns in intra-state and inter-state categories. Females outnumber males or constitute a very large proportion in the former category while the males predominate in the rural-to-urban migration involving longer distances. Sex selectivity is less pronounced in the rural to urban stream particularly in migration involving small distances.

Very significantly, the Census data reveals that economic forces do not seem to be a major cause of migration within the state. This is indicative that the 'push' factors do not operate vigorously in this part of the country. Movement of family is the single most important cause of rural-to-urban migrations. Female migration for economic reasons is remarkably low indicating that much of their migration is associational in nature. However, the extent of female migration on account of economic reasons within the state is substantial. Males predominate in migration due to marriage. This is at variance with the other parts of the country where female constitute an overwhelmingly large proportion of all migration on account of marriage. The

opposite picture within Meghalaya is due to the prevalence of matri-local system of marriage. In terms of sex differentials in each of the causes independently, the pattern is highly varied in relation to the nature of migration viz., intra-state, inter state and international. The extent of sex differential is very low in each of the case of intra-state migration.

The analysis based on case studies of selected villages representing diverse resource areas however, provided new insights into the nature and causes of rural-to-urban migration in Meghalaya, not easily discernible from Census information. This may be due to some impact of the time lapse as the census data pertains to the year 1981. But, it is also true that Census, by its very nature is unable to capture local level realities as the data colllection is designed on a common format valid for the country as a whole. The findings based on the field data are summarized as below:

The three villages, namely Mawrong, Myrdon Nongbah and Umran Niangbyrnai characterised by single cropping and subsistence agriculture shows migrants belonging to the age group between 20-29. However, migrants from Mawrong are distributed in almost all age-groups.

Umran Niangbyrnai has employment as the major cause of migration, whereas in Myrdon Nongbah and Mawrong, the major causes of migration are due to education and employment respectively. Male migrants find themselves in a wide variety of occupations, whereas the female migrants are absorbed as students and dependants.

The process of rural-to-urban migration among the two villages of Umran Niangbyrnai and Myrdon Nongbah comprises of both literates and illiterates, whereas in the case of Mawrong village it is only the literates who always decide to migrate.

Contrary to expectation and the conclusion arrived at earlier chapters, villages located in the urban fringe experience less migration to cities, and those who have migrated to the urban centres belong to the younger age group.

Migration from the agro-forestry dominated area is characterised by a high proportion of migrants to the city, involving migration from all age group. The causes and reasons for migration are mainly due to employment and education. Bulk of all the migrants comprise of females, and most of them are found in a wide variety of occupations in urban location.

The village Patharkhmah with its resources base dominated by shifting cultivation reveals that the entire migrant segment comprises of the males where education and employment are the major causes of migration. Those who left the village have less contacts with the villages they left- not more than once or twice a year. Migrants segment in this category comprises mostly of the literates.

Migrants with mining as the major resource base has much pervasive migration as indicated by a fair distribution of both males and females in all age groups. Rural-urban migration in this category is due to employment and movement of

family, where education as the cause of migration is not a significant factor. The occupational structure is highly diverse where most of them are being absorbed as wage earners, in petty trade and to some extent in government service.

It may be concluded that the fringe location of a village nearer to a large urban centre arrests the process of rural to urban migration. On the other hand, remote villages characterised by forest based economy tend to accelerate the process of migration. Likewise, villages continuing with traditional jhum cultivation and mining too are experiencing relatively higher level of out migration to towns.

The situation is not clear with regard to subsistence agriculture practice. It may be worthwhile to comment that the primitive economies based on forestry, mining and jhum cultivation are becoming increasingly unsustainable as a resource base forcing a feeble but distinct stream of rural to urban migration.

This conclusion is further substantiated by the fact that these villages have experienced migration of people to urban areas for a much longer period of time than areas with subsistence agriculture as a resource base. Moreover, the migration in those areas is less age and sex selective indicating family movement. As far as the occupational change is concerned, there appears to be attempts on the part of the migrants to improve their economic conditions as a large proportion of them are found in government services or as students. But the worst seems to be happening in areas

characterised by mining activities. Many of the migrants from these areas find themselves in petty trade or in wage earning sector of the urban economy.

It may be pertinent at this stage to analyse some of the implications that arise from the study. It was fairly evident from the Census data that rural to urban migration does not constitute a significant component of migration in the state as a whole. However, the process, however weak, is showing signs of a major exodus from rural areas to the emerging towns in the coming years as evident from the data collected from selected rural areas. It is interesting that it may take place not due to any structural change in the urban economy but due to the resource situation prevailing in the rural areas. The traditional economies of the tribal people in the state appears to be becoming increasingly unsustainable in a few areas and this may be a single major cause for a future increase in the volume of rural to urban migration. Increasing population pressure in the rural areas, lack of changes in agricultural technology, growing literacy in rural areas, dwindling economic and employment opportunities in the rural areas may be acting as forces leading to a transfer of people into emerging urban centres. However, a major problem appears to be located in the urban areas themselves which do not offer much scope to absorb these migrant segment in the urban economy except in the tertiary sector which in any case has a limited capacity for employment generation.

The situation so far has not acquired difficult dimension, but is likely to do so shortly. Already the signs are too evident in the urban job market where ethnic strife

has been experienced in the recent years. Political instability, demand for job reservation for the 'local' people, demand for 'Inner line permit' elimination of 'outsiders' from trade, commerce and business establishments are some of the features of political struggles which may partly be related to a growing pressure of rural migrants in the urban economy.

The study revealed that the resource context is a powerful explanation for rural to urban migration in Meghalaya. The fact that primitive economies based on forestry, mining and jhum cultivation are primarily responsible for developing a stream of rural to urban migration is sufficiently indicative of their growing unsustainability of these resource base. The implications are clear enough. Unless attempts are made for rural development specifically in these areas, it may experience distressed migration into the urban areas leading to slum formations in the latter – a feature which is not yet very significant in most towns of Meghalaya.

The fact that in most cases education and employment constitute the single most causes of migration reveals that the situation is still not out of control. Urban areas are still perceived to be 'pull' areas and continue to be accommodative to the small proportion of rural migrants. This is also evident from the study of occupational change among the migrants. However, the situation may change drastically as the areas of unsustainable economic practice may experience distressed migration in future.

Less frequency of contacts by the migrants with the original villages indicate a process of social change and a split between rural and urban living – a process having serious consequences in a tribal area.

A reassuring feature of rural to urban migration in Meghalaya relates to a low level of sex-selectivity. This is primarily due to the prevalence of matrilineal social system among the tribes living in the state. However, rural-urban migration seems to be affecting the traditional practice of matri-local marriage customs. This is evident from a large proportion of migrant women recording marriage as the cause of their migration. It is likely that migration to towns is slowly changing many traditional practices among the tribes.

In the conclusion, it may be mentioned that the study could only address itself to very broad features of rural-to-urban migration in Meghalaya. The research only opens up a plethora of issues that need to be addressed by future research programmes. Notable among them are the social integration of rural migrants in the urban environment; their spatial segregation if any, changes in their standard of living; attitudes among the second or third generation migrants; effects of rural migrants on urban land values, land transfer and land-use; their integration into the urban economy; occupational structure and their attitudes towards traditional values and customs. It is expected that the study would provide a strong background for further studies to be undertaken by social scientists belonging to all social science disciplines.

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Village Schedule

General Information:

00. Locations:

01. Name of the village..... Block.....District.....

02. Population.....male.....female.....

03. Social composition:

a.

Category	No of Households	Estimated population
Tribe		
Non-Tribe		
Total		

b Caste/Clan composition

Caste/Clan	No of Households	Estimated population

04. Ecological Compositions:
   a. Nature of topography.
   b. Soil types.
   c. Types of trees in the forest.

05. Landuse:
   a. Total area of the village.
   b. Area under forest.
   c. Area under crops.
   d. Area under Jhum
   e. Area under terrace.
   f. Area under valley.(permanent cultivation)

06. Agriculture: Cropping patterns:

Crop cultivated	Area	Remarks (Food/Cash Crops)
Season I		
Season II		

07. Agriculture: Crop calender

08. Agriculture production:largely/subsistent/largely commercial/defficient

09. Forestry:
  a. No of families depending upon forest as their source of livelihood
  b. Nature of dependence - subsistence requirements, number of wage earning
  c. Nature of wage work: felling no., processing no.

10. Mining:
  a. Type of mining.
  b. No of families depending on mining as a source of living:
    fully.....dominantly.....partially.....
  c. No of mining dependence families engaged as self employer as wage earners ...

11. Service:
  a. No of households engaged in services:
  b. Types of services: Government/informal/private.

12. Migration:
  No of families migrated to towns

Year	Name of the Town
Last one year	
During five years	
During ten years	
Over ten years	

13. Infrastructural developments:
  a. Electricity. b. Drinking water.
  c. Road transport d. Market
  e. Education f. health

13.a Transport/Communication
  i. The nearest town
  ii. Distance from the nearest town .....
  iii. Type of road. Kutcha/pucca/footpath.
  iv. The village is approachable by taxi/bus/foot/etc.
  v. If there is a bus service,what is the daily frequency:
    once/twice/thrice/more than thrice.
  vi. Does the village have:
    Post office ..... Distance from the village.....
    Telegraph office
    Telephone

13.b Education
  i. The village has a creche

Pre school education
Adult education
Non formal education
Primary school
Middle school
Secondary school
Pre-school.....Adult education.....
Non formal education.....Primary school.....
Middle school..... Secondary school.....

iii. Building type: Kutcha/Pucca/Hired.
Pre-school.....
Adult education.....
Non-formal education.....
Primary school.....
Middle school.....
Secondary school.....

13.c.Drinking water:
Type of facility: Well/Tap/Tank/Tube well/Stream/Any other.

13.d.Electricity
i. Is the village electrified. yes/no
ii. If yes, how many households connections?
iii. Regularity of supply: whole day/less than two hours/ 12-20 hours/less than 10 hours.
iv. No of connections
Domestic.....

13.e.Health.
Does the village have if not distance
i. Dispensary
ii. Maternity care
iii. Malaria inspection
iv. The health programme (specify)
No of health persons available in the village:
If yes, mentioned if there is any bed facility
a. Trained doctors
Nurses
Mid wife
b. Traditional (Khasi indigenous)
Doctors
Mid-wife

13.f. Market:
Nearest market..... Distance.....
Frequency of the market:weekly/bi-weekly/tri- weekly/
Type of produce which the village sends to the market.

HOUSEHOLD SCHEDULE
DEPARTMENT OF GEOGRAPHY
SCHOOL OF HUMAN AND ENVIRONMENTAL SCIENCES

A. **General Information**:

Village .....
Household code.....
Name of the head of household.....
Tribe.....
Clan..... Caste.....
Religion.....

B. **Demographic Structure:**

Relation Age Sex Marital Place of Present Remar

Relationship to H.H.	Age	Sex	Marital Status	Place of Birth	Present Occupation	Remark

C. **Economic Status**

a.i Land owned (in hectares) .....
Cultivated land .....
Jhum .....
Terrace .....
Valley .....
Land leased out .....
Land leased in .....

a.ii Have you purchased/sold land in the last ten years:yes/no
If yes, how much.....when.....

a,iii Cropping patterns:

Crops grown	Area	Production	Amount Marketed	Value	Remark

(mention cash/food crops)state the name of the crop in the remark column).

b. Livestock:

Type	No.	Use	Production	Value of production	Market Surplus

c. Forest:

Amount owned .....
Produce available.....
Produce sold .....
Value .....

d. Mines:

Area owned .....
Type of minerals .....

Type	Amount	Value	Remark
Quarry			
Coal			
Limestone			
Granites			

e.

Loan taken from	Amount	Year	Interest rate	
Money lender				
Bank				
Co-operatives				
Any others				

f. Have you purchased land in the city? Yes/No.If yes please state the following

1. Year of purchase .....
2. Area of land .....
3. Amount paid .....
4. Have you built a house: Yes/No
   If yes what use is it made: Rental/Reside/Commercial.
   How much rent is received .....

g. Employment: Members employed in different job

Sl. No.	Type of Money	Salary per month

D. **Social Status**

1. Are there any members in the family holding/held any of the following post:

Status	Period of holding	Relation to head of the house
Headman		
Secretary		
Sordar/Myntri		
Syiem		
M.L.A./M.D.C.		
M.P.(Lok sabha/Rajya sabha)		

2. Does the household have,the access of the following:
   i. Radio
   ii. T.V. Doordarshan/Cable/Other channels
   iii. Newspaper. Khasi/English

3. Linguistic ability: Number of persons who can read (R)/ Write (W) and understand (U)

	Numbers of persons		Quality (R-U)
	Male	Female	
English			
Hindi			
Bangla			
Others (specify)			

E. **Migration: (To Be Asked To The Head Of Household)**

1. Do you consider that out-migration of some member beneficial/not beneficial to the family ?
   a.
   b.
   c.

2. What in your opinion migration be encouraged? If yes state the reasons:
   a.
   b.
   c.

3. What are the problems faced by outmigration of family members
   a.
   b.
   c.

In case of family movement, collect the following information

1.Number of family moved out of the village during:
a. Last year
b. 1-2 years
c. 3-5 years
d. 6-10 years

3. Place of residence

	No of families	Name of the town	Causes of migration	Present Address
Within Meghalaya				
Within northeast				
Elsewhere				

Migrant segment only

Members who have migrated	Age	Sex	City to which migrated	Distance from the village	Date of leaving

Causes of migration	Occupation before leaving	Present occupation	Frequency of visit	Emitance if any

Bio Data

A. **General Information** :

a. Name	Mr Danny Dexter Nengnong
b. Sex	Male
c. Nationality	Indian
d. Whether Sc/St	Scheduled Tribe
e. Father's Name	Shri H.R.Syiem
f. Address	La-I-Trep. Nongrimbah, Laitumkhrah, Shillong-793003, Meghalaya
g. Occupation	Teaching

B. **Academic Qualification**

a. M.A. In Geography, North Eastern Hill University
IInd Class with 55.4 per cent.

b. M.Phil North Eastern Hill University, (1991)
Topic : "Rural Urban Migration in Meghalaya",
supervisors: Prof A.C. Mohapatra.

C. **Work Experience**

a. Working as Lecturer in Raid Laban College, Shillong from 1st August 1989 till date.
b. Working as Part time Lecturer in Synod College, Shillong from February 1995 till date.

D. **Other Experiences**

c. Involved in collecting folklore and folklife materials for the past two years.
d. Worked as Research Associate on a project "Problems and Prospects of District Councils in North East India" ICSSR.
e. Worked as Research Associate on a project "Total Literacy Mission in North East India, State Resource Centre, NEHU, Shillong.
f. Worked as Research Associate on a project "Awareness Generation Project" YWCA
g. Worked as Research Assistant on a project "The Healing Chant" IGNCA, New Delhi.

E. **Research Publications**

a. "Processes of Urbanization in Meghalaya: Evidences of Rural Urban Migration in B Datta Rays (eds) Urbanization in North East India.
b. "Patterns of Migration in Meghalaya with Special Reference to the Rural Urban Stream" The North East Geographer, Gauhati University, Guwahati.
c. "Reasons for Migration" Hill Geographer, NEHU, Shillong

d. Ecological Degradation and Forest Resources for Eco-Development in B.Datta Ray (eds) Population Pressure, Urbanization and Environmental Degradation, Issues in North East India (A combined paper)

F. **Curricular Activities**

a. Represented NEHU at the National Youth Festival, held at Roorkee University; Organised by the Association of Indian University, Ministry of Youth Affairs.
b. Represented NEHU at the East Zone Inter University Festival held at Manipur University.
c. Represented NEHU at the East Zone Inter Universiy Festival at Banaras Hindu University.
d. Represented NEHU at the East Zone Inter University Festival held at Visva Bharati, Santiniketan
e. Participated at the Youth Festival held at Dibrugarh University.
f. Participated at the Inter-zonal Basketball Tournament held at Aizawl.