



WORK AND EMPLOYMENT IN A TRADITIONAL SOCIETY : A  
GEOGRAPHICAL ANALYSIS WITH REFERENCE TO SELECTED  
NAGA VILLAGES

A B S T R A C T

Submitted for the Degree of Doctor of Philosophy (Ph.D.)  
in Geography

By

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## STATEMENT OF THE PROBLEM

Productive work is a special feature of human civilization. It is work which differentiates man from his animal past. It is through work that man not only satisfies his basic needs of survival, but work becomes a key to transformation of his ecological settings by changing and modifying the nature and in the process, changing and modifying his own self. Work provides him creativity in the form of creating his culture, all aesthetic expressions and social institutions. All tools and technologies are products of this creativity.

In all traditional societies - characterised by simple and traditional technology and existing living in relative isolation, largely non-monetised and relatively removed from significant influences of market economy - work constitutes as a major propeller of these societies in the process of their evolution in consonance with the ecology within which they are placed. Hence, a differentiation may be made between work and employment. Work refers to all 'socially productive work' emanating from the process of adjustment between man and nature. Employment on the other hand, is a concept related to market economy wherein the labour has already become a commodity. In other words, all employment is work, whereas all work need not be employment. All productive work is not necessarily due to

employment. For example, the mother caring her baby is a socially productive work but it does not represent employment in itself. Similarly, the co-operative effort of a group of villagers to construct a village is a socially productive work but it is not employment. To cite an extreme example, one may in the strict sense be a courier employed by a smuggler, but this does not necessarily fall under socially productive work.

In most societies, the nature, patterns and the types of work is governed by a number of forces. First of all, it is the physical attributes of the environment which provide the initial basis of all productive works. Attributes of space differentiate the responses of the social group and is reflected in their patterns of work. But social groups are heterogeneous in their age, sex and in terms of their access to the productive resources as well as in their stage of economic and social development. Each society evolves general or specific principles of its organization according to which work tend to get structured. These principles may range from gender divisions in work to the distribution of work on the basis of age. Responses to work also differs in accordance to many other social, economic and cultural processes.

Works in tribal societies reflect greater harmony with nature and the structure and organization of work in these societies differ substantially from that of non-tribal social order.

In the present study it is proposed to examine the problem of the structure and organization of work in Naga-Himalayas, inhabited by diverse culture groups at different hypsometric levels. The study aims at getting an insight into differential impact of the diverse ecological factors on the patterns of work performed by culture-groups and the structural adjustments made by the people in their attempt to harness the nature. While ecological diversity would be seen as a factor in differentiating cultural responses to works performed by men and women, the role of tribal social structure will be examined to understand the different ways in which these groups transform nature while transforming themselves. An important element which will also be given due importance is the external impulses - the process of modernization, integration of forces of development through state intervention - all of which do not have uniform coverage across space or over time.

#### OBJECTIVES

The following broad objectives are set before the research:

- (i) to understand the spatial, ecological and cultural parameters of the variation in the patterns of work;
- (ii) to study the structure of work in relation to socio-spatial morphology, gender and age;
- (iii) to evaluate the impact of modern influences in modifying the traditional organization of work and
- (iv) - to study the role of modern employment in the acceleration of social stratification.

## HYPOTHESIS

The study proposes to examine the following hypothesis during the course of the study :

- (i) The rhythm of work in tribal societies is largely governed by the ecological attributes of the location and agro-climatic conditions. Difficult terrain and inaccessibility is likely to confine the work performed by people to their immediate environment. A large part of the work performed by the people will be related to the land-resources; particularly agriculture and forest.
- (ii) In general, higher the altitude, greater will be the types of work associated with forests, and lesser dependence on agricultural production. With higher altitude, the dependence on collection and gathering economy is likely to be more accentuated.
- (iii) In subsistent tribal economies, the division of labour is more demographic in nature, i.e., based on age and sex.
- (iv) The type of labour - use is likely to be dominated by reciprocity rather than wage-based.
- (v) Patterns of work in areas close to the towns are likely to be influenced more by the urban demands.
- (vi) Greater is the proximity of the village to the towns, social differentiation and wage based employment are expected to be more.

## STUDY AREA

Nagaland has been selected for the present study. Located in the Indo-Burmese hills in the eastern offshoot of the Himalayan ranges and in the march land between India and Myanmar (Burma) the region supports a great variety of tribes belonging to the Naga-ethnic variety. Detached and isolated from the social upheavals in the mainland, these tribes continue to live in geographical cul-de-sac with marginal interaction with the peoples in the neighbouring Brahmaputra valley and often in

isolation to each other within its homeland. Geographical and social isolation of these tribes has fostered and perpetuated subsistence production systems and a mode of living in close relationship and simple understanding of the laws of nature. This is evident from the Naga economy which is by and large subsistence in nature and the society, which has strong links with tribal social order. These peculiarities are far too compelling to study the structure and patterns of work in this region.

The topography of the state is hilly, rugged and mountainous except for a narrow zone in the foothills bordering Assam and small valleys in between the lower ranges of the western and north-western flanks. The average height of the peaks are between 900 and 1,200 metres. The highest point is Saramati in Tuensang district which is 3,840 metres above the sea level. The second highest peak is Japfu in Kohima district with a height of 3,014 metres.

It is very common in Nagaland that the villages are very large and nucleated, located at the hill-top which are largely based on traditional agriculture and other primary occupations. The administrative extent of the region is defined by its location on the west of Myanmar. The northern and western border is provided by the state of Assam and Manipur is on the south of the state.

The state has been divided into 7 districts and 77 circles. It consists of 1170 villages. The state supports over 12

lakhs of population, most of them (85 per cent) living in rural areas. Average density of population is 73 persons per square kilometre. The study aims at getting an insight into differential impact of the diverse ecological factors on the patterns of work performed by the culture-groups and the structural adjustments made by the people in their attempts to harness nature. While ecological diversity would be seen as a factor in differentiating cultural responses to works performed by men and women, the role of tribal social structure will be examined in great detail to understand the different ways in which these groups transform nature while transforming themselves. An important element, which will also be given due importance is the external impulses-- the process of modernization, integration and forces of development through state intervention - all of which do not have a uniform coverage across space or over time.

#### DATA BASE

This study is primarily based on field data collected from six villages belonging to three different ecological zones. Two schedules were prepared; one for the villages as a whole and the other for the households. The primary data was collected at the household level with the help of household schedules designed to elicit informations on the demographic structure, work characteristics, access to land and other assets, literacy, modern employment, places of work of the members of the family belonging to the sample households. General information

pertaining to the villages as a whole were collected through the help of village schedules which include general ecological characteristics, population pressures, socio-economic infrastructures and facilities, community organizations, developmental efforts by Government or community, etc. Village records maintained by the village administration and the office of the Baptist Churches at different villages provided general data pertaining to demographic structure, agrarian conditions, such as the pattern of land use, cropping patterns, size of land-holding etc., for the village as a whole as well as for the sample household.

Apart from the primary data, secondary information has been used selectively for different purposes. First, it was necessary to get general idea regarding the ecological, economic and socio-cultural attributes of the selected zones as the study was mainly cross-sectional in nature. The study heavily depended on gazetteers, techno-economic surveys, census publications, published books and records to gather ecological and historical data for each of the selected zones. Second, census data have been used to get a broad understanding of the work force structure in various parts of the state as regards the 'main workers' and their industrial distribution. However, some uses of folklore, legends and belief have been referred to understand society's perception of work and employment as it is seen cognitively.

## METHODOLOGY

In order to get an insight into the nature of Nagaland's economy, information have been organised with reference to all the physiographic conditions, patterns of land use etc.

The variation in the work force participation and its structure has been analysed in selected sample circles at the village level. As many as 7 circles have been selected depending upon the concentration of a particular tribal group (their share is above 95 per cent) in the circle. Care has been taken to ensure that the selected circles are well distributed in the entire state representing different altitude and ecological zones. Thus the selected circles represent a fair cross-section of regional variation and also provide insights into the nature of inter-tribal variation in work participation and its structure. Circle and village level data have been analysed with reference to,

a. Percentage of workers to total population (total, male and female).

b. Percentage of cultivators to total workers (total, male and female).

c. Percentage of agricultural labourers to total workers (total, male and female).

d. Percentage of workers in household industries and manufacturing to total workers (total, male and female).

e. Percentage of other workers to total workers (total, male and female).

An attempt was made to present a generalised pattern of work with reference to work cycle for men and women separately at each altitude zones. The structure and organization of work is examined by a reference to social morphology, gender divisions and age distribution of work. The age distribution of works is classified into three broad categories of the children (5-15), adult (16-59) and old (60+).

#### SAMPLE DESIGN

In order to study the pattern, structure and organization of work and employment in Nagaland, six villages were selected for intensive field investigation. The villages were selected into one close to the urban area and the other away from it, with the assumption that the villages closer to the urban areas are more likely to be affected by modern influences than the ones away from it.

Nagaland is divided into three broad eco-regions :

1. The high altitude ecological zone,
2. The middle altitude ecological zone and
3. The low altitude ecological zone.

## STUDY REGIONS

Eco-regions	Villages	Tribes	Modern influences	District
1.High alt. eco-zone	a.Tuensang b.Khudei	Chang Chang	Close to urban Away from urban	Tuensang Tuensang
2.Middle alt. eco-zone	a.Baimho b.Naghutomi	Sema Sema	Close to urban Away from urban	Zunhebot Zunhebot
3.Low alt. eco-zone	a.Merangkong b.Asangma	Ao Ao	Close to urban Away from urban	Mokokchu Mokokchu
Total - 3	6	3	3+3	3

At least two villages were selected from each of the eco-regions. In the high altitude eco-zone two villages selected for the field work include Tuensang (taking 13 per cent sample households) and Khudei another tribal Chang village which is not accessible to modern means of communications (taking 16 per cent sample households) were chosen. The middle altitude eco-region is represented by Baimho (13 per cent households) located near Zunheboto town and Naghutomi (15 per cent sample households), a Sema village far away from the town has been surveyed. The low altitude ecological zone is represented by Merangkong close to town (taking 20 per cent of sample households) and Asangma, an Ao village (taking 15 per cent of sample households).

### ORGANIZATION OF THE CHAPTERS

The study is organized into six chapters :

The First Chapter delineates the research setting with reference to the statement of the problem, objectives of the study, hypothesis, data base, sample design

methodology, organization of chapters and an overview of literature.

The Second Chapter is a descriptive and analytical account of the study area. This chapter emphasises on the regional characteristics of the population and settlement, economy, land use, forest cover, cropping pattern etc.

The Third Chapter is a study of the work cycle based on data collected from six sample villages located in diverse eco-regions.

The Fourth Chapter makes an attempt to study inter-tribal differences in the work participation and its structure in the study area.

The Fifth Chapter emphasises on the social differentiation and variation in economic participation.

The Final Chapter presents a brief summary of findings and implications of the study.

## FINDINGS

The main findings of the study are summarised below :

1. The ecological settings of the study area is dominated by Himalayan topography with its accompanying ridges and hills cut into river valleys which provide very little valley area, for most of them flow in V-shaped valleys. Most of the region is too rugged or forested permitting agriculture to be practiced only in the manageable slopes and limited river valleys. At places terracing is practised while in others jhum is the dominant

method of cultivation. As a result, agriculture is of highly subsistence in nature and supports only a part of the requirement of the people. Unprecedented growth in population adds to the problem. The subsistence nature of the agricultural production is indicated by small area available, primitive methods of cultivation such as jhum, very low level of technology and cropping pattern overwhelmingly loaded in favour of food grains. Despite weak agrarian based agriculture continues to absorb a very large proportion of the labour force.

Due to fragile agrarian resource base of the region, the population response to a variety of other economic pursuits offered by the eco-system. Large forest cover naturally provides an economic base for hunting, gathering, lumbering and collection of various food and other items for the people.

Domestication and care of animals is essential as an economic support in a region where agriculture is highly subsistence in nature. Care for a variety of domestic animals and semi-domestic animals like mithun etc., constitutes an important sphere of work.

In an essentially self subsistent economy without much recourse to trade, artisan production of various types keep both men and women constantly engaged.

Recent development in the area through administration, spread of literacy, growth in urbanization and increase in other infrastructural facilities are also opening up new opportunities of work and employment in the modern sector.

2. The work cycle shows a complex pattern of work mostly related to agriculture. The long period of relative agricultural inactivity allows the rural people to undertake a host of non-agricultural works which need community participation, cooperation of relatives in getting much of the requirements fulfilled without having to depend on wage labour and the interference of the market. The subsistence nature of production and tribal social organization makes the pattern of works a reflection of close interaction between society and ecology.

It is identified that there are significant differences in the work cycle of the three different zones characterized by different agro-climatic conditions. A very significant point that emerges from the study of the work cycle in diverse ecological conditions refers to the nature of community involvement in work. It is noticed that the types of works in highland areas - characterized by more hostile environment and low agricultural resources - involving community participation and reciprocity in labour use is much more compared to the areas located in the foot hills. Environmental factors seem to have fashioned such a difference. Inter-tribal differences in work-cycle appears far less conspicuous compared to environmental differences. Secondly, the rhythm of work located close to urban centres shows modifications primarily as a response to impulses originating from the urban centres. A substantial proportion of the workforce is 'employment' and this results in a low priority being accorded to works involving community participation and reciprocity in

labour-use. The differences in work-cycle between the two sample villages in highland areas is, however, insignificant. This is possibly due to marginal differentiation between rural and urban areas in highland eco-region.

Tribal institutions of lack of gender inequity is amply demonstrated in the work cycles performed by the two sexes. It is evident that the sexual division of labour exists among the Nagas, but this division is based more on complementarity rather than on segregation. Notably, the sexual division of labour in work-cycle shows little variation across eco-regions or among the tribal groups covered under the study.

3. An analysis of the census data regarding the proportion of workforce and its structure shows an overwhelming concentration of the workers in the cultivators category. Participation in other kinds of work is negligible. This is mainly due to the census definition of productive work which relegates multitude of other types of work to insignificance. This is particularly in the case of artisan activity or gathering and hunting which are not considered as main work by the majority of the people. Agricultural labourers are nearly absent. This is understandable as the tribal social order is not yet characterised by large-scale disparity in the distribution of land and other assets.

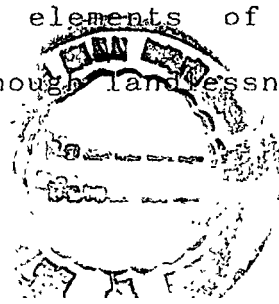
However, there are interesting differences in work participation rate and the structure of workforce across the selected circles and also between the two sexes. In the foothill

zone, the two selected circles show a low overall participation of work among the Aos and Lothas. While in the former, the male participation rate is higher than the females, in the later the female participation rate exceeds that of the males. The highest participation rate is found among the Angamis living in higher altitudes but the female participation rate is relatively low. Among the Semas, Changs and Konyaks the participation rate among the males and females are almost identical. Work participation rate among the Chakhesang women exceeds that of their men counterparts.

Interestingly the male workforce among the Aos shows a higher proportion engaged in non-agrarian sector while among all other selected tribes agriculture absorbs an overwhelming proportion of the male workforce. It is only among the Angamis that a substantial proportion of the male workforce is engaged in non-agricultural work. Location of the capital town Kohima in this area probably explains the shift.

In the case of females however, irrespective of the ecological and tribal differences the main concentration is in the agricultural sector. The only exception is in Tuli circle located in the foothill zone where a significant proportion of women workers are found engaged in non-agricultural activities.

4. Though the social organization is dominated by subsistent methods of production there are important elements of social differentiation in the sample villages. Although landlessness i



rare, economic differentiation in terms of access to land-holding is taking place at a much faster pace in low altitude ecological zone which offers greater scope for agrarian development. This economic differentiation is far more conspicuous in sample villages located close to the urban centre in nearly all eco-regions. This is sufficient proof of the negative role played by urban development in accelerating the process of socio-economic differentiation in rural tribal areas of Nagaland.

These processes may have significant impact on the nature of work and employment in the traditional tribal economy of Nagaland. For example, areas in close proximity to non-tribal dominance and which offer a relatively more agricultural opportunity are likely to experience a shift from traditional reciprocity in work to those based on wage employment. The experience is likely to be similar in villages located closer to urban centres.

It is evident from the data that the fragile economic base of the villages keeps both men and women constantly absorbed in work. About 80 per cent of the population from both the sexes are engaged in work. It is significant that there is little differences in the participation rate between the males and the females at a aggregative level. Age does not operate as a significant factor in differential participation rates. However, there are significant differences in the participation of work by differential access to land. Interestingly, overall participati<sup>o</sup>n declines among those households which do not operate any land o

have a very large access to land. The participation rate is also relatively low in those households having very small holdings.

It is revealed that the female workers dominate the percentage of workers within the villages (above 70 per cent) with the only exception of Khudei being dominated by males (81.1 per cent). However, the percentage of workers within the region, within the state and outside the state is dominated by males in all the sample villages. Interestingly, there is not a single female workers outside and within the state in the villages far away from the urban centres except Asangma, 1.3 per cent (within the state) and, 0.6 per cent (outside).

The working population is engaged in a multiplicity of work. Due to the weak agrarian base only a small proportion of the workforce is engaged in cultivation which is about 25 per cent males in Asangma to 30 per cent males in Merangkong and female with about 22 per cent in Baimho to 28 per cent in Merangkong. This is irrespective of the differences in land holdings. Animal husbandry absorbs a very significant of more than 20 per cent of workforce in all sample villages. It is observed that female participation in animal husbandry is more than males in all the sample villages. Though hunting is increasingly becoming irrelevant exercise; a large proportion of the male workforce continues to depend on it especially in the villages far away from the towns in general, and in the villages located at interior high altitude ecological zone in particular. It is further noticed that a small proportion of the mal

workforce continues to depend on it even in the villages accessible to urban areas. Collection and gathering activities naturally occupy an important area of work in a traditional economy. More than 30 per cent of the workforce is engaged in this traditional task in almost all the sample villages. Artisan activity constitute a significant sector in which 9-14 per cent of the male workforce is engaged in all the sample villages. However, the percentage of female participation in artisan activity is marginally more than the males (i.e., 13-17 per cent) in all the selected study villages. Tuensang is the only exception where the proportion of male artisan workers exceeds that of the females. It is however revealed that in service sector proportion of male workforce is far more than that of females in all the sample villages. Female involvement in trade and commerce is insignificant as is evident from the data. Not a single person among both the sexes in the sample households were reported in this class in Naghutomi. It is also highlighted that there was no female participation in this sector among the sample households in Khudei.

Sexual division is less clear in most of the works in the traditional sector though the females are more active in animal husbandry and artisan activity, while both men and women are in equal proportion in cultivation and gathering activities. But activities connected with formal services, trade and business are works more with men than women.

It is significant that the segment which has moved away from land based production, is largely represented in formal services, trade and business generally dominated by the men while women remain active in animal husbandry gathering and artisan activities leading to a sharper sexual division of labour. There is a greater equality between sexes in the participation of diverse categories of work though the major concentration takes place in cultivation and gathering.

The sexual division of labour in the traditional sector is well defined when the broad activities are broken into occupations or work processes. For example in cultivation, cutting of the forests, ploughing and threshing is dominantly a male activity while preparation of the soil, sowing and weeding are female activities. In animal husbandry milking and feeding etc., are female activities while collection of fodder and grazing are dominantly male activities. Artisan production like weaving, knitting is exclusively female tasks, while basketry, wood carving and blacksmithing are exclusively male occupations.

5. A study of the important occupations under the category of trade and business show that a very large proportion of the workers are engaged in petty trades such as in vegetables, betel nut and, selling of pork and beef etc. Females are numerous only in vegetable trade.

Teaching and jobs under the state Government seem to be the only occupations to which the literate segment is responding.

It is the primary schools in which a very large proportion of the workers in the formal services are employed. A study of the types of jobs under the state Government services indicate that only low paid tertiary employment is available to the village population. The largest number of employment is in the category of Class IV such as drivers, steno-typist, police constables, peons/chawkidars and sweepers.

The sample villages may not be a truly representative case study to permit generalizations for the state as a whole. However, some of the trends in work participation in the sample villages are worth noting :

a. The ecological bases of highland agriculture being limited, the population relies on a number other resources of work as sources of work.

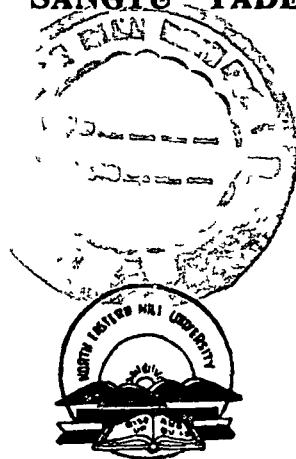
b. Sexual divisions of labour is less clear in the traditional sphere but is emerging strongly in the non-agrarian tertiary sector.

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Thesis Submitted to the North Eastern Hill University  
in Fulfilment of the Requirements  
for the degree of  
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**T. SANGYU YADEN**



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1995

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**CERTIFICATE**

This is to certify that the thesis submitted by Shri T.Sangyu Yaden towards the degree of Doctor of Philosophy (Ph.D.) in Geography titled " **Work and Employment in a Traditional Society : A Geographical Analysis with Reference to Selected Naga Villages** " is a bonafide study to the best of our knowledge and belief. The study acknowledges duly works of other scholars and sources . We also certify that the thesis has not been submitted to any other University or awarding institutions in India or abroad for the same degree or others.

We, therefore, recommend that subject to fulfillment of other formal requirements, the study may be placed before examiners for evaluation.

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*Sangyu Yaden*  
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## 1.1 STATEMENT OF THE PROBLEM

Productive work is a special feature of human civilization. It is work which differentiates man from his animal past. It is through work that man not only satisfies his basic needs of survival, but work becomes a key to transformation of his ecological setting by changing and modifying nature and in the process, changing and modifying his ownself. Work provides him creativity in the form of creating his culture, all aesthetic expressions and social institutions. All tools and technologies are products of this creativity.

In all traditional societies, characterised by simple and traditional technology and living in relative isolation of largely non-monetised and away from any significant influences of the market economy - work constitutes as a major propeller to these societies in the process of their evolution in consonance with the ecology within which they are placed. Hence, a differentiation may be made between "work" and "employment". Work refers to all 'socially productive work' emanating from the process of adjustment between man and nature. Employment on the other hand, is a concept related to the market economy wherein the labour has already become a commodity. In other words, all employment is work, whereas all work need not be employment. All productive work is not necessarily due to employment. For example, the mother caring her baby is a socially productive work but it does not represent employment in itself. Similarly, the co-

operative effort of a group of villagers to construct a village road is a socially productive work but it is not employment. To cite an extreme example, one may in the strict sense be a courier employed by a smuggler, but this does not necessarily fall under socially productive work.

In most societies, the nature, patterns and the types of work is governed by a number of forces. First of all, it is the physical factors in the environment which provides the basis of all works. Attributes of space differentiate the responses of the social group and is reflected in their patterns of work. But social groups are heterogenous in their age, sex and in terms of their access to the productive resources as well as in their stages of economic and social development. Each society evolves general and specific principles of its organization according to which work tend to get structured. These principles may range from gender divisions in work to the distribution of work on the basis of age. Responses to work also differs according to many other social, economic and cultural processes.

Work in tribal societies reflect a greater harmony with nature and the structure and organization of work in these societies differ substantially from that of the non-tribal social order.

In the present study it is proposed to examine the problem of the structure and organization of work in Naga-Himalayas -

inhabited by diverse culture groups at different hypsometric levels. The study aims at getting an insight into differential impact of the diverse ecological factors on the patterns of work performed by culture-groups and the structural adjudgements made by the people in their attempt to harness the nature (in the sense of their immediate physical environment). While ecological diversity would be seen as a factor in differentiating cultural responses to works performed by men and women, the role of tribal social structure will be examined in greater detail to understand the different ways in which these groups transform nature while transforming themselves. An important element, which will also be given due importance is the external impulses - the processes of modernization, integration of forces of development through 'state intervention' - all of which do not have uniform coverage across space or over time.

## 1.2 APPROACH

Recently the social scientists of India have made increasing use of regions as unit of study for analyzing social problems. Regions (rather than the country as whole or a village) are being increasingly adopted as a basic tool for analysis. The regional approach was possibly offered as a remedy to the shortcomings and limitations built into studies based on grossly aggregative data at the national or at the state level (1). Their reliance on specific and particular cultural conditions limit their usefulness.

Gokhle Turner appears to have these studies in mind when she sounds the following note of caution:

"India as a whole comprises too diverse a congeries of people, linguistic and religious groups and social systems to be considered as one integrated unit. Consequently, the range of variations one encounters from area to area in India demands great caution and restraint in treating India as a whole as the unit of analysis"(2).

If aggregative analysis suffers from too much generalities, village studies, for their part, suffer from the problem of excessive specificities in their use as units of analysis. It is doubtful if a typical village exists to be identified and thus be employed as a unit of analysis. Therefore, it is naive to make any conclusive and significant statement about the country as a whole or even for a greater part of it basing the analysis on a unit as microscopic as a village. India differs from other pluralistic societies. Regions in India are ecological and cultural units. The socio-cultural variables here unlike those in pluralistic societies, are regionally differentiated and seem to possess a certain measure of geographic unity. To turn to Gokhle Turner :

"... there is evidence that the history of various regions seem to possess some inner logic and dynamism and this inner coherence distinguishes one region and its history from another... the region (therefore) may be seen as a bridge which connects the macrocosm which is India to the microcosm, which is the village" (3).

It is in this context that the study proposes to examine the nature of work participation in economic activity with the regional approach.

The question pertaining to work and employment in traditional Naga society has been treated with scant attention in the past. Despite the fact that the pattern of work performed by the culture groups themselves made structural adjustments in harnessing the nature. The role of tribal social structure has been playing a major role in which these groups transform nature while transforming themselves.

To a large extent, scholarly perception draw their substance from the peculiar lack of geographical perspectives on the problem of work and employment in an overwhelmingly tribal dominated society. A large number of research work on Naga tribes have accumulated over the years. Unfortunately, these are based on grossly aggregative analysis which tend to overlook the important regional and sub-regional differences or are studies of social groups seen in isolation.

Considering the vast differences in the level and the extent of work and employment between regions and within regions, a geographical perspective on the problem becomes necessary for arriving at any meaningful conclusion or generalization. A large number of writers and researchers drawn from other social science disciplines (4) while analysing social, cultural, political and

economic activities, have critical studies based on broad aggregative units and have emphasised the need for a geographical perspective on the problem. But attempts to examine the nature of work and employment in a traditional society using zones or regions as the bases are rare. Studies which have analysed the problem of at lesser aggregated spatial units have invariably depended on administrative divisions such as districts, blocks or circles or have tried to examine the issue according to a vague north-south division of the state or using a single parameter such as cropping pattern. Geographical regions as a living reality - a limb of an organic whole that is India - displaying an individuality specific to the complex interaction of their socio-cultural attributes, economic base and historical antecedents within a distinct ecological milieu have not been used as units of analysis.

### 1.3 OBJECTIVES

The nature of work and employment in traditional societies in which the rural people are generally engaged differ according to the nature of the ecology. The cultural traditions, the nature of the economy (which is primarily agriculture) and the role and position of tribes within the framework of sexual division of labour play a dominant role. The luxuriant evergreen forests are nature's precious gift to these people. It is the forest in which the economy of the state has been for a long time based on. The nature of work and employment of the Nagas has been changing over

time as the society and economy is reorganizing itself. It varies equally significantly over space as the regional processes have varied manifestations over the ecological zones.

In the background of the above considerations, the problem stated and the approach, the following main objectives are set before the study :

- (i) to understand the spatial, ecological and cultural parameters of the variation in the pattern of work,
- (ii) to study the structure of work in relation to socio-spatial morphology, gender and age,
- (iii) to evaluate the impact of modern influences in modifying the traditional organization of work, and
- (iv) to study the role of modern employment in the acceleration of social stratification.

Keeping in view the above objectives, the nature of work and employment in a traditional society has been studied for three ecological zones in Nagaland. However, among themselves, there are striking differences. The zones include High Altitude Ecological Zone in the north and the north-west, Middle Altitude Ecological Zone in the north, middle and south and Low Altitude Ecological in the east and south-east (5). The spatial variation in the structure of workforce has been analyzed at different levels such as district, circle and village with reference to the study region. For an indepth understanding of the nature of variations in the distribution of workforce and the structure of

the workforce in relation to inter-tribal differences within the rural set up, as many as six villages belonging to the three zones have been selected to get first hand picture at the household level. Since tribe/ethnic factors and access to land constitute the dominant factors in rural social differentiation, work participation rates and the structure of the workforce, the analysis has been carried out according to the tribal background of the households access to productive assets, i.e. the land.

The major focus has been the household, as it is positioned in the socio-economic hierarchy within the zones which is likely to exert powerful influence on the nature, extent and type of work. Women's participation has also been analysed in relation to that of men as both men and women within a household allocate various tasks to themselves which broadly correspond to the prevailing sexual division of labour in the state.

#### 1.4 HYPOTHESES

The study proposes to examine the following hypotheses during the course of the study:

- (i) The rhythm of work in tribal societies is largely governed by the ecological attributes of the location and agro-climatic conditions. Difficult terrain and inaccessibility is likely to confine the work performed by people to their immediate environment.

- (ii) A large part of the work performed by the people will be related to the land-resources; particularly agriculture and forest. The extent of availability of these resources is likely to determine the variation in the nature and pattern of work.
- (iii) In general, higher the altitude, greater will be the types of work associated with forest and lesser dependence on agricultural production. With higher altitude, the dependence on collection and gathering economy is likely to be more accentuated.
- (iv) In subsistant tribal economies, the division of labour is to be more demographic in nature, i.e. based on age and sex.
- (v) The type of labour used is likely to be dominated by reciprocity rather than wage-based.
- (vi) Patterns of work in areas close to the towns are likely to be influenced more by the urban demands on products and services.
- (vii) Greater is the proximity to the towns, social differentiations and wage based employment are expected to be more.

## 1.5 DATA BASE

This study is primarily based on field data collected from six villages belonging to the three different ecological zones. Two schedules were prepared; one for the village as a whole and the other for the households. The primary data was collected at the household level with the help of household schedules designed to elicit information on the demographic structure, work characteristics, access to land and other assets, literacy, nature of modern employment, place of work of the members of the family belonging to the sample households. General information pertaining to the village as a whole were collected through the help of village schedules which include general ecological

characteristics, population pressures, socio-economic infra-structures and facilities, community organizations, developmental efforts by Government or community, etc. Village records maintained by the village administration and the office of the Baptist Churches at different villages provide general data pertaining to demographic and agrarian conditions, such as the pattern of land use, cropping pattern, size of land-holding etc. for the village as a whole as well as for the sample household.

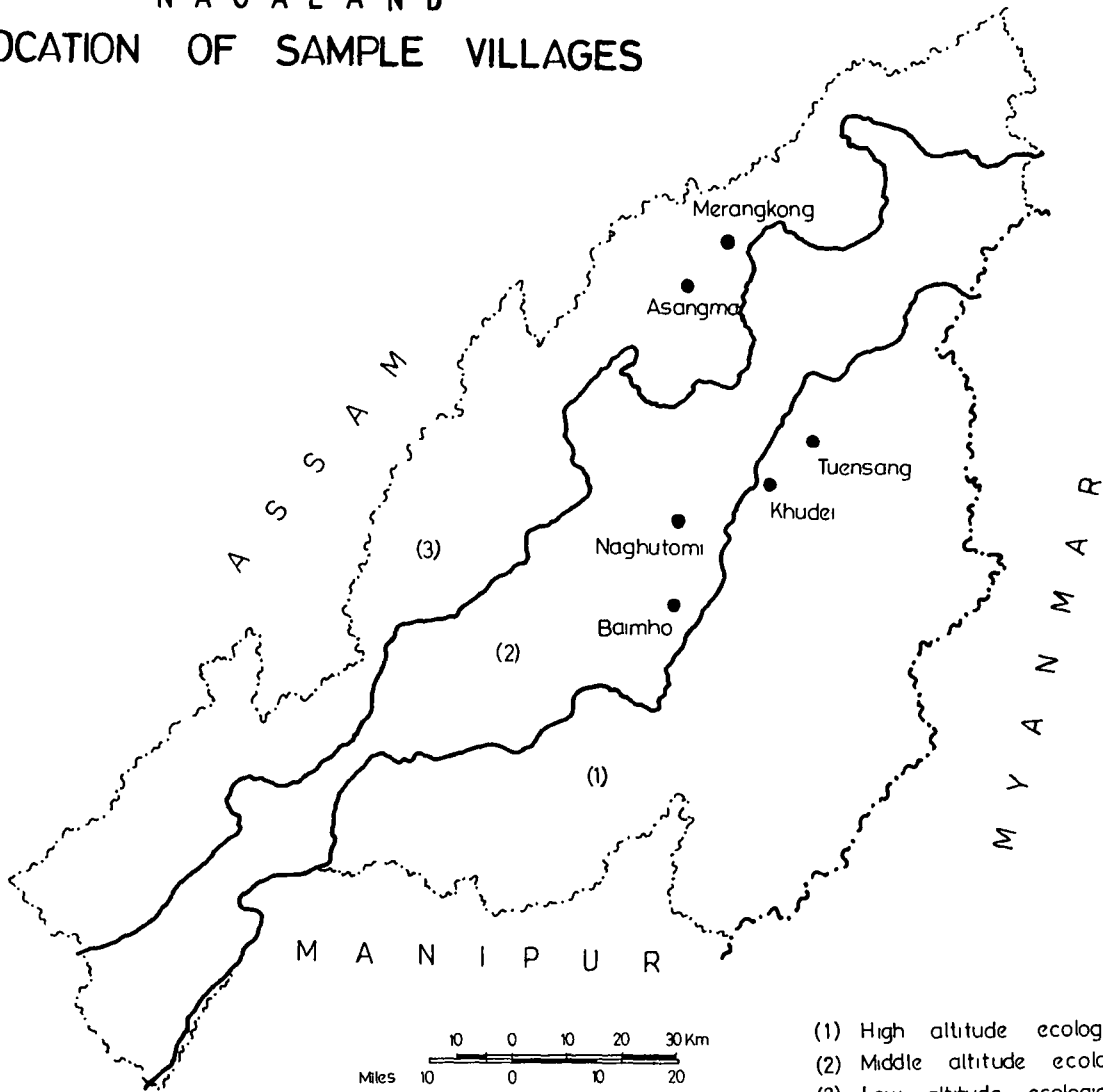
Apart from the primary data, secondary information has been used selectively for different purposes. First, it was necessary to get a general idea regarding the ecological, economic and socio-cultural attributes of the selected zones as the study was mainly cross-sectional in nature. The study heavily depended on gazetteers, techno-economic surveys, census publications, published books and records to gather ecological and historical data for each of the selected zone. Second, census data has been used to get a broad understanding of the work force structure in various parts of the state as regards the 'main workers' and their industrial distribution. However, some uses of folklore, legends and beliefs have been referred to understand the society's perception of work and employment as it is seen cognitively.

## 1.6 SAMPLE DESIGN

Due to time and financial constraints and the sensitive insurgency problem in the state over the years, it was only feasible to carry out the sample survey in at least two villages in each of the regions (fig. 1.1). Six villages were selected for intensive field investigation, primarily in order to study the pattern, structure and organisation of work and employment in Nagaland. The villages were selected on the basis of their diversity in terms of ecology, culture and proximity to urban areas. However, since tribe considerations in Nagaland influence the social differentiation, it was considered the most important basis in selecting the villages. In the high altitude ecological zone, two villages were selected for the field survey which include a tribal Chang village close to urban area and a dominantly Chang village which is not accessible to modern means of communication. Similarly, the middle altitude eco-zone, both the villages are dominantly Sema tribal villages, one being very close to urban area and the other away from it. For low altitude ecological zone, two villages selected for a field survey include a fully tribal Ao village close to urban centre, while the other was a dominantly Ao tribal village away from it. Table 1.1 provide a broad picture of the sample design.

Apart from tribe considerations, the other factor that influenced the selection of the villages was familiarity with the villages. This is ensured by taking the help of persons belonging

NAGALAND  
LOCATION OF SAMPLE VILLAGES



- (1) High altitude ecological zone
- (2) Middle altitude ecological zone
- (3) Low altitude ecological zone

Fig. 1.1

Table 1.1  
STRUCTURE OF THE SAMPLE DESIGN

Eco-Region	District	Circle	Village	Households		
				Total	Sample	% age of sample
High alt. Eco-Zone	Tuensang	Tuensang sadar	Tuensang	657	85	13
			Khudei	99	16	16
Middle alt. Eco-Zone	Zunheboto	Zunheboto sadar	Baimho	81	13	16
		Atoizu	Naghutomi	94	14	15
Low alt. Eco-Zone	Mokokchung	Tuli	Merangkong	674	135	20
		Changtongya	Asangma	169	26	15
<b>Total</b>	<b>3</b>	<b>5</b>	<b>6</b>	<b>1,774</b>	<b>289</b>	<b>16</b>

Tribe	Social characteristics	Agro-climatic description	Date of field survey
Chang	Tribal Chang vill.	Highland subsistence agriculture; dependence on human labour; two cropping seasons.	Tsungkum, 1992
Chang	Dominant Chang vill.	Highland agriculture of subsistence food production by human labour; agrarian conditions are marked by jhumming.	Tsungkum, 1992
Sema	Sema tribal village	Tizu river catchment provides the opportunity for wet land cultivation on permanent basis.	Metsumapang, 1993
Sema	Purely Sema tribal vill.	Poor subsistence nature of agrarian conditions; production is not even enough for local consumption.	Metsumapang, 1993
Ao	Tribal Ao village	Dominated by jhumming cultivation; rainfed transplanted paddy cultivation aided by animals; ploughing is not mechanised; two cropping seasons.	Meyi, 1992
Ao	Dominant Ao village	-do-	Mangkonang, 1992

\*Local names correspond to seasons as : Tsungkum=winter, Metsumapang=spring, Meyi=summer, Mangkonang=autumn.

to the village/region concerned who are known to the investigator. In view of the fact that the investigator was an Ao and as such there were enormous problems of language prohibiting easy communication, familiarity of the village/region was given priority over other factors which would have otherwise yielded better results. The limitation was accepted for its benefits of closer scrutiny.

Despite the above limitations, the six villages selected fairly represented the regional ethos in terms of tribe composition, social and cultural characteristics and agro-climatic conditions (table 1.1). Tuensang village in high altitude zone is very large with about 657 households of Chang tribe and has a legion of tribe having different pursuits. Khudei a typical Chang village though small in population size, fall under the same high altitude ecological zone with the only limitation of the village being extremely remote. Both the villages in the high altitude ecological zone represented typical examples of high-land agriculture of subsistence food-crop production with the help of human labour on the hill terraces. The agrarian conditions are marked by jhumming, though rice cultivation was lately introduced to this region. Besides, soil is infertile and climate is unfavourable for the cultivation of rice in this zone. Baimho and Naghutomi in the middle altitude ecological zone has the Semas as the dominant community and the agrarian conditions are poor with subsistence in nature. The major agricultural products are rice, soyabeans, colar, yam and vegetables which are hardly enough for

local consumption. However, Baimho being located at Tizu river catchment, wet-land cultivation is practised on a permanent basis and almost every household cultivates a plot of wet-land down in the Tizu valley. Lastly, the two villages in low ecological zone are; Merangkong - one of the largest and the most populated villages in Mokokchung district is located in the foothill zone of Naga-Himalayas and Asangma, a subsistant village though located at a forest tract away from urban centres. Both the villages are inhabited by the Ao tribes. Location of the villages in the foothill zone makes them slightly more exposed to outside forces. Agrarian conditions are relatively more geared towards commercial production of food crops (rice, millet, maize etc.) and cash crops mainly, (sugercane, oilseeds, pulses and a variety of vegetables such as yam, chillies, tomato, potato, ginger, cucumber, soyabeans and garlic). Jhumming is the dominant form of cultivation in the zone. The cultivation has assured canal irrigation and agricultural operation are largely done by human labour and animal power. At manageable slopes, terracing is done alongwith contour irrigation. Ploughing operation is generally done by draft cattle and weeding and harvesting is undertaken by human labour. However, the cultivation in all these surveyed villages, as in most parts of the state, is dominated by the age-old practices of shifting cultivation from which nearly the entire foodgrain requirement is met.

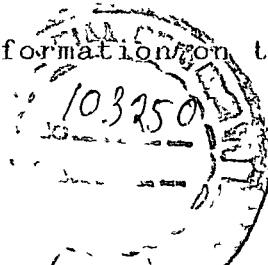
The next stage in the sample design was to select households. The total number of households in all the six

villages was around 1774 out of which nearly 16 per cent were included in the sample.

### 1.7 THE QUESTIONNAIRE/SCHEDULES

The questionnaire was developed in relation to specific research questions which guided the study as modified by regional field work experiences. Two sets of questionnaires were developed: one for the village which aim at collecting general information on land use, cropping pattern, tribe composition, infrastructure facilities and other socio-economic amenities; the other for the households include demographic and social and cultural characteristics of the households, work status, operational holding, cropping pattern, frequency, multiplicity and types of work, nature of modern employment, modernization of agriculture, etc. The unit of analysis is the rural household and the focus of measurement, the division of labour by sex in all the gamut of activities carried out by the members of the household, daily maintenance activities, household and agricultural production and other income generating activities pursued outside the household.

Information was first collected on the personal characteristics of each member that resided in the household. Then the participation of each member in economic activity was measured by recall of the frequency or intensity of participation of each member in the activity. Information on the assets of the



household were also collected. These include size of the land owned and cultivated, crops grown and produced, method and type of agriculture etc.

The questionnaire had both open-ended and precoded questions. Many open-ended questions were asked on the positions and roles of men and women in the community.

The questionnaire was pre-tested in a pilot survey at a village near Tuli town. In the light of the experience gained in the pilot survey, the questions were suitably modified and altered. Approximately one month was spent in each region to collect household information. The responses were transcribed on to master-sheets for further measurement and analysis. Both financial and time constraints did not permit more than one visit to the villages under investigation to actually observe the pattern and the structure of workforce throughout one full agricultural cycle. Excessive dependence on recall method was resorted to. One of the major biases which the study could not fully overcome was that most of the members of the households, particularly belonging to interior villages and cultivators in the high altitudes left for the work to the field early in the morning, returned by late evening, ate fast and slept for which the investigator had to adjust the timings, often chased them in order to conduct the interview. Taking the help of some interviewers on certain occasions did not help much as the poor innocent villagers were themselves unwilling to disclose of what

exactly is their economic positions in the society. However, it was all possible with the responsibility of answering the questions initiated by the interpreters (pastors and 'gaonburas').

## 1.8 METHODOLOGY

In order to get an insight into the nature of Nagaland's economy, information has been organised with reference to all the physiographic conditions, patterns of land use etc.

The methodology followed is essentially theoretico-deductive. The concepts such as 'work', 'socially productive work', 'employment'/'unemployment', 'ecology', 'transformation', 'social progress', etc., were derived from a theoretical construct (world view) which looks at the problem in three different but interlinked fashion.

- (a) It is assumed that the society (the villages) is simple, unstratified, relatively isolated subsistent economy, little monetised and with little influence of the market economy. Over centuries this society has well adapted into its ecology by changing itself in the process of such adoption and adjustments.
- (b) This society does work whether individually or collectively and considers such work as useful whether from the point of view of biological needs or for cultural or creative purposes. It understands work within a system of logic evolved by its own history and assigns importance to various forms of work accordingly.

(c) However, the villagers are not purely insulated from modern complex forms and as a result the life is now affected by elements of market forces, integration with larger collectives like the state and administration and so on. This has now ushered in new elements alien to their perception; say for example, 'wage payment for work'; the society now considers work as measured through wage payment. From such a world view, this society in transition can be understood by investigating the various facets of the given world view like the nature of the ecology, the concept of work, the patterns of work and work giving expression to its cultural ecology and finally the nature and extent of wage employment. The society now understands market as a possibility for social progress.

On the empirical side, the patterns of work was analysed with reference to ecological parameters such as altitude, rainfall seasonality and agro-climatic conditions such as availability of valley land, jhum land, terrace land and the cropping pattern etc. An attempt was made to present a generalised pattern of work with reference to work-cycle of men and women separately to each altitudinal zones.

The structure and organization of work was proposed and examined by a reference to a) Gender divisions, and b) Age-distributions of work.

An attempt was made to divide the work-processes according to the male spheres and female spheres.

The age distribution of work was classified into three broad categories of the children (5-15), adults (16-59) and old (60+).

In order to examine the effects of modernization the selected villages were separated into one close to the urban area and one far away from it with the assumption that the villagers closer to urban areas are more likely to be affected by modern influences than the ones away from it.

The variation in the work-force participation and its structure has been analysed in sample circles at the village level.

## 1.9 ORGANIZATION OF CHAPTERS

The study is organised as follows :

The first Chapter provides the research setting with reference to the approach and objectives of the study, hypotheses, data base, sample design, structure of the questionnaire, methodology and an overview of literatures on tribal economy and work. Chapter Two delineates the choice of the study area, population and settlement, economy, land-use and cropping pattern which includes a general introduction of the three ecological zones that forms the basis of inquiry into the work participation in economic activity.

In Chapter three, an attempt is made to analyse the patterns of 'work cycle' in all the six sample villages located in the three ecological zones. It was identified that works associated

with different types of agriculture absorb the people throughout the year with varying intensity. It is also demonstrated that the period of relative agricultural inactivity allows the people in the villages to undertake many other works which need community participation. It is shown that the subsistence nature of production and tribal social organisation makes the pattern of works an intimate reflection of and an interaction between society and ecology.

Chapter four provides a detailed account of the spatial variation in the structure of rural workforce in Nagaland. An attempt has been made to account for the variation in the distribution of the tribal workforce. Industrial distribution of workers has been shown by using census of India data for the year 1971 and 1981. The data has been analysed at lesser aggregate levels such as at district, circle and at village levels too. The primary objective is to get an insight into the nature of inter-tribal differences in rural workforce at various levels of spatial aggregation.

An attempt is made in the Chapter five to analyse social differentiation and variation in economic participation of the people. The structure of male and female workforce in each of the sample villages is analysed in relation to the ecology and the region's economic needs. Inequity in land ownership pattern is highlighted in this chapter. The average size of holding is small in the higher altitude and large in the lower altitude zones. In

all the sample villages located closer to the town irrespective of their altitudinal location show smaller availability of land per household compared to the villages located away from the town. An understanding of the extent of inequality and the distribution of land holdings both owned and operated has been attempted with reference to the Gini coefficient. As expected, the low altitude zone with greater potential for the agrarian development has greater inequality in availability of land to different households. The disparity is extremely high in the villages close to the town indicating the process of economic differentiation emerging very strongly as an impact of urbanization. The percentage of workers of the sample villages were studied in great detail. Regional variation in work participation rate and of the sexual division of labour with special reference to agriculture and wage market is also demonstrated.

The final Chapter provides a brief summary of conclusions and implications of the study.

## 1.10 TRIBAL ECONOMY AND WORK : AN OVERVIEW OF LITERATURE

### 1.10.1 Conceptual Framework

'Work' in a tribal society is fundamentally different from that of the non-tribal, peasant societies. The differences largely flow from the nature of ecology in which these two societies are situated as well as the differences in the social

organization of the two. K.S.Singh (6) makes this understanding explicitly clear :

"Economy of the tribe is a projection of tribal society, a response to the ecosystem in which it is placed : its functions of production and distribution are governed by the bonds of kinship within or between families, clans and kindred. Production is based on the exploitation of the resources locally and easily available with a crude technology largely for consumption. Family is the unit of production, with little specialization and division of labour beyond that based on sex and age. Distribution of goods is regulated by the consideration of reciprocity. The ideal state of primitive economy is thus described as self-sufficient though at a subsistence level, none-acquisitive, non-machine and non-monetary. Against this construct there is pitted the economic organization of the caste system, a hierarchy of occupations performing services and producing goods of many kinds. Economy of the tribe is seen as in a state of flux, moving from one pole to the other, as the tribal society, segmentary and non-hierarchical, is integrated with the caste society which is marked in by heterogeneity, stratification, role specialization, and inter ethnic participation in production."

A common ecological characteristic of the areas inhabited by the tribes is that they are by and large negative from the point of view of agriculture (7). Most areas of tribal concentration are hilly, dry and forested. Tribal economy, therefore, has much

to do with the forest resources. Works associated with forest constitute a major activity in almost all tribal societies. It ranges from collection of firewood, fodder and building materials to hunting and rituals associated with many such activities.

The tribes constitute a social system in relation to forest (8). Obviously, the objective of the system is not to destroy forest but to preserve it, because it is a multi-faceted resource to the tribe for sustenance and survival.

The symbiotic relationship of the tribes with forests is well recognised and also determines the nature of their economy. The United Nation's Report (9) on tribal development succinctly brings it out and states as follows:

"Tribal people in general, derive either directly or indirectly a substantial amount of their livelihood from the forests. They subsist on edible leaves and roots, honey, wild game and fish. They build their homes with timber and bamboo and practice collage crafts with the help of local raw materials. They use herbs and medicinal plants to cure their diseases and even their religion and folklore are woven the spirits of the forests. Commercial transactions are predominantly by barter, trade being left mostly to the outsiders who controlled the money economy."

Despite poor agrarian base of the areas of tribal concentration, most tribes have adapted to the environment by a variety of means and have learnt the art of agriculture which ranges from shifting cultivation to settled agriculture, depending on the opportunity provided by the ecosystem. The

process of slow and continuous contact between the tribal communities, who practised a comparatively simple form of production with peasants and artisans with greater specialization must have gone on for centuries (10). In many parts of the world inhabited by the hill people, there is a primitive system of cultivation, technically known as shifting cultivation (11).

It is known through archeological discoveries that by about 7000 B.C. there was a fundamental change in man's attitude towards the environment and accidentally he became a food producer from a hunter and food gatherer. Man began to plant, cultivate and improve species of variable plants by selection. Of course domestication of animals like sheep, goat, cattle, pig and poultry started side by side. Gordon Childe (12) identified that the Neolithic farmers of the Danube valley as nomadic cultivators. Chang (13) also proved that the neolithic farmers of Formosa were shifting cultivators.

The primitive method of land usage is even now in existence in widely separated places throughout the world, specially in regions of high rainfall and temperature where conditions are favourable for the quick growth of plants. Naturally, it excludes regions of extreme climate, like the Polar or Tundra regions or deserts and includes specially, tropical or monsoon forests and to some extent, forests of temperate zones also.

Though there is dearth of reliable data, yet the estimated area under shifting cultivation in the world may be 36 million sq. km. inhabited by 200 million people (14). In India 929480 hectares of land are utilised for shifting cultivation by almost 2.6 million people (15). Due to ecological conditions, this land usage is prevalent in eastern, central and to some extent to southern states, namely, Assam, Arunachal Pradesh, Nagaland, Manipur, Meghalaya, Mizoram, Tripura, Orissa, Madhya Pradesh, Maharashtra and to a negligible degree in some areas of Kerala, Karnataka, Sikkim, Gujarat and Bihar.

By and large shifting cultivation is practised in hill terrain, where gentle slope of land, high rainfall, moderate temperature and good soil favour quick growth of plants. The foothills of Arunachal, the hills of Nagaland, Manipur and Mizoram and continuation of these hill ranges of the North-East Indian states have an altitude below 300 metres and shifting cultivation is generally practiced upto 100 metres (16).

Apart from shifting cultivation, tribes in many areas of the country where the agro-climatic and topographic conditions permits settled agriculture or terrace cultivation, have adopted to it. "It is generally assumed that the economic condition of the tribes practicing agriculture is better than that of others, even though they are not all self-sufficient or self supporting" (17). Areas where tribe face the prospects of alienation from

land, a large segment of them still work in agriculture, but as wage-earners.

Most tribes who practice agriculture, generally combine some form of animal husbandry with it. However, tribes located in arid and semi-arid regions depend more on pastoralism than agriculture (18). Many tribes living in very high altitudes too practice nomadic pastoralism.

In general, no tribe depends on a single form of economic activity. Within the same tribe, there may be different sections following different economic pursuits. "However, the occupational adherence is not of any rigid form. It is rather flexible and is conditioned, at times by circumstances prevalent and opportunities available" (19) Even in the same region, different tribes appear to be at different levels of economic progress. Depending upon these complexities in economic life, a variety of works are performed by a number of tribes.

Since most tribes are outside the market forces or are only marginally integrated to it, they have to produce a variety of goods for consumption or to assist in their productive activities. It is due to this reason that artisan activities constitute an important area of work among most tribes. The artisan products closely reflect the ecological conditions of the tribals.

Apart from artisan activity, tribal people engage in some trade, particularly in forest produce or work in mines or join different services as a response to modernising influence.

#### 1.10.2 Role of Women in Tribal Economy

Women have been ascribed a significant role in all tribal economies. There is a dichotomy of roles based on sex almost everywhere in the world in relation to the traditional economic structures. The hazardous tasks as well as those requiring physical strength are generally ascribed to men and works which need sustained effort and endurance are assigned to women. This division is strengthened with taboos and beliefs (20). Taking into account the different factors of production it appears that women's role is predominantly in spheres of labour among the tribes. The degree of involvement in the economic structure varies from tribe to tribe depending upon the nature and quantum of work which is a reflection of ecosystem in which a tribe is located.

Among tribal peasantry practicing settled agriculture, the chief means of production, land is by and large controlled by males. Apart from the matrilineal tribes of North-East India, women are debarred from inheriting land by customary laws (21). Secondly, in case of settled agriculture, cultivation is a family endeavour rather than a community enterprise. Thirdly, these tribal communities do not live in isolation. The sphere of

interaction with other ethnic groups, both tribal and non-tribal, is wider and there is a wider network of social relationships with other ethnic groups. In course of this, cultural contacts over the centuries, it is not unlikely that there has come about role specialization of the sexes along the same line as among the non-tribal peasantry in course of acculturation.

In case of shifting cultivation, the tribes live in a comparatively inaccessible regions, where nature is less hospitable. A closer economic tie binds the group together and cultivation is a joint endeavour. Both men and women work together. The men fell trees and clear forests, the rest of the operations are undertaken jointly by male and female. It has been observed that among the Mishmis of Arunachal Pradesh apart from agriculture, women play a major role in the collection of roots and tubers which supplement the family diet. They control the granary and stores and look after the livestock as well.

With the opening up of minds and the growth of industries in tribal areas, many have gone into mines and industries as wage labour. In a joint paper by Choudhary and Dasgupta (22), it has been mentioned in connection with the labour force working in the iron or mines of Singhbhum :

"Tribals...form the bulk of the labour force in these mines. Two persons usually husband and wife or brother and sister form a work unit. The men are usually engaged in earth cutting, ore

dressings, loading and unloading of the trucks during transport, filling the basket for carrying, etc., while the women do the carrying job in baskets. The 'pairing' of a male and female in the formation of work unit is a common phenomenon in these mines."

Writing on the impact of industrialization among the Santhals of Chittaranjan, Dasgupta says, "As the males become engaged in different types of work related to the industry, agriculture has been vested mainly in the womenfolk" (23).

In pastoral economy, the tribal women help their menfolk in a variety of operations such as washing sheered wool etc., sending of small animals such as goats and poultry is usually women's job. Tribal women in many parts of the country are excellent artisans, embroidery, pottery, rope making etc.

Since tribal society is largely subsistence in nature, gathering accounts for a major economic activity in which women generally play a major role. Gathering of fuel wood, roots, leaves from the forest or fish and other edible items from ponds and rivers is performed by women members. It is a common sight in most tribal areas that women dominate in petty trade in small tribal markets.

The fragile resource base of most tribal areas make it obligatory for all members in the community to contribute their labour for the sustenance of the family. Women in all tribal communities respond to diverse works, though they may be accepting such works as traditionally ascribed to them by sexual

division of labour. It is also noteworthy that due to their importance in the tribal economy, the tribal women do not suffer many of the disabilities on their non-tribal counterparts, such as seclusion, and many other forms of patriarchal discrimination.

### 1.10.3 Tribal Economy in Nagaland

Difficult terrain and the tribal social structure of Nagaland is largely responsible for its isolation both geographical and social. These constraints have fostered an economy which is self-sufficient in most respect in close interaction with the hilly environment. Prior to the British contact in the region the Nagas were living in numerous independent village states. They were more or less independent in their economy except for salt. Long standing feuds, raids and headhunting were quite the order of the day (24), and trading was not be possible with outside and within the territories. The most striking and consistent feature of the villages of almost the entire Nagaland is their location. The primary consideration for such a selection of site was the basic need for defence (25). Nagas had very little trade... they cultivate small quantities of cotton and exchange it for salt (26).

Landed property is hereditary and is cultivated for ages by the proprietors. In building houses, neighbours are required by custom to assist each others, for which they are feasted by the person whose house they are building. On the death of the father,

the property is divided and all the family share, the house going to the eldest son (27), unless he has one of his own, when the mother retains it.

For centuries Nagaland remained in isolation from the rest of India. Probably advent of the British in this area made some contact possible with the people of the plains and commerce and trade relations started. In early times, people could not carry on trade due to inaccessibility and the practice of head-hunting prevalent in those days. The economic trend of this state thus got impetus by coming under administration as well as in contact with the outside world. Even then the mainstream of economic trend of the country as a whole did not affect this area and the only means of livelihood of the people was rudimentary agriculture for subsistence and artisan crafts and cottage industries for the purpose of fulfilling their own requirements.

Economic transition came with the coming of British administration in 1876. But it was only during the First (1914-18) and the Second World Wars (1939-45) that a tremendous transformation took place in the life of the people (28). They came in greater contact with the outer world for the first time and their livelihood pattern got influenced and changed to some extent (29). The change was in respect of earning wage as labour, interpreter and guide. Thus, it became a source of earning profit by supplying materials during the war. Cash rapidly increased as people earned more money during the war. That was the time when

some people became comparatively rich (30). After the war people again look to their traditional means of livelihood. The impact of the exposure to money economy, however remained. Those who had gained from the Wars took to occupations other than the traditional ones, like trade and contractual undertakings.

A widespread transformation again took place after the creation of Naga Hills Tuensang Area in 1957 and later, the creation of de-facto state of Nagaland in 1961 (31). It opened-up qualitatively new opportunities to the people for participating in the developmental works of the state in an unprecedented manner. The expansion of administration and establishment of developmental works, growth of communications, innovations in cropping practices and many other factors have brought about a change in the state.

Factors such as rise and spread in literacy also contributed to some extent in the process of change. Trends, such as population shifts to the towns and the growth of new townships are emerging new features in the state. Modern education (32) also opened the flood gates of aspirations for higher standards of living, western lifestyles and demand on goods which till now were meaningless. The money economy and demand for money brought to fore features like unemployment, where work and employment had a wider, social meaning. It is odd (in Nagaland), the view of manifest keenness of its people for education i.e., the output, lost on account of the children going to school, is high (33) and

often the parents despite their acceptance of the value of education are unable to afford it.

It was so much so that in the 1960's there was no unemployment at all (34), and every graduate could expect a gazetted position. But things have changed and by the end of 1970's there appears to a problem of educated unemployed (35). Socially productive work which was the way of the people, lost its relevance and government jobs became more rewarding. A new social/economic class emerged in the form of of the government servant, the contractor and the businessmen, often in alliance in claiming a growing share of the resources at the disposal of the state.

Soon after the creation of Nagaland state in 1963, the state government decided that 80 per cent of the jobs should go to the 'sons of the soil' excluding non-tribals (36). Later in 1965 it has been decided that cent per cent of the jobs, excluding technical ones, should go to the locals (37). Tuensang district came up for education rather very late. Also the people being poor cannot afford higher education. As a result of this two factors, the people of this district are not yet well represented in the state government services. Because of this position, in 1977, reservation of jobs to the tune of 20 per cent (38) has been made to backward tribes and five out of seven such tribes belong to this district.

The population may be classified into three categories according to the standard of living. At the bottom remain the peasants based on subsistence agriculture. They produce their own food and live on that, but sometimes are faced with scarcity (39). The segment in the middle class depends on agriculture but earns something from small business or trade, service such as carpentry, smithy, weaving, teaching in schools etc., as sources of supplementary income. They live in villages but in better houses, generally with CI sheet roofs, with bamboo mats as wall or wall of wooden planks (40). The upper income group lives in the towns or at least in the administrative headquarters or outposts (41). They live in much better houses, generally pucca houses either the Assam type or RCC buildings. They have permanent sources of income as in the case of the government servants and the class I contractors and high class businessmen (42) are equally secure of their income.

As the Naga society emerges from the traditional form and moves into the modern agro-industrial phase, we see disparities developing between the different sections of the population and between the urban and the rural sectors. There is no doubt that during the recent years some have become very rich whereas the bulk of the population is still on the old standard of living. With the educated Nagas holding important administrative positions and other prestigious and remunerative jobs the gap is growing between the educated sections and the uneducated sections not only in respect of financial emoluments and physical

facilities but also in respect of cultural standards and way of living. Greater disparities is unavoidable in a developing society but then as these disparities go beyond a certain limit, the social tensions are bound to arise (43). Various social and political ideologies have not yet made their entry into Nagaland. But the time is not far off when they will. It will be wise and foresighted to guide the course of economic growth and social developments so that the new Naga society will have reasonable measure of equality and integration even as the old NAGA society used to have.

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29. During the World War I, Aos raised a labour of 200 strong men who even went to France and their experience in Europe was thrilling as well as educative.
30. Ghosh, op. cit., p.146,
31. Ibid, p. 146.

32. Thus getting the children educated by keeping them in Shillong or other towns though there are schools in each locality is practically a must for the local govt. servant or businessmen to maintain his social status if not for anything else.
33. As the level of living of an average Naga family is close to subsistence, even a marginable loss output in real terms would be high.
34. B. B. Ghosh (1979) Zunheboto District Gazetteer, Nagaland, Kohima.
35. The problem of unemployment among the Aos (Mokokchung district) who are educationally far more advanced than others, is steadily growing up and has actually become acute.
36. There are many non-tribals permanently living in the plain areas such as Dimapur, Naginimora etc., but they are not considered as the sons of the soil. Even the Nepalis who are staying in this state for several generations are not considered as the sons of the soil.
37. B.B. Ghosh (1981) Tuensang District Gazetteer, Nagaland, Kohima.
38. The backward tribes who come under this reservation are *Konyaks, Changs, Sangtams, Yimchunger, Kheimungan, Phom and Chakhesangs*. Except the last two, all belong to this district. Although Konyaks are concentrated in Mon, many of them also live in Tuensang.
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Table 1.1  
STRUCTURE OF THE SAMPLE DESIGN

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Eco-Region	District	Circle	Village	Total	H o u s e h o	% ag
					Sample	

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**CHAPTER - II**

**STUDY AREA**

## 2.1 INTRODUCTORY STATEMENT

It is needless to emphasise the fact that the pattern of work participation is sensitive to economic, social, cultural and ecological factors. Agriculture and allied activities constitute the major economic life of the rural people. In the absence of a remarkable technological breakthrough in the economy the ecological factors are vital in exerting powerful influences on the type of work and associated labour demands. Ecological factors such as the altitude, topography, soil conditions, climatic conditions, availability of water, quantity and seasonality of rainfall, quantity and composition of forest cover etc., indicate the resource base and provide the basis of work. These factors assume even greater importance in traditional tribal societies which tend to live in greater harmony with nature as the forces of production remain relatively undeveloped. The labour process is oriented towards simple transformation of the available natural resource base in fulfilling the minimum needs of the people. The work in such societies may range from mere collection and gathering of food and materials freely available in nature: animal husbandry, subsistence agricultural production to industries geared towards requirements for such operations and household needs. In case the societies are more open, some amount of trade connected to these activities may employ a small segment of the people. Greater access to modern forces such as literacy, urbanisation and developmental efforts too introduce new forces of employment opportunities,

particularly in the service sector to which a certain section is likely to respond.

The tribal social structure does not permit the development of clearly defined division of labour, though cultural practices may assign tasks associated with each work on the basis of age or sex.

The system of regionalisation to be adopted for the present analysis cannot be adequate considering the inaccessibility and bewildering plurality of the state. The attempt is beset with inherent difficulties. It is proposed, therefore to select a few regions which exhibit striking differences not only in respect to their physical and environmental settings but also in their economic and cultural attributes.

## 2.2 CHOICE OF THE STUDY AREA

Nagaland has been selected for the present study. The state consists of a number of tribes belonging to the Naga ethnic group. Located in the Indo-Burmese hills in eastern offshoot of the Himalayan ranges and in the marshland between India and Myanmar (Burma), these tribal groups have a world of their own. Detached and isolated from these social upheavals in the mainland, these groups have continued to live in the geographical cul-de-sac with very little interaction with the people in the neighbouring Brahmaputra valley and often in

isolation to each other within its homeland. Geographical and social isolation of these tribes has resulted in very little exogenous contact fostering and perpetuating traditional modes of living. This is evident from the Naga economy which is by and large subsistence in nature and the society, which has strong links with tribal order.

Exposure to modern forces in recent times, particularly after the British contact in the region and with the Independence of the country, has released qualitatively new elements into the economy and society of the Nagas and is slowly but surely breaking down its insularity. Naga society at present stands at cross-roads.

These factors make a perfect case for studying Naga society as regards the work and employment of its people in relation to the continuity of its tradition and the extent to which modern forces are breaking down the old order.

The study covers a number of villages belonging to the state of Nagaland (fig. 2.1) where one or other forms of Sino-Tibetan (Kirata) languages/dialects are spoken. The districts covered in the study include Kohima, Mokokchung, Wokha, Zunheboto, Tuensang, Phek and Mon (i.e., all the districts of Nagaland, fig. 2.1 and 2.2). The villages covered in the study include Tuensang, Khudei, Baimho, Naghutomi, Merangkong and Asangma. The exploration is actually confined to three selected zones. However, the

# STUDY AREA

## ADMINISTRATIVE DIVISIONS

1981

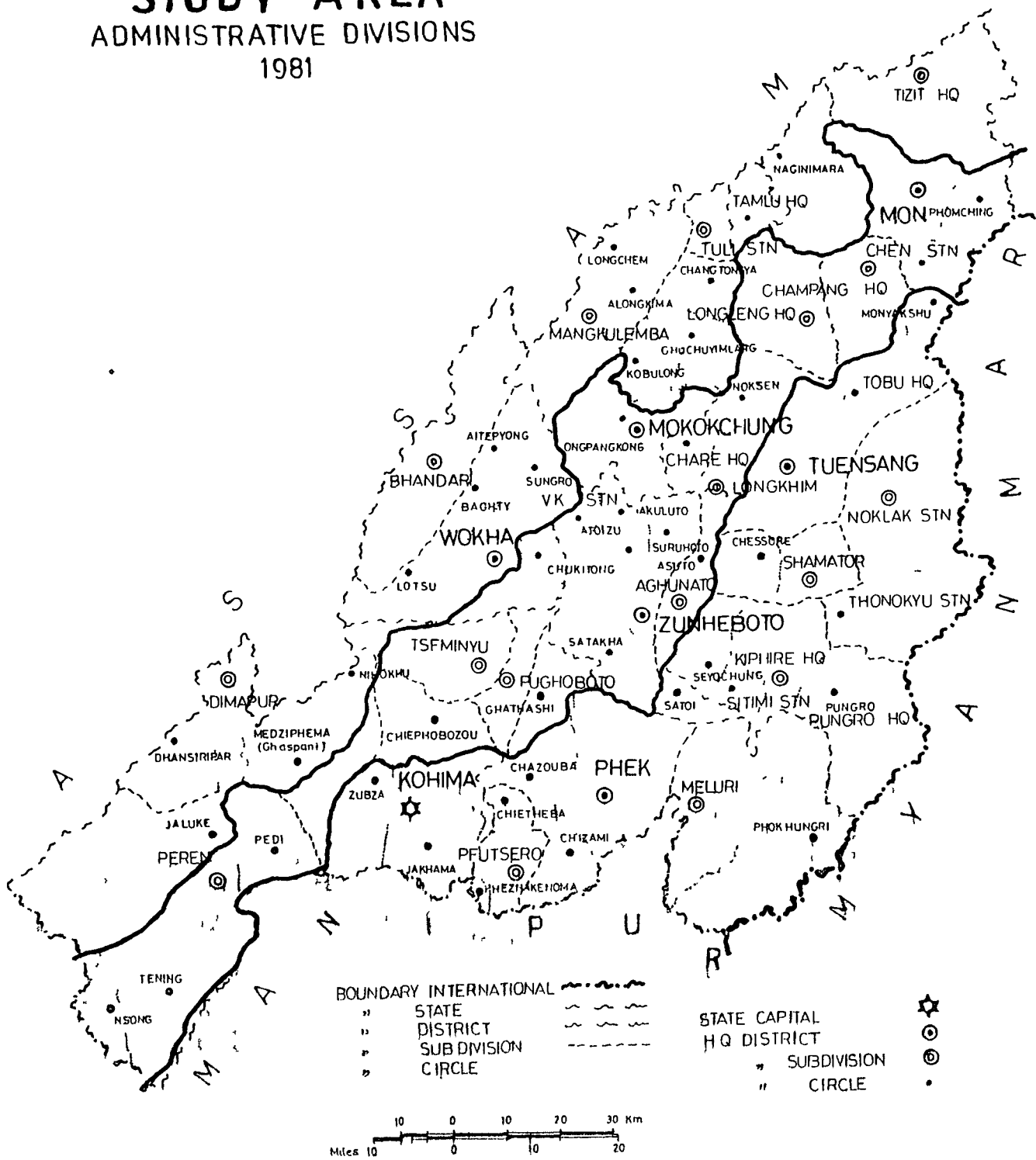


Fig 21

administrative boundaries of the district have not been considered important for the purpose of this study. Some of the regions chosen here cut across the district boundaries. The zones selected for the study are: (i) High altitude ecological zone, (ii) Middle altitude ecological zone and (iii) Low altitude ecological zone.

Table 2.1  
STUDY REGIONS

S.No.	Regions	Villages	Tribes	Modern Influence	Districts
1.	High alt. Eco-Zone	Tuensang Khudei	Chang Chang	Close to urban Away from urban	Tuensang Tuensang
2.	Middle alt. Eco-Zone	Baimho Naghutomi	Sema Sema	Close to urban Away from urban	Zunheboto Zunheboto
3.	Low alt. Eco-zone	Merangkong Asangma	Ao Ao	Close to urban Away from urban	Mokokchung Mokokchung
Total	3	6	3	3+3=6	3

Source : Field Survey, 1992-93.

The basis of the selection of regions for the purpose of the present study is ecological. There is no particular need to define these regions with the help of rigidly laid down criteria as these districts have existed so long and have historicity duly recognised and strongly manifested in their economic life and their socio-cultural manners. The whole state has highland agriculture in general and is of a typically tribal cultural regime. The regions selected, indeed represent a fair sample of the baffling ecological diversity of the state. The high

# NAGALAND

## TRANSPORT NETWORK & ADMINISTRATIVE CENTRES

10 0 10 20 30 Km.

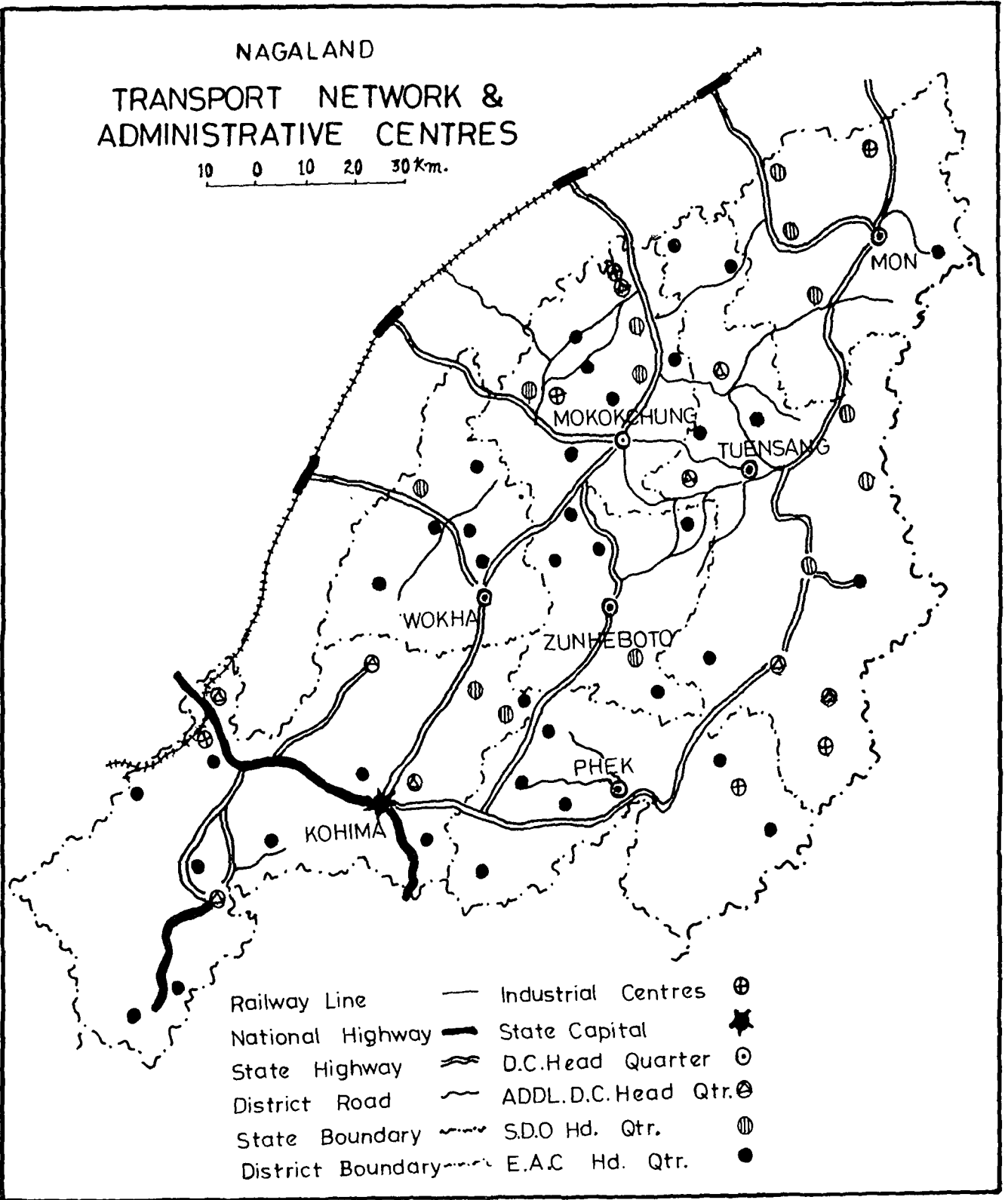


Fig. 2.2

ecological zone of Tuensang and Khudei villages are characterised by traditional methods of jhumming cultivation and hill economies of terrace agriculture with rearing of animals as permitted by the highland ecology. However, it is only twenty years after the introduction of rice cultivation in Tuensang area. The middle altitude ecological zone (Baimho and Naghutomi) is a region typically characterised by wetland and traditional agriculture as the nature of landform in the longitudinal valleys of the Tizu river provides the opportunity. Otherwise, this region is covered by thin soil which is infertile and the production of food crops and vegetables are very poor as compared to the other two zones. The low altitude ecological zone of Merangkong and Asangma villages are characterised by a combination of traditional and modern agriculture. In the hillslopes jhumming and terracing is found, while in the valleys and wetlands some form of permanent cultivation is practiced.

### 2.3 POPULATION AND SETTLEMENT

The population of Nagaland according to 1991 Census is 1215573 with a density of 73 persons per square Km. The state is experiencing an unprecedented growth rate which was 50.05 per cent in 1971-81 as against 39.68 per cent in 1961-71 (Table 2.2). This phenomenal growth in the population in a region with fragile resource base has serious implications as regards to the carrying capacity of the region. An overwhelming majority of the population (i.e., 85 per cent) in Nagaland lives in rural areas.

Most of the urban population is concentrated in a few towns such as Kohima, Mokokchung and Dimapur. 0

Table 2.2  
DISTRICT-WISE PERCENTAGE POPULATION AND DENSITY, 1991

Sl.No	District	Population	%	Density per sq.km
1.	Kohima	3,87,581	32.04	98
2.	Phek	1,02,156	8.45	50
3.	Wokha	82,612	6.83	51
4.	Zunheboto	97,218	8.04	78
5.	Mokokchung	1,58,374	13.09	97
6.	Tuensang	2,22,906	19.26	55
7.	Mon	1,49,699	12.38	84
NAGALAND		12,09,546	100.00	73

Source : Population census

The cultural pattern is dominated by numerous tribes. Notable among them are the Ao, Sema, Lotha, Angami, Konyak, Phom, Chakhesang, Sangtam, Chang, Kheimungan, Yimchunger, Zeliang, Rengma, Tikhir, Mokware and Chirr.

It has been seen that the Konyaks are the largest single tribe followed by the Aos, the Semas, the Angamis and then the Chakhesangs. All the tribes have their own specific habitat. Kohima district is the home of the Angamis, Chakhesangs, Zeliangs, Kukis and Rengmas. Angamis live in the northern and western parts of the district while the Chakhesangs live in the south-eastern part. These two tribes are economically the most developed in Nagaland.

Kohima district has the highest density with 98 persons per square kilometre followed by Mokokchung with 97 persons per square kilometre, Mon district with 84 persons per square kilometre, Zunheboto with 78 persons per square kilometre, Tuensang with 55 persons per square kilometre, Wokha district with 51 persons per square kilometre and Phek district with the lowest of 50 persons per square kilometre. Though Nagaland is characterised by enormous differences in altitude; the density patterns do not show a very strong relationship with varying altitude of the districts.

Most Naga villages are large sized, usually compact in form and are situated on hilltops. Distribution of settlements is largely even. Excepting a few plain areas of Dimapur in the south-west, Naginimora in the mid-west of the state and around Tizit in the north-western part, the differences in physical characteristics are marginal and so the settlement pattern is almost identical in most parts. People in these areas are the only ones who practice terrace cultivation and double cropping on a large scale even though located at higher altitude zones. Rengmas inhabit the north-eastern and the Zeliangs and Kukis the north-western parts of the district.

Mokokchung is chiefly inhabited by the Aos, Lothas, Semas and Rengmas, Of course, the Aos who are the most prominent tribe having the highest rate of literacy in the state and are socially the most progressive in Nagaland. They are the most numerous

tribe in the district and are spread over its northern half, though their main concentration is around Mokokchung town. The Lothas live at lower altitudes and occupy most of Wokha district. The Semas inhabit some of the central and southern parts of Mokokchung, but most of them live in Zunheboto district.

A large number of Semas have settled near Dimapur in Kohima district. The Semas are just a little less than the Aos in number and are also an important tribe.

Tuensang district which was a part of NEFA previously, is the home of Changs, Sangtams, Konyaks, Phoms and Yimchungers. These are relatively backward tribes. The Konyaks are by far the most numerous and live in the north of the district. However, after the creation of Mon district most of the Konyaks and Phoms are now found in Mon. The jhumming techniques of these tribes are relatively inferior. They are not very skilled in weaving and consequently until recently lived almost naked. On the whole, they are not as hardworking as the other Nagas. Their diet is also somewhat less nutritious, resulting from their lassitude (besides their susceptibility to diseases) and addiction to opium. This misfortune was brought upon them by the British who found an easy way of controlling these fierce frontier people by introducing opium. Years of opium addiction has eaten into their vitality. However, the educated youths of these tribes have strongly opposed the cultivation and use of opium. Eradication of this habit is seen to be the main social problem in this area.

Chang, Sangtam, Yimchunger, Kheimungan, Mokware, Chirr and Tikhir live in the eastern side of the state which borders Burma. Some of the eastern tribes including Konyaks are very close to the Burmese border and have matrimonial and kinship ties with the villagers across the border.

The tribes are not homogeneous. Each tribe speaks in their own distinct language. Members of one tribe can communicate with those of other tribe only through Nagamese or among the more educated, through English. Each tribe has traditions and customs which are peculiarly their own, their mode of dressing, songs and dances and marriage, all differ.

#### 2.4 ECONOMY

Before the advent of British administration, (that is till 1876) the Nagas were living in numerous independent states. They were more or less independent in their economy except for salt which they used to get from Assam plains through barter of their produces such as chilli, ginger, cotton, mustard seeds, decorated spears, Naga shawls etc. With their own villages they seldom traded anything, but if necessity arose for any article they would get it by barter. It was so because there was no money in circulation. Of course, among some tribes, notably among the Aos, there was a form of currency known as Chabili. It was a slender piece of iron varying from 10-25 Cms. in length (1). Gold, Silver or Copper coins of pre-British period was not known here.

Kapardak or cowri shells were in use only among some tribes in contact with the plains.

Earlier there was very little trade except some in beads and shells. Each household produced practically all it needed, their needs being quite simple and there was hardly any surplus for disposal. Money as a medium of exchange was introduced only during the First World War (2). Prior to that, the denominator of wealth were based on the extent of grains in the granary, the number of Mithuns (a wild buffalo prevalent in the area) and cattle possessed by an individual.

Apart from subsistence agriculture, household industries and artisan production has been an important limb of economic life of the Naga people. This is obvious in a self-contained, subsistence economy in which most of the consumption is actually produced by the members within the community. Thus, artisan production in weaving, carpentry, blacksmithing, basketry and production of many household implements has been responsible in keeping both the sexes absorbed in work. If we see the sexual division, men are exclusively engaged in basketry, carpentry, blacksmithing and production of many household implements, while women are exclusively engaged in artisan production like weaving and knitting.

Forest and forest products are basic to tribal life. It has traditionally provided the opportunities of hunting activity to

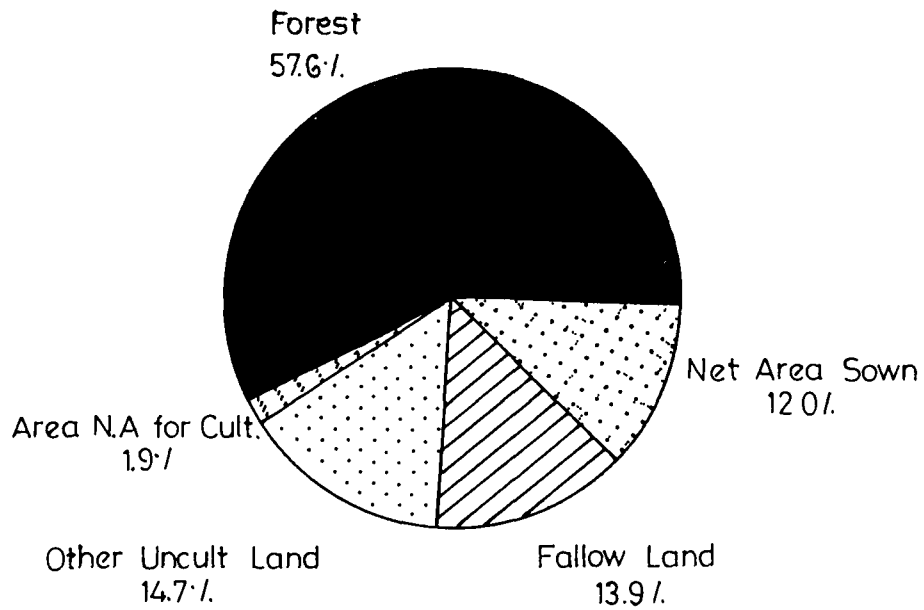
people apart from its utility in terms of gathering of fuelwood, other forest produce and grazing of animals etc.

Domestication of animals becomes essential as an economic support in a region where agriculture is primitive in nature. Cattle raising is important for varied reasons, ranging from assistance in agriculture, and also meat and milk products. Other animals include pigs and poultry are reared mainly for consumption. Looking after domestic animals constitute an important area of work in the traditional economy.

## 2.5 LAND-USE

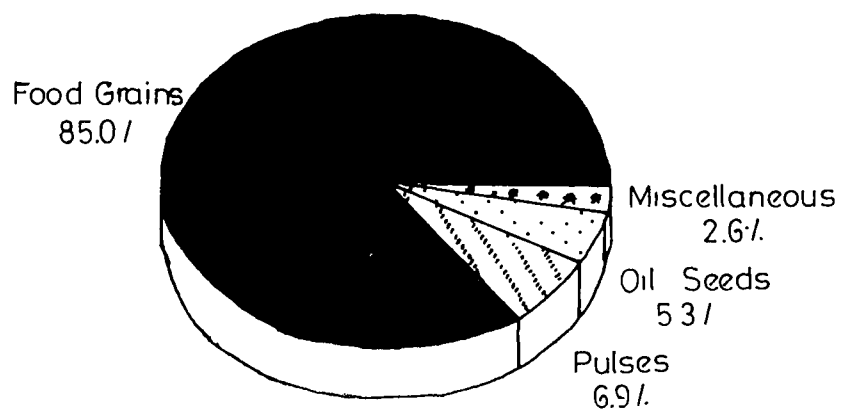
A very large proportion of area in the state is occupied by forest which claims over 57 per cent of the total geographical area (fig. 2.3). Area actually under crops constitutes only 12 per cent of the total area. Due to the nature of topography and shifting cultivation current fallows accounts for as much as 6.8 per cent while 7.1 per cent has been classified as other fallows. The latter category includes such lands which after being cultivated for two years are left uncultivated for a period ranging from five to nine or even more years. Land put to non-agricultural uses is only 1.9 per cent. Land under miscellaneous tree crops and groves accounts for about 8.3 per cent (Table 2.3).

## NAGALAND LAND USE



Land Classification, 1988-89

## NAGALAND AREA UNDER PRINCIPAL CROPS, 1988-89



= Area under Fibres is Negligible

Fig 2.3

Table 2.3  
NAGALAND : LAND USE

Classification	1988-89	%
1. Forest	8,62,532	57.57
2. Area not available for cultivation		
a. Barren and uncultivable land	N.A.	-
b. Land put to non-agricultural use	27,848	1.86
3. Other uncultivable land excluding		
a. Permanent pastures and other grazing land	N.A.	-
b. Land under Misc. tree crops and groves	1,24,252	8.30
c. Cultivable waste land	96,092	6.41
4. Fallow land		
a. Current fallow	1,01,870	6.79
b. Other than current fallow	1,05,720	7.06
5. Net area sown	1,80,000	12.01
		100.00
6. Area sown more than once	36,000	2.40
7. Total cropped area : Gross	22,16,000	14.42
Total reporting area	14,98,314	

Source : Directorate of Agriculture.

#### 2.51 FOREST COVER

Due to prolonged rains and humid conditions, the region is endowed with rich natural vegetation over the lower ranges of the western flank characterised by sub-tropical evergreen rain-forests. The central hilly region has broad-leaved temperate evergreen rain-forests. The eastern and south-eastern plateau has a characteristic coniferous (pine) vegetation. However, the climatic climax over the western and the central forest zones are being lost due to extensive Jhumming and are replaced by degraded secondary vegetation (3) (fig.2.4).

# NAGALAND FOREST TYPES

10 0 10 20 30 Km.

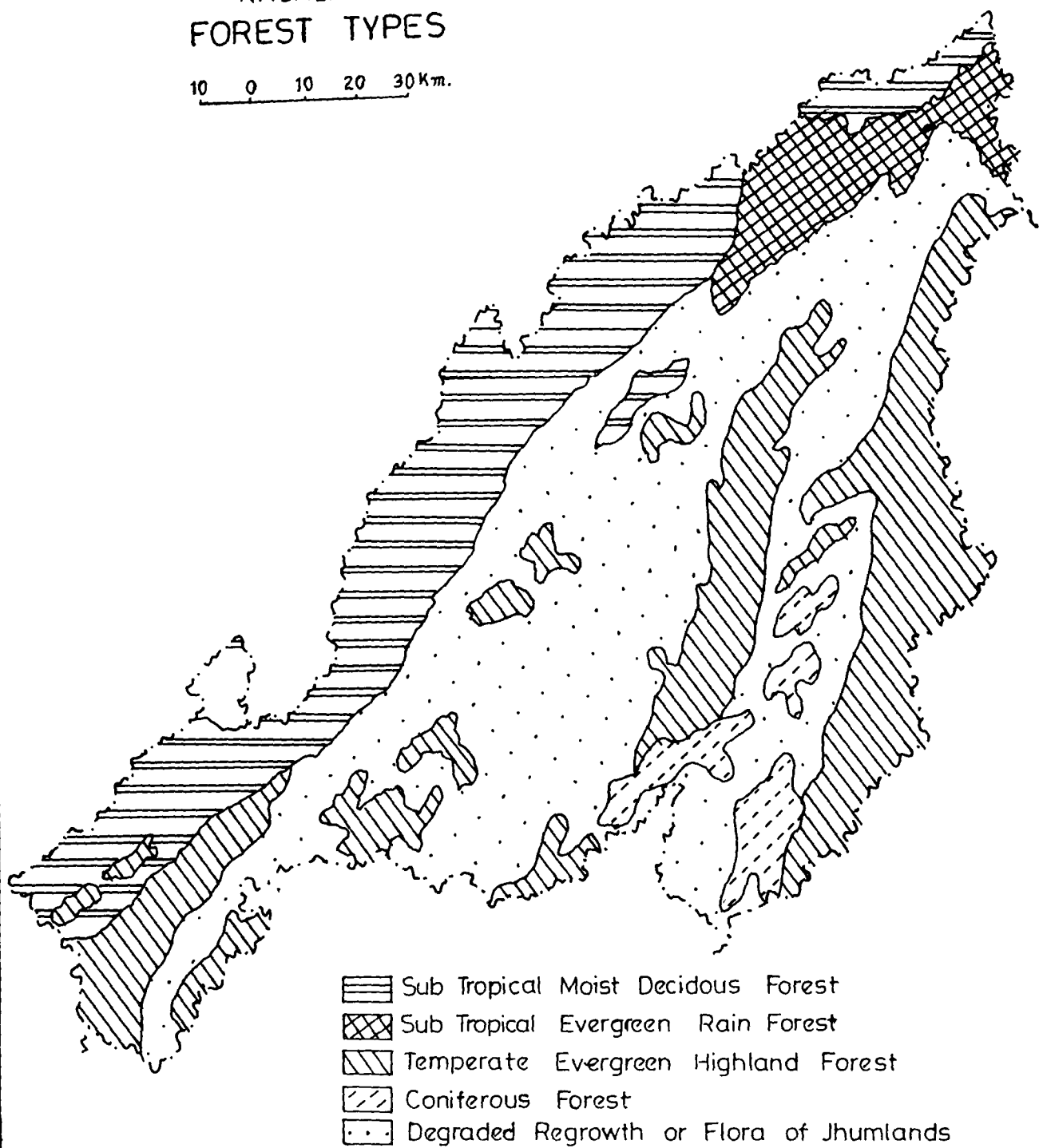


Fig. 2.4

According to official papers, forest occupies more than half (57.6 per cent) of the total geographical area in Nagaland. During slash and burn (Jhum) in March/April/May, accidental fire cause losses of thousands of hectares of forests each year. This leads to severe soil erosion and deterioration of soil by losing thousands cubic metres of top fertile soil every year (4). Annual timber felling is also heavy to feed a few wood based industries in the state. A near complete dependence on forest for firewood consumption in the state is estimated to be 6.5 lakhs tonnes (5). These two factors leads to the vast gap between planting and removal from the forest.

Table 2.4  
CLASSIFICATION OF FOREST UNDER GOVERNMENT AND PRIVATE CONTROL

Type	area in hect.	percentage
(1) Forest area under Govt. control		
A. Reserved forests	8,583	8.55
B. Wild life Sanctuary	22,237	22.14
C. Protected forests	50,756	50.54
D. Purchased forest (awaiting declaration of reservation)	18,849.	18.77
Total	1,00,425	100.00
(2) Forest area under private control (Village forests)		
A. Virgin accessible forests	1,87,827	24.65
B. Virgin non-accessible forests	2,90,000	38.05
C. Degraded forests	2,84,280	37.30
Total	7,62,107	100.00
Total forest area	8,62,532	

Source: Forest dept. Annual Administrative Report, 1986-87.

Out of the total land area of 16,57,900 hectares forest occupy an area of approximately of 8,62,532 hectares and their status has been approximately classified as under Table 2.4.

It is evident that forestry in Nagaland mostly relates to private forests regulated by customary rights of the people. The forests are generally of wet-evergreen type with a high density of flora rich in number of species. The trees specially in the foothills are of gigantic stature and are remarkable for their height and cleanness of boles.

Forests play a great role in the economy of this hill state. All the requirements of forests products both in the rural and urban areas are met from the state's forest. They also supply raw materials to all the forest based industries that have come up in the state in recent times.

## 2.52 CROPPING PATTERN

Cultivation of different crops absorbs the labour force in most parts of the year. Food-grains naturally, dominate the cropping pattern, accounting for over 85 per cent of area, followed by the pulses (6.9 per cent) and oilseeds (5.3 per cent); paddy, harvested in autumn and winter account for nearly 80 per cent of area under food grains (Table 2.5).

Table 2.5  
AREA UNDER PRINCIPAL CROPS (in hectares)

Crops	1988-89	percentage
<b>FOOD GRAINS (85 %)</b>		
1. Autumn paddy	68,040	42.94
2. Winter paddy	56,000	35.34
3. Maize	22,700	14.33
4. Wheat	400	0.25
5. Other cereals & millets	11,300	7.14
Total	1,58,440	100.00
<b>PULSES (6.92 %)</b>		
6. Grams	1,900	14.73
7. Tur	1,000	7.75
8. Other Rabi pulses	2,100	16.28
9. (a) Beans	2,700	20.93
(b) Other Kharif pulses	5,200	40.31
Total	12,900	100.00
<b>OIL SEEDS (5.33 %)</b>		
10. Sesamum	1,200	12.08
11. Rape & Mustard	6,830	68.78
12. Lin seed/ground nut	1,900	19.14
Total	9,930	100.00
<b>FIBRES (0.16 %)</b>		
13. Cotton	100	33.33
14. Jute & mesta	200	66.67
Total	300	100.00
<b>MISCELLANEOUS (2.59 %)</b>		
15. Sugercane	3,500	72.61
16. Tobacco	50	1.04
17. Potato	850	17.63
18. Sweet potato	50	1.04
19. Chillies	120	2.49
20. Ginger	150	3.12
21. Garlic	100	2.07
Total	4,820	100.00
<b>Total area under crops</b>	<b>1,86,39</b>	

Source : Directorate of Agriculture.

Rice is by far the most important food crop and it dominates the entire agricultural scene. It is a universal crop and enjoys pivotal position in the rural economy. Among the foodgrains rice accounts for more than 77 per cent of the total foodgrain cropped area. Out of this, the autumn paddy accounts for 35.3 per cent. The production in 1988-89 was 60,000 tonnes of autumn paddy and 70,000 tonnes of winter paddy, respectively. Other food grains are maize which accounts for 14.3 per cent, wheat with a margin of 0.3 per cent and other cereals and millets accounts for the remaining 7.1 per cent of the total crops under food grain areas. The production in 1988-89 were; maize 19,290, wheat 1,000 tonnes and other cereals and millets 11,800 tonnes.

Among the pulses Kharif pulses come under larger area; the percentage being 40.3 per cent of area under kharif pulses. The production of pulses in the state in 1988-89 was 6,850 tonnes. Beans occupies an area of 20.9 per cent, other Rabi pulses 16.3 per cent, grams 14.7 per cent and tur 7.8 per cent. The production of rabi pulses, grams and peas accounted 3,450 tonnes in 1988-89. Thus, the total production of pulses according to 1988-89 statistics of pulses is 10,300 tonnes. Oil-seeds can be included under the principal crops category. Rape and mustard are dominant crops with an area of 68.8 per cent. In 1988-89 the production was 3,500 tonnes. Lin-seed and ground-nut rank second position under this crops with an area of 19.1 per cent, the production was 1,600 tonnes in the same year. The area under sesamum is 12.1 per cent with a production of 900 tonnes in 1988-

89. Small quantities of cotton, jute and mesta are counted. Sugar cane, potato, and other miscellaneous crops such as ginger, chilly, garlic, sweet potato and tobacco are grown in this region.

Thus, Nagaland with its quasi-humid climate subject to an improvised rice growing culture, adds variety to the regions selected for the study area.

Each of these regions exhibits a remarkable differences in their cropping pattern, seasonality and intensity of the monsoon, level of agricultural intensity and modernisation, composition of tribe and historical tradition. Although by no means complete, the scheme adopted here is believed to represent a fair sample of the varying conditions of the people living in the state as a whole. Such a scheme, one hopes, would permit broad generalisations to be made with reasonable certainty.

It seems imperative at this point to examine in greater detail the nuances and peculiarities of each of the regions separately selected for the study.

## 2.6 HIGH ALTITUDE ECOLOGICAL ZONE

### 2.61 TOPOGRAPHY

In the present chapter an attempt is made to understand the ecological conditions of different regions in relation to the economic activities performed by the people. Tuensang, the biggest of the seven districts of Nagaland occupies the biggest part of the region. Also almost the entire part of Phek district falls in this region. The mountainous track of Kohima district and a small portion of Zunheboto district comes under this ecological zone. The high ecological zone is bounded by Burma in the east, Manipur to the south and all along its north and north-west is bordered by middle altitude eco-zone. The topography of this region is hilly, rugged and mountainous except for a narrow zone in the foothills. The average height of the peak is between 900 and 1700 metres. The highest point is Saramati in the Tuensang district which is 3,840 metres above the mean sea-level. In Kohima district, the highest peak is Japfu with a height of 3,014 metres. The ranges have gone in all directions but its general arrangement is from north-east to south-west. People live on the top of the ranges and between the ranges and there are ravines some of which are precipitous and several hundred metres deep.

Summits of the lofty peaks are thickly wooded, clad and with evergreen vegetation; they abound in the fascinating games,

varied flora and fauna. The lower hills have for the greater portion become deforested owing to the practice of both the "slash and burn" and terrace systems of cultivation. Owing to the scanty undergrowth, the loose and delicate soil structure, absence of old rocks and the widespread soft clay across the precipitous slopes, landslides are frequent which cause serious impediment to trade and agricultural enterprises and the maintenance of communications where they feature out most. Such soil which usually retains bare and weak vegetation often shrinks easily after the showers, the soft clay (sub-soil) tumbling down the hillside causing at places a gigantic formation of slough. Sometimes it would appear insurmountable to organise trade and industry in the face of such shrills and cracks on the soil.

Yet irrespective of such disadvantages, the region commands a majestic landscape. Rolling hills skirting over the horizon with terraces cut across the lower slopes, the narrow glens at their base, the profuse vegetation which clothes the mountain summits on higher altitudes the diverse flora which lay scattered on the hills blooming in their verdant colour are of breath taking panoramic views. The invigorating breeze and the temperate weather make life pleasant and lay incentives for manual works and physical exertion. On the western extremities, the oblong and sturdy ridges, their precipitous slopes - the elongated chains which merge themselves into the imposing plateaux, at places intersected by tribal traditional tracks and

# NAGALAND DRAINAGE SYSTEM

10 0 10 20 30 Km.

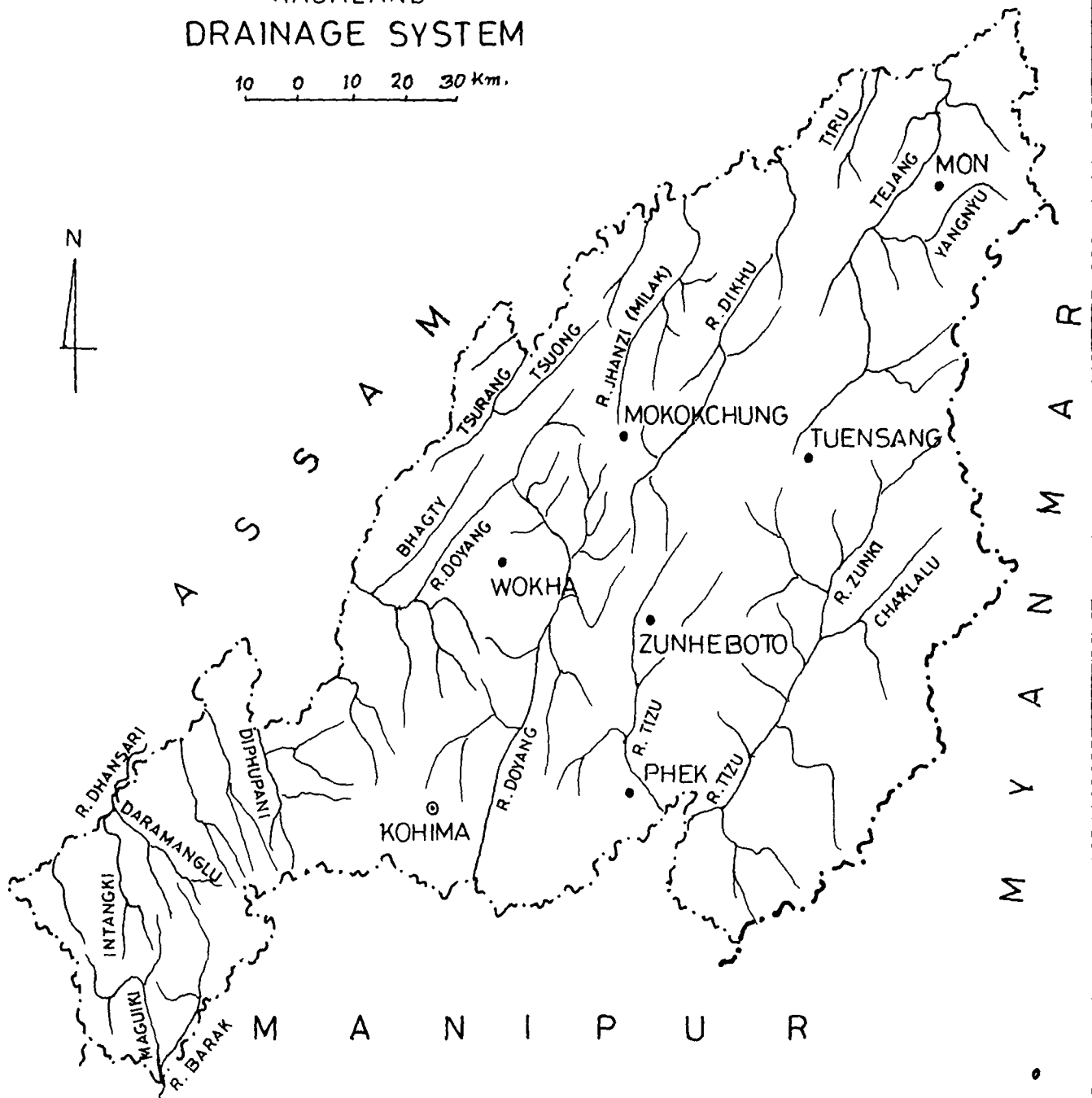


Fig. 2.5

newly constructed roads winding up and down the cliffs, at times touching the villages with their age-long existence on the spurs.

## 2.62 RIVERS

The hilly region is dissected by a number of seasonal and perennial streams with V-shaped valleys which further restrict agricultural potential of the region. There are two main river systems which drain this zone, they are Tizu and Doyang (fig.2.5). The more important one of them is Tizu. It has risen in the southern part of the zone and has flown north. After going northward it has turned east and then south-east and has joined Chindwin in Burma. Tizu has been fed by Zungki from the north and Chaklalu from the east. It gets an addition of small tributaries such as Teseru, Laniye, Ther, Phimi and others in the southern extremity of the state.

## 2.63 CLIMATE

High altitude ecological zone enjoys monsoon climate with a difference. The difference is that unlike the plains bordering Assam, here the winter is cold and summer is rather cool. In winter the night temperature comes down even up to 1 degree celsius in December and January which are the coldest months. But the average December temperature is 4 degree celsius. In summer it is not at all hot but cool and the highest average summer temperature is about 25 degree celsius.

Rainfall is on the average 200cm (80") (6) and it falls for 180 days (7) covering a period of nine months of the year, greatest concentration being in July and August.

Towards the end of the winter season, in February-March, the sky is clear, almost throughout the day with occasional cloudiness in the afternoon but clear again at night (8). At times high wind blows almost throughout the day beginning at about midnight or early in the morning. Sometimes it blows throughout the day and night. It blows so high that some damage is caused to tin-roofed buildings (9). The wind generally blows from south-west. At times the velocity rises up to 100Km per hour. Normally, the rain dies out in April.

Some drops of rain fall in February, a few showers in March and a little more in April. May witnesses several showers. The sky is clear and the day is bright in March, April and May. Sometimes hailstorms occur in March and April.

Monsoon sets in, in the middle of June and continues upto middle September. It brings heavy rain mostly shower every day and hardly few days without drizzling. During the rainy season the average relative humidity is 85 per cent but at times it goes upto 90-95 per cent.

The hottest month is July though it is not at all hot but rather cool (25 degree celsius) (10) in most part of this zone.

From October to January a cold wind blows from the high ranges of Saramati and Japfu. This wind get mixed with the north-east monsoon and it brings cold weather to the region. Saramati on the east and Japfu on the south is snow capped during the winter. December and January form the coldest part of the season when ground frost occurs. As a result of the longer cool season, the Government servants those who are staying at an altitude of 3000ft. or above get winter allowance for five months of the year (i.e., October-February) (11).

The mirth of spring can be felt to some extent only in April and May. Thus the analysis of climate reveals that practically two seasons - the winter and the rains dominate the year. Spring and autumn are nominal and short lived.

## 2.64 VEGETATION

High altitude eco-zone is situated in a very peculiar way. The landmass forms a long slice of which one end is forming international boundary with Burma. This zone is almost entirely hilly. Vegetation varies from alpine to sub-Himalayan and from tropical to sub-tropical as also to temperate. The forests found above 1000 metres of altitude are classified as montane sub-tropical forests (12). These forests are further divided into sub-tropical broad leaved hill forests and sub-tropical pine forests. Broad leaved forests are found in Longkim, Tuensang, Noklak and Tobu areas. Bonsum, Bogiboma are some of the important

timber species of these forests. Sub-tropical pine forests are found in Samatori, Kiphire, Pungro, Meluri, Phek, Pfutsero and Kohima areas. There are some pure patches of Khasi Pine (*Pinus Kesiya*) in these areas with local Oaks on the lower slopes. Some other species found in this zones are Amri, Gamari, Hollock, Nahor, Uriam, Alder, Kachnar (13), etc. Due to heavy rain in this area these forests are full of undergrowth and shrubs. More than a dozen species of ferns and numerous species of orchids are found in this zone. In Tuensang area, (altitude, 1500 metres and above) rhododendrons are also found whose big red flowers make a pleasant site in the forests in the months of March-April.

There is a collection of rich, varied and rare orchids and other species of flora in the jungles blossoming for all the seasons of the year. It is a general surmise that Naga hills resembles closely the sub-Himalayan type of vegetation and flora obtained in Sikkim.

Posts, pillars, planks, troughs, mortars, etc. are scooped of wood. Sappers, creepers, barks, wild vines, tubers, varieties of cane and bamboo have a multifarious use connected with the manufacture of rainproof coats, rain hats, utensils and furnitures as well as bridges and house-buildings and other domestic items. They make ropes out of strong creepers and strings out of bamboo skin. Orchids are much loved as decoration. Wild vegetables, roots, fruits and tubers are eaten raw or prepared in food. Plantain leaves which grow wild are used as

packages of foodstuffs such as meal, fish, salt, meat and for wrapping the rice preparation during the process of fermentation. Straw is used for house thatching (14).

The high altitude zone is quite rich in its variety of fauna: Tiger, Panther, Wild cat, Himalayan bear, Bison, Sambar, Barking deer, Wild pig, Slender loris are some of the important animals found here. Among the birds, Indian hornbill, Blythe's Tragopan, Grey pheasant, Jungle fowl, Green pigeon, doves etc. are found here. Python is the most important among reptiles. A great deal of game has become extinct due to indiscriminate hunting; the game among the Nagas is valued not only for its meat (15) but hide and skin, skulls, tusks and feathers, which the people have great liking as part of their ornamentation and decoration.

## 2.65 MINERALS

A general lack of sufficient communication and poor accessibility are the main constraints that stood against a systematic search for minerals in various parts of this zone during the early years. A number of minerals occur, however, have been located recently and they include asbestos, coal, limestone, marble, magnesite, chromite and pyrite as well as some oil seepages.

A short account of mineral occurrences in this zone are as follows:

Occurrences of coal have been reported from a considerable distance between Konya to Pesa village lying east of the high altitude ecological zone. Low grade asbestos have been reported from near Ipungro village in Kiphire sub-division. Eight bands of limestone containing very high calcium oxide in low insolubles have been reported from Nimi village. The top four bands have a total average thickness of 100m., and extend over an area of about 10 sq.km (16). Besides, a crystalline limestone deposit is located near Thonsonyo village along the Indo-Burma border. Small pockets of magnesite associated with ultramafics have been recorded about 2.5 km. east of Ipungro village.

Nickel and cobalt bearing magnetite and chromite has been located in the ultramafic belt for a length of about 1Km. near Phokphur village. Magnetite and chromite occurrences have also been reported at a place about 1km. south of Pang village of Samatore sub-division. Pyrite as disseminations have been observed at Zunki nala, Makhute and Thongsonyo. Slate and phyllite occur at a number of localities in this zone.

Brines and salt exist in the south-eastern portions of the high altitude eco-zone. They are located at Akhegwo, Yisi, Purr, Molen and Ozcho in eastern Chakhesang area (17). At the brine wells, salt is excavated locally by the indigenous methods.

## 2.66 CROPPING SEASON

Generally the sowing season for terraced rice field is April-May (fig.2.6). The grain ripens towards October the harvest occurs usually in November or December, but the season does not open up to January. For jhum, paddy seed is sown during the spring time (18); in many cases the plant sprouts in May, followed in July by weeding; the grain ripens in July but sometimes the ripening season may go as late as September.

Millets do not take a long time to ripen. The seed usually is sown in March/April and the grain ripens in June or July; the harvest soon follows. In the case of maize, the seed is sown during March and harvested in July. In many places millet is grown simultaneously with maize (19). Kochu, is grown during March but takes quite long to ripen for it is harvested towards the close of the year.

As regards pulses, they are planted in May and harvested in December; soyabeans are also grown during the same season, while Til is grown in April and harvested in November (20). In many areas of the zone, ginger is grown in March but harvested in January, sugarcane in the highlands (21) is planted in May but harvested as late as December or January. Potato has two seasons, the winter potato is sown in October and is ready for harvest by January or February. Sweet potato takes quite a long time and harvested not until December. Sowing of Job's tears might have

# CROP CALENDAR

(HIGH ALTITUDE ECOLOGICAL ZONE)

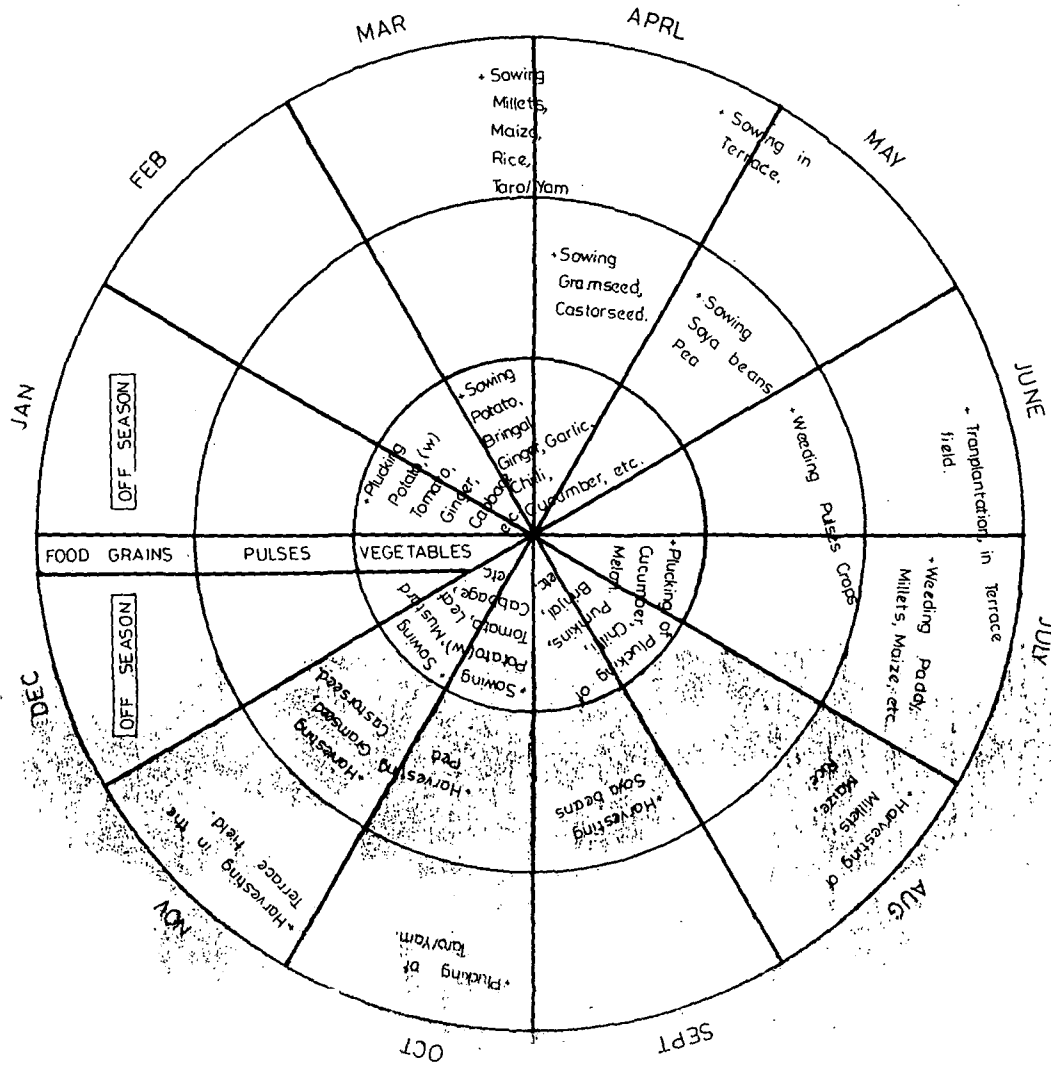


Fig. 2.6

been done from January to April, according to altitudes, while harvests take place till November (22). Lentils sown in March-April is usually plucked in October or November.

Owing to the variations in altitude from place to place and other topographical factors, a uniform crop calendar is not feasible (23). Cropping and other traditional approaches also differ from place to place; what applies to Phek at a high altitude in the extreme south cannot be said to fit in Kohima or Tuensang areas located at much higher altitudes. Moreover, some vegetable crops such as brinjal, tomato, potato, mustard and perhaps others which cannot all be named here have two seasons of growth in one year, conforming to the summer and winter. Cropping of the former may not be essentially the same as that of the latter (24). Perhaps topographical and geological factors which accounts for the diverse economic conditions in the region enhances the cultural diversity amongst the people although it rests upon the common structure.

## 2.7 MIDDLE ALTITUDE ECOLOGICAL ZONE

### 2.71 TOPOGRAPHY

Middle altitude ecological zone is bounded by high altitude ecological zone on the south-east, low altitude ecological zone on the north-west and Manipur on the extreme south. From the eastern side of Himalayas, some ranges have risen and gone

through Naga hills, Manipur and Mizoram etc., to the bay of Bengal. The zone being situated in these hills has got its mountain ranges spread from north-east to south-west, though occasionally some ranges have gone to other directions too.

Most part of the zone is hilly. The hills vary from 100 to 2500 metres and the average height of the zone is 1600 metres. Of course, occasionally there are lower slopes and medium ranges. Most of the people live between 1500 and 2000 metres of altitude.

There are several ranges and they are more or less parallel and have gone from north-east to south-west. Between the ranges there are glens and gorges through which flow the hill streams.

## 2.72 RIVERS

The most important river of this zone is Doyang which has originated in Japfu mountain in the south and has flown northward through the Sema area, then westward and then southward in the Iotha area and has fallen to Dhansiri in Sibsagar district of Assam (fig.2.5) There are two other rivers. One of them is Tizu which has risen in the north in Tuensang district. It has flown southward through Zunheboto district and joined Ti-Ho which has joined Chindwin in Burma. The other river is Tita. It has risen in the north-east and has drained the eastern part of the zone and has joined Tizu. There are also some rivers like Jhanzi

(Melak), risen in the north-western part of the zone and Tejang in the extreme north of this zone.

### 2.73 CLIMATE

The climatic condition of middle altitude ecological zone is more or less similar with that of high altitude ecological zone. In winter the night temperature comes down to 1 degree celsius in January/February which are the coldest months. In summer it is not at all hot but cool with the highest temperature being 22 degree celsius (25).

Rainfall is on the average 200Cm. (80") (26). It falls for about 130 days covering a period of nine months of the year, greatest concentration being in July and August. One aspect of climatic peculiarity of this zone is that high wind blows so strong that sometimes damage is caused to the villagers and their property. The wind generally blows from south-west and at times the velocity rises upto 100 kilometres per hour.

During the rainy season, the average relative humidity is 85 per cent but at times it goes upto 90-95 per cent. The hottest month is July though it is not at all hot but rather cold (22 degree celsius) (27). From October to January a cold wind blows from the high range of Saramati which lies in the east of Tuensang district, facing the east of the middle zone. This wind gets mixed up with the north-east monsoon and brings cold to the

region. The coldest month is January. Thus, over the hills temperature is cool during winter and occurrence of frost over large parts is observed in several places. But snowfall is rare in the inhabited areas.

## 2.74 VEGETATION

The average altitude of the middle zone is 1500 metres. The temperature is low keeping it cool throughout the year and making it rather cold in winter. The average amount of rainfall received is 200cms (28). It should have been quite sufficient for keeping the vegetation green forever. But it is not so because of two reasons (29); firstly due to hilly condition of the landform the water does not stand and due to porosity of the earth the retention power is much less. Secondly, the trees and plants cannot stand the cold.

As a result many trees, all the undergrowth, grasses and shrubs dry up in winter. By February it looks like a dry land. From March onwards it becomes green again.

This zone consists of both deciduous and evergreen forests. Most of the forests are deciduous (30). The trees shed the leaves from November onwards and new leaves grow again in March. Some trees however, do not shed their leaves and thus keep green forever. So we see that it is a mixed vegetation of evergreen and deciduous trees.

In the lower altitude bordering middle altitude ecological zone the trees are more evergreen than deciduous. We can thus say this zone consists of the following kinds of forests:

- (a) Evergreen upto the altitude of 1000 metres
- (b) Mixed deciduous and evergreen from above 1000 metres

A greater part of the vegetation has been reduced due to extensive jhumming and are being replaced by degraded secondary vegetation. There is hardly any thick forest in this zone where animals and birds can take shelter. It may be noted here that the people eat meat of various animals. There is no sense of preserving, rather indiscriminately killing and hunting the animals. Faunal wealth is no more wealth now but practically some museum piece only. Thus, faunal environment has been disrupted and only a few remnants of the wild animals are found in this middle zone - quite few as compared to high and low altitude ecological zones.

## 2.75 MINERALS

No particular minerals have yet been discovered in major parts of this zone. However, it is believed that like other parts of Nagaland, petroleum and coal may be available in this zone. Coal deposits have been located in western part of this zone. Oil seepage has been reported from near Namsang-Chingchang village of Tuensang-Mon border area (31). Besides coal and petroleum,

prospects of glass, clay and sandstone are good. However, this part of Nagaland has not been surveyed in detail and it appears that the Zunheboto district which falls in the middle-east of this zone is not assessed of being very prospective in hydrocarbon (32).

## 2.76 CROPPING SEASON

This zone being cold and windy, practically nothing grows during winter (i.e., November - February), except a few winter crops. It may be noted that this zone is as a whole is agriculturally underdeveloped and so vegetables are rarely grown. Almost all other crops are grown during the warm season of March - October.

The crops grown in this zone are mainly food crops such as rice, millet, maize, taro/yam and vegetables (33). There is not much cash crops as found in low and high altitude ecological zones. Rice in the jhum fields is sown in March-April and harvested in July-August. Rice is transplanted in June-July (fig.2.7), and harvested in October-November in terrace and wetlands. Of course, the seeds are sown in the seedbed about a month or two before. Millet is sown in March-April and harvested in July-August or September-October in case of smaller variety (34) (small millet). Taro is sown in March-April and harvested in September-October or even upto December. Mustard leaf is sown in October-November and very often transplanted during these months

# CROP CALENDAR

(MIDDLE ALTITUDE ECOLOGICAL ZONE)

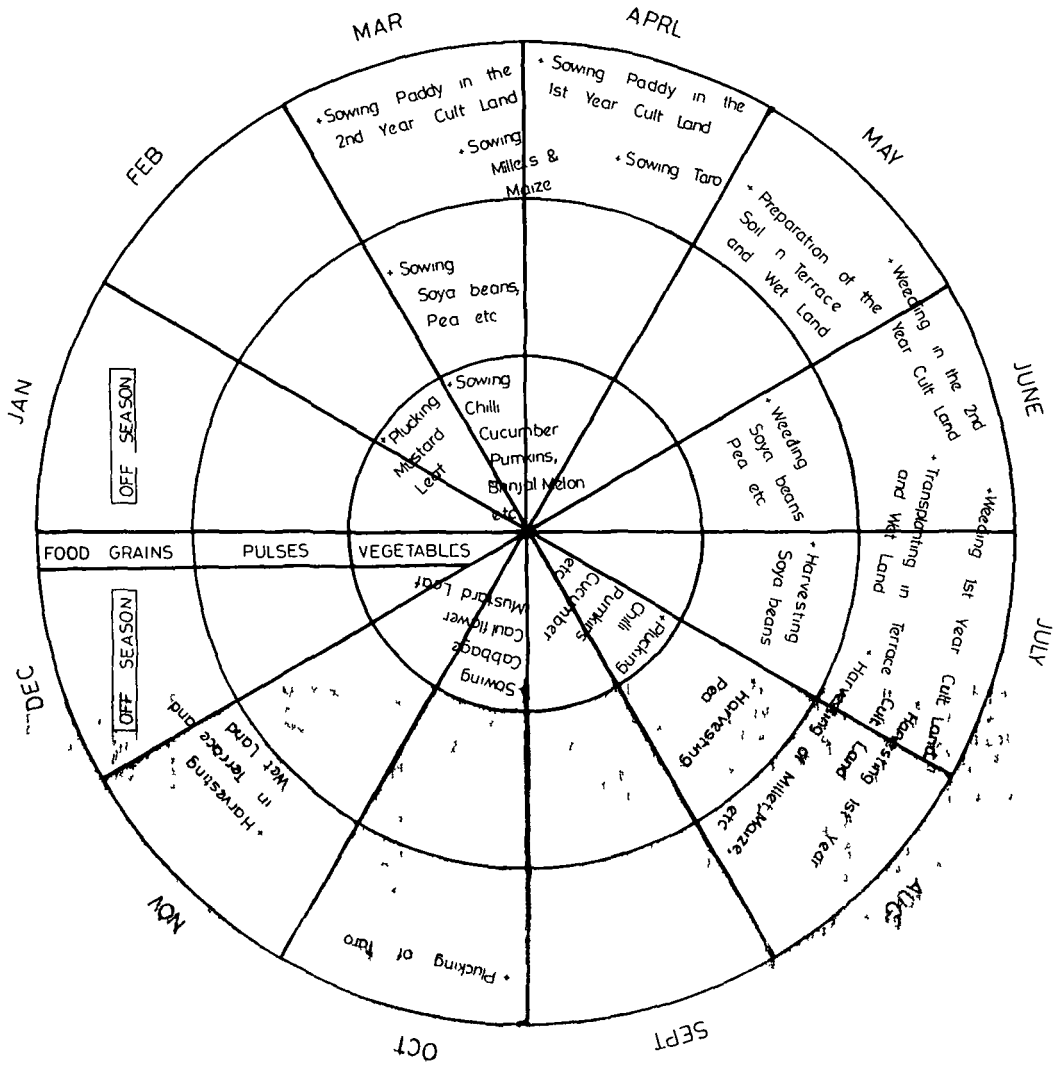


FIG 27

and its leaves are plucked as and when required, throughout its growth (35). Its growth stops by February-March when it bears seeds. Later those are collected which grows best in the cold. Cabbage is planted in October-November and the harvest continues from February to April or even May. Cauliflower is planted October-November is harvested in February and March. Soyabean is sown in March and April is harvested in July-August. Peas is sown in the same season and harvested by August.

Squash, once planted, continues for indefinite period. Every year the plant dies, new shoots come up from the root. In February-March, the young shoots comes up and continues coming up throughout the season till October. It bears fruit from July to November.

Pumpkins, French bean, Soya bean, Water gourd(Lao) (36) and different other varieties of gourds are planted in March-April and harvested throughout the monsoon months till October-November. Ginger and garlic also follow this calendar.

Among the fruits mentioned may be made of banana, guava, orange, pineapple, pear, plum etc. But those are grown in the backyards for domestic consumption.

## 2.8 LOW ALTITUDE ECOLOGICAL ZONE

### 2.81 TOPOGRAPHY

Low altitude ecological zone is bounded by plains of Assam in the North-West and middle altitude ecological zone on the South-East. It more or less shares the same topographical character of the two other zones of Nagaland. Like the topography of the other two zones, it forms a mountain terrain characterised by the ranges of the hills running from North-East to South-West. The hills vary from 1000 to 2000 metres and the average height of the zone is 1500 metres. However, as this region is inclined towards the Brahmaputra valley the altitude variation is sharply changed and comparatively low as when compared to other regions.

This zone is dominated by the following ranges: Langpangkong, Asetkong, Changkikong and Japukong ranges of Mokokchung district, Bhandari, Sanis and Wokha ranges of Wokha district and various ranges of Mon and Kohima districts down below the western side bordering Assam. Langpangkong, an eastern most range skirting along the course of the Dikhu river, the river forming a natural boundary line of Mokokchung with Tuensang and Mon districts. This range is spread like a bed and so the name is given as bed-like range (Langpang = bed, kong = range). Asetkong, a central range running from east to west but compared to other ranges it is the shortest one. This range lies in between the Melak and Menung rivers. Therefore, this island -

like range is known as Asetkong ('Asetkong' means island). Changkikong is a parallel range east of Japukong. Changki village was said to be founded by a certain man named Changki and so the range too was named after him as Changkikong. Japukong, is the outer most range stretching from north-east to south-west bordering Assam. The name originated from the fact that a certain man was found drying cooked rice in the sun probably for preparing rice beer or preserving as food. 'Japu', in Mongsen dialect means 'drying rice'; thus the place was named Japu and the range came to be known as Japukong meaning Japu range. Bhandari range is the outer range range which is also called 'low range'. It is a prolonged chain going northwardly upto Japukong range in Mokokchung district. In the south-western side, the range gradually slopes down the plains of Assam. Sanis range is in the middle part of Wokha district which also appears to have merged up with Changkikong range on the north of Mokokchung district.

## 2.82 VALLEYS

There are not many valleys in this region due to steep character of the hills. However, near the plains of Assam where the hills are low, there are a few valleys. The most important of them are; Baghty valley, a big fertile land; Tehurang valley in Akok-Mekokla area of Wokha district. Tuli and Longnak valleys are fertile plains suitable for permanent cultivation. Almost all the western part of Kohima district i.e., Dimapur-Chumukidema area is

like a valley which can be converted into intensive cultivation. This area is on the bank of Dhansiri and its tributaries. However, people prefer this area for settlement rather than cultivation. Therefore, people from all over the state come and concentrate here for permanent settlement. Small plots of low lying areas - Tizit valley on the north of Mon district can be converted into permanent cultivation.

### 2.83 RIVERS

This zone is drained by several rivers and streams. Melak, the continuity of which in Assam is known as Jhanzi, is one of the principal rivers, the longest river that flows across the Ao area. It flows northward towards the plains of Amguri. A notable tributary of Melak river is Tsurang (fig.2.5). It rises east of Lakhuni village, then flows between Yachang and Lirmen villages on one side and old and new Molung villages on the other. Dikhu river rises from the northern flanks near the Nurato mountain in Sema area. It flows westward and northward crossing over many parts of Ao, Sangtam and Phom areas. Then it flows past through the hills of Konyak area and finally leaves the hills for the plains near Naginimora. Its total length before merging into the Brahmaputra river is 200 Kms. Nanung is its main tributary in Langpangkong range of Mokokchung district. Tsurang or Disai, an important tributary of Doyang river rises west of Chungliyimsen village. It flows southwards, cuts through the hills of Ao and Lotha areas then flows further northward until it leaves the

hills for the plains west of Changtang village. Tsumok rises from Changtongya area flows through Asangma and Merangkong villages and then joins M̄lak river. Menung is another river whose source is found at Minkong forest.

It is interesting to note that Doyang which is the biggest river in Nagaland rises in the state's southern boundary. It flows almost due north, turn towards east then north-westwardly and emerges in western Lotha area. It finally falls in the Dhansiri river in Assam plain. Chubi river flows southward from Mokokchung district and joins Doyang south of the Pangti. Nzhu is also one of the most important rivers rises from the Nerhema area in Kohima district and flows through Miphong in the Rengma area. This river covers the whole south-eastern portion of Wokha district. Dhansiri river rises in the southwest of the zone. It bends eastwardly and flows past the Rangapahar-Dimapur plains in Kohima district and flows northwardly until it falls into the Brahmaputra. It receives all the western and northern drainage of southern Nagaland. Diphu, Tasagki, Tuilang, Duknaki, Manglu, Langlong, Tahaki, Disagfojan and Teipuiki are the important tributaries of Dhansiri which flows through this low altitude ecological zone. In Mon district, Tejang, Tiru and Dikhu are some of the important rivers that flow towards the plains of Assam.

None of the rivers are navigable. The rivers flow through a succession of pools and rapids according to the topographical formation and when piercing the crags, they spread over the

pebbles and massive stone linings. When falling down precipices, they form themselves wild diminutive cascades. The streams become violent when they are in spate and erode the glens through which they flow. Therefore, they are not much important for irrigational use as the basins through they flow are usually narrow and do not support stable or spacious cultivation. However, efforts are being made to utilise the fertile plots of land available off the slopes and near the river beds.

#### 2.84 CLIMATE

Owing to the variation of elevation which it commands, the southern, eastern and north-western parts of this low altitude ecological has salubrious climate, temperate type. Winters are cool, but the summers are warm. In winter the night temperature comes down to 2 degree celsius (37) in January and February which are the coldest months. In the middle part the night temperature comes down from 4-2 degrees celsius in December, January and February (38). In summer it is not at all hot and rather cool in comparison to adjoining plains of Assam. The temperature does not rise beyond 32 degrees celsius and the average summer temperature is 27 degrees celsius (39). The spring season is warm and humid, but the breeze though invigorating is interrupted at by gales (40). The heat decreases during the autumn, October and November being the finest part of the year. The North and South western outlying foothills are as hot and damp as adjacent plains.

The average annual rainfall is 2500mm (100") (41) and it falls for nine months of the year with greatest concentration in July and August.

The foothills which afford a corridor to Assam being continuous to the plains, share a tropical climate. Dimapur area, Tuli valley, Changki valley, Bhagty valley and Tizit valley, where the vertical ascent starts into the hills is hot and malaria infested, a contrast to the hills.

During the rainy season the average humidity is 80 per cent but at times it goes upto 95-100 per cent (42). Sometimes storms occur before the onset of south-west monsoon in March- April and again during the post monsoon period in September-October. It is a fact that whenever there is a depression in Bay of Bengal, Nagaland gets clouded skies, drizzling and rainfall.

## 2.85 VEGETATION

Owing to prolong rains and high humid conditions the region is endowed with rich natural vegetation over the lower ranges of the western flank characterised by sub-tropical evergreen rainforests. The plain belt to the north, mid-west and south-west abounds in the wet evergreen vegetation. The main species comprise of Nahar, Hollong, Lali, Titasopa, Sam, Poma, Makai, Khokan, Ajhar, Jonseroi, Amari, Hingari, Rata and

Nagaser. This zone constitutes a tropical broad-leaf vegetation, some trees reaching the top canopy in gigantic heights.

Sub-tropical wet hill vegetation thrives at an altitude ranging from 1000-4000 ft., characterised by the species such as chestnut, Michellia Champaca, Schima wallichii, Gmelina arborea, Albizzia spp and members of Meliaceae. Foothills adjoining Assam plains abound in deciduous riverine canes and sometimes impenetrable bamboo groves. However, most of the lower hills and hill slopes along the National Highways have largely been reduced of vegetation because of large scale deforestation in connection with cultivation and other enterprises in the years gone by.

Major part of the zone being covered by the forests and jungles it is natural that there will be lots of animal life. But in the wake of modern civilization which has brought guns to this region after the World War II, those wildlives have been killed indiscriminately. Among the animals, wild boar, barking deer, wild goat, jungle cat, Indian porcupine, jackal, tiger, leopard, wolf, wild dog, pangolin, Himalayan black bear, elephant, land tortoise, stag, python and other snakes are found. Among the birds, Malabar pied horn-bill, Mahratte woodpecker, Spotted dove, Blue rock pigeon, Great horned owl, Common green pigeon doves, House swift, Hoopoe, White vulture, Black partridge, Grey partridge, Grey jungle fowl, Common pea fowl, Jungle bush Gunai, Koel and Common babbler etc. are found here.

## 2.86 MINERALS

Coal is the most important mineral occurrence of this zone. Coal seams are mainly present in the basalt argillaceous members of the Tikak Parbat formation (43). It is also believed that petroleum may be available in this zone. In this connection it may be mentioned that coal deposits have been located in various places of Mokokchung and Wokha districts. Oil and gas has also been found along the foothill regions of Mokokchung and Wokha districts. Besides coal, oil and gas, prospects of glass and clay are fairly good in this lowlying areas. Sandstone suitable for road metalling (44) also occur in abundance. A small exposure of secondary limestone occurs about 3.2 Kms south-east of Tamlu (45). Brines and salt exists in the western portions of the Kohima district. They are located at Jaluki, Peietki, Mbanpungwa in Zeliangroung hills (46). At the brine wells, salt is excavated locally in the indigenou tribal way.

The western part of the state of Nagaland including Wokha district has been surveyed by Assam Oil Company. Subsequently, geological and geophysical surveys have been carried out by Oil and Natural Gas Commission (ONGC). As a result of these surveys it has been revealed that a large thickness of sedimentary rock sequence of Tertiary age is exposed in these areas. The boundary between Nagaland and upper Assam plains are marked by thrust-fault-Naga Thrust. The rocks underlying the Naga Thrust are in general undisturbed. On the basis of these surveys along with

laboratory analysis of rock samples, it was assured that this part of Nagaland holds good hydrocarbon prospects, particularly within the lower Tertiary sequence.

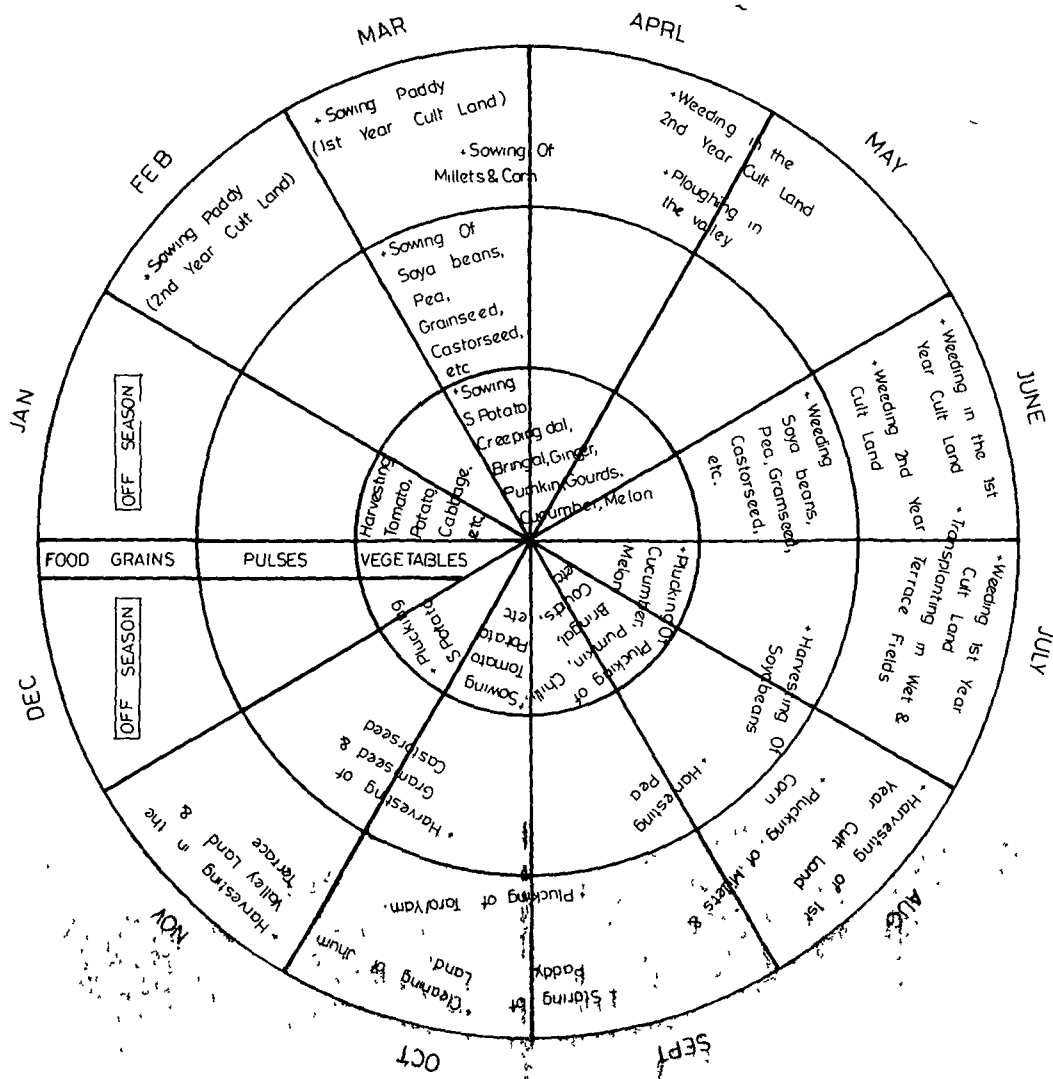
## 2.87 CROPPING SEASON

In the jhum fields, crops of various kinds are grown besides paddy. In many cases, other crops are sown even before and after sowing paddy. Taro or Kochu (47) (Colocasia, a plant of arum family) is widely cultivated for its edible root stock, Millet (job's tears) and Maize are cultivated along with paddy young shoots and the leaves also serve many kinds of curry. and seldom separately. Potato, sweet potato, pulses, creeping dal, soyabeans (locally known as Naga dal), french beans, cotton, ginger, chilli, pumpkin, cucumber, melon, lentil, oilseeds, gourds- including bitter gourds, lady fingers, etc., are all grown mixed with paddy (48) or sometimes on the outskirts of the fields (fig.2.8).

In the second year cultivation land, paddy is sown in January-February and the plant sprouts in April weeded in May and June and harvested in July where the yield is lower than in the first year cultivation land. In the first year cultivation land, paddy, the principal cereal crop, is sown in March. The plant sprouts in April and May followed in June and July by weeding and harvested in the months of August-September. Generally, the sowing season for wetland and terrace field is April-May, sprout

# CROP CALENDAR

(LOW ALTITUDE ECOLOGICAL ZONE)



in June and transplanted in June-July. The grain ripens towards October. The harvest occurs usually in November to first week of December.

Millet and Maize are sown in March-April and are plucked by July-August. They are cultivated along with paddy. Potato has two seasons, the winter potato sown in October is ready for harvest by January or February (49). Sweet potato takes quite a long time and the harvest is not done before December. Taro/Yam sown around March is plucked in September-October. Lentils sown in March-April is usually plucked in October-November. Pumpkin is plucked in August-September. Mustard is grown in winter months. Cucumber and Melons are plucked by July and August. Cabbage and Cauliflower are taken out in December-January. Oilseeds are sown in March and ripe by October. Crops like Maize, Millet and Yam/taro are supplementary food crops. Besides, these are used as fodder for pigs and poultry too. In wetland and terrace field no other crops other than paddy is grown. Some people use the land for growing vegetables like cauliflower, cabbages and mustard leaves after harvesting.

Each village is self-sufficient in respect of cereal crops and they do not grow much for sale. However, pan leaves, squash, beans, chilli, potato, orange etc., forms the principal cash crops. Cash crops like pear, grape, lichi, plantains, mustard leaves are grown in the kitchen garden. Varieties of lemons and oranges are also grown. Opium poppy is also cultivated by some

people. Vine leaves is the most important crop grown well in low altitude zone. They supply pan leaves to Assam.

## 2.9 CONCLUDING STATEMENT

The ecology of the study area and the socio-economic organization of the people living here makes an interesting case for study of the work patterns in the state. The economic responses of different Naga tribes exhibit significant economic differences on account of various ecological factors of the terrain. The nature of topography and other agro-climatic condition are not suited for intensive agriculture. However, the tribes here have responded to the difficult environment by adjusting to it through shifting cultivation in the slopes or terrace and settled cultivation wherever the topography permits it. Naturally agriculture is only oriented towards subsistence food production. However, the agrarian produces is inadequate to meet the full demands of the population and the tribes have traditionally depended on other natural resources to meet their requirements. Abundance of forest resources has been an important source of livelihood and work for most people. The state is experiencing unprecedented growth in population. This factor provides challenges to the region's resources and sustainability.

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1. B.B. Ghosh (1982) History of Nagaland, S.Chand Company, New Delhi, p. 248.
2. Prakash Singh (1972), Nagaland, National Book Trust, New Delhi, p. 171.
3. T.S. Yaden (1992) Work and Employment in a traditional Society : An Ecological approach to the study of an Ao village. Unpublished M.Phil. dissertation, NEHU, Shillong.
4. Directorate of Agriculture (1975) Soil Survey Report, Soil Survey Wing, Kohima, Nagaland, pp.1-2.
5. Government of Nagaland (1986-87) Forest Department, Annual Administrative Report, p.1.
6. Temperature Chart of this high altitude zone has never been made and is not available, so taken recourse to analogy. The highest altitude points are found in Kohima, Tuensang and Phek.
7. In the Statistical Handbook of Nagaland, 1974, the rainfall for most of the highest points has been shown as 2028.3 mm, and so on, but we have arbitrarily accepted 2000 mm for this zone. In fact, it is expected to be more.
8. In the same Statistical Handbook of Nagaland, 1974, the number of rainy days for Kohima has been shown as 180 and I have used the same figure for this zone. It may be more.
9. B.B.Ghosh (1981), Tuensang District Gazetteer, p.11.
10. As per analogy of Kohima.
11. B.B.Ghosh (1981), op. cit., p.12.
12. B.B.Ghosh (1981), op. cit., p.9.
13. Forest in Nagaland, a leaflet. A thorough Botanical survey on a more scientific basis has not been completed.
14. H.Bareh (1970) Kohima District Gazetteer, p.6.
15. A few hunters earn their livelihood by hunting. Deer's meat is highly valued in the local markets.
16. B.B.Ghosh 1981, op. cit., pp.5-6.

17. H.Bareh (1970), op.cit., p.8.
18. T.S.Yaden (1992), op.cit., p.10-12.
19. H.Bareh (1970), op.cit., p.102.
20. Ibid.
21. Bareh, op.cit, p.104.
22. B.B.Ghosh (1979), Mokokchung District Gezetteer, p.90.
23. Bareh op.cit., p.103.
24. Bareh op.cit.
25. Pfutsero area in Phek district; western part of Tuensang district and Zunheboto district are almost at the same altitude and have got similar climatic characteristics. Since no data for middle altitude zone is available, the data for Pfutsero, as supplied by the Directorate of Agriculture, Directorate of Economics and Statistics has been used here.
26. I have arbitrarily accepted 200 cm. as the average.
27. Statistical Handbook of Nagaland, 1984, Directorate of Economics and Statistics, Govt. of Nagaland.
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33. B.B.Ghosh (1979), Zunheboto District Gezetteer, p.65.
34. B.B.Ghosh (1981), Tuensang District Gazetteer, p.77.
35. Ibid.
36. 'Lao' - Local name of water gourd.
37. B.B.Ghosh (1979), Mokokchung District Gezetteer, p.16.
38. B.B.Ghosh (1979), Wokha District Gezetteer, p.14.
39. Ibid.

40. H.Bareh (1970) Kohima District Gazetteer, p.8.
41. B.B.Ghosh (1979), Mokokchung District Gezetteer, p.16.
42. B.B.Ghosh (1979), Mokokchung District Gezetteer, p.17.
43. B.B.Ghosh (1979), Mokokchung District Gezetteer, p.8.
44. B.B.Ghosh (1979), Wokha District Gezetteer, p.7.
45. H.Bareh (1970) Kohima District Gazetteer, p.8.
46. 'Kochu' - local name of Taro/Yam.
47. F.Haimendorf (1933), The Naked Nagas, p.84.
49. B.B.Ghosh (1979), Mokokchung District Gezetteer, p.90.

CHAPTER - III

WORK CYCLE : A CASE STUDY OF SIX VILLAGES

### 3.1 INTRODUCTORY STATEMENT

Before analysing the patterns of work participation by different sections of population in the sample villages, it may be worthwhile to briefly describe a highly generalised cycle of work as a response to the ecology and in conformity with the cultural traditions.

It is needless to emphasise that agriculture constitutes the most important activity for the rural people. However, the topographical and agro-climatic conditions have forced the rural people to evolve different types of agriculture depending upon the local variation in topography, soil conditions etc. Works associated with different types of agriculture absorb the people throughout the year with varying intensity.

All Naga tribes depend directly on land and forest for their livelihood. The social structure of different Naga tribes may be analogous in certain respects, but they exhibit significant economic differences on account of various ecological factors.

### 3.2 HIGH ALTITUDE ECOLOGICAL ZONE

The work in the jhum lands begin in the month of January and in the two sample villages with the felling of trees, being kept for about a month, allowing them to dry. This period coincides with the harvesting of rice in the terrace fields.

Relatively January to mid February is free from agricultural work except felling of trees for the first year jhum land. During this time, men engage in collection activity, hunting, fishing and artisan works, while women pay greater attention to weaving, apart from collection of firewood from the forests. Puanglem festival is celebrated at this time of the year by killing mithun, pigs, buffalos, and cows. This is associated with dancing and singing and merry making.

Work in jhum lands where a second crop is grown after the first year harvest, begins in February with sowing. This is immediately followed by burning in first year jhum land and preparation of the soil in these fields. If the first year jhum land is devoted to vegetable production, the work begins immediately, particularly by men, while men engage themselves in making huts in the fields and clearing the approach road through collective co-operative effort by all the villagers.

By the middle of March, the major agricultural operation involves sowing in the first year jhum land. Nearly all households engage themselves in construction of their houses, changing the thatches in this period in view of the onset of monsoons. These works are performed by the co-operation of the family members and relatives. A number of such works involving community participation, such as repairing roads, bridges, construction of panchayat halls etc. This is followed by celebrations of Kundanglem festival.

From May onwards, the demands for labour in agricultural operations continue to rise with weeding of second year jhum land and seedling preparation in the terrace land. By early June the crops in the first year jhum land too need a round of weeding. Intensive weeding in the jhum land is done during May, till late July. This is followed by transplantation of paddy in the terrace land. The intensity of agricultural work reaches its peak in this period.

The harvest season starts towards the beginning of August and continues till December as paddy crops grown in different types of land ripens at different times. The paddy grown in the second year jhum land is harvested in August to coincide with the Jeinyulem and Munglem festivals.

Table 3.1  
TUENSANG VILLAGE : YEARLY CYCLE (Men)

#### January

- Felling of trees in jhum land for first year cultivation.
- Collection of firewood and raw materials meant for artisan production (1).
- Hunting and fishing.
- Celebration of Puanglem festival by killing Mithun, pigs, buffalos and cows. This is associated by dancing and singing folk songs.

#### February - mid March

- Sowing in the second year jhum land.
- Artisan works.

-Burning (2) of forests in first year jhum land and making huts in these fields.

-Preparation of the soil and clearing of the fields.

#### Mid March - late April

-Clearing of approach road to the field by collective co-operative cultivators.

-Sowing in the first year jhum land.

-Cultivators are so busy repairing of their houses, construction of village road, panchayat hall. This are performed by the village society in unity (3).

-Celebratin of Kundanglem festival.

#### May -mid June

-Weeding in second year jhum land.

-Weeding in first year jhum land.

-Seedling preparation for terrace fields.

#### Mid June - late July

-Weeding in first and second year jhum lands.

-Transplanting in the terraced fields.

-Nakyulem festival. This festival is celebrated by killing animals such as mithun, buffalos, cows and pigs.

#### August - late September

-Harvesting in second year jhum land (maize, rice, millets etc.).

-Celebration of Jeinyulem festival.

-Collection, hunting and fishing.

-Celebration of Munglem festival.

#### Early October - mid October

-Repairing of houses at the village mainly by villagers collective efforts.

-Artisan works.

-Clearing of approach road to first year jhum land.

**Mid October - mid November**

- Harvesting in the first year jhum land.
- Collection of bamboo shoots.
- Gathering, hunting and fishing.
- Clearing of approach road to the village from different directions through collective participation.
- Wage earning and petty trade in and around Tuensang town(4).

**Mid November - December**

- Selection of jhum land for the next year cultivation.
- Hunting, fishing and gathering.
- Harvesting in the terrace land.
- Artisan activities in full swing.

Table 3.2  
TUENSANG VILLAGE : YEARLY CYCLE (Women)

**January**

- Participation in the felling of trees in jhum land for first year cultivation.
- Clearing of jhum land for the second year cultivation.
- Collection of firewood.
- Celebration of Puanglem festivals. Dancing and singing of folk songs along with men.
- Artisan works (5).

**February - mid March**

- Sowing in the second year jhum land.
- Helping men in making huts after the burning of the forests.
- Preparation of the soil and clearing of the fields.

**Mid March - late April**

- Sowing in the first year jhum land.

-Helping men during the repairing of the houses in the village.

-Celebration of Kundanglem festival.

**May - mid June**

-Weeding in second year jhum land.

-Weeding in the first year jhum land.

**Mid June - late July**

-Weeding in the first and second year jhum lands.

-Transplanting in the terrace fields.

-Nakyulem festival.

**August - late September**

-Harvesting in second year jhum land (maize, rice and millets).

-Celebration of Jeinyulem festival.

-Artisan works.

-Celebration of Munglem festival.

**Early October - mid October**

-Participation in repairing of houses in the village.

-Artisan works.

**Mid October - mid November**

-Harvesting in first year jhum land.

-Transportation and storing of rice, maize and millets.

-Gathering and collection of firewood.

-Do petty trade in Tuensang town.

**Mid November - December**

-Artisan activity.

-Gathering continued.

-Harvesting in the terrace lands.

Table 3.3  
KHUDEI : YEARLY CYCLE (Men)

**January**

- Felling of trees for the first year cultivation.
- Collection of firewood and raw materials for artisan production(6).
- Celebration of Puanglem festival by killing of mithun, buffalos, cows and pigs which is associated by dancing and singing folk songs.
- Hunting and fishing.

**February -mid March(7)**

- Sowing in the second year jhum land.
- Artisan works.
- Burning of forests in first year jhum land.
- Making huts in the individual fields.
- Clearing of the fields and preparation of soil.

**Mid March - late April**

- Clearing of approach road to the field by collective villagers as social work.
- Sowing in the first year jhum land.
- All the villagers are engaged in repairing of their houses, construction of village road, panchayat hall before the onset of the rainy season which is performed by the village community(8).
- Kundanglem festival is celebrated at this time of the year.

**May - mid June**

- Weeding in the second year jhum land followed by the same in the first year jhum land.
- Seedling preparation for terrace fields.

**Mid June - late July**

- Weeding in the first and second year jhum lands (reciprocity of labour).

-Transplanting in the terrace fields.

-Celebration of Nakyulem festival by killing mithun, buffalos, cows and pigs.

#### August - late September

-Harvesting of rice, maize and millets in the second year jhum land.

-Celebration of Jeinyulem festival.

-Collection of fuelwood, gathering, hunting and fishing.

-Celebration of Munglem festival.

#### Early October - mid October

-Repairing of houses in the village.

-Collection, hunting and fishing.

-Artisan activities.

#### Mid October - mid November

-Clearing of approach road to first year jhum land.

-Harvesting in first year jhum land (maize, rice and millets).

-Clearing of village and its surroundings by collective participation.

-Artisan works.

-Hunting and fishing.

#### Mid November -December

-Gathering, hunting and fishing.

-Harvesting in the terrace field.

-Selection of first year jhum land for the next year cultivation.

-Artisan activities.

Table 4.4  
KHUDEI : YEARLY CYCLE (Women)

**January**

- Participation in the felling of trees in jhum land for first year cultivation.
- Collection of firewood.
- Cleaning of jhum land for the second year cultivation.
- Puanglem festival, dancing and singing of folk songs accompanying men.
- Artisan activity(9).

**February - mid March**

- Sowing in the second year jhum land.
- Collection of fuelwood.
- Helping men in making huts after the forest have been burned down for first year cultivation.
- Preparation of the soil and clearing of fields.
- Artisan works.

**Mid March - late April**

- Sowing in the first year jhum land.
- Taking part in helping men in repairing of the houses in the village.
- Celebration of Kundanglem festival.

**May - mid June**

- Weeding in the second year jhum land followed by the same in the first year jhum land.

**Mid June - late July**

- Weeding in the first and second year jhum lands(10).
- Transplanting in the terraced fields.
- Celebration of Nakyulem festival.

**August - late September**

- Harvesting of rice and maize in the second year jhum land.
- Celebration of Jeinyulem festival.
- Artisan works.
- Munglem festival.

**Early October - mid October**

- Participation in repairing of houses.
- Collection of firewood.
- Artisan works.

**Mid October - mid November**

- Harvesting in the first year jhum land (maize, rice and millets).
- Collection of firewood and gathering.
- Artisan activity.

**Mid November - December**

- Collection of fuelwood and gathering.
- Harvesting in the terrace lands.
- Artisan works.

The paddy grown in the first year jhum land is ready to be harvested by mid October - mid November. The approach road to the jhum land are cleared by men before harvesting actually begins.

By mid-November onwards, demands of work in agriculture falls sharply to allow the community to engage themselves in gathering, hunting and fishing, collection of bamboo shoots etc. In the case of Tuensang villagers, they engage in some amount of wage earning and also in petty trade in and around Tuensang town

by this time. Contrastingly, Khudi villagers, located away from the town, concentrate more on hunting and fishing and gathering activities.

When the harvesting operation in the valley land begins (mid November-December), the working members find enough time to engage themselves in a variety of non-agricultural and supplementary works such as: collection of different forest produce, cleaning of the vilage road, selection of the next year jhum land, hunting, fishing and occasional wage earning activity. Tuensang village is more familiar to occasional wage earning activity. Women members in both the villages, give greater attention to artisan activity, collection of vegetables and fuelwood. Tuensang village is closely accessible to the town, therefore they perform trade, petty activities by selling vegetables and artisan products in the open market (Tuensang town).

If we analyse the regional variation in cropping season, the harvest season in the jhum land in villages located in high altitude ecological zone is delayed by about one month in the second year jhum land. It is rather delayed by about three months in case the first jhum land. The same is applicable to the terrace fields,

It is only about two decades, that the rice has been introduced in this area. Prior to that they cultivated only

milletts, maize and colar (beans). This may perhaps be due to- (i) remoteness of the villages from the main communication centres, (ii) extreme and cold climatic conditions and, (iii) infertility or unsuitability of the soil for rice cultivation.

Quite recently, two varieties of rice had been brought from Meghalaya and introduced in this zone including Tuensang and Khudei villages. However, the cultivators themselves are not accustomed to rice cultivation. However, they still depend on rice supplied through Government fair price shops as well as grain merchants in urban centres. In exchange, these two villages trade in kolar, maize and millets. For instance, the present rate of kolar per Tin (11) is Rs. 140/- in Khudei village and Rs. 160/- in Tuensang village.

One interesting feature of Khudei village is that almost the whole villagers are expert in hunting. They use guns to kill game available in the jungle and depend on it for their meat. Apart from hunting other animals, they make traps even for small animals including birds and wild rats. No doubt, the village economy is very poor but they are confident and are far more dependent on their immediate natural environment.

### 3.3 MIDDLE ALTITUDE ECOLOGICAL ZONE

In these villages, work in jhum areas begin with the felling of trees allowing them to dry. This is done in the month of

December-January. This period coincides with the harvesting of rice in the wet land and terrace field.

Generally, December and January is slightly free from agricultural work. Men engaged in collection activity, hunting, fishing and gathering, while women pay greater attention to weaving and knitting apart from collection of firewood.

In the second year jhum land crop is sown in the month of February to mid-March. This is immediately followed by burning in the first year jhum land. Women are busy sowing seeds and planting vegetables, while men engage themselves in making huts in the fields and clearing the approach road through collective efforts.

The major agricultural operation involves sowing in the first year jhum land which begins by middle of March to late April. In both the surveyed villages, it was found that nearly all the households are engaged in construction of their houses before the onset of monsoon. A number of work involving community participation are performed in this period which is relatively free from the viewpoint of agricultural preoccupations.

The demands of labour in agricultural operations continue to rise from May with ploughing in the valley and terrace land and weeding of the second and first year jhum land. This is followed by transplanting in the terrace and wet paddies.

By mid June-late July, another round of weeding is required in the first and second year jhum land. At this point of time Tuluni festival (8th July) is celebrated.

The harvesting season begins towards the beginning of August. The paddy grown in second year jhum land is harvested in the beginning of August to coincide with the Ahuna-qhi festival. The paddy grown in the first year jhum land is ready to be harvested by early September along with the maize, millets and soyabean. The season for sowing and harvesting is similar in both the villages.

Interestingly, Doyang river provides an opportunity to cultivate wetland to Baimho village. Majority of the households are familiar and opted for this method of cultivation rather than jhumming. The downstream valley is more than enough for this small village. Ploughing is done by cattle. Harvesting takes place by late October. This may be due to seasonality of cropping pattern and availability of water during for the proper growth of paddy.

Table 3.5  
BAIMHO: YEARLY CYCLE (Men)

**December-January**

- Felling of trees in the jhum land meant for first year cultivation.
- Collection of firewood and raw materials for artisan production(12).
- Clearing of village surroundings.
- Christmas and new-year celebrations.
- Fishing and hunting.
- Bee keeping(13).

**February-Mid March**

- Artisan works.
- Sowing in the second year jhum land.
- Burning of forest in first year jhum land, making huts in these fields.
- Clearing of the fields and preparation of the soil.

**Mid March-late April**

- Sowing in the first year jhum land.
- Repairing of individual houses, construction and clearing of village roads, panchyat halls by the villagers as collective co-operative work(14).

**May-mid June**

- Ploughing and seedling preparation for wetland.
- Weeding in the second and first year jhum lands.
- Transplanting in wetland.

**Mid June-late July**

- Weeding in the second and first year jhum lands (last round).
- Celebration of Tuluni festival (8th July).

**August-early September**

-Harvesting in the second year jhum land (Soyabeans, Maize, Rice, Millets etc.)

-Ahuna-qhi festival.

Early September-late September

-Harvesting in the first year jhum land.

-Transporting and storing of maize, soyabeans, millets and rice.

Early October-late October

-Repairing of houses at the village.

-Artisan works.

-Harvesting in the wetland.

-Transportation of harvested rice from the wetland to the village.

-Fishing, hunting and gathering.

Late October-November

-Selection of jhum land for the next year cultivation.

-Fishing and gathering.

-Artisan works.

-Wage earning(15).

Table 3.6  
BAIMHO : YEARLY CYCLE (Women)

December - January

-Participate in felling of trees in jhum land for first year cultivation.

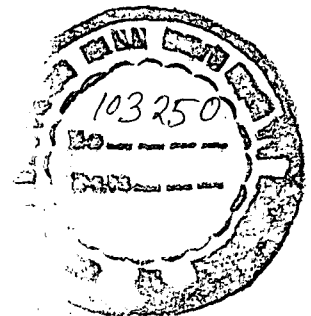
-Collection of firewood.

-Artisan works(16).

-Christmas and New year.

February - mid March

-Sowing in the second year jhum land.



-Artisan activity.

-Clearing of the fields and preparation of the soil.

Mid March - late April

-Sowing in the first year jhum land.

-Collection of fuelwood.

May - mid June

-Weeding in the second and first year jhum lands.

-Transplanting in wet lands.

Mid June- late July

-Weeding in the second and first year jhum lands.

-Celebration of Tuluni festival (8<sup>th</sup> July ).

August - early September

-Harvesting in the second year jhum land (maize, soyabeans(17), rice, millets, yam etc.).

-Ahuna-qhi festival.

Early September - late September

-Harvesting in the first year jhum land.

-Transportation and storing of maize, rice, soyabeans, millets etc.

Early October - late October

-Participate in repairing of houses in the village.

-Artisan works.

-Harvesting in wet land.

-Transportation and storing of harvested rice from the wet land to the household.

-Collection of firewood.

Late October - November

-Artisan works.

-Gathering and collection of firewood.

Table 3.7  
NAGHUTOMI : YEARLY CYCLE (Men)

December - January

- Felling of trees in jhum land for first year cultivation.
- Collection of firewood and raw materials meant for artisan production.
- Preparation and collection for Christmas and New Year.
- Hunting and fishing.
- Artisan works(18).
- Social work(19).

February - mid March

- Sowing in the second year jhum land.
- Artisan activity.
- Burninig(20) of forests in first year jhum land followed by making huts in the fields.
- Clearing of the fields and preparation of the soil.

Mid March - late April

- Sowing in the first year jhum land.
- Repairing of individual houses, clearing of approach road to the village, construction of panchayat hall by collective co-operative villagers.

May - mid June

- Weeding in the second and first year jhum lands.
- Seedling preparation for terrace fields.

Mid June - late July

- Weeding in the second year jhum land followed by weeding in the first year jhum land.
- Celebration of Tuluni festival (8<sup>th</sup> July).

August - early September

- Harvesting in second year jhum land.

-Ahuna-qhi festival.

**Early September - late September**

-Harvesting in first year jhum land.

-Transportation and storing of rice, maize, millets, soyabeans etc.

-Post harvest festivals.

**Early October - late October**

-Repairing of houses at the village.

-Artisan works.

-Hunting, fishing and gathering.

**Late October - November**

-Se~~l~~ection of jhum land for the next year cultivation.

-Harvesting in the terrace fields.

-Hunting, fishing and collection.

-Artisan works continued.

-Clearing of village surroundings by villagers as social work.

Table 3.8  
NAGHUTOMI : YEARLY CYCLE (Women)

**December - January**

-Participate in felling of trees in jhum land for first year cultivation.

-Collection of firewood.

-Artisan works(21).

-Preparation and celebration of Christmas and New Year.

**February - mid March**

-Sowing in the second year jhum land.

-Artisan works.

-Clearing of fields and preparation of soil.

**Mid April - late April**

-Sowing in the first year jhum land.

-Gathering and collection of firewood.

**May - mid June**

-Weeding in the second and first year jhum lands.

**Mid June - late July**

-Weeding in second year jhum land followed by the same in the first year jhum land.

-Celebration of Tuluni festival.

**August - early September**

-Harvesting in the second year jhum land.

-Ahuna-qhi festival.

**Early September - late September**

-Harvesting in the first year jhum land.

-Transportation and storing of rice, maize, millets and soyabeans(22).

**Early October - late October**

-Artisan works.

-Participation in repairing of houses in the villages.

-Collection of firewood.

**Late October - November**

-Harvesting in the terrace fields.

-Collection of fuelwood.

-Artisan activities.

The yield is double and only few households get the yield of less than 100 tins of rice. In Baimho festival jhum land is devoted only for the cultivation of maize, millets, soyabeans, yam and vegetables. However, in case of Naghutomi, the harvesting operation in the terrace land begins by late October to late November.

By late November the working members find enough time to engage themselves in a variety of supplementary works such as hunting, fishing, collection, cleaning of village surroundings, selection of next year jhum lands etc. In both Baimho and Naghutomi villages, women members give greater attention to artisan activity, collection of fuelwood and vegetables etc. By this time, men go for occasional wage earning activity. Many a times, they even go to far distant places. This is true in case of Naghutomi villagers. However, for people from Baimho, Zunheboto town is accessible and thus, they engage in wage work in the town. Besides, quite a good number, (about 35 per cent) of the Baimho population is somehow or the other employed in Zunheboto town. There are altogether 31 persons employed in government services. Most of them are employed in D.C. office, schools, P.W.D and P.H.E departments, police department, cultural office, college and the rest are temporarily employed under fixed pay under different government departments. Most of these employees go to the office in the morning and return to the village by evening.

The villeges in this zone being cold and windy, practically nothing grows during winter except for a few winter crops. It may be noted that villeges in this zone including Naghutomi is agriculturally undeveloped and so vegetables are rarely grown. Almost all other crops are grown during the warm season of March to October. However, Baimho village is an exception to this because of wetland cultivation. The crops grown in this zone are mainly food crops such as rice, millets, maize, yam, soyabean and vegetables. There is not much cash crops as found in the low and high altitude ecological zones. Furthermore, even the quality of the rice from this zone is very poor grade and productivity is low as when compared to other villages in the state.

#### 3.4 LOW ALTITUDE ECOLOGICAL ZONE

The work in the jhum areas begin in the month of December with the felling of trees and allowing them to dry. This period coincides with the harvesting of rice in the terrace and valley land.

January is relatively free from agricultural work during which men engage in collection activity, hunting, fishing and gathering while women pay greater attention to weaving and knitting apart from collection of firewood from the forest.

Lumbering is emerging as a major wage earning activity after the establishment of the saw mills, plywood factory and paper

mill at Tuli. However, only males engage themselves in this wage earning activity of lumbering during November to February which is usually devoid of any agricultural work. Trees are being indiscriminately cut down and supply logs to the nearby saw mill and plywood factory. This is prevalent and true in case of Merangkong village.

Work in the jhum land where a second crop is grown after the first year harvest, begins in February with the preparation of the soil and sowing. This is immediately followed by burning in the first year jhum land, clearing and preparation of the soil in these fields. The work begins immediately by women, particularly by sowing seeds and planting vegetables, while men engage themselves in making huts in the fields and clearing the approach road through collective efforts of all villagers.

By the middle of March till mid April, the major agricultural operation involves sowing in the first year jhum land. Nearly all households engage themselves in construction of their houses, changing the thatches in this period in view of the onset of moonsons.

Table 3.9  
MERANGKONG : YEARLY CYCLE (men)

**December**

- Felling of trees in jhum land meant for first year cultivation.
- Collection of firewood and raw materials for artisan production.
- Wage earning in forestry(23).

**January**

- Collection of firewood and other forest products.
- Forest-based wage earning, hunting and fishing.

**Early February - mid February**

- Sowing in the second year jhum land.
- Forest-based wage earning.
- Artisan works.

**Mid February - mid March**

- Burning(24) of forests in first year jhum land and making huts.
- Preparation of the soil and clearing of fields.
- Clearing of approach road to the field by collective cultivators.

**Mid March - mid April**

- Sowing in the first year jhum land.
- Construction and repairing of houses in the village by individual as well as collective constructive workers(25).

**Mid April - May**

- Celebration of Moatsu festival.
- Weeding in second year jhum land (first round).
- Ploughing in the valley land.

**Early June - mid June**

- Weeding in first year jhum land (first round).

-Seedling preparation for wet land.

Mid June - mid July

-Weeding in second and first year jhum lands (second round).

-Transplanting in wet land and terrace fields.

Mid July - mid August

-Tsungrem-mong festival (within 1st to 6th of August).

-Harvesting in second year jhum land.

-Weeding in the valley land.

Mid August - early September

-Clearing of approach road to the first year jhum land.

-Repairing of huts in the fields.

-Harvesting in the first year jhum land.

Early September -late September

-Collection of rice by village administration/authority followed by post harvest festivals.

-Transportation and storing of rice.

Early October -mid October

-Repairing paddy store (barn).

-Repairing of houses by individual and collective efforts.

Mid October - mid November

-Collection of bamboo shoots for domestic use.

-Clearing of jhum land.

-Clearing of approach road to the village by collective participation (Tsuma lenbi).

Mid November - late November

-Se/lection of first year jhum land.

-Hunting and fishing.

-Harvesting in the valley lands (terrace and wet lands).

Table 3.10  
MERANGKONG : YEARLY CYCLE (women)

December

- Participation in felling of trees in jhum land for first year cultivation.
- Preparation and collection for Christmas and New Year.
- Marketing in the weekly market (Tuli (26)).

January

- Artisan activity and marketing(27).

Early February - mid February

- Sowing in the second year jhum land.
- Artisan activity and collection of firewood.

Mid February - mid March

- Sowing of seeds, planting of vegetables in the first year jhum land.
- Preparation of soil and clearing the field for sowing and first year cultivation.

Mid March - mid April

- Sowing paddy in the first year jhum land.
- Marketing.

Mid April -late May

- Celebration of Moatsu festival.
- Weeding in the second year jhum land (first round).

Early June - mid July

- Weeding in the first year jhum land (first and second round) and second year jhum land (second round).
- Transplanting in wet land and terrace fields.
- Marketing.

**Mid July - mid August**

-Tsungrem-mong festival.

-Harvesting in the second year jhum land.

**Mid August - early September**

-Harvesting in the first year jhum land.

-Marketing.

**Early September - late September**

-Transportation and Storing of harvested rice.

**Early October - mid October**

-Collection of vegetables and fuelwood.

-Helping men in construction and repairing of houses.

**Mid October - mid November**

-Clearing of jhum land.

-A time for the collection of bamboo shoots.

-Marketing.

**Mid November -late November**

-Clearing of first year jhum land for the second year cultivation.

-Gathering, collection of fruits and forest products.

-Harvesting in the valley land (terrace and wet lands).

Table 3.11  
ASANGMA : YEARLY CYCLE (men)

**December**

- Felling of trees in the jhum land for first year cultivation(28).
- Wage earning in forestry.
- Collection of firewood and raw materials for artisan production.
- Hunting and fishing(29).

**January**

- Collection of firewood and other forest products.
- Forest based wage earning, hunting and fishing.

**Early February - mid February**

- Sowing in the second year jhum land.
- Forest based wage earning.
- Artisan works.

**Mid February -mid March**

- Burning of first year jhum land.
- Making huts in these fields.
- Clearing of fields and preparation of the soil.

**Mid March - late April**

- Clearing of approach road to the field by collective villagers.
- Sowing in the first year jhum land.
- Repairing and construction of new houses in the village by individual and collective workers(30).

**Late April - May**

- Preparation and celebration of Moatsu festival.
- Weeding in the second year jhum land (first round).

**Early June - mid June**

- Ploughing in the valley land.

-Weeding in first year jhum land (first round).

-Seedling preparation for wet land and terrace fields.

#### Mid June - mid July

-Weeding in the first and second year jhum lands (second round; reciprocity of labour).

-Transplanting in wet land and terrace fields.

#### Mid July - mid August

-Harvesting in second year jhum land.

-Tsungrem-mong festival (1st to 6th August).

#### Mid August - early September

-Clearing of approach road to the first year jhum land just before the harvest.

-Repairing of huts in the fields.

-Harvesting in the first year jhum land.

#### Early September -late September

-Collection of rice on compulsory basis by village authority.

-Post harvest festivals.

-Transportation and storing of rice.

#### Early October - mid October

-Repairing of barns (paddy stores).

-Repairing of houses at the village by individual, neighbours, relatives and villagers collective efforts.

#### Mid October - mid November

-Collection of bamboo shoots.

-Clearing of jhum land and collection of yam.

-Villagers social work.

#### Mid November - late November

-Selection of first year jhum land.

- Hunting and fishing.
- Harvesting in the valley land.

Table 3.12  
ASANGMA : YEARLY CYCLE (women)

**December**

- Participation in felling of trees in the jhum land for first year cultivation.
- Collection of firewood.
- Preparation and celebration of Christmas.

**January**

- Artisan activity and marketing(31).

**Early February - mid February**

- Sowing in the second year jhum land.
- Collection of firewood and artisan activity.

**Mid February - mid March**

- Sowing seeds, planting vegetables in the first year jhum land.
- Clearing the field and preparation of the soil for sowing (first year cultivation).

**Mid March - late April**

- Sowing paddy in the first year jhum land.
- Helping male in construction and repairing of houses.

**Mid April - May**

- Preparation and celebration of Moatsu festival.
- Weeding in second year jhum land (first round).

**Early June - mid July**

- Weeding in the first year jhum land (first round).
- Weeding in the second year jhum land (second round).
- Weeding in the first year jhum land (second round).

-Transplanting in wet and terrace fields.

Mid July - mid August

-Harvesting in the second year jhum land.

-Tsungrem-mong festival.

Mid August - Early September

-Harvesting in first year jhum land.

Early September -late September

-Transportation and storing of the harvested rice.

Early October - mid October

-Collection of vegetables mainly yam, etc.

-Collection of fuelwood.

-Helping men in repairing and construction of houses.

Mid October -late November

-Clearing of first year jhum land.

-Harvesting in the valley land.

-Collection of firewood followed by preparation for Christmas and New Year.

These works are performed by the cooperation of the family members and relatives. A number of works involving community participation, such as repairing roads, bridges etc., are also performed in this period which is relatively free from the point of view of agrarian pre-occupations.

From mid-April onwards, demands of labour in agricultural operations continue to rise with the weeding of the second year jhum land and ploughing in the valley and terrace land. By early June the crops in the first year jhum land too need a round of

weeding. Seedbeds and seedlings are also prepared for the valley land during this time.

Approximately a month between mid-June to mid-July requires intensive weeding in the jhum land and transplantation of paddy in the wet land. The intensity of agricultural work reaches its peak in this period.

The harvesting season starts the end of July and continues till December as paddy crops grown in different types of land, which ripen at different times. The paddy grown in the second year jhum land is harvested in the beginning of August to coincide with the major festival locally known as Tsungrem-mong. However crops in the valley land by this time need weeding which is combined with harvesting of the second year jhum land.

As soon as weeding in the valley land is completed, the paddy grown in the first year jhum land is ready to be harvested by mid August or early September. By this time, the huts in the fields do need repair. The approach road to the jhum land are cleared by men before harvesting actually begins.

After the two harvests, demands of work in agriculture falls sharply to allow the community to engage themselves in post harvest festivals. However, minor works such as transporting harvested rice, storing it in the granary is performed by both the sexes.

Until late November and early December when the harvesting operation in valley land begins, the working members find enough time to engage in a variety of non-agricultural and supplementary works such as repairing of their houses and the granary, collection of different forest produce for domestic and non-domestic use, cleaning of the village road, selection of the next year jhum land, hunting and fishing and occasional wage earning activity etc. Women members give greater attention to artisan activity, collection of vegetables and fuelwood etc., in both the villages.

Merangkong is easily accessible to Tuli weekly market. Women members sell vegetables and other artisan products. Villegers of Asangma find difficulties to reach their produce in bulk due to communication problems. It is however revealed that they come to the market on foot and return home after marketing in the afternoon.

### 3.5 CONCLUDING STATEMENT

The work cycle shows a complex pattern of work mostly related to agriculture. The long period of relative agricultural inactivity allows the rural people to undertake a host of non-agricultural works which are extraordinarily labour intensive. But the tribal institutions of community involvement and reciprocity in labour use inhibit the development of a full fledged wage labour market and the extent of the interference of

the market in work processes are restricted to the minimum. The subsistence nature of the production and tribal social organization makes the pattern of work a reflection of the close, interaction between society and ecology.

It is identified that there are significant differences in the work cycle in the three different ecological zones characterised by different agro-climatic conditions. A very significant point that emerges from the study of the work cycle in diverse ecological conditions refers to the nature of community involvement in work. It is clear that in highland areas, characterised by more hostile environment and low agricultural resources, the types of works involving community participation and reciprocity in labour use is much more compared to the areas located in the foothills. Thus, in a traditional tribal society, as that of the Nagas, the types and rhythm of work seem to be fashioned by the dictates of the environmental parameters. Inter-tribal differences in work cycle is far less conspicuous. Secondly, the rhythm of work in villages located close to the urban centres is showing modifications as a result of modernizing influences emanating from the towns. A substantial section of the population is "employed" and this results in a low priority being accorded to community works and reciprocity in labour use. However, the highland areas do not show much of variation in the patterns of work between the villages - either close or far away from the town.

Tribal institutions of lack of gender inequity is amply demonstrated in the work cycles performed by men and women. It is evident that the sexual division of labour exists among Nagas, but the division is based more on complementarity rather than segregation or exploitation. Notably the nature of sexual division of labour shows little variation across ecological regions or among tribal groups.

## References :

1. Artisan activity continues throughout the cycle and both men and women are engaged in it according to their own suitability.
2. The spread of fire is very intense in dry season, in order to protect the village from accidental fire the village administrators distribute duty. All the villagers have to spend few days in a year on rotation basis. This is the duty to protect the village from any kind of danger and ofcourse to receive informations served to the village and to pass it on to other villages.
3. Collective work in the fields include works like weeding, reaping, felling trees in the jhum land etc.
4. Wage based employment is found to be more in this village due to accessibility of the village to Tuensang town.
5. Artisan activity involves work in all seasons throughout the year.
6. Poor highland traditional economy based on hunting, fishing and collection is noticed in this village apart from rudimentary type of cultivation.
7. Village administration keep watchman to look after the entire village. This responsibility is given to all the bonafide village citizens on rotation basis. Their duty is to collect informations for the village and to pass on messages to other villages whenever necessary.
8. The type of labour used is dominated by reciprocity rather than wage earning base.
9. Artisan activity involves work in all seasons throughout the year.
10. Type of labour used is dominated by reciprocity.
11. One Tin of colar is equivalent to 11 to 13 kgs.
12. Artisan activity continues all throughout the year.
13. Unlike other villages of high and low altitude ecological zones, bee-keeping on commercial basis is popularly known to this village. It is confirmed that bee-keeping for commercial as well as domestic consumption is a common feature of trade particularly among the Semas.

14. Collective co-operative work of the villagers is performed at any time of the year.
15. Due to greater proximity of this village to Zunheboto town, social differentiation and wage based employment are found to be more as when compared to Naghutomi.
16. Artisan activity involves in all the seasons throughout the year.
17. Cultivation of soyabean is one of the major items of food crops in this village.
18. Artisan activity involves in all the seasons throughout the year.
19. In January/February, the village well dries up, all the villagers clean the community well, construct village approach road, repair community halls, school buildings etc.
20. Most parts of middle ecological zone is windy including Naghutomi. In January/February the spread of fire is very intense threatening the village to be burnt. All the vilagers spend a few days to control and watch the village so that this sort of problem would be informed in time.
21. Artisan activity involves in all the seasons throughout the year.
22. One kg. of soyabean costs Rs.17 (current rate).
23. Wage based employment is found to be more due to proximity of this village to Tuli town. The pattern of work is also influenced more by urban demands.
24. In dry season the spread of fire is so intense that every villager spends 6/7 days in a year in rotation basis (i.e. 5/6 persons per day). This is to watch the village, to control those who make fire, going house to house informing not to cook in any case during the day time.
25. Collective cooperative work in the field include works like weeding, reaping, felling trees in jhum land etc., which is done in one's feild at any time of the year when one of the family members or anyone at the village expires or suffers for long time.
26. Marketing is emerging as a daily/ weekly activity.
27. Artisan activity continues throughout the year.

28. For jhum cultivation only a particular area is selected by village authority for a specific period of 1-2 years and cultivate it in cycle keeping a gap of about 7/8 years.
29. Restriction of using explosives and poisons in the rivers/streams is framed by the village administration.
30. The type of labour used is dominated by reciprocity.
31. Artisan activity involves in all the seasons throughout the year.

**CHAPTER - IV**

**SPATIAL VARIATION IN THE STRUCTURE OF RURAL WORKFORCE IN NAGALAND**

#### 4.1 INTRODUCTORY STATEMENT

Study of structure of workforce provides valuable insights into the socio-economic changes of any region. This is particularly significant for an area characterised by low agricultural potential and which are dominantly inhabited by tribal population. Structure of workforce in tribal areas are determined by the varied economic responses of the people to available natural resource base and the operation of exogenous influences both of which do not have a uniform coverage over space. While varied ecological conditions offer diverse economic modes to the people inhabiting them, the responses of the people to modern influences gets varied depending upon their location, levels of exposure, levels of literacy and urbanization, provision of modern infrastructure etc. An inevitable outcome of these forces results in internal differentiation of the tribes which in turn, gets reflected in their structure of workforce.

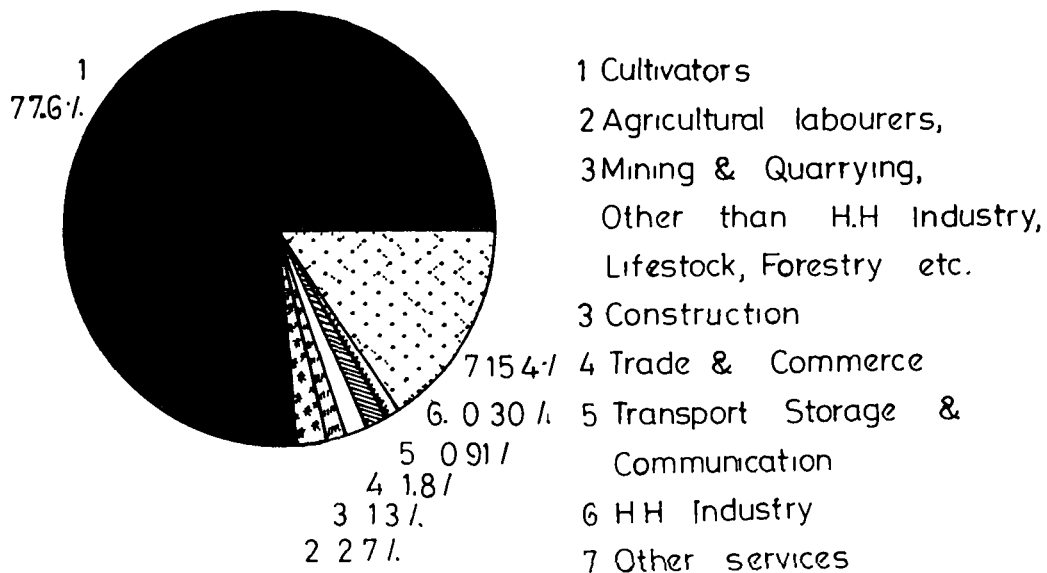
The structure of the workforce is analysed at the aggregative level using Census data for the year 1971 and 1981 (1). An attempt has been made to examine the differences in the male and female workforce. Moreover, the chapter also provides insight into entire tribal differences in the structure of work force using village level data for selected circles, which are in fact exclusively inhabited by a particular Naga tribe. The village level data is used as it is at this level that the true picture emerges which is free from the problem of excessive spatial aggregation.

#### 4.2 DISTRIBUTION OF WORKFORCE : AGGREGATE PICTURE

Despite a poor agrarian base, agricultural activities constitute the main opportunity of work for the people of Nagaland. In 1981 census recorded nearly half (49.9 per cent) of the population as workers. Over 80 per cent of the workers were engaged in agriculture alone (fig. 4.1). The proportion of workers in the total population in the year 1971 was a little higher, i.e., nearly 51 per cent (fig. 4.1, table 4.2). A little less than 80 per cent were returned as agricultural workers. A higher percentage of workers and lower overall participation in agricultural work in 1971 may largely be attributed to changes in the definition of workers in the two successive censuses (2).

According to 1981 census, a slightly higher proportion of male were returned as main workers compared to their female counterpart. Around 52 per cent all men were 'workers' while the corresponding figure for the female was only 47.5 per cent. But female involvement in agricultural activity is far more than that of males. Nearly the entire female workforce (i.e., 96 per cent) is absorbed in agricultural work while the proportion of male workers in such activities is only 68 per cent. At the aggregate level, agriculture seems to be the dominant sector, observing most of the working force. Thus, the most important activity is agriculture in the state which occupies 72.4 per cent of the working force.

# NAGALAND INDUSTRIAL DISTRIBUTION OF WORKERS 1971



# NAGALAND INDUSTRIAL DISTRIBUTION OF WORKERS 1981

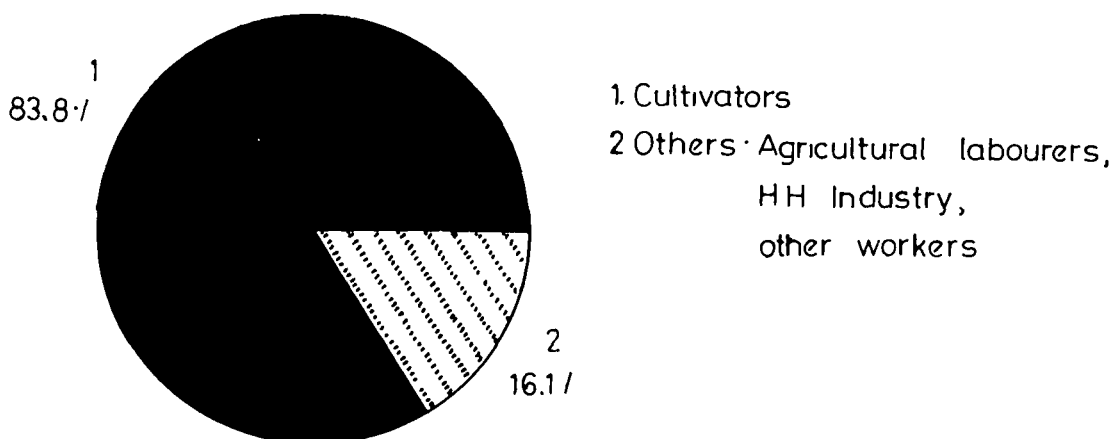


Fig. 4.1

The development of agricultural wage market in this tribal region is not yet developed as evident from the negligible proportion of workers engaged as agricultural labourers (table 4.1 & 4.2).

Table 4.1  
NAGALAND : INDUSTRIAL DISTRIBUTION OF WORKERS - 1981

Categories	Percentage to total workers		
	Population	Male	Female
Percentage of workers to total population	49.9	52.1	47.5
1. Cultivators	80.7	68.0	96.3
2. Agricultural labourers	0.8	1.2	0.3
3. Household industry	0.2	0.2	0.2
4. Other workers	18.3	30.6	3.2
5. Marginal workers	0.6	0.6	0.7
6. Non-workers	43.9	41.4	46.8

Source: Census of India, 1981.

Though the region is well known for cottage industry such as weaving etc., the census data does not reflect it. This is due to categorising workers on the basis of their main work. Since household industries are not perceived as main work by most members, it accounts for a negligible proportion (less than 1 per cent) of both men and women main workers.

Table 4.2  
NAGALAND : INDUSTRIAL DISTRIBUTION OF WORKERS - 1971

Categories	Percentage to total workers		
	Population	Male	Female
Percentage of workers to total population	50.8	55.6	45.2
1. Cultivators	77.6	64.2	96.4
2. Agricultural labourers	1.5	1.6	1.2
3. Livestock, forestry, fishing, hunting etc.	0.4	0.7	0.1
4. Mining and quarrying	-	0.1	-
5. Household industry	0.3	0.5	0.1
6. Other than household industry	0.8	1.4	0.1
7. Construction	1.3	2.1	-
8. Trade and commerce	1.8	3.0	0.1
9. Transport, storage and communication	0.9	1.5	-
10. Other services	15.4	25.0	2.0
11. Non-workers	99.3	44.5	54.8

Source: Census of India, 1971.

A substantial proportion (i.e., 15.6 per cent) of the workforce is engaged in non-agricultural works excluding household industries. The women, however are not absorbed by this sector in large numbers. A little less than a fifth of the male workforce, on the other hand is engaged in non-agricultural activities.

The structure of the workforce is highly non-diversified. This is understandable in a region dominated by the tribal population characterised by subsistence agrarian economy typical of all hill areas. A substantial segment of male workforce, however, seems to have shifted out of agricultural activity,

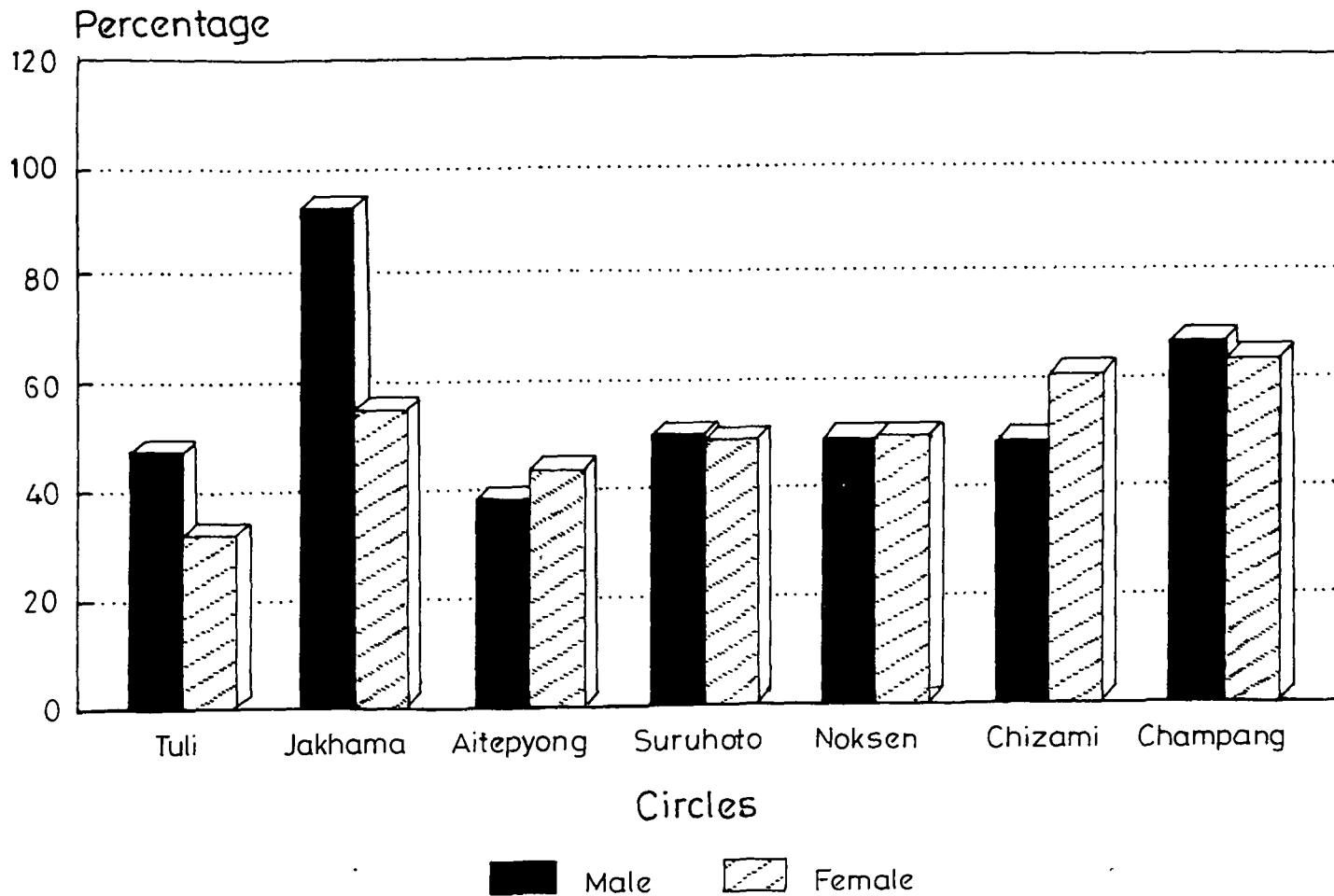
while the women continue to be absorbed by this single occupation.

#### 4.3 DISTRICT LEVEL PATTERNS

It is clear from table 4.3 and fig. 4.2, 4.3 & 4.4 that both male and female participation rate varies greatly across districts. The overall participation rate ranges from 59.7 per cent in Mon to 43.6 per cent in Mokokchung district. The variation in the proportion of workers at a district level bears little relationship which changes in average altitude at which the districts are located. The male participation rate is as high as 62.1 per cent in Mon district. The lowest level of male participation is recorded in Wokha district (i.e., 43.2 per cent).

The female participation rate is lower than that of the males in Mokokchung and Mon districts, located at a lower elevation and Kohima, situated at a higher altitude. But the male-female differential is marginal in Tuensang district. A very small proportion of women are economically active in Phek located at high altitude zone, Zunheboto in the middle altitude zone and Wokha, situated at a much lower level than the other two districts. In all these districts, the proportion of female workers is much higher than that of the males (table 4.3).

# NAGALAND PERCENTAGE OF WORKERS



Others include: Agricultural  
Labourers, H.H. Industries,  
Other Workers.

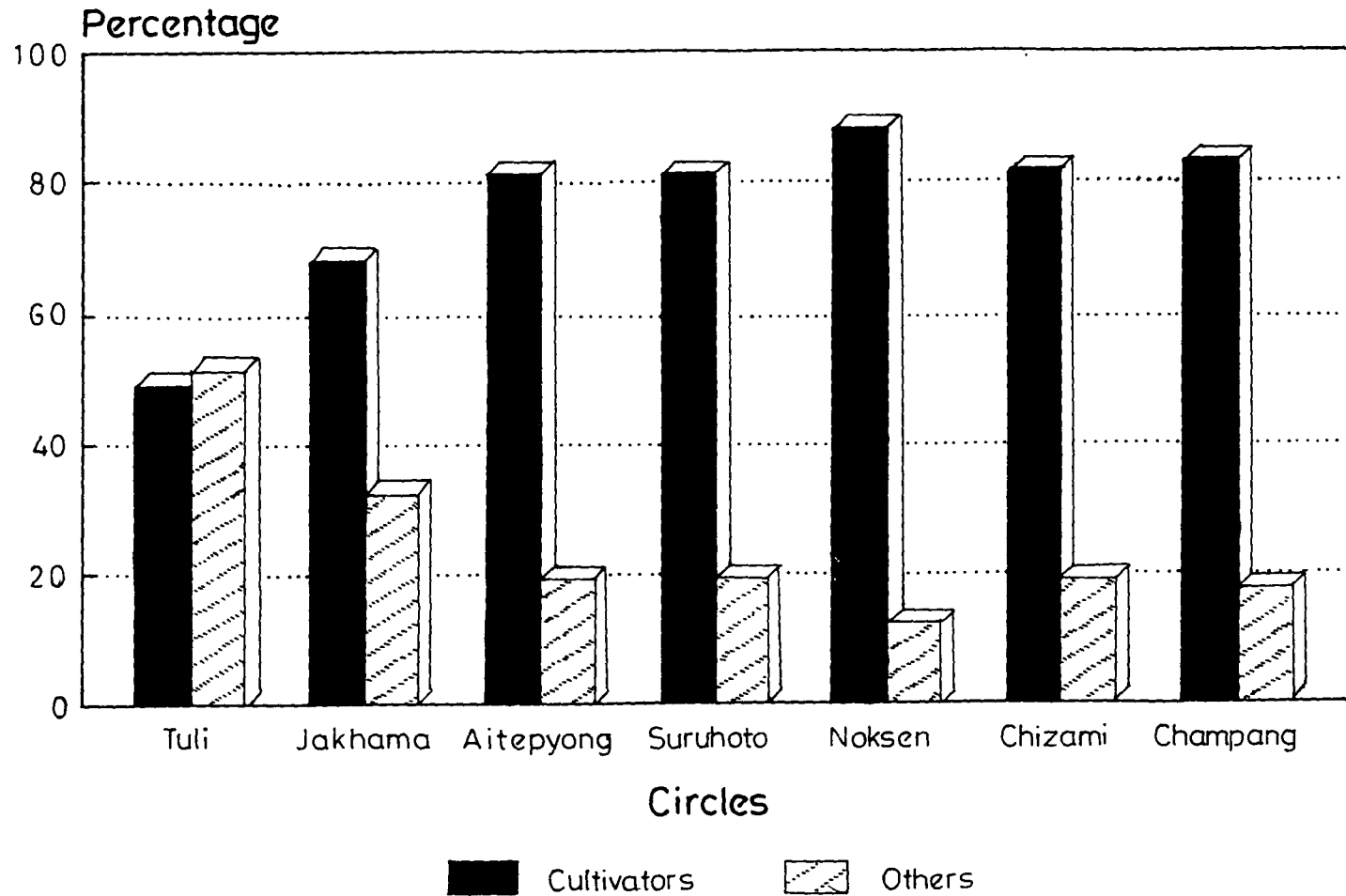
Fig. 4.2

Table 4.3  
NAGALAND : INDUSTRIAL DISTRIBUTION OF RURAL WORKERS (District wise)  
1981

Districts	Workers	Cultivators	Agricultural labourers	Household industry	Other workers
1. Mokokchung	T 43.6	T 77.7	T 0.4	T 0.4	T 21.5
	M 46.0	M 64.1	M 0.5	M 0.3	M 35.1
	F 41.1	F 94.1	F 0.2	F 0.4	F 5.2
2. Kohima	T 47.7	T 70.8	T 2.1	T 0.4	T 26.7
	M 53.7	M 56.7	M 3.0	M 0.3	M 40.0
	F 40.5	F 93.2	F 0.7	F 0.5	F 5.6
3. Tuensang	T 53.4	T 87.0	T 0.1	T 0.1	T 12.8
	M 53.4	M 76.7	M 0.1	M 0.1	M 23.1
	F 52.9	F 98.6	F 0.1	F 0.1	F 1.3
4. Wokha	T 45.0	T 84.4	T 0.2	T 0.2	T 15.2
	M 43.8	M 70.7	M 0.2	M 0.3	M 28.7
	F 46.1	F 97.8	F 0.2	F 0.2	F 1.9
5. Zunheboto	T 47.1	T 84.4	T 0.2	T 0.2	T 15.1
	M 46.9	M 73.2	M 0.3	M 0.2	M 26.4
	F 47.3	F 95.5	F 0.2	F 0.1	F 4.0
6. Phek	T 52.0	T 80.8	T 0.2	T 0.1	T 18.8
	M 50.5	M 66.0	M 0.2	M 0.2	M 33.6
	F 53.7	F 96.8	F 0.1	F 0.1	F 3.0
7. Mon	T 60.0	T 88.4	T 0.7	T 0.15	T 10.8
	M 62.1	M 79.8	M 1.1	M 0.2	M 18.9
	F 56.9	F 98.8	F 0.1	F 0.1	F 1.0
*Nagaland	T 49.9	T 80.7	T 0.8	T 0.2	T 18.3
	M 52.1	M 68.0	M 1.2	M 0.2	M 30.6
	F 47.5	F 96.3	F 0.3	F 0.2	F 3.2

Source: Census of India, 1981.

# NAGALAND STRUCTURE OF MALE WORKFORCE



Others include: Agricultural Labourers, H.H. Industries, Other Workers.

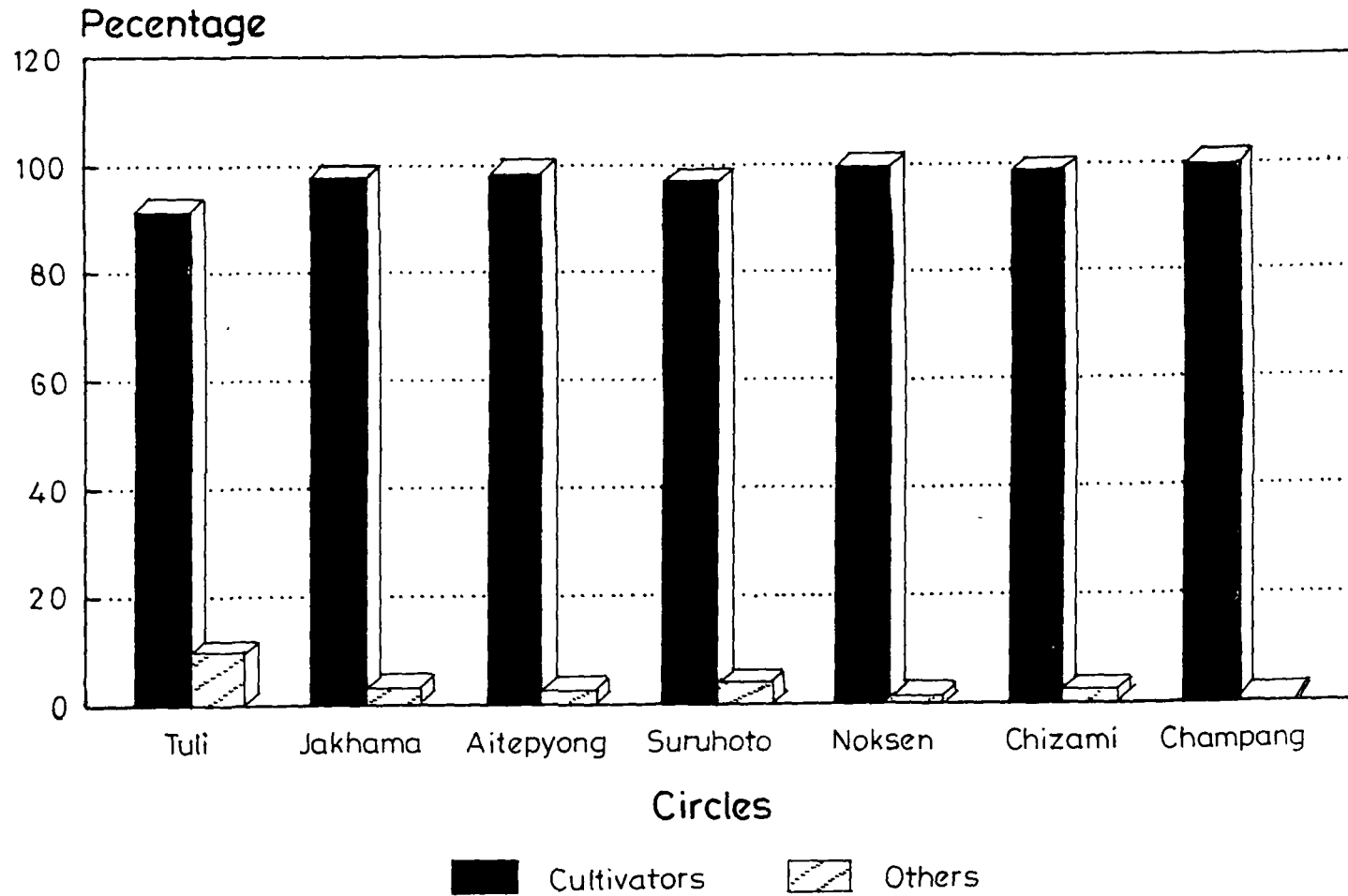
Fig. 4.3

In terms of the structure of the workforce, there is an overwhelming concentration of workers in the owner cultivator category followed by other workers. There is, however, significant inter-district variations. Kohima with a high level of urbanization shows substantial shift of the rural male workforce to non-agricultural occupations. The only other districts which shows such a shift but to a lesser extent is Mokokchung and Mon where over a third of the total rural male workforce is engaged in non-agricultural occupations.

It is evident, however, that this shift to non-agricultural activities has a gender bias. Only the males seem to have been absorbed in works outside agriculture. Women continue to be overwhelmingly absorbed in works available within the agrarian sectors. Kohima and Mokokchung where non-agricultural avenues of work are more, seem to have absorbed a significant of women workers in these occupations too. Around 5 per cent of the rural female workforce is recorded in the non-agrarian sector in these two districts.

A shift towards non-agricultural sectors of work in Kohima is also associated with increase in agricultural wage labour which is a significant 2 per cent of all male workers in this district. In all other districts, development of wage labour in the agrarian sector is largely non-existent. The males are relatively numerous in the category of agricultural labourers.

# NAGALAND STRUCTURE OF FEMALE WORKFORCE



Others include: Agricultural  
Labourers, H.H. Industries,  
Other Workers.

Fig. 4.4.

The involvement in household industries is identical to the aggregate pattern. There is very little inter-district variation in the proportion of workers employed in this sector.

The district level pattern shows that any shift from agricultural work is only towards the tertiary activity. Level of urbanisation seems to be a better correlate of the variation in the structure of workforce at the district level. Altitudinal variation has little effect on the structure of workforce at the district level.

#### 4.4 CIRCLE LEVEL PATTERNS

The table 4.4 provides informations pertaining to the extent of the variation in the structure of workforce for a few selected circles. As many as seven circles have been selected depending upon altitudinal and ethnic variations. All the selected circles in the study are represented by an exclusive concentration of a particular tribe (fig. 4.5). The pattern at the circle level brings out the ethnic variation in the structure of workforce far more clearly than at the level of districts which are too aggregative in terms of their ethnic composition.

Table 4.4  
NAGALAND : INDUSTRIAL DISTRIBUTION OF WORKERS IN SELECTED CIRCLES

Circles	Tribes	Workers		Cultivators		Agricultural labourers		Household industry		Others workers	
		M	F	M	F	M	F	M	F	M	F
1. Tuli	Ao	47.1	31.5	48.9	90.8	0.6	0.3	0.2	-	50.4	8.9
2. Jakhama	Angami	53.5	55.1	67.9	97.2	0.5	0.02	0.4	0.4	31.6	2.7
3. Noksen	Chang	49.1	49.5	88.1	98.8	2.1	-	-	-	11.7	1.2
4. Aitepyong	Lotha	38.1	43.7	81.2	97.7	-	-	0.5	0.4	18.3	1.8
5. Suruhoto	Sema	50.0	48.9	81.2	96.2	0.1	0.3	-	-	18.7	3.6
6. Chizami	Chakhesang	48.7	60.9	81.6	98.0	-	-	-	-	18.3	2.0
7. Champang	Konyak	66.9	63.6	83.1	99.4	1.1	-	0.2	-	15.7	0.6

Source: Census of India, 1981.

# LOCATION OF SELECTED CIRCLES

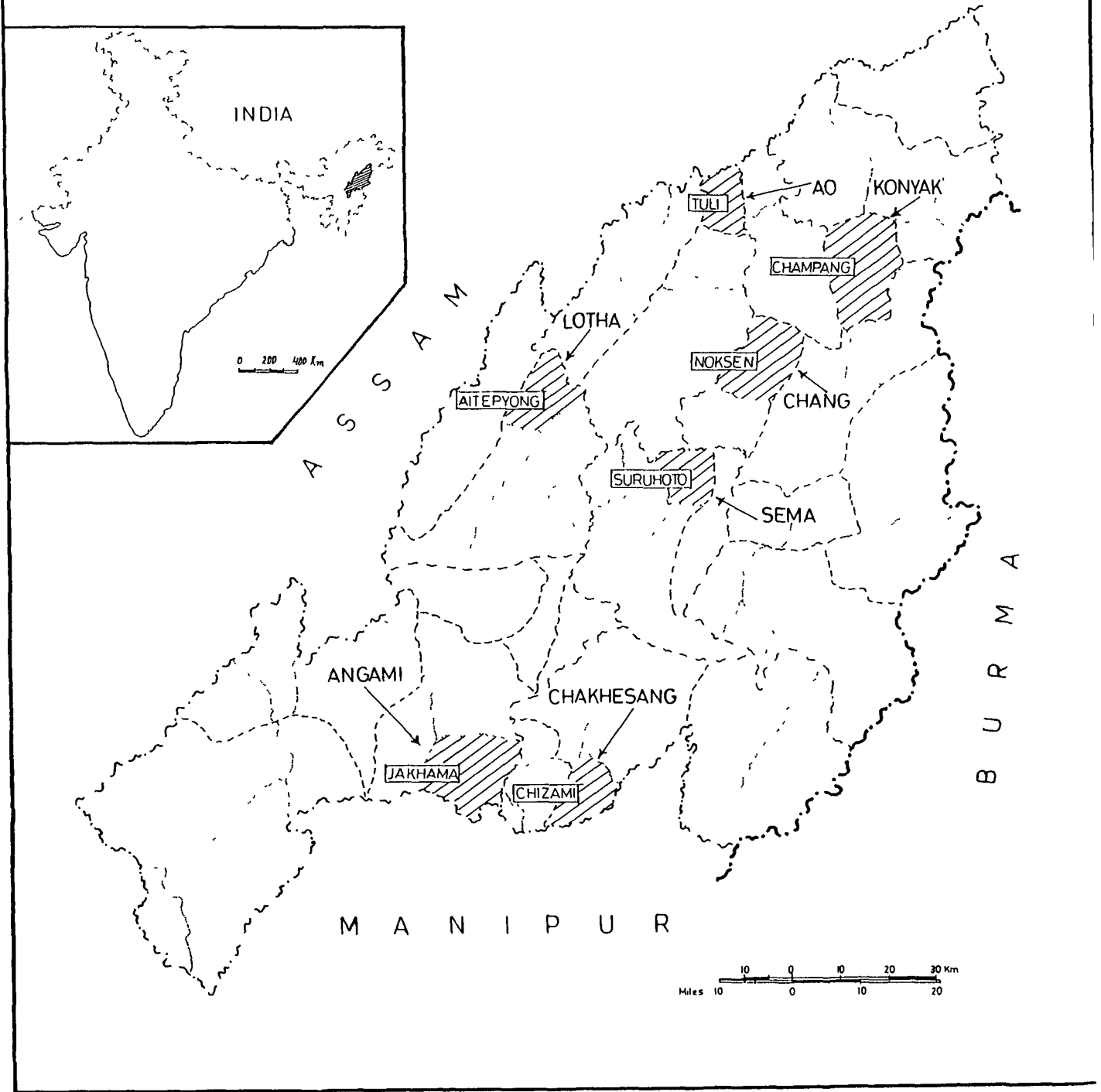


Fig. 4.5

It is evident from the table 4.4 that there is a greater equality in the participation rates of the two sexes at the circle level selected for the study. In fact, the women are more economically active than their male counterparts among the Chakhesang, Lotha and Angamis. On the other hand, the participation rates tends to be identical between the sexes among the Chang and Semas. Among the Konyaks, the male work participation is only marginally higher than that of their female counterparts. The work participation rate is almost uniform among the tribes living in higher altitudes. These are Angamis, Changs, Semas and Chakhesangs. But the tribes in the lower altitude exhibit greater variation in their work participation rates. The Konyaks located in the foothill zones show an extremely high participation rate among both the sexes, but Aos and Lothas located in similar altitudinal levels have much lower participation in work. Female work participation rates among the Aos is extra-ordinarily low (i.e. 31.5 per cent).

Except for the Aos, where less than half of all male workforce is engaged in agricultural work, the male workforce in all other tribes is concentrated mostly in agriculture. The concentration in agrarian sector is particularly high among the Changs located in higher altitudes. The shift of the male workers to non-agricultural work is significant among the Aos and to a lesser extent among the Angamis. The female workforce is almost exclusively concentrated in agricultural production. This is

inspite of the enormous difference in altitude and their tribal affiliations.

The phenomenon of wage labour in agriculture is nearly absent. Not even a single worker was returned as an agricultural labour among the Chakhesang and Lothas. A significant 2.1 per cent of the male workforce is engaged in agricultural wage earning among the Chang tribe. The proportion is a little over 1 per cent among the Konyaks.

Household industry does not record even a single worker among the Changs and Semas. Except the Angamis and the Lothas, no other selected circle did have a single women worker in household industries.

The non-agricultural sector excluding household industry absorbs a significant 11 to 19 per cent of the male workforce among the Changs, Lothas, Semas, Chakhesang and Konyaks (table 4.4). The shift to non-agricultural work is marginal among the Changs located in the higher altitude and among the Konyaks living in the lower altitudes. While an overwhelming proportion (50.4 per cent) of the Ao male workforce has shifted away from agricultural work. The proportion is as high as 31.6 per cent among the Angamis. The former group is located in the foothills, while the latter lives at a higher altitude.

Even at the circle level, the influence of topography on the work participation rates and its structure seems less important compared to other socio-economic factors.

#### 4.5 INTER TRIBAL DIFFERENCES - VILLAGE LEVEL PATTERNS

The analysis of the structure of workforce at the state, district or even circle levels suffer from various degrees of aggregation. It is at the village level that significant features of variation in the structure of workforce emerges more sharply and clearly.

The analysis of participation rate at the village level shows a further accentuation in the extent of work participation rates - both among males and females. There are as many as 30 villages (37 per cent) with male participation rate ranging between 40 and 50 per cent. The female participation rate is between 40 and 50 per cent in a quarter of all villages only. In villages, about half of all the male participation rate exceeds 50 per cent in about 58 per cent villages.

It is clear from the table that the extent of variation in female participation rate is much higher compared to that of the males. Significantly, in about 10 per cent villages, the proportion of female main workers is less than 30 per cent. Such a low level of participation among males is confined to a few villages, i.e., only 5 per cent. In as many as 7 Ao villages, the

Table 4.5  
**INTER-TRIBAL VARIATION IN PERCENTAGE OF MAIN WORKERS TO TOTAL POPULATION**  
**Frequency of villages**

Category (%)	Tuli (Ao)		Jakhama (Angami)		Aitepyong (Lotha)		Suruhoto (Sema)		Noksen (Chang)		Chizami (Chakhesang)		Champang (Konyak)		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
< 20	-	3	-	-	-	-	-	-	1	1	-	-	1	1	2( 2.5)	5( 6.2)
20-30	-	-	-	-	1	-	-	2	-	-	1	-	-	1	2( 2.5)	3( 3.7)
30-40	-	-	-	1	3	1	1	1	-	1	3	1	-	1	7( 3.6)	6( 7.4)
40-50	7	5	3	3	2	4	5	3	7	3	6	1	-	1	30(37.0)	20(24.7)
50 <	1	-	10	9	-	1	7	7	4	7	5	13	13	10	40(39.4)	47(58.0)
Total no. of villages	8	8	13	13	6	6	13	13	12	12	15	15	14	14	81	81

Source: Census of India, 1981.

male workers constitute 40 to 50 per cent of their population. Female workers account for 40 to 50 per cent of their population in 5 villages. However, there is one village where male participation rate is above 50 per cent. Out of 8 villages the female participation rate is lower than 20 per cent.

The male participation rate shows little variation across Ao, Angami and Sema villages. Among the Lothas and Changs the male participation rate shows substantial variation from one village to the other. The extent of variation is perhaps most conspicuous in the villages inhabited by the Chakhesang tribe. The Konyak tribe shows a completely different picture. While the vast majority (13 out of 14) of the villages have a very high male participation rate, one village shows an incredibly low male participation rate, i.e., less than 20 per cent.

Extremely low participation rate (below 20 per cent) among the females is confined only to the Aos, Changs and Konyaks. Female participation rate shows substantial variation across villages among all the tribes, the most prominent being the Konyaks, the Changs and the Semas. The extent of variation in female participation rate is minimum in the villages inhabited by the Angamis.

No Angami village has less than 40 per cent of male main workers. More than half of the males are returned as main workers in 10 out of 13 villages. In only 3 villages the male

participation rate varies between 40 to 50 per cent. But the female participation rate shows wide fluctuation across villages. In one village, the female participation varies between 30 to 40 per cent, in another 3 villages, it ranges between 40 to 50 per cent, while the remaining record a participation rate over 50 per cent.

There is no village in lotha area where the male workers constitute less than 20 per cent or more than 50 per cent of their total population. Female workers are more than 30 per cent of their population in all the villages.

In most Sema villages in Suruhoto circle of Zunheboto district more than 40 per cent of the males are returned as workers. In a substantial proportion of the villages (53.9 per cent) male and female workers constitute over half of their total population. Only 3 villages have female workers in 40 to 50 per cent category.

The Chang villages of Tuensang district reveals a highly uneven pattern for both male and female workers. In 7 villages (58.3 per cent) the male workers constitute 40 to 50 per cent of their population, whereas, in as many villages the female participation is more than 50 per cent.

Among the Chakhesangs male participation rate is distributed in all the percentage categories except below 20 per cent. A very

high proportion of the female population (above 50 per cent) is returned as main workers in 13 out of 14 villages.

Most Konyak villages (13 out of 14 ) show a very high (above 50 per cent) male participation rate. Only 1 village with male workers in below 20 per cent category. In the case of females the participation rate is more or less the same as that of the males. In as many as 10 out of 14 villages the female participation rate is above 50 per cent.

#### 4.51 CULTIVATORS

In terms of the concentration of male and female workers in the category of owner-cultivators, it is evident from the table 4.6 that the women workers are almost exclusively found in agricultural occupations and there is little variation across villages or among tribes. In only little less than 90 per cent of villages, over 90 per cent women workers cultivate their own fields as their main work. Concentration of male workforce in agricultural work, however, shows substantial variation across villages and among different tribes.

•

The female cultivators are few only in three villages. These are located in Konyak dominated Champang circle (with less than 10 per cent separately engaged in agriculture) and Angami dominated Jakhama circle (with 10 to 20 per cent in agriculture).

Table 4.6  
PERCENTAGE OF CULTIVATORS TO TOTAL WORKERS (Village level)

Category (%)	Tuli (Ao)		Jakhama (Angami)		Aitepyong (Lotha)		Suruhoto (Sema)		Noksen (Chang)		Chizami (Chakhesang)		Champang (Konyak)		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
< 10	2	-	1	-	-	-	-	-	1	-	-	-	1	1	5( 6.2)	1( 1.2)
10-20	-	1	-	-	-	-	-	-	-	-	-	-	1	-	1( 1.2)	1( 1.2)
20-50	1	1	-	-	1	-	1	-	1	-	3	-	-	-	7( 8.6)	1( 1.2)
50-70	1	-	-	-	-	-	1	-	-	1	-	1	-	4( 4.9)	-	
70-90	1	1	9	1	4	1	4	1	1	-	7	1	1	1	27(33.3)	6( 7.4)
90 <	3	5	1	12	1	5	7	12	9	12	5	14	10	12	36(44.4)	72(88.9)
Total no. of villages	8	8	13	13	6	6	13	13	12	12	15	15	14	14	81	81

Source: Census of India, 1981.

On the other hand, The proportion of male workforce engaged as cultivators is less than 20 per cent in as many as 6 villages distributed in 3 circles; i.e., Tuli, Champang and Noksen. None of the villages in the remaining circle recorded such a low proportion of male cultivators. Excessive concentration (above 70 per cent) of male workforce in cultivators category is confined to the Konyaks (11 out of 14 villages) the Changs (10 out of 12 villages) the Semas (11 out of 13 villages) and Lothas (5 out of 6 villages). The pattern in Ao and Angami villages show a highly uneven distribution of male workforce in cultivators category.

#### 4.52 AGRICULTURAL LABOURERS

Table 4.7 reveals the marginal importance of wage based agriculture in most villages. In about 83 per cent villages, there is not even a single male member returned as agricultural labourer. The proportion of villages with no female agricultural labourers is even higher i.e., 95.1 per cent. There are extremely few villages found only in Tuli, Suruhoto and Jakhama, where less than 2 per cent female workers worked for wages in the agricultural sector.

However, there is a significant development of wage market for the male agricultural workers among the Konyaks. At least 1 village in the selected circles has more than 10 per cent male workforce dependent on agricultural wages. There are 2 Ao villages and one more Konyak village where the agricultural

**Table 4.7**  
**PERCENTAGE OF AGRICULTURAL LABOURERS TO TOTAL WORKERS (Village level)**

Category (%)	Tuli (Ao)		Jakhama (Angami)		Aitepyong (Lotha)		Suruhoto (Sema)		Noksen (Chang)		Chizami (Chakhesang)		Champang (Konyak)		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
0-	4	6	9	12	6	6	11	12	11	12	15	15	11	14	67(82.7)	77(95.1)
0-1	3	-	1	1	-	-	1	1	-	-	-	-	-	-	4( 4.9)	2( 2.5)
1-2	1	1	2	-	-	-	1	-	-	-	-	-	1	-	4( 4.9)	2( 2.5)
2-5	-	1	1	-	-	-	-	-	1	-	-	-	-	-	2( 2.5)	-
5-10	2	-	-	-	-	-	-	-	-	-	-	-	1	-	3( 3.7)	-
10 <	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1( 1.2)	-
<b>Total no. of villages</b>	<b>8</b>	<b>8</b>	<b>13</b>	<b>13</b>	<b>6</b>	<b>6</b>	<b>13</b>	<b>13</b>	<b>12</b>	<b>12</b>	<b>15</b>	<b>15</b>	<b>14</b>	<b>14</b>	<b>81</b>	<b>81</b>

Source: Census of India, 1981.

labourers among the males account for 5 to 10 per cent of the total male workforce. One village each in Jakhama and Noksen has 2 to 5 per cent of the male workforce engaged as agricultural labourers.

Though the number of villages with relatively high proportion of agricultural labourers is low (i.e., 6 out of 81 villages) the emergence of agricultural wage labour in an essentially tribal area has far reaching implications. Not only it is confined to a few tribes, it also suggests landlessness and poverty for this segment of the population.

#### 4.53 HOUSEHOLD INDUSTRY

Household industry which occupies a significant position in work patterns in any tribal society, fails to emerge as a main work by most workers in Nagaland. This is mainly due to time allocation to such works and census definition of main work does not meet many as main workers in household industries.

At the village level, an overwhelming proportion of villages (95 per cent in the case of females and 84 per cent in the case of males) did not record even a single full-time worker in household industries. Only three villages in Tuli as well as Champang and one village in Suruhoto recorded 1 to 2 per cent of male workforce engaged in household industry on a full time basis. These villages are exclusively inhabited by the Aos,

Table 4.8  
PERCENTAGE OF WORKERS IN HOUSEHOLD INDUSTRY TO TOTAL WORKERS (Village level)

Category (%)	Tuli (Ao)		Jakhama (Angami)		Aitepyong (Lotha)		Suruhoto (Sema)		Noksen (Chang)		Chizami (Chakhesang)		Champang (Konyak)		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
0-	4	8	11	11	4	4	13	13	12	12	14	15	10	14	68(84.0)	77(95.1)
0-1	1	-	2	2	1	2	-	-	-	-	1	-	1	-	6( 7.4)	4( 4.9)
1-2	3	-	-	-	1	-	-	-	-	-	-	-	3	-	7( 8.6)	-
Total no. of villages	8	8	13	13	6	6	13	13	12	12	15	15	14	14	81	81

Source: Census of India, 1981.

Konyaks and the Semas respectively. In other areas, the proportion of workers in household industries is marginal.

Interestingly, more males are found engaged in household industries on a full time basis compared to the females.

#### 4.54 OTHER WORKERS

This category of work is essentially non-agrarian in nature and includes mostly services in tertiary occupations. The workers in this category provide indications towards absorption in non-traditional occupations such as trade, commerce, construction, transport, communication and governmental and non-governmental services.

Table 4.9 indicate that in most villages ( over 90 per cent) female workers are extremely few (less than 10 per cent of the total workers) in this category. But over half of all women workers were in these non-traditional works and services in two Ao villages. Excepting these two, women in most villages, irrespective of their affiliation to different tribes continue to be absorbed by agricultural sector only.

Concentration of male workforce in 'other' category of work is highly uneven across villages and tribal groups. In a sixth of all villages, mostly belonging to the Aos, Angamis, Chakhesang and Changs, well over half of the male workforce is engaged in

Table 4.9  
PERCENTAGE OF OTHER WORKERS TO TOTAL WORKERS (Village level)

Category (%)	Tuli (Ao)		Jakhama (Angami)		Aitepyong (Lotha)		Suruhoto (Sema)		Noksen (Chang)		Chizami (Chakhesang)		Champang (Konyak)		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
< 10	3	5	1	12	1	5	7	12	8	12	5	14	11	13	36(44.4)	73(90.1)
10-20	-	1	6	1	3	1	2	-	2	-	5	1	1	1	19(23.5)	5( 6.2)
20-30	1	-	3	-	1	-	2	1	-	-	2	-	1	-	10(12.4)	1( 1.2)
30-40	1	-	1	-	-	-	1	-	-	-	-	-	-	-	3( 3.7)	-
40-50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50 <	3	2	2	-	1	-	1	-	2	-	3	-	1	-	13(16.1)	2(24.7)
Total no. of villages	8	8	13	13	6	6	13	13	12	12	15	15	14	14	81	81

Source: Census of India, 1981.

the non-traditional sector. On the other hand, in about 68 per cent villages the male workers are very few (less than 20 per cent) in this category indicating their overwhelming involvement in agricultural sector. Most of these villages are distributed in Angami, Lotha, Sema, Chang and Konyak territories.

#### 4.6 CONCLUDING STATEMENT

The analysis of the spatial variation in the structure of Naga workforce leads to the following generalizations :

- i. Agrarian sector absorbs the bulk of the workforce. The second most important source of work is constituted by non-agrarian service-based works in the non traditional sector. Most other sectors of work absorb very small proportion of the workforce.
- ii. Females are almost exclusively confined to the agrarian sector exhibiting little diversification in the structure of their workforce.
- iii. The shift, however small, towards non-agricultural work is mostly confined to the males.
- iv. Agricultural wage labour is yet to develop in this region dominated by tribal social order. A few agricultural wage earners are however dominantly males.

Landlessness is not very common in this region which restricts the development of wage labour market. Another factor may be the subsistence nature of agrarian economy.

- v. Influence of topography or altitude seem to have a less important role in explaining spatial variation in the structure of workforce at district or circle level.
- vi. These broad generalizations get modified when the analysis is undertaken at circle or village level. The analysis at the village level is particularly revealing. Some tribal groups seem to have responded to modern forces more vigorously as indicated by a larger male workforce shifting to non-agrarian activities. The extent of variation in the proportion of workers in different industrial category gets further accentuated at every lower aggregate spatial units.
- vii. It is at the village level that one finds some evidence of the growth of agricultural wage market. Though confined only to a few villages, this is the surest indication of a process of landlessness or land alienation making its presence felt.

## References :

1. 1991 Census distributing working population into cultivators, agricultural labourers, household industry and other workers has not yet been published by the Govt. of Nagaland. Only a provisional population totals could be published by Census of India, the same thing was available at NIC, which does not reflect on 'work' for the study. Therefore, Census data for the year 1971 and 1981 has been used for workforce analysis.
2. The Census of 1971 defines a 'worker' as a person whose main activity is participation in any economically productive work by his physical or mental activity. Work involves not only actual work but effective supervision and direction of work.

On the other hand, according 1981 Census a 'worker ' as a person whose main activity is participation in any economically productive work physically or mentally, works but effective supervision and direction of work. The following points are also taken into consideration to treat a person as worker during 1981 Census.

(i) A person who normally works but has been absent from during the reference period (i.e., during the last one year prior to the date of enumeration) on account of illness, holidays temporary closures, strikes etc., is treated as engaged in the work he/she would otherwise have been doing but for his/her temporary absence.

(ii) A person under training such as apprentice with or without stipends or wages is treated as worker.

(iii) A person who has merely been offered but has not actually joined yet is a worker.

(iv) A full time public service or a full time political worker, who is also actively engaged in furthering the political activity of his/her party is treated as a worker.

CHAPTER - V

SOCIAL DIFFERENTIATION AND VARIATION IN ECONOMIC PARTICIPATION

## 5.1 INTRODUCTORY STATEMENT

Census data is highly inadequate in providing insights into the nature and causes of variations in different economic activities pursued by people in diverse ecological conditions. Definitional problems apart, a major source of the difficulty arises from the fact that the census can hardly capture differences in the distribution of productive resources and in the relations of production. These factors are likely to influence the nature, type and patterns of work participation more than such common parameters as irrigation, share of tribes and a host of other factors. Hence the need to understand Naga work participation with reference to social differentiation that characterizes rural Nagaland.

Unlike the situation prevailing in the rest of rural India, there is no sharp demarcation in terms of hierarchial social structure so typical of caste system. None is constrained by the status hierarchy of work in deciding the nature and area of their work. Second, and perhaps a more important factor is economic stratification, particularly access to means of production, which in rural areas means availability of land and other productive assets. Social differentiation in Nagaland is thus caused by two potentially powerful instruments of social stratification: by class and by tribe/ethnic status. It is remarkable that in most cases, the growing rural class differentiation combines and interacts with the traditional hierarchy of tribes.

An attempt is made in this chapter to analyze variations in response to work using the coordinates of economic label represented by size of land holding and tribe/ethnic status of the households with the assumption that these two constitute major correlates of work participation. The central focus of the analysis is to understand economic participation in work in the context of unequal access to land and the differentiation based on the tribe and ethnic considerations within ecologically homogeneous regions. The analysis, however, is confined to the sample villages selected for the study.

Inequality in land ownership and not merely landlessness gives rise to social differentiation. It is this inequality which creates the need to hire labour. On the other hand, lack of access to adequate means of production compels one to join the rank of wage labour. "Increasing access to means of production and the capacity of the use of wage labourer provides the material base for the separation of the unit of production from the unit of reproduction or consumption."

## 5.2 GENERAL ECOLOGICAL SETTING OF THE SAMPLE VILLAGES

In order to understand the economic responses of the population in the different regions under investigation, it is proposed first to describe the general ecological setting of the sample villages(1) which to a great extent determines the pattern of the land use and cropping pattern. Emphasis will be laid on

the complex conditions both natural and cultural, in which the rural people find themselves in the production process. The sample villages belongs to the three eco-regions of the state : the high altitude ecological zone, the middle ecological zone and the lower altitude ecological zone.

### 5.3 HIGH ALTITUDE ECOLOGICAL ZONE

This region is represented by two sample villages Tuensang and Khudei. The former is located near Tuensang town while the latter is situated a little away from the main communication centre. Both the villages are located in Tuensang Sardar circle of Tuensang district. The Tuensang village is close to the town, about 5 km away, connected by a pucca road, while the Khudei village is about 10 km away from Tuensang town, connected by a metalled road. The villages are situated at an average altitude of 1371.6 metres and 1421.5 metres respectively, above the mean sea level (Table 5.1). Tuensang village occupies 82,960.6 hectares of geographical area and supports 5798 persons (2951 males and 2848 females) in 657 households. The total geographical area of Khudei is 4,451.5 hectares with a total population of 547 (281 males and 266 females) in 99 households (Table 5.1). Both the villages have been facilitated by the provision of drinking water facility through wells and taps provided at selected points. The village near the town is electrified and has good educational infrastructure in terms of four government primary schools, a middle schools and two private standard English

Table 5.1  
GENERAL ECOLOGICAL CHARACTERISTICS

Zones	Total Area*	Forest	Area* Jhum	under Terr- ace	Wet- land	Altitude (metres)	Rain- fall** (aver- age)	Soil type	Crops grown	Types of trees	Forest produce
V1	82,960.0	2,832.8	1,707.8	161.9	nil	1,371.6	200cms.	silt loam, sandy clay, loam	Rice, maize, millets, beans, cucumber, yam, chillies, potato	Scheme Wallechi, Quercus, Wild banana, Oak, blackberries, cherries, toona sps, banhamia, champaka, focus, bamboos, etc.	Cane, bamboo, Orchids, herbs etc.
Highland											
V2	4,451.0	985.4	323.7	8.1	nil	1,421.5	200cms.	silt loam, sand clay,	-do-	-do-	-do-
V3	4,249.2	1,011.7	141.6	nil	161.9	1,342.7	200cms.	silt loam, clay loam	rice, soyabeans, maize, millets, yam, potato, chillies	bamboos, brown grass, ficus sps, wild mangoes, banana, cashewnut, focus	-do-
Middle zone											
V4	4,046.9	809.4	331.8	8.1	4.0	1,418.3	200cms.	silt loam clay loam	-do-	-do-	-do-
V5	84,174.7	22,257.7	1,315.2	141.6	20.2	365.8	250cms.	silt loam clay loam sandy loam	rice, chillies, ginger, yam, maize millet, soyabeans	hollok, makai, lali, simal, pillo, teak, sal, banana, oaks, brown grass, chestnut bamboo, champaka, michellia sps, etc.	-do-
Lowland											
V6	6,388.0	1,758.8	357.7	10.1	6.1	340.2	250cms.	-do-	-do-	-do-	-do-

\* area in hectares

\*\* may to october

Source: Village records.

schools, whereas, the village away from the town though is electrified has only one primary school with 58 students (24 boys and 34 girls). The literacy level is very low and so far only three persons have passed Matriculation from this village.

The ecological conditions in these two villages can be best described as high land type. Agriculture is the mainstay of livelihood but the nature of topography limits it to the intermontane valleys and gentler hill slopes where terraced cultivation is practiced. The need for irrigation is not very acutely felt as the fields receive moisture through gravity pulling. But the productivity remains low due to general infertility of the fragile mountain soil susceptible to erosion.

#### 5.4 MIDDLE ALTITUDE ECOLOGICAL ZONE

The village Baimho, situated in the Zunheboto circle and Naghutomi in the Atoizu circle of Akhuluto block in Zunheboto district has been selected for the study. These two villages are far away from each other i.e., Baimho close to Zunheboto town connected by about 5 km of unmetalled road and Naghutomi 32 km away from Zunheboto town (Table 5.2). Spread over 4249.2 hectares of geographical area, Baimho is a small village of 81 households sustaining a population of 426 persons. on the other hand, the total geographical area of Naghutomi is 4046.9 hectares sustaining a population of 538 persons (262 males and 276 females). Both the villages have two settlement units (clusters)

Table 5.2  
SOCIO-ECONOMIC INFRASTRUCTURAL FACILITIES

Zone	Village	No. of schools	Medical services	Post & Telegraph	Accessibility to village	Distance from main road(kms)	N e a r e s t urban rail-centre station	No. of shops	Frequency of public conveyance
Highland	V1	Primary=4 English school=2 ME school=1	Dispensary=1	P.O.(Tuensang)	Pucca road	(0)	Tuensang Morani town (5Km)	7	Bus, truck, jeep cars etc.
	V2	Primary=1 (class A-4)	Dispensary=1	P.O.(Tuensang)	Metalled road	5	Tuensang Morani town (10Km)	1	Truck, jeep, cars.
Middleland	V3	Primary=1	Dispensary=1	P.O.(Zunheboto)	Metalled road	5	Zunheboto Morani town (5kms)	4	Nissan, jeep, cars, truck.
	V4	Primary=1	Dispensary=1	B.P.O. (Naghutomi)	Unmetalled road	3	Zunheboto Morani town(32kms)	4	Jeep, nissan, truck
Lowland	V5	Primary=5 English school=2 G.H.School=1	Hospital=1	B.P.O. (Merangkong) P.O.(Tuli)	Pucca road	(0)	Tuli Anguri (15 kms)	14	Bus, truck, jeep, nissan, cars.
	V6	Primary=2 Standard=1 Middle=1	Feeding centre=1	P.O.(Tuli)	Unmetalled road	15	Tuli Anguri (15 kms)	5	Nissan, jeep, cars.

contd. Table 5.2

Zone	Village	Banking facilities	Adoptation of modern agri. inputs	Village has got	Wage rate in the village	
					male	female
Highland	V1	SBI Tuensang town	Traditional methods	Handloom workshop(1) Rice mill(6)	Rs.35	Rs.30
	V2	SBI & co-operative bank, Tuensang	Purely traditional methods	Fish farm(1) Rice mill(1)	Rs.35	Rs.30
Middle zone	V3	SBI & co-operative bank, Zunheboto	Traditional methods	Fish farm(1) Rice mill(2) Maize mill(1)	Rs.40	Rs.35
	V4	SBI & co-operative bank, Zunheboto	Purely traditional methods	Rice mill(3)	Rs.40	Rs.35
Lowland	V5	SBI & co-operative bank, Tuli Money lenders	Pump sets 2,(diesel)	Handloom workshop(1) Fish farm(5) Rice mill(3)	Rs.50	Rs.40
	V6	SBI & co-operative bank; Tuli	Traditional methods	Knitting unit(1) Rice mill(5) Fish farm(2)	Rs.50	Rs.35

Source: field work, 1992-93.

'A' khel and 'B' khel (Table 5.4). Supply of electricity and drinking water facilities are available in both the villages. Besides, both the villages have one primary school each. However, there is not even a single Dispensary or primary health centres in the villages.

The agrarian conditions are poor and subsistence in nature. Unfavourable climatic conditions coupled with poor soil affect the conditions for intensive cultivations of crops and a highly diversified cropping pattern is not possible in this zone. The agricultural products are hardly sufficient for local consumption. However, Baimho being located at Tizu river catchment, wet land cultivation is practiced on a permanent basis.

#### 5.5 LOW ALTITUDE ECOLOGICAL ZONE

Two villages, namely Merangkong and Asangma were selected from the low altitude ecological region. Both the villages are close to each other under different circles of Mokokchung district. Merangkong village in Tuli circle is somewhat influenced by the valley ecology of the adjoining Assam valley, whereas Asangma village in Changtongya circle is dominated by exclusively tribal economy of the hill ecology, some 15 km away from the main road and Tuli town. In terms of communication Merangkong village has got all the facilities S.H. no.2 (A.M road) passes through the village and also the GREF road. Tamlu

passes through the heart of the village. Besides, the village itself is surrounded on all sides by pucca road. The size of the former village is quite large (total geographical area 84,174.7 hectares) with a population of 5,919 persons(2)(2,903 males and 3,016 females) consisting of 674 households (Table 5.4). The latter village, on the other hand, is much smaller (Total area 6,388 hectares) supporting a total population of only 1,668 (825 males and 843 females) living in 169 households (Table 5.4). The former village is located closer to Tuli town along the main highway and has better development indices in terms of facilities of health, education and marketing. There is a hospital and a Government High School apart from a number of primary and secondary English medium schools various NGO's (Table 5.2). The village away from the main highway is served only by a middle school and three primary schools and is functionally dependent upon the dominantly tribal settlement.

Table 5.3  
DEMOGRAPHIC CHARACTERISTICS

Zone	Village	Total		< 4			5-15			16-44			44-59			60+			Sex Ratio	Dependency Rati	
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male			Female
Highland	Close V1 to town	29.7	50.4	49.6	12.2	12.0	12.5	31.9	29.7	34.2	38.0	37.3	38.6	13.3	14.1	12.5	4.6	6.9	2.2	986	95
	Away V2 from town	6.8	53.2	46.8	8.7	9.0	8.5	19.0	22.4	15.3	54.8	49.3	61.0	11.9	10.4	13.6	5.6	9.0	1.7	881	50
Middle zone	Close V3 to town	4.7	54.0	46.0	-	-	-	31.0	29.8	32.5	46.0	46.8	45.0	21.8	21.3	22.5	1.1	2.1	-	851	47.5
	Away V4 from town	5.0	50.0	50.0	2.2	-	4.3	31.5	30.4	32.6	43.5	43.5	43.5	13.0	15.2	10.9	9.8	10.9	8.7	1000	76.9
Lowland	Close V5 to town	45.4	52.8	47.2	4.2	4.3	4.1	26.3	12.7	28.9	47.6	49.2	45.8	12.2	11.1	13.4	9.7	11.3	17.8	896	67.9
	Away V6 from town	8.4	49.4	50.6	2.6	2.6	2.6	26.6	26.3	26.9	44.7	40.8	48.7	15.6	17.1	20.5	10.4	13.2	7.7	1026	65.6
		51.7	48.3		6.6	6.3	6.6	28.0	26.3	29.8	44.7	44.7	44.7	13.3	13.1	13.5	7.5	9.5	4.5	934	724

Source : field survey, 1992-93.

## 5.6 PATTERN OF LAND OWNERSHIP

The study of land ownership system is a sensitive and complex matter particularly when it is understood in the context of a tribal area. For the purpose of this study, we have defined land as "any part of the earth's surface which can be owned as property and everything annexed to it, whether by nature or by hand of man"(3). The study of land tenure and the pattern of land ownership; its classification and measurement become difficult in Nagaland as there is no cadastral survey conducted and no standard and uniform laws have been framed till date. There is no detailed official record on land in respect of Nagaland is unavailable. Owing to the absence of required authentic data on land ownership system, operational holdings, land use pattern, tenure and tendency pattern etc., it becomes a difficult task to conduct a data based empirical study on land ownership system. The only legal framework for determining the right to cultivate land is the "Nagaland Jhumland Act 1970" which has certain limitations.

Invariably the ownership of land, exercise of ownership rights, controlling systems, land-use pattern, land boundary and man-land relations are based on traditions, which are simply guided by customary laws. The usage of customary laws are also not codified, yet they are applied very effectively as guiding principles in the daily lives of the villagers. Every Naga tribe follows a variety of traditions and customs which are "very

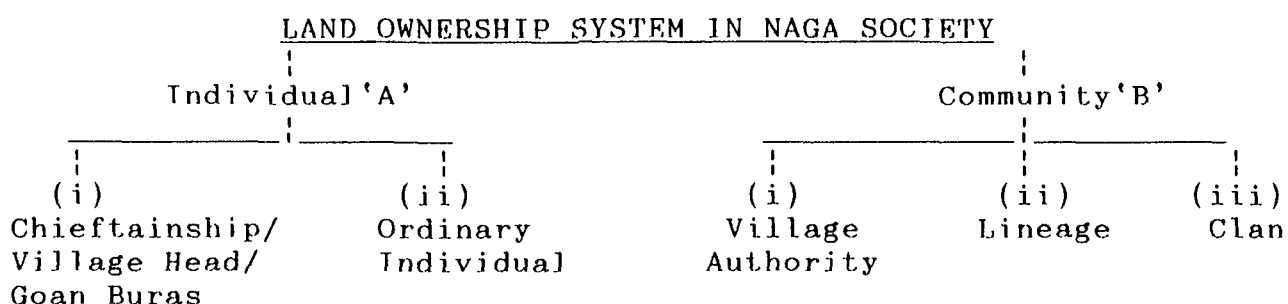
Table 5.4  
SETTLEMENT PATTERN

Zone	Village	Total	Male	Female	Households	Households in different Clans	Settlement units (clusters)
Highland	V1 Close to town	5798	2951	2847	657	Chongpho(307), Bilashi(133) Lomou(54), Kangshou(123)	i) C'khel ii)'B'khel iii) 'L'khel iv) 'K'khel
	V2 Away from town	547	281	266	99	Ong(50), Lomou(42) Kangshou(7)	i)Pongen ii)Langlak iii)Impoushang iv)Bangala and v) Bhangpoungsang
Middle zone	V3 Close to town	426	193	233	81	Yepthomi(47), Asumi(15) Chophimi(11), Achumi(8)	i)'A'khel ii)'B'khel
	V4 Away from town	538	262	276	94	Chishi(35), Chobhimi(21), Watsomi(15) Tsuqumi(13), Zhimomi(6), Shohemi(4)	i)'A'khel ii)'B'khel
Lowland	V5 Close to town	5919	2903	3016	674	Imsong(115), Yaden(110), Jamir(85) Azukum'N'(55), Azukum'C'(55), Yudener(79) LKR(74), Lemtur(60), Pongen(41)	i)Yimpang ii)Tiong iii)Yimlang iv)School Compound & v)Merangkong Compound
	V6 Away from town	1668	825	843	169	Jamir(96), Imsong(32), Lemtur(16) LKR(13), Pongen(12)	i)Lasumen-A ii)Lasumen-B iii)Tongtong iv)Jinjangnu v)Sungmorung

Source : Village record

difficult to conceive of as existing even for a single day and undeniable fact"(4). Every Naga tribe follows its own customs, as there is no uniformity in customs and traditions of the tribes. Because of the diverse nature of socio-cultural background, the land reform measures like ceiling on land holdings, consolidations of holdings, ownership rights, distribution of land to the landless etc., have never been attempted.

Article 371(A) of Indian constitution(5) provides certain special privileges to the state of Nagaland relating to religion social practices and land ownership systems of the Nagas(6). No act of Parliament on the above subjects can constitutionally be enforced in the state unless the Legislative Assembly of Nagaland by a resolution so decides. But the Act is yet to be passed in the Legislative Assembly of Nagaland to this effect.



As indicated above, the ownership system of land in Naga society may broadly be categorized into two types viz., (A) 'Individual' and (B) 'Community' ownership. Individual ownership may also be categorized into : (i) Chieftainship and (ii)

Ordinary Individual ownership. Again, the community land ownership system may be categorized into (i) ownership of land under village authority, (ii) lineage land, and (iii) clan owned land. Except the Sema and Konyak tribes, no Naga tribe recognise Chieftainship. The remaining tribes follow a combination of both individual and communal ownership of land. In other words, the Nagas follow a diversified nature of ownership involving a variety of complexities.

The system of land tenure in the study villages is by and large similar with that of the other Naga tribes. The customary laws based on customary usages give protection to the private property. Land belongs to families, clans and village since time immemorial, so that each of them are bound to possess considerable areas where shifting cultivation can be practiced conveniently, in rotation. The families and the clans therefore, when they settled, tried to acquire as much land holding as possible(7).

If however, a great portion of land remains unused, the legitimate joint holders may agree to lease a portion of it, but in all the cases, land cannot be disposed of permanently.

"Inheritance to landed property was so devised that the land remains under perpetual ownership of the family or a lineage group even though it has to be divided among the successors. The size of the land holding is a decisive factor in jhumming

cultivation as families have to move from place to place after a plot of land has been affected by the jhum cycle. Land products such as bamboo, timber, stone and mineral products are considered to be the most important items of wealth. Because so much value is attached to the soil, it has been found sometimes difficult on the part of the administration to work out land acquisition schemes whatever compensation offered, because people knows that cash value is rather ephemeral(8).

There is a sort of corporate landed property of the village (village land) and the village authority claims ownership. It is owned by the villagers jointly and is used for any common purpose of the village. Timber or bamboo extracted from it at a given times is used for construction or renovation of village buildings such as log-drums, gate and in other such activities.

For generations, the plots of land held by the successors is put to a joint cultivation among the sons of the house and the produce is shared. There are ancestral lands which belong jointly to a clan. The land remains in the possession of a clan or its recognized such group which remain undivided for many generations. Such a plot of land may be assigned for a temporary period to any landless member of the clan, who, as such is entitled to cultivate, graze and collect timber and make out other means of subsistence within a specified time limit. But he would have to vacate it after such limit, thus, decided over or after such member has found out other means of subsistence.

## 5.61 HIGH ALTITUDE ECOLOGICAL ZONE

The pattern of land ownership in Tuensang and Khudei villages is a highly contrasting one. There are as many as three households who are completely landless constituting 3.5 per cent of the sample households in Tuensang village (Table 5.5) whereas, not a single household is seen as landless in Khudei village (Table 5.6). Landlessness is a rare phenomena in tribal organization. However, it was reported that the landless males in these households do not belong to Tuensang village. There are mostly non locals and had migrated from other regions and settled down permanently in this village.

Table 5.5  
TUENSANG VILLAGE : PATTERN OF LAND OWNERSHIP

Land holding (in hectares)	own	%	operate	%
0.0	3	3.5	7	8.2
<1	-	-	14	16.5
1-2	-	-	27	31.8
2-4	4	4.7	23	27.1
4-8	12	14.1	11	12.9
>8	66	77.7	3	3.5
Total households =	85	100.00	85	100.00

Source: Field Survey, 1992(winter).

The average size of the land owned per sample household is fairly large. Land productivity is low in these two villages of high region due to lack of irrigation facility and low cropping intensity. The distribution of households in various land-size

classes (Table-5&6) is highly uneven in both the villages. A little over 4 per cent of the sample households own 2 to 4 hectares of land. over 14 per cent of the sample households owned 4 to 8 hectares and a substantial proportion of 77.7 per cent households on above 8 Hectares of land holding in Tuensang village

Table 5.6  
KHUDEI : PATTERN OF LAND OWNERSHIP

Land holding (in hectares)	own	%	operate	%
<1	-	-	1	5.9
1-2	1	5.9	7	41.2
2-4	-	-	6	35.3
4-8	2	11.8	3	17.6
>8	14	82.3	-	-
Total households =	17	100.00	17	100.00

Source: Field Survey, 1992(winter).

On the other hand, nearly 6 per cent of the households own 1 to 2 hectares of land in Khudei village. A little over 11 per cent households own 4 to 8 hectares of land and 82 per cent household own more than 8 hectares of land.

The inequality in the ownership of land roughly corresponds to the position of various groups in the village. However, it is more closely connected to the traditions like who were the first wave of migrants to the village. Accordingly large portion of the village area is occupied and owned by them.

The distribution of households in various categories of operational holdings indicate some amount of leasing in and out. Roughly equal number of households are involved in leasing in and leasing out.

#### 5.62 MIDDLE ALTITUDE ECOLOGICAL ZONE

Social differentiation in the two villages of middle altitude ecological region is rather unclear with a relatively more equitable distribution of land among the households. Hardly any household is landless. Over 38 per cent of the households in Baimho operate 1 to 2 hectares of land and 46.1 per cent of the households operate 2 to 4 hectares of land (Table 5.8), only 23.1 per cent of households on 4 to 8 hectares of land. Almost all the sample households are on a large size of holding and it is concentrated in the categories of 4 to 8 hectares and more than 8 hectares of land holdings with 38.8 and 69.2 per cent share, respectively.

On the other hand, very large size of land holding is noticed among the sample households in Naghutomi village. Over 90 per cent of the households own more than 8 hectares of land. Only 7.1 per cent households own 2 to 4 hectares with over 21 per cent of operational holdings. More than 57 per cent households cultivate land by leasing-in but these sample households come under a large land holding of 4 to 8 hectares.

Table 5.7  
BAIMHO : PATTERN OF LAND OWNERSHIP

Land holding (in hectares)	own	%	operate	%
1-2	-	-	4	30.8
2-4	-	-	6	47.1
4-8	4	30.8	3	23.1
>8	9	69.2	-	-
Total households =	13	100.00	13	100.00

Source: Field Survey, 1992(spring).

Table 5.8  
NAGHUTOMI : PATTERN OF LAND OWNERSHIP

Land holding (in hectares)	own	%	operate	%
2-4	1	7.1	3	21.4
4-8	-	-	8	57.2
>8	13	92.9	3	21.4
Total households =	14	100.00	14	100.00

Source: Field Survey 1992(spring).

### 5.63 LOW ALTITUDE ECOLOGICAL ZONE

The pattern of ownership of land in the two villages, Merangkong, close to town and Asangma away from the town present highly contrasting patterns. Table 5.9 and 5.10 indicate that there are as many as 8 households who are completely landless constituting 5.9 per cent of all sample households in Merangkong.

Table 5.9  
MERANGKONG : PATTERN OF LAND OWNERSHIP

Land holding (in hectares)	own	%	operate	%
0.0	8	5.9	18	13.3
<1	-	-	30	22.2
1-2	6	4.5	57	42.2
2-4	15	11.1	23	17.0
4-8	51	37.8	6	4.5
>8	55	40.7	1	0.8
Total households =	135	100.00	135	100.00

Source: Field Survey, 1992(summer).

Table 5.10  
ASANGMA : PATTERN OF LAND OWNERSHIP

Land holding (in hectares)	own	%	operate	%
0.0	-	-	1	3.9
<1	-	-	3	11.5
1-2	1	3.9	6	23.1
2-4	-	-	5	19.2
4-8	5	19.2	5	19.2
>8	20	76.9	6	23.1
Total households =	26	100.00	26	100.00

Source: Field Survey, 1992(autumn).

Landlessness in a tribal organization is not easy to conceptualize. However, on inquiry it was pointed out that the males in these households do not belong to the village(9). On the other hand, there is not even a single sample household in case of Asangma village (Table 5.11). Nevertheless, the inquiry in ownership pattern is clear from the fact that about 4.5 per cent households in Merangkong own merge holdings of less than 1 ha. A fifth of the sample households own 2 to 8 hectares while nearly 38 per cent of the sample households holdings ranging between 4

Table 5.11  
LAND HOLDING (in hectares)

Zone	Village	Land owned	Leased in	Leased out	Operational holding	Cultivated land	Fallow land	Homestead	Forest	Terraced cultivated	Jhum cultivated	1st yr. jhum	2nd yr. jhum	Valley	Area irrigated	Wetland
Highland	V1	1038	0.4	95.1	224.4	139.4	318.1	18.8	425.3	31.6	105	54	52.2	-	30.8	2
	V2	218	3	12.1	46.5	34.4	74.5	6.9	89.4	1.6	32.8	17.8	15	-	1.6	-
Middle zone	V3	141	1.5	6.5	43.3	36.8	39.7	-	58.7	-	19	6.5	12.5	-	-	17.
	V4	259	4	47.3	97.9	50.2	57.9	-	96.3	0.8	49.4	25.5	23.9	-	2.4	-
Lowland	V5	1124.2	9	77.3	213.5	137.6	468.6	20.4	393.4	16.1	102	53	49	15.8	31.6	-
	V6	627	3	205.6	248.5	45.3	84.6	8.5	286.1	1.6	42.5	22.9	19.6	0.8	1.6	31.
Total		3408	22	443.9	874.1	443.7	1043.4	54.6	1349.2	51.7	350.7	179.7	172.2	16.6	68	21

Source: Field survey

to 8 hectares. Another sizable segment of over 40 per cent households own very large sizes of holdings of more than 8 hectares.

Asangma village is characterized by a greater concentration of households 76.9 per cent owning more than 8 hectares of land the proportion of land holding 4 to 8 hectares constitutes a significant 19 per cent of all households. Only about 4 per cent of households in Asangma owns a merge holding of 1 to 2 hectares.

Both the villages are characterized by large scale leasing of land. There is however significant differences in the nature of leasing in the two villages. While the proportion of land leasing-out is 77.3 hectares in Merangkong village, the proportion of land leasing out in Asangma is very high 205.6 hectares.

**Table 5.12**  
**CROPPING PATTERN AND PRODUCTION**

Zone	Rice		Maize		Millets		Colar		Soyabeans		
	Area	Production	Area	Production	Area	Production	Area	Production	Area	Production	
Highland	V1	95.5	995.12	29.2	287.1	6.4	45	7.3	46.6	1	5
	V2	19	165.59	6.3	52.4	6.8	65.9	1.8	12.6	0.2	1.2
Middle Zone	V3	26.7	242.04	5.4	21.6	3.1	10	3.1	10.2	3.4	14.6
	V4	29.5	237	6.1	18.6	1.8	6.1	2	6.6	5.5	14.3
Lowland	V5	132.7	2563.2	-	-	-	-	-	-	-	-
	V6	45.3	549.1	-	-	-	-	-	-	-	-
<b>Total</b>	<b>348.7</b>	<b>4752.1</b>	<b>47.0</b>	<b>379.7</b>	<b>18.1</b>	<b>127</b>	<b>14.2</b>	<b>76</b>	<b>10.1</b>	<b>35.2</b>	

Source: Field work, 1992-93.

## 5.7 INEQUITY IN LAND OWNERSHIP PATTERN

A perusal of the Table 5.13 reveals striking differences in the average size of land holding per household in the sample villages located at different hypsometric levels as well as in relation to the town in terms of distance. In general however, the average size of holding is small in the higher altitude and relatively large in the lower altitude zones as revealed from the data from the sample villages.

Secondly, all the sample villages located closer to the town irrespective of their altitudinal location show smaller availability of land per household compared to the villages located away from the town. Significantly, the variation in the average size of holding in sample villages located away from the town is much higher. In the low altitude zone for example, the village Asangma has 3.7 hectares average land holding size, whereas in the middle altitude zone the average holding size is only 2.8 hectares and in the high altitude zone it is as small as 2.2 hectares only. It can be said that the dependence on land for economic sustenance seems to be declining in villages in close proximity to the towns irrespective of the ecological setting and this is indicative of impacts of urban centres on the work patterns in Nagaland.

Table 5.13  
AVERAGE SIZE OF HOLDING

Zones	Villages	Modern influences	Size of holding in hectares
Highland	Tuensang	Close to town	1.6
	Khudei	Away from town	2.2
Middle zone	Baimho	Close to town	1.4
	Naghutomi	Away from town	2.8
Lowland	Merangkong	Close to town	1.7
	Asangma	Away from town	3.7

Source: Field Survey, 1992-93.

An understanding of the extent of inequality in the distribution of land holdings both owned and operated has been attempted with reference to the gini coefficient presented in the table 5.14. It is obvious from the table that inspite of the overwhelming tribal dominance of the sample villages significant differences have arisen in the extent of land availability patterns. In some sample villages, particularly in the sample villages close to the town in the lower altitude zone (gini coefficient 0.085) and the village located away from the town in the middle altitude zone (gini coefficient 0.051).

Table 5.14 .  
GINI COEFFICIENT OF LAND HOLDING

Zones	Villages	Modern influences	Owned land	Operational Holding
Highland	Tuensang	Close to town	0.03446	0.02996
	Khudei	Away from town	0.039645	0.03939
Middle zone	Baimho	Close to town	0.01996	0.046605
	Naghutomi	Away from town	0.05148	0.04004
Lowland	Merangkong	Close to town	0.08455	0.024865
	Asangma	Away from town	0.031725	0.015915

Source: Field Survey, 1992-93.

In general, it appears that the highland areas exhibit less inequity in the distribution of land among households in both the villages-located close to or away from the town. But in the middle altitude zone the two sample villages portray significantly diverse conditions as far as the extent of inequity in land ownership pattern is concerned. It is in the villages located close to the town that the inequity level is extraordinarily low.

As expected, the low altitude zone with a greater potential for agrarian development has greater inequality in the availability of land to different households. The disparity is extremely high in the villages close to the towns indicating the process of economic differentiation emerging very strongly as an impact of urbanization.

Interestingly the variation in the level of inequity in the operational holding in almost all sample villages is much smaller. This is true in the case of Naghutomi and Asangma which had much larger disparity in ownership of land. This phenomenon is indicative again of large scale leasing-in and leasing-out of owned land and moving to occupations not related to land. The work patterns in the higher altitude however, seems to be related to land inspite of its restricted availability. The impact of urbanization also seems to be small on the development of inequity in ownership of land.

This understanding may help in the drawing of the inference that a wage market is likely to develop or is already developing in the low altitude zone which offers greater agricultural opportunities and to some extent in the middle altitude zone too. But in the high altitude zone subsistence nature of economic pursuit is more likely to dominate the economic scene.

#### 5.8 INTER-VILLAGE VARIATION IN WORK PARTICIPATION

The main objective of this section is to examine social differentiation of work participation in each of the eco-regions as it varies among various tribes/ethnic categories as well as across various landsize classes.

Table 5.15 provides a general picture on percentage of workers in total workers basing on altitude. The differences are

Table 5.15  
PERCENTAGE OF WORKERS IN TOTAL WORKERS

Zones	Sample households	Cultivators		Animal Husbandry		Hunting/fishing		Gathering		Artisan		Services		Trade/business	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F
V1	(85)	27.3	24.1	17.0	23.7	5.9	-	33.0	31.1	14.9	11.7	4.8	2.0	2.7	1.7
V2	(16)	25.9	24.8	19.6	29.8	6.3	-	30.8	33.9	11.2	16.5	2.1	1.7	2.8	-
V3	(13)	27.7	22.4	19.1	25.0	5.3	-	30.9	32.9	9.6	14.5	6.4	2.6	2.1	1.3
V4	(14)	27.2	25.5	20.7	23.5	6.5	-	33.7	32.7	12.0	15.3	5.4	1.0	-	-
V5	(135)	30.8	27.9	17.2	23.2	2.0	-	30.5	30.3	11.1	13.8	5.0	2.9	3.4	1.9
V6	(26)	25.3	27.4	15.6	26.8	5.2	-	29.9	31.8	10.4	16.6	3.9	2.5	2.6	1.9
		28.6	26.1	17.5	23.9	4.1	-	15.6	31.2	12.1	13.7	4.7	2.4	2.8	1.6

Source: Field survey, 1992-93.

insignificant as far as the cultivator category is concerned. More male work in agriculture except Asangma with 27.4 per cent female and 25.3 per cent male in low altitude ecological zone. Female members pay greater attention to domestication and care of animals in all the villages selected for the study. Their participation rate is much higher than male participation rate. Interestingly, hunting and fishing is an activity of male alone in this traditional society. However, even among the males of different villages, the proportion of concentration rate is slightly higher in the villages away from the town. A substantial variation is noticeable in the gathering activity. The highest being 33.9 per cent female as against 30.8 per cent male in Khudei of high altitude ecological zone. Significant differences are found in Asangma of low altitude zone with 31.8 per cent female and 29.9 per cent male. Artisan activity occupies an important area of work of the rural people. It is revealed that except in Tuensang (highland), the proportion of female participation rate is more in the remaining five villages. Highest female concentration rate being 16.6 per cent in Asangma (lowland) and 16.5 per cent in Khudei (highland). Male participation rate outnumber the service sector. The highest number of male in all i.e., 6.4 per cent is engaged in Baimho (middle altitude zone) is employed in various services. It is followed by 5.4 per cent in Naghutomi (middle altitude) and 5 per cent in Merangkong (lowland). Merangkong dominates trade/business activity with 3.4 per cent male and 1.9 per cent female. It is also noticed that not a single person is reported to have been

involved in trade and business in Naghutomi. More or less the same is revealing in the case of Khudei (high altitude) with no female member involved in trade and business.

Table 5.16 provides information pertaining to cultural variation of the percentage of workers in total workers. As far as cultivator category is concerned Aos range the highest with 29.9 per cent male and 27.8 per cent female. Sex-wise differences are identical that the proportion of male percentage is higher than the female counterparts. More female participation rate among all the three selected tribes is observed in animal husbandry. However, the participation rate is the lowest among the Aos of low lying areas which further shows that with the increase in altitude dependence on agriculture seems to be less and rather concentrated more on domestication and care of animals. Hunting and fishing are purely an activity of male, so a sharp gender division exists. It reveals that the participation rate in hunting and fishing is very low among the Aos. A little higher concentration rate is found among the Changs and the Semas. A slightly higher proportion of female participation rate

Table 5.16  
PERCENTAGE OF WORKERS IN TOTAL WORKERS

Tribe	Cultivators		Animal Husbandry		Hunting/fishing		Gathering		Artisan		Services		Trade/business	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Chang	27.0	24.2	17.5	24.8	5.9	-	32.5	31.6	14.1	12.6	4.2	2.0	2.7	1.4
Sema	27.4	24.1	20.0	24.1	5.9	-	32.3	32.8	10.8	14.9	5.9	1.7	1.1	0.6
Ao	29.9	27.8	17.0	23.8	2.5	-	30.4	30.6	11.0	14.2	4.8	2.8	3.3	1.9
	28.6	26.1	17.5	23.9	4.1	-	15.6	31.2	12.1	13.7	4.7	2.4	2.8	1.6

Source: Field survey, 1992-93.

is found among the Semas and Aos compared to their male counterparts in gathering activity. It is negative in the case of the Changs. The same is revealed in artisan activities. A substantial proportion of male participation rate in service sector is noticed dominating their female counterparts. It is observed that Sema participation rate is slightly higher than the average. In trade and business, participation rate among the Aos are far more than the Semas and the Changs.

Table 5.17 indicate accessibility in terms of modern influences. A substantial proportion of male participation rate (29.3 per cent) is found in the villages which are close to towns as and when compared to 26 per cent in the villages located away from town in the cultivators category. The female participation rate of the villages close to town and away from the town are exactly same (i.e., 26.1 per cent). In animal husbandry, the percentage of both the sexes of the villages away from the town is more than the villages close to town. In hunting and fishing activities the villages away from town account for 5.9 per cent males while the villages closer to town account for only 3.6 per

Table 5.17  
**PERCENTAGE OF WORKERS IN TOTAL WORKERS**

Modern influences	Cultivators		Animal Husbandry		Hunting/fishing		Gathering		Artisan		Services		Trade/business	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Close to town	29.3	26.1	17.3	23.5	3.6	-	31.5	30.8	12.4	13.0	5.0	2.6	3.0	1.8
Away from town	26.0	26.1	18.3	26.9	5.9	-	31.1	32.7	11.1	16.2	3.6	1.9	9.5	4.8
	28.6	26.1	17.5	23.9	4.1	-	15.6	31.2	12.1	13.7	4.7	2.4	2.8	1.6

Source: Field survey, 1992-93.

cent males. Gathering activity show hardly any differences in their participation rate. Variations of female participation rate in artisan activity is marked with 16.2 per cent in the villages away from town and 13 per cent in the villages close to town. However, male participation rate varies from 11.1 per cent in the villages away from town to 12.4 per cent in the villages close to town. A substantial proportion of 5 per cent male and 2.6 per cent female is revealed in the service sector in the villages close to town. A sharp difference is presented by male participation rate i.e., 9.5 per cent male and 4.8 per cent female in the villages away from town. This is a negative impact as we see the differences as only 3 per cent male and 1.8 per cent female participation rate in the villages close to town.

Table 5.18 reveals that the percentage of workers within the village of both the sexes are slightly more in high altitude ecological zone. It is also found that the percentage of workers within the region is higher in middle altitude zone. The differences are reflected by the workers within the state with 2.2 per cent male being the highest in both low and middle zones. However, not a single female worker within the state were

Table 5.18  
SAMPLE VILLAGES : PERCENTAGE OF WORKERS

Zones	Within the Village		Within the region		Within the state		Outside		
	Male	Female	Male	Female	Male	Female	Male	Female	
High	V1	75.9	78.0	22.7	20.1	1.6	0.7	0.4	-
	V2	81.1	76.0	24.5	15.7	1.4	-	-	-
Middle	V3	71.3	71.1	28.7	23.7	1.1	1.3	2.1	-
	V4	76.1	83.7	22.8	15.3	2.2	-	-	-
Low	V5	73.4	75.1	25.8	22.1	2.2	0.5	0.7	-
	V6	69.5	81.5	27.3	18.5	1.3	1.3	0.6	-
		75.0	76.9	24.9	20.6	1.8	0.6	0.6	-

Source: Field survey, 1992-93.

returned in Khudei and Naghutomi villages (high and middle zones). A slightly higher proportion of 2.1 per cent of male workers within outside are found in middle zone of Baimho. The second highest represented by male workers of Merangkong with 0.7 and 0.6 per cent Asangma, respectively. Not even a single female worker from outside were recorded in the whole regions. On the whole, it is more or less at an average level. The altitudinal variations does not show much difference as when compared to the percentages of workers within the village, within the region, within the state and outside the state.

The differences in percentage of workers with cultural variations are indicated by table 5.19. A substantial proportion of 76.9 per cent of Chang males are workers within the village in high altitude zone which is the highest. As far as female percentage is concerned, Sema tribe (middle zone) range highest with 78.2 per cent workers within the village. Aos in the low lying areas has the highest number of both the sexes working within the region. The same thing is revealed as the highest by the Ao male workers with 2.1 per cent of workers within the state. However, the proportion of Ao, Sema and Chang female workers in this category is exactly the same i.e., 0.6 per cent. More Sema male work outside the state as when compared to Chang and Ao. Surprisingly, not a single female worker of these three tribes were returned as workers outside the state.

Table 5.19  
**SAMPLE VILLAGES : PERCENTAGE OF WORKERS**

Tribes	Within the Village		Within the region		Within the state		Outside	
	Male	Female	Male	Female	Male	Female	Male	Female
Chang	76.9	77.6	23.1	20.0	1.6	0.6	0.3	-
Sema	73.7	78.2	25.8	19.0	1.6	0.6	1.1	-
Ao	72.8	76.2	26.0	21.5	2.1	0.6	0.7	-
	75.0	76.9	24.9	20.6	1.8	0.6	0.6	-

Source: Field survey, 1992-93.

The overall percentage of workers within the village of both the sexes are more in the villages away from the town. The percentage of male workers within the region is slightly higher in all the villages situated away from the town. However, the proportion of the female being 21.7 per cent in the villages close to town which is much more than the 16.8 per cent female in the villages away from the town. On the other hand, the proportion of workers within the state and outside the state are identical. It is revealed in these two categories that the percentage of both the sexes are more in the villages close to town. However, not a single female worker has been returned as working outside. It is highlighted that in some categories the differences in the percentage of workers on the basis of modern influences are negligible. However, compared to the overall situation, the villages close to urban areas are much more accessible to all kinds of development.

Table 5.20  
**SAMPLE VILLAGES : PERCENTAGE OF WORKERS**

Modern influence	Within the Village		Within the region		Within the state		Outside	
	Male	Female	Male	Female	Male	Female	Male	Female
Close to town	74.2	76.0	24.8	21.7	1.9	0.6	0.7	-
Away from town	75.3	80.3	25.2	16.8	1.5	0.5	0.3	-
	75.0	76.9	24.9	20.6	1.8	0.6	0.6	-

Source: Field survey, 1992-93.

## 5.9 AGE CLASSIFICATION OF WORKERS

It is clear from the table 5.22 that the participation rate of the adults for both the sexes are higher than the old and child participation rate on age distribution of workers. A substantial proportion of 70.4 per cent male and 62.6 per cent female constitute adult workers i.e., 15-59 years. It is revealed

Table 5.21  
TUENSANG : AGE DISTRIBUTION OF WORKERS

	Child 14		Adult 15-59		Old 60+	
	Male	Female	Male	Female	Male	Female
Cultivators	12 (28.6)	13 (26.5)	111 (28)	99 (29.3)	31 (19.9)	22 (17.4)
Animal husbandry	7 (16.6)	17 (34.7)	56 (14.1)	82 (24.3)	33 (21.2)	29 (23)
Hunting/ fishing	-	-	27 (6.8)	-	6 (3.8)	-
Gathering	23 (54.8)	19 (38.8)	116 (29.2)	110 (32.5)	47 (30.1)	39 (31)
Artisan activity	-	-	53 (13.4)	29 (8.6)	31 (19.9)	34 (29)
Trade/ business	-	-	10 (2.5)	7 (2.0)	5 (3.2)	2 (1.6)
Services	-	-	24 (6.0)	11 (3.3)	3 (1.9)	-
Total	42 (7.4)	49 (9.1)	397 (70.4)	338 (62.6)	156 (27.7)	126 (23.3)

(Figures in parenthesis indicates percentage to the respective total numbers)

Source: Field work, 1992-93.

that the villagers are active and hard working even at the age of 60+. They constitute 27.7 per cent male and 23.3 per cent for the

females. Child worker below 15 years form an average percentage of only 7.4 per cent male and 9.1 per cent female. Most of their work contribution is on gathering so also in the case of old age group. Not even a single child worker is returned in artisan activity, services, trade/business and hunting/fishing from this village. No female worker in the service sector has been returned at the old age group.

The distribution of workers are not uniform in the age groups. The largest differential is observed among the adults. An

Table 5.22  
KHUDEI : AGE DISTRIBUTION OF WORKERS

	Child 14		Adult 15-59		Old 60+	
	Male	Female	Male	Female	Male	Female
Cultivators	5 (31.3)	3 (20)	21 (22.6)	19 (24)	11 (34.4)	8 (27.6)
Animal husbandry	5 (31.3)	4 (26.7)	15 (16.1)	16 (20.3)	8 (25)	10 (34.5)
Hunting/ fishing	-	-	8 (8.6)	-	1 (3.1)	-
Gathering	6 (37.4)	8 (53.3)	26 (28)	24 (30.4)	12 (37.5)	9 (31)
Artisan activity	-	-	16 (17.2)	18 (22.8)	-	2 (6.9)
Trade/ business	-	-	4 (4.3)	-	-	-
Services	-	-	3 (3.2)	2 (2.5)	-	-
<b>Total</b>	<b>16</b> <b>(11.2)</b>	<b>15</b> <b>(12.4)</b>	<b>93</b> <b>(65.0)</b>	<b>79</b> <b>(65.3)</b>	<b>32</b> <b>(22.4)</b>	<b>29</b> <b>(24.0)</b>

(Figures in parenthesis indicates percentage to the respective total numbers)

Source: Field work, 1992-93.

overwhelming proportion of female 30.4 percent and 28 per cent male is found in gathering activity. Next is followed by cultivator category with 22.6 per cent male and 24 per cent female. Service sector occupies only 3.2 per cent male and 2.5 per cent female adults. The distribution child workers remain the same in Tuensang village. The only difference is that in gathering and cultivator categories, the percentage of a male is higher than male in Khudei. The largest differential impact is between adult and old age group. That in animal husbandry, cultivation and gathering, the percentage of old age on work distribution prove to be higher than the adults.

The structure of age-wise distribution of workers are almost the same in all the six villages selected for the study. In the case of Baimho (middle zone) adult engagement is uniformly distributed in all the sectors of work. The participation rate is more similar with 30 per cent female and 29.2 per cent male in gathering, 26.2 per cent male and 22 per cent female in cultivators category. In old age group, women continue to be overwhelmingly concentrated in works such as gathering and cultivation. It is evident, however that children response mostly to animal husbandry, gathering and cultivation.

Table 5.23  
BAIMHO : AGE DISTRIBUTION OF WORKERS

	Child 14		Adult 15-59		Old 60+	
	Male	Female	Male	Female	Male	Female
Cultivators	3 (33.3)	2 (22.3)	17 (26.2)	11 (22)	6 (28.6)	4 (25)
Animal husbandry	3 (33.3)	4 (44.4)	11 (16.9)	13 (26)	4 (19)	2 (12.5)
Hunting/ fishing	-	-	5 (7.7)	-	-	-
Gathering	3 (33.3)	3 (33.3)	19 (29.2)	15 (30)	7 (33.3)	7 (43.8)
Artisan activity	-	-	6 (9.2)	8 (16)	3 (14.3)	3 (18.8)
Trade/ business	-	-	2 (3.1)	1 (2)	-	-
Services	-	-	5 (7.7)	2 (4)	-	-
<b>Total</b>	<b>9</b> <b>(9.6)</b>	<b>9</b> <b>(11.8)</b>	<b>65</b> <b>(69.1)</b>	<b>50</b> <b>(65.8)</b>	<b>21</b> <b>(22.3)</b>	<b>16</b> <b>(21.1)</b>

(Figures in parenthesis indicates percentage to the respective total numbers)

Source: Field work, 1992-93.

The table 5.24 provide informations pertaining to the extent of variation in the age-wise distribution of workers in Naghutomi. However, the involvement of cultivation among the age groups are identical in the different villages with similar character. As in Baimho, adult age group is uniformly distributed in and engaged in all kinds of work. As in many parts of tribal India, it is represented that adult involvement in any work is much higher than the old and the young age group. Interestingly, a substantial proportion of 57.2 per cent male and 40 per cent female child are engaged in cultivator category alone in

Naughtomi. No child worker participate in work like hunting/fishing, artisan, trade and commerce.

Table 5.24  
NAGHUTOMI: AGE DISTRIBUTION OF WORKERS

	Child 14		Adult 15-59		Old 60+	
	Male	Female	Male	Female	Male	Female
Cultivators	8 (57.2)	4 (40)	13 (21.3)	16 (25.4)	4 (18.2)	5 (23.8)
Animal husbandry	3 (21.4)	3 (30)	10 (16.4)	15 (23.8)	6 (27.3)	5 (23.8)
Hunting/fishing	-	-	5 (8.2)	-	1 (4.5)	-
Gathering	3 (21.4)	3 (30)	21 (34.4)	18 (28.6)	7 (31.9)	9 (42.9)
Artisan activity	-	-	8 (13.1)	13 (20.6)	3 (13.6)	2 (9.5)
Trade/business	-	-	-	-	-	-
Services	-	-	4 (6.6)	1 (1.6)	1 (4.5)	-
Total	14 (4.3)	10 (10.2)	61 (66.3)	63 (64.3)	22 (23.9)	21 (21.4)

(Figures in parenthesis indicates percentage to the respective total numbers)

Source: Field work, 1992-93.

It is evident from the table 5.25 that there is disparity in the age-wise distribution of workers in villages selected for the study. In fact, adults are economically more active than the old and child age group of workers. However, a substantial proportion of child worker i.e. 46.7 per cent female and 40 per cent male in cultivation exhibit greater variation in their work participation rates. It is also revealed that unlike the child workers in other

villages, a substantial proportion of 4.4 per cent male and 2.2 per cent female is found as working in trade and business in Merangkong. The proportion of the old age workers are rather very low as when compared to the other villages. Thus, the unequal distribution of workers is revealed among the people in lower altitude zone.

Table 5.25  
MERANGKONG : AGE DISTRIBUTION OF WORKERS

	Child 14		Adult 15-59		Old 60+	
	Male	Female	Male	Female	Male	Female
Cultivators	18 (40)	19 (42.2)	201 (31.3)	180 (27.9)	45 (26.4)	22 (21.6)
Animal husbandry	4 (8.9)	7 (15.6)	106 (16.5)	150 (23.3)	38 (22.4)	27 (26.4)
Hunting/ fishing	-	-	17 (2.6)	-	-	-
Gathering	21 (46.7)	18 (40)	197 (30.6)	196 (30.4)	44 (25.8)	26 (25.5)
Artisan activity	-	-	59 (9.2)	84 (13)	36 (21.2)	25 (24.5)
Trade/ business	2 (4.4)	1 (2.2)	24 (3.7)	13 (2)	3 (1.8)	1 (1)
Services	-	-	39 (6.1)	22 (3.4)	4 (2.4)	1 (1)
<b>Total</b>	<b>45 (5.2)</b>	<b>45 (5.7)</b>	<b>643 (74.9)</b>	<b>645 (81.4)</b>	<b>170 (19.8)</b>	<b>102 (12.9)</b>

(Figures in parenthesis indicates percentage to the respective total numbers)

Source: Field work, 1992-93.

The analysis of the distribution of workers show slight variations in all the villages selected for the study. However, Adults are still much more active in this village too. Their

participation rate though varied, is uniformly distributed on different kinds of work. An overwhelming concentration of child workers are found in gathering, cultivation and animal husbandry. Uniformity is seen among the adult workers as they involve in almost all kind of activities.

Table 5.26  
ASANGMA : AGE DISTRIBUTION OF WORKERS

	Child 14		Adult 15-59		Old 60+	
	Male	Female	Male	Female	Male	Female
Cultivators	6 (31.6)	5 (19.2)	23 (26.4)	26 (25.7)	10 (27)	12 (29.3)
Animal husbandry	5 (26.3)	10 (38.5)	12 (13.8)	21 (20.8)	7 (18.9)	11 (26.8)
Hunting/ fishing	-	-	8 (9.2)	-	-	-
Gathering	8 (42.1)	11 (42.3)	24 (27.6)	29 (28.7)	14 (37.8)	10 (24.4)
Artisan activity	-	-	11 (12.7)	18 (17.8)	5 (13.6)	18 (19.5)
Trade/ business	-	-	4 (4.6)	3 (3)	-	-
Services	-	-	5 (5.7)	4 (4)	1 (2.7)	-
Total	19 (12.3)	26 (16.6)	87 (56.5)	101 (64.3)	37 (24.0)	41 (26.1)

(Figures in parenthesis indicates percentage to the respective total numbers)

Source: Field work, 1992-93.

#### 5.10 CONCLUDING STATEMENT

The preceding analysis reveals that there is considerable inter-regional variations in the sphere of work participation in

the economic activity depending upon the nature of social differentiation caused by tribe/ethnic composition and size of land ownership. Some of the important observations which emerge during the discussion are listed below:

- i) The variation in the work participation in economic activities across regions and social classes is a product of complex interaction between the two important attributes of social differentiation, closely linked with the agrarian structure which differs significantly from region to region.
- ii) Socio-economic infra-structure and facilities operate as a significant determinant in the identification of whether the villages are developing or undeveloped. It is identified that the villages close to the town are much more accessible to developmental impulses. More shops, schools, better medical facilities, higher wage rate and improved agricultural inputs are noticeable in the villages closer to the towns.
- iii) Although tribal economic organization is characterised by less inequity in the distribution of land, significant differences in access to this important asset is emerging among the tribal population surveyed in this research. Although landlessness is rare, economic differentiation in terms of access to land holding is however taking place at a much faster pace in the low altitude ecological zone which

offers better scope for agricultural development. Another significant development refers to an increased economic differentiation taking place in households belonging to villages located closer to urban centres. This is sufficient proof of the role played by the urban development in accelerating the process of socio-economic differentiation in rural tribal areas of Nagaland.

These processes may have significant impact on the nature of 'work' and 'employment'. For example, in areas close to non-tribal dominance and offering larger scope for the generation of agrarian surplus are likely to experience a shift from the traditional reciprocity in work to those based on wage employment. The experience is likely to be similar in the villages in close proximity to towns.

iv) In the fragile hilly ecology of Tuensang and Khudei and in the middle altitude ecological zone of Baimho and Naghutomi, extreme climate, seasonality of crop production and crop failures due to bad monsoons results in low yield. Remarkably high degree of inequality in availability of fertile land is another problem in the case of Naghutomi and Baimho.

v) It is evident from the data that the fragile economic base of the villages keeps both men and women constantly absorbed

in work. About 80 per cent of the population from both the sexes are engaged in work. It is significant that there is little differences in the participation rate between the males and the females at the aggregate level. The percentage of workers to total workers reveals that as far as the cultivator category is concerned, more of the males work in agriculture except Asangma with 27.4 per cent females and 25.3 per cent males. Female members pay greater attention to domestication and care of animals in all the villages selected for the study. Gathering is an activity significant for both the sexes. artisan activity occupies an important area of work of the rural people. It is indicated that except in Tuensang (highland), the proportion of female participation rate is higher in the remaining five villages. Hunting/Fishing is an activity of the males alone in this traditional society. Merangkong dominates the trade/business activity with 3.4 per cent males and 1.9 per cent females. It is also noticed that not a single person is reported to have been involved in trade/business in Naghutomi.

- vi) Generally, the villages close to town were supposed to be more influenced and accessible in terms of trade and business. But around 9.5 per cent and 4.8 per cent females are engaged in this type of work in the villages away from the town in sharp contrast to around 3 per cent male and 1.8 per cent female participation in this occupation in the villages closer to towns.

vii) The percentage of workers within the village, within the region, within the state and outside the state reveals that the villages in the low lying areas are more exposed to modernity as evident from the data from Merangkong and Asangma. It is revealed that the female workers dominate the percentage of workers are far more numerous within the village (above 90 per cent) with the only exception of Khudei which has a dominance of males (81.1 per cent). On the other hand, the percentage of workers within the region, within the state and outside the state is dominated by males in all the sample villages. Interestingly, there is not a single female worker outside the village except Asangma in the lower altitude zone where 1.3 per cent work within the state and 0.6 per cent work outside the state.

viii) Interestingly, the Aos, far more concentrated in the low altitude zone are economically much more advanced than the Changs and the Semas who occupy highland zones. Surprisingly, not a single female worker of all the three tribes were returned as workers outside the state. This further shows that out migration of male workforce from the villages. Women members are constantly absorbed in work and confined only in the work available within the village.

ix) Age distribution of workers indicates that the participation rate of the adults for both the sexes are higher than the old and the child participation rate. Most of the work

contribution of children is on gathering, so also in the case of older workers. It is revealed that these tribals remain active and working even at the age of 60+ . However, not even a single child worker is reported in artisan activity, services, hunting/fishing and trade/business from other villages except a substantial proportion of 4.4 per cent male and 2.2 per cent female child working in trade/business in Merangkong.

#### References:

1. The rationale of selecting villages, the sample size and their general characteristics are presented in table 1.1 under the title 'Sample Design' in the first chapter.
2. The information about the population size and number of households in both the villages pertain to the year of survey i.e., 1992-93. These has been obtained from the records of the village headman, (locally known as Goanbura) and church pastor.
3. Random House Dictionary of the English Language, 1966.
4. Hutton, J.H. The Angami Naga, 1926, p.143.
5. Article 371 (a) of the Constitution of India gives assurance to the people of Nagaland as follows:  
"371(A) (I) Notwithstanding anything in the constitution.  
a)No Act of Parliament in respect of :
  - i) Religion or social practices of the Nagas,
  - ii) Naga Customary Laws and Procedures,
  - iii) Administration of Civil and Criminal Justice involving decisions according to Naga Customary Laws.
  - iv) Ownership and transfer of land and its resources shall apply to the state of Nagaland unless the Legislative Assembly of Nagaland by a resolution so decides."

6. The social practices of the Nagas need to be re-examined and re-defined. If the Constitution of India states that no Act of Parliament in respect of social practices shall be applied to the state of Nagaland unless the Legislative Assembly of Nagaland by a resolution so decides. It will be interesting to study critically and argue the areas of social practices of the Nagas and under the framework of this clause and definition of social practices of the Nagas could have a new social order. The Indian Constitution recognises the necessity of having a separate political and administrative structure for the tribal people. The "Excluded and Partially Excluded Areas" are no more existence and applicable now. They have been replaced by "Schedule Areas". In spite of such clear constitutional provisions the Nagas have failed to reconstruct a self-reliant society; a new social order basing on their socio-cultural practices and beliefs which are the need of the hour.
7. In some cases, the village elders allow the individual to cultivate the village land individually and proprietary rights were exercised by the families. The village council or co-ordinating authority looks into the location of shifting cultivation and allied matters.
8. Bareh, op. cit., p.140.
9. The male members of these households are from other villages who have married to the women from the sample village. Since women are not supposed to inherit property from their parents, these couples are therefore left without any cultivable land.

CHAPTER - VI  
CONCLUSIONS AND IMPLICATIONS

6.1 A summary of findings of the current research report has been presented in this chapter. This research work attempts to understand the responses to work in a traditional society of the Nagas. The purpose was to examine the role of ecological factors and the intervening force of the social structure which by and large affects the responses to work. The study assumes that the ecological setting provides the primary basis of work and the nature of social differentiation (stratification) creates conditions for differential responses to work.

The patterns of 'work' and 'employment' were studied reference to six Naga villages. The villages were selected on the basis of their diversity in terms of ecology, ethnicity and relative distance from the urban areas. However, since diversity in terms of different tribal groups constitutes an important basis of social differentiation in Nagaland, due attention was paid to this factor while selecting the villages. These tribes of the six villages belonging to the three zones may not be a truly representative case to permit generalization for the state or the Naga society as a whole. However, some of the trends in work participation and its implications in the sample villages provides valuable insights into the nature and socio-economic transformations which may be true for larger areas in the state.

6.2 The ecological settings of the study area is dominated by Himalayan topography with its accompanying ridges and hills cut into river valleys which provides very little valley area, for

most of them flow in V-shaped valleys. Most of the region is too rugged or forested permitting agriculture to be practised only in the manageable slopes and limited river valleys. At places, terracing is practised while in others jhum is the dominant method of cultivation. As a result agriculture is of highly subsistence in nature and supports only a part of the requirements of the people. Unprecedented growth in population adds to the problem. Subsistence nature of the agricultural production is indicated by small arable areas, traditional methods of cultivation such as jhum, very low level of technology and cropping pattern overwhelmingly loaded in favour of food grains. Despite the weak agrarian base, agriculture continues to absorb a very large proportion of the labour force. Generally negative from the agricultural point of view, the cultivation of various crops is undertaken with great difficulty by suitably adjusting work cycle to local variations in topography and agro-climatic conditions.

The people have adjusted to the environment by evolving different methods of material practices (cultivation), such as jhum in the slopes and terrace cultivation wherever the topography permits and settled cultivation in restricted river valleys. Diversity in agricultural practices require different techniques to be adopted.

Due to the fragile agrarian resource base of the region, the population responds to a variety of other economic pursuits

offered by the eco-system. Large forest cover naturally provides an economic base for hunting, gathering, lumbering and collection of various food and other items for the people. Fishing is another activity particularly in areas close to the rivers like Jhanzi, Dikhu and Tizu where they flow in wide valleys.

Domestication and care of animals is essential as an economic support in a region where agriculture is highly subsistence in nature. Care for a variety of domestic animals and semi-domestic animals like mithun etc., constitutes an important sphere of work.

In an essentially subsistence economy without much recourse to trade, artisan production of various types keep both men and women constantly engaged. Abundance of bamboo and cane provide excellent raw materials which are used to make several items of daily use.

Recent development in the area through administration, spread of literacy, urbanization and increase in other infrastructural facilities are also opening up of new opportunities of work and employment in the modern sector.

6.3 The work cycle shows a complex pattern of work mostly related to agriculture. The long period of relative agricultural inactivity allows the rural people to undertake a host of non-agricultural works which are extraordinarily labour intensive.

But the tribal institutions of community involvement and reciprocity in labour use inhibit the development of a full fledged wage labour market and the extent of the interference of the market in work processes are restricted to the minimum. The subsistence nature of the production and tribal social organization makes the pattern of work a reflection of the close, interaction between society and ecology.

It is identified that there are significant differences in the work cycle in the three different ecological zones characterised by different agro-climatic conditions. A very significant point that emerges from the study of the work cycle in diverse ecological conditions refers to the nature of community involvement in work. It is clear that in highland areas, characterised by more hostile environment and low agricultural resources, the types of works involving community participation and reciprocity in labour use is much more compared to the areas located in the foothills. Thus, in a traditional tribal society, as that of the Nagas, the types and rhythm of work seem to be fashioned by the dictates of the environmental parameters. Inter-tribal differences in work cycle is far less conspicuous. Secondly, the rhythm of work in villages located close to the urban centres is showing modifications as a result of modernizing influences emanating from the towns. A substantial section of the population is "employed" and this results in a low priority being accorded to community works and reciprocity in labour use. However, the highland areas do not show much of a

variation in the patterns of work between the villages - either close or far away from the town.

Tribal institutions of lack of gender inequity is amply demonstrated in the work cycles performed by men and women. It is evident that the sexual division of labour exists among Nagas, but the division is based more on complementarity rather than segregation or exploitation. Notably the nature of sexual division of labour shows little variation across ecological regions or among tribal groups.

6.4 An analysis of the census data regarding the proportion of the workforce and its structure shows an overwhelming concentration of the workers in the owner-cultivator category. Participation in other kinds of work is negligible. This is mainly due to the census definition of productive work which relegates multitudes of other types of work to insignificance. This is particularly in the case of artisan activity or gathering and hunting which are not considered as main work by the majority of the people. Agricultural labourers are nearly absent. This is understandable as the tribal social order is not yet characterized by large scale disparities in the distribution of land and other assets.

In the absence of a wage labour market and consequent upon extremely seasonal nature of agricultural activity which accentuates the demand in labour market during certain

operations, 'reciprocity of labour' is the answer to such a situation. As evident from the data collected from the sample villages, such a dependence is far more pronounced in the villages located in higher altitude as well as those away from urban centres.

However, there are interesting differences in work participation rate and the structure of the workforce across the selected circles located at different hypsometric levels and also between the sexes. In the foothill zones, the two selected circles show a low overall participation of work among the Aos and Lothas. While in the former, the male participation rate is higher than the females, in the latter the female participation rate exceeds that of the males. The highest participation rate is found among the Angamis living in the higher altitudes but the female participation rate is relatively low. Among the Semas, the Changs and the Konyaks, the participation rate among the males and females are almost identical. work participation rate among the Chakhesang women exceeds that of their men counterparts.

Interestingly the male workforce among the Aos show a higher proportion engaged in non-agrarian sectors while among all the others selected tribes, agriculture absorbs an overwhelming proportion of the male workforce. It is only among the Angamis that a substantial proportion of the male workforce is engaged in non-agricultural work. Location of the capital town Kohima, in this area probably explains the shift.

In the case of the females however, the main concentration is in the agricultural sector irrespective of the ecological and ethnic differences. The only exception is in Tuli circle located in the foothill zone where a significant proportion of the women workers are found engaged in non-agricultural activities.

6.5 Though the social structure is characterised by tribal organization, there are important and clearly discernible elements of social differentiation in the sample villages. Some of the important observations on social differentiation and variation in economic participation are as follows:

i) Although tribal economic organization is characterised by less inequity in the distribution of land, significant differences in access to this important asset is emerging among the tribal population surveyed in this research. Although landlessness is rare, economic differentiation in terms of access to land holding is however taking place at a much faster pace in the low altitude ecological zone which offers better scope for agricultural development. Another significant development refers to an increased economic differentiation taking place in households belonging to villages located closer to urban centres. This is sufficient proof of the role played by the urban development in accelerating the process of socio-economic differentiation in rural tribal areas of Nagaland.

These processes may have significant impact on the nature of 'work' and 'employment'. For example, in areas close to non-tribal dominance and offering larger scope for the generation of agrarian surplus are likely to experience a shift from the traditional reciprocity in work to those based on wage employment. The experience is likely to be similar in the villages in close proximity to towns.

ii) In the fragile hilly ecology of Tuensang and Khudei and in the middle altitude ecological zone of Baimho and Naghutomi, extreme climate, seasonality of crop production and crop failures due to bad monsoons results in low yield. Remarkably high degree of inequality in availability of fertile land is another problem in the case of Naghutomi and Baimho.

iii) It is evident from the data that the fragile economic base of the villages keeps both men and women constantly absorbed in work. About 80 per cent of the population from both the sexes are engaged in work. It is significant that there is little difference in the participation rate between the males and the females at the aggregate level. The percentage of workers to total workers reveals that as far as the cultivator category is concerned, more of the males work in agriculture except Asangma with 27.4 per cent females and 25.3 per cent males. Female members pay greater attention to domestication and care of animals in all the villages selected for the study. Gathering is an activity significant for both the sexes. artisan activity occupies an important area of work of then rural people. It is

indicated that except in Tuensang (highland), the proportion of female participation rate is higher in the remaining five villages. Hunting/fishing is an exclusive activity of the males alone in this traditional society inspite of its dwindling base. Merangkong dominates the trade/business activity with 3.4 per cent males and 1.9 per cent females. It is also noticed that not a single person is reported to have been involved in trade/business in Naghutomi.

iv) Generally, the villages close to town were supposed to be more influenced and accessible in terms of trade and business. However, a sharp differences is presented by male participation rate of 9.5 per cent and 4.8 per cent female in the villages away from town. This is a negative impact as the differences are only 3 per cent male and 1.8 per cent female participation rate in the villages closer to towns.

v) The percentage of workers within the village, within the region, within the state and outside the state reveals that the villages in the low lying areas are more exposed to modern influences as has been shown by Merangkong and Asangma. It is revealed that the female workers dominate the percentage of workers within the village (above 90 per cent) with the only exception of Khudei being dominated by males (81.1 per cent). On the other hand, the percentage of workers within the region, within the state and outside the state is dominated by males in all the sample villages. Interestingly, there is not a single

female worker outside the village except Asangma where 1.3 per cent work within the state and 0.6 per cent work outside the state.

vi) The work participation rate shows significant inter-tribal variations. The Aos are economically much more advanced than the Changs and the Semas. Surprisingly, not a single female worker of all the three tribes were returned as workers outside the state. This further shows that out migration is more among the male workforce (within the region, within the state and outside the state). Women members are constantly absorbed and confined only in the work available within the village.

vii) Compared to the overall situation of the modern influences, the villages closer to urban areas are much more accessible to all kinds of developmental impacts.

viii) Age-classification of workers in all the sample villages reveals that the factor of age does not operate as a significant barrier. People belonging to all age groups participate in diverse economic activities though there are important variations in the nature of economic participation. The ecological variations too exert powerful influences on economic participation of people belonging to different age categories. Most of the work contribution of children is the sphere of gathering, so also in the case of older workers. However, not even a single child worker is reported in artisan activity,

services, hunting/fishing and trade/business from other villages except a substantial proportion of 4.4 per cent male and 2.2 per cent female child working in trade/business in Merangkong located in low altitude ecological zone.

6.6 Sexual division is less clear in most of the works in the traditional sector though the females are far more active in animal husbandry and artisan activity, while both men and women are in almost equal proportion in cultivation and gathering activities. But activities connected with formal services, trade and business are works more with men than women.

It is significant that the segment which has moved away from land-based production is largely represented in formal services and trade and business, and are generally dominated by the men while women remain active in animal husbandry, gathering and artisan activities leading to a sharper sexual division of labour in this class. There is a greater equality between sexes in the participation of diverse categories of work though the major concentration takes place in cultivation and gathering.

The sexual division labour in the traditional sector is well defined when the broad activities are broken into component activities. For example in cultivation, cutting of the forests, ploughing and threshing is dominantly a male activity while preparation of the soil, sowing and weeding are female activities. Tending of domestic animals, milking and feeding

etc., are dominantly female activities while collection of fodder and grazing are dominantly male activities. Artisan production like weaving, Knitting is exclusively female tasks, while basketry, wood carving and blacksmithing are exclusively male occupations.

6.7 A study of the important occupations under the category of trade and business show that a very large proportion of the workers are engaged in petty trades such as in vegetables, betel nut and selling of pork and beef etc. Females are numerous only in the vegetable trade.

Teaching and jobs under the state Government seem to be the only occupations to which the literate segment is responding. It is the primary schools in which a very large proportion of the workers in the formal services are employed. A study of the types of jobs under the state Government services indicate that only low paid tertiary employment is available to the village population. The largest number of employment is in the category of class IV such as drivers, steno-typists, police constables, peons/chawkidars and sweepers.

The sample villages may not be a truly representative to present generalizations for the state as a whole. However, some of the trends in work participation in the sample villages are worth noting:

- a. The ecological basis of highland agriculture being limited, the population relies on a number of other recourses to work outside agriculture.
- b. Sexual divisions of labour is less clear in the traditional sphere but is emerging strongly in the non-agrarian tertiary sector.

6.8 The modern influences seem to accelerate the process of incipient social differentiation in a traditional tribal order. Households having larger access to land have been quick in responding to employment available in the modern sector. This is bound to break down the egalitarian tribal social structure based on works carried out on mutual support and co-operation. Moreover, employment in the service sector by a small segment means increased money supply leading to the emergence of disparities based on wealth and income.

Employment in the modern sector is likely to bring in necessary distinction between work and employment. The former will be seen as unremunerated and therefore not gainful, whereas the later will be valued leading to a scramble for jobs in the Government sector will accelerate. This will obviously result in the creation of a large category of 'unemployed' people who would remain unremunerative for their productive work. The question of unemployment is likely to be severe in view of the fact that the modern influences are limited only to a few tertiary employment

and has very little impact on the creation of productive avenues of work based on the resources locally available. For example, the skilled in the artisan production is available in most of the households. Animal husbandry is much undeveloped despite enormous potential for it.

The impact of modern employment has a clear gender bias. The males have been able to respond to the employment opportunities while women lag way behind. This is likely to create sex segregation in modern employment and an acceleration of patriarchal values increasingly relegating women to production in the subsistence (food production) sector - a feature already noticed in most non-tribal societies. This may gradually deny the pre-eminent role which the tribal women are accorded in the economy with all its accompanying sociological implications.

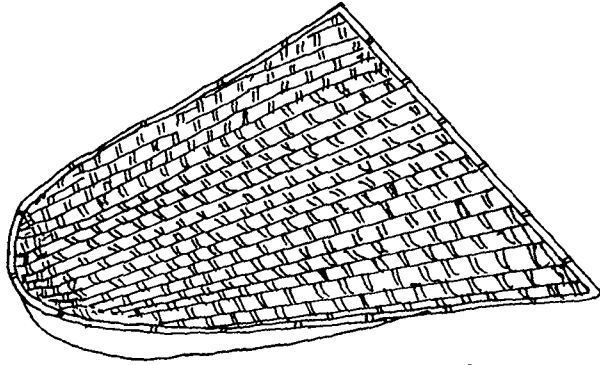
Unless intelligent interventions are made, the process is likely to be breakdown the values of a peasant tribal social order and bring it closer to the non-tribal societies. The evidence from the sample villages located closer to the towns and in the foothill zone certainly provide indications of these kind of a transformation.

6.9 It may be suggested that efforts must be made to protect the ecological set-up to avoid the erosion of the material base of subsistence of a vast segment of people who depend on non-agrarian resource base. Skill formation is important as the shift

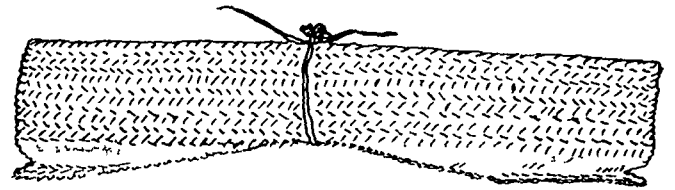
from agrarian sector is likely to be more in future. Already, the existing skills such as those in artisan production must be strengthened and encouraged through co-operatives. The forests must be protected from indiscriminate felling to feed industries needing them. Efforts must be made to encourage animal husbandry for which the eco-system has a large potential. Technological advancement in increasing production in terraces and jhum areas without much damage to the environment is a necessary condition for all-round development of the economy and provision of avenues of work. An intelligent policy of regional development is necessary rather than merely allowing this hilly and tribal area to mechanically integrate with the broader national space economy. This development as the past experiences show will lead to eco-destruction and an increased dependence of the people on tertiary employment and the reckless of the market economy.

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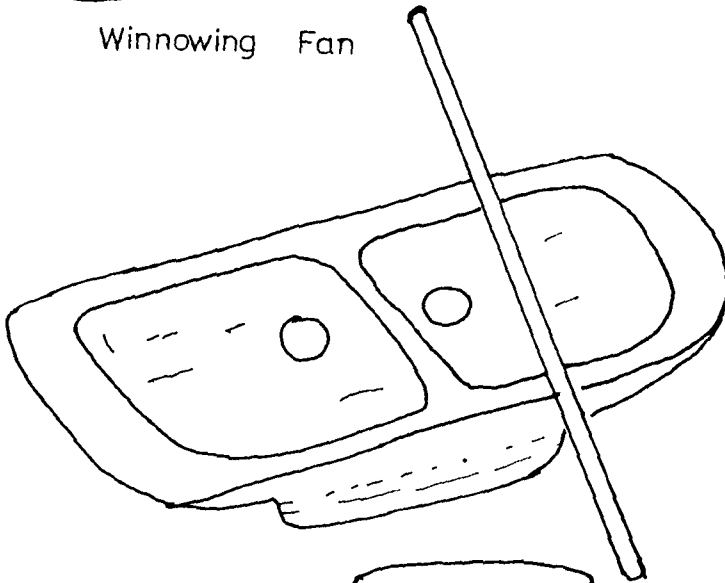
HOUSEHOLD IMPLEMENTS



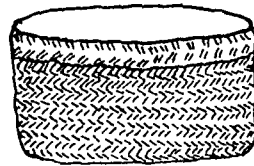
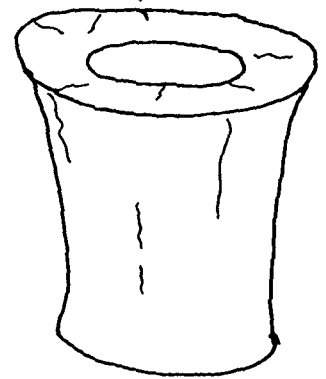
Winnowing Fan



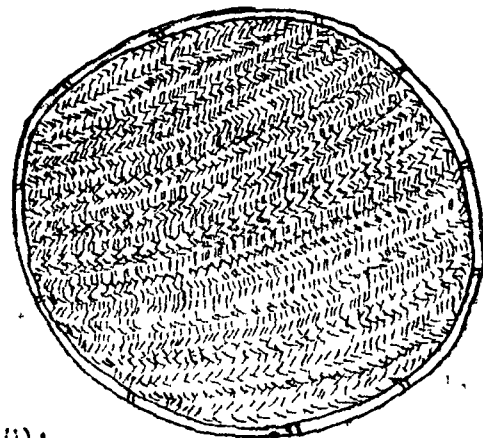
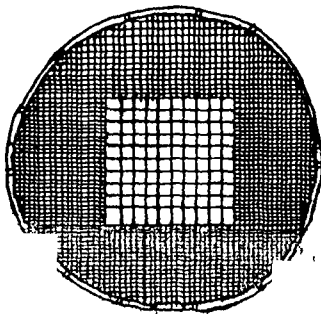
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Pounding Tables

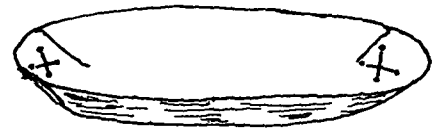
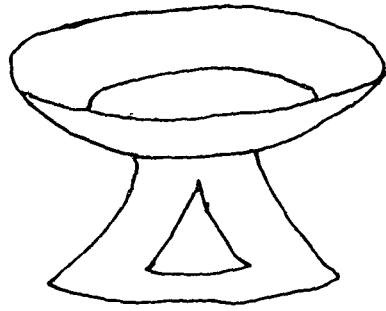


Baskets

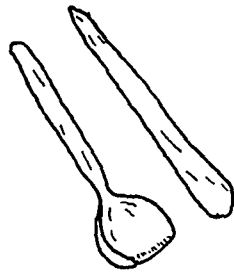


Winnowing Fan type (Jangyitsü):  
made of bamboo splints which is used  
to separate rice without husk and rice  
with the husks (in chaff) not removed.

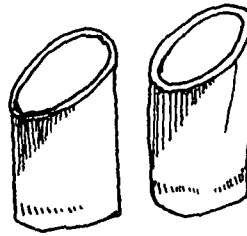
HOUSEHOLD IMPLEMENTS



Wooden & Bamboo Platters



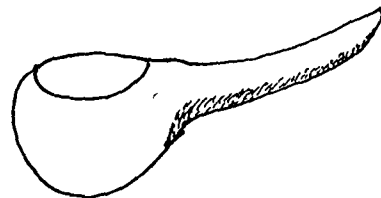
Bamboo Spoons



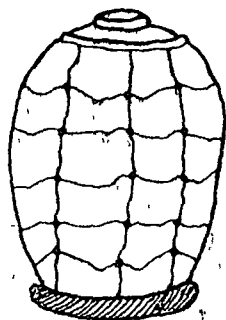
Bamboo Mugs



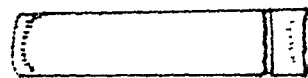
Mortar & Pestle



Water Holder

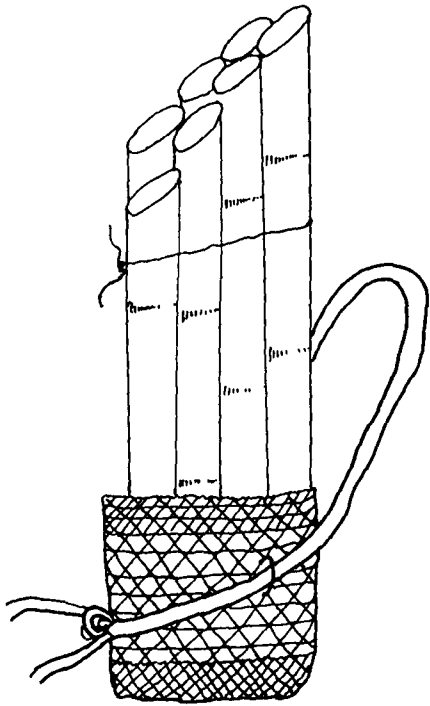


Bamboo Shoot Container



Dry Fish Container

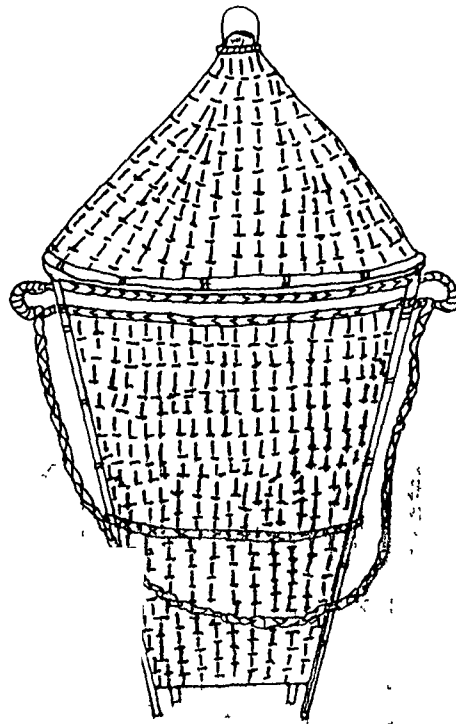
HOUSEHOLD IMPLEMENTS



Bamboo Basket for carrying water.



Low Seat made of bamboo sticks and cane.



Java (Ketsü) made of split — bamboo for storing valuables.

DIFFERENT KINDS OF BASKET

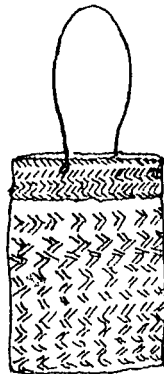
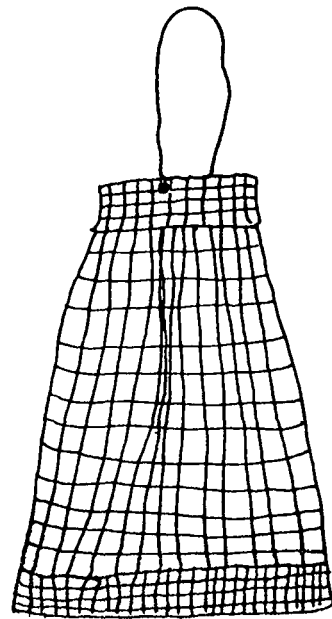
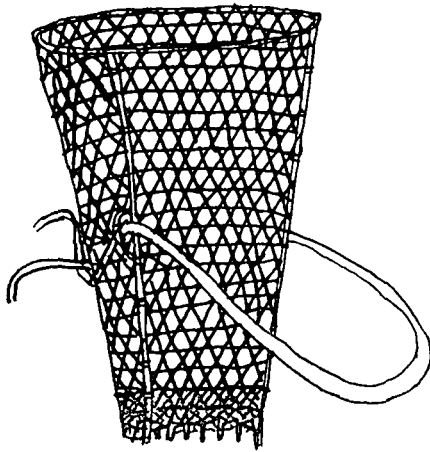
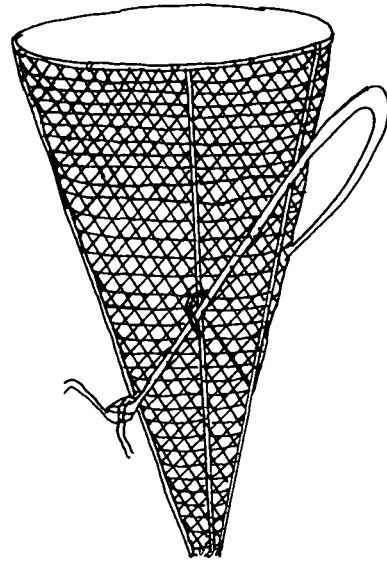
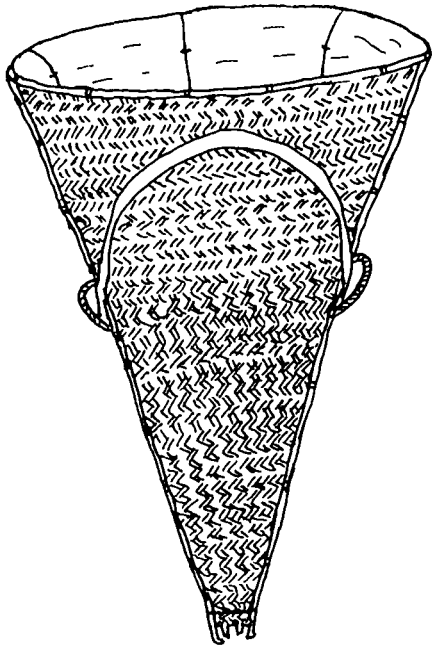


PLATE - 4

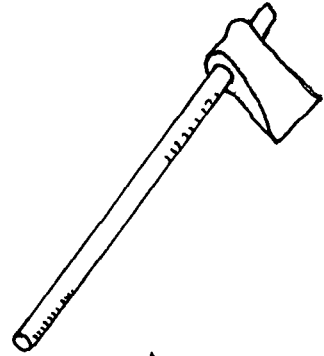
AGRICULTURAL IMPLEMENTS



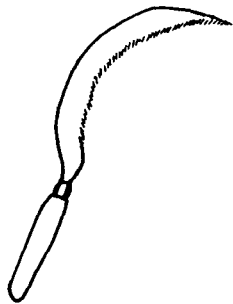
Dao  
(Hatchet)



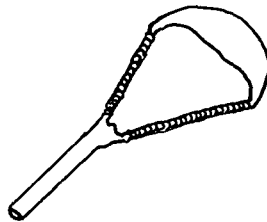
Dao Holder



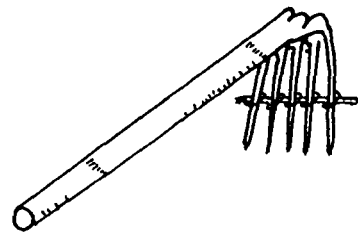
Axe



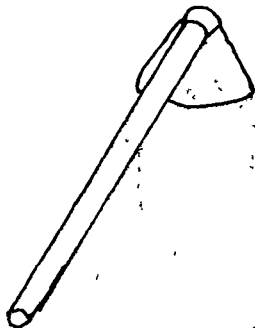
Sickle



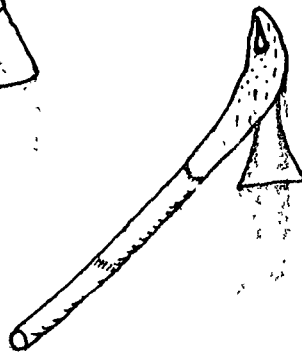
Scraper



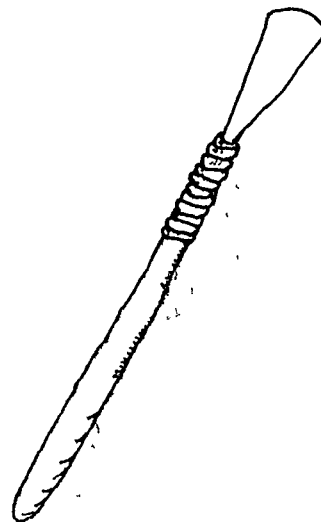
Rake



Spade



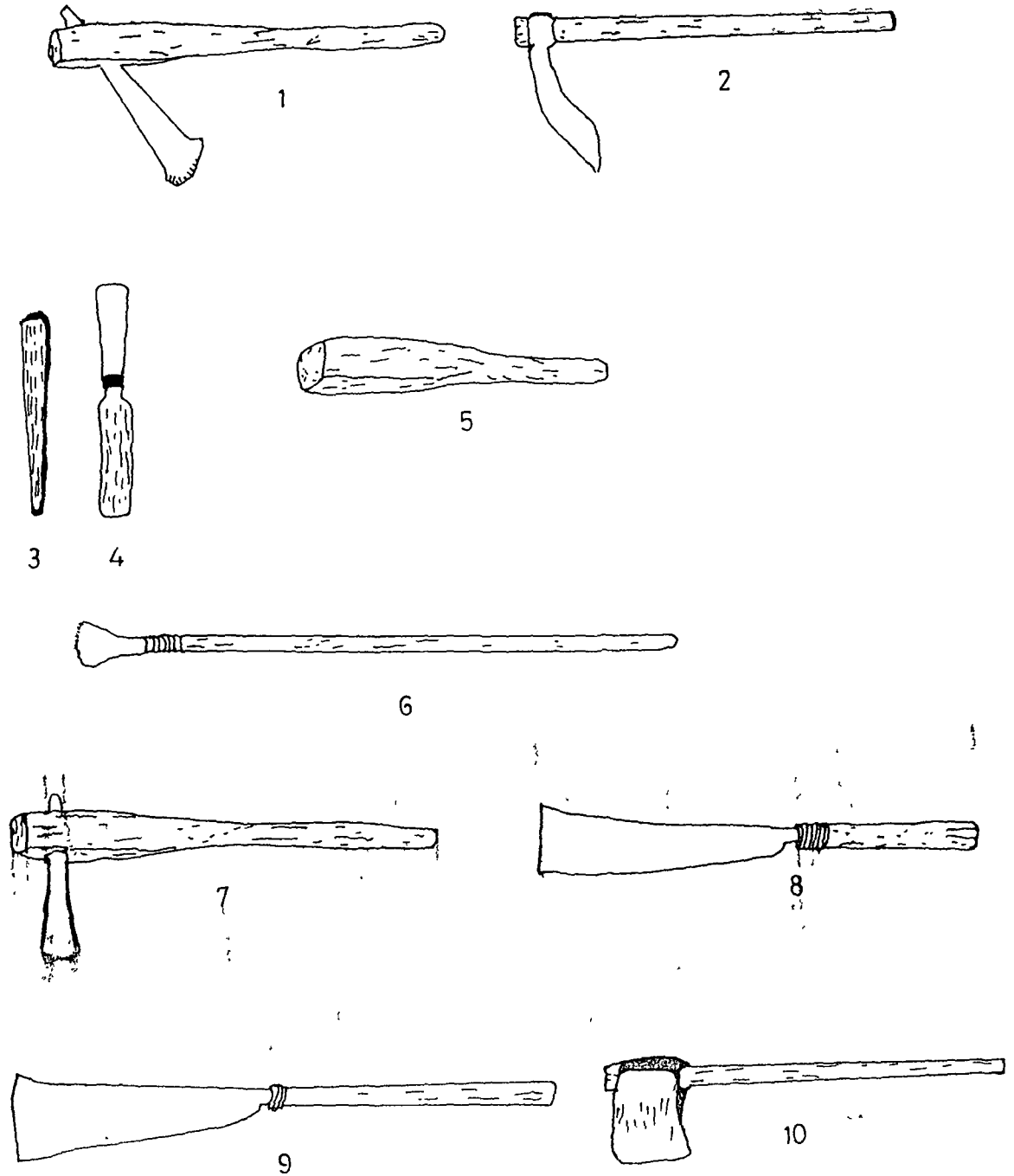
Hoe



Digging Sticks



# TOOLS USED FOR WOOD CARVING



No1 & 10 are different kind of Axes  
No.2 adze 3, 4 and 6 chisels  
No.5 wooden Hammer  
No.8 Angami Dao  
No9 Ao Dan

WOOD CARVING

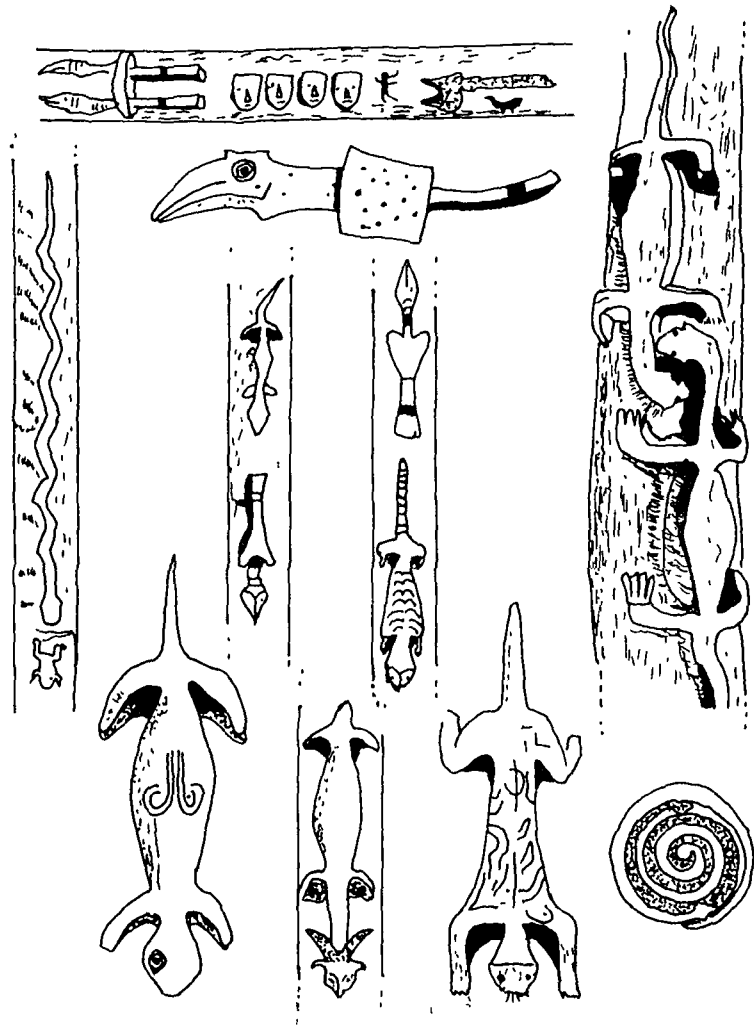
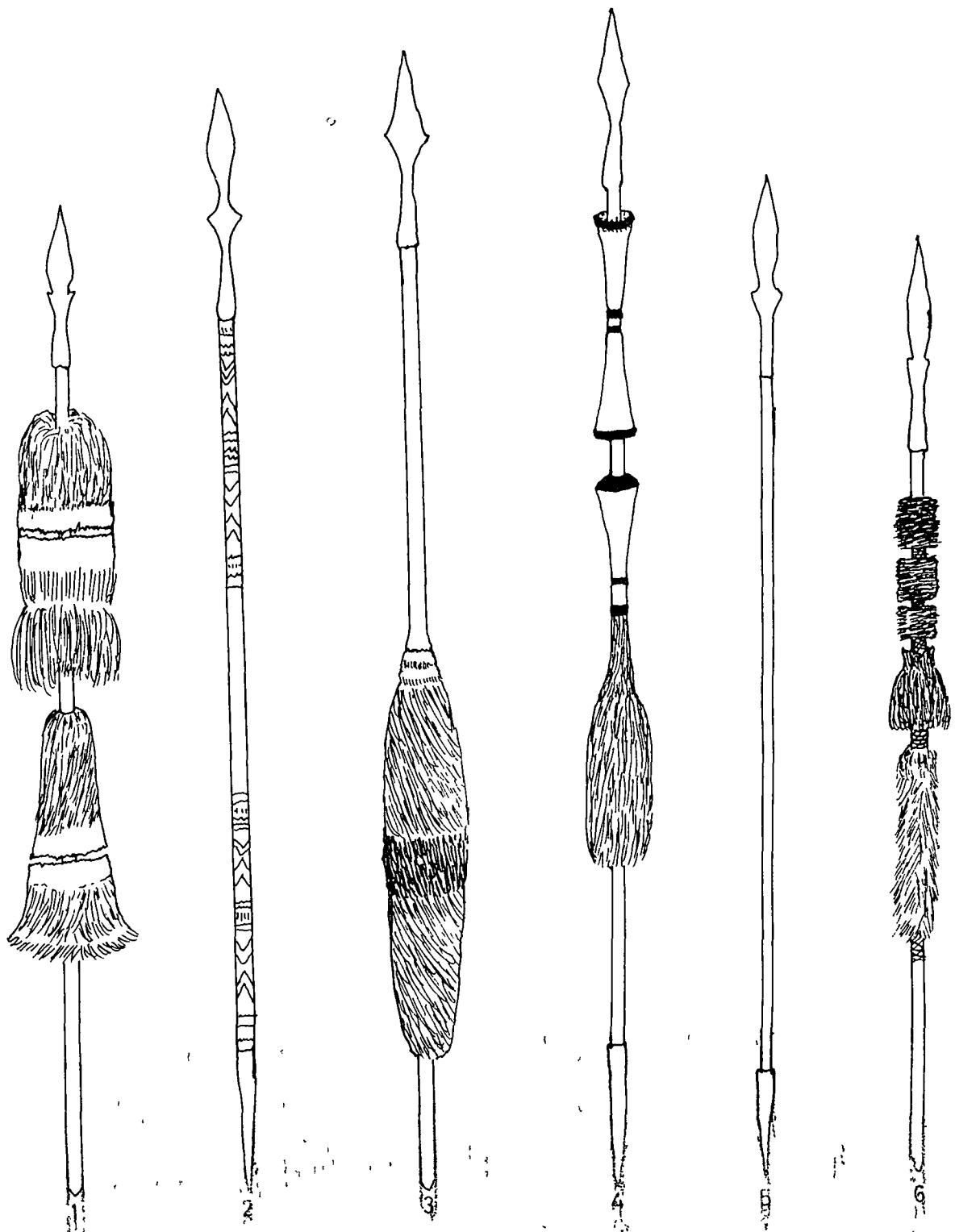


PLATE - 7



Several types of Spears used by Naga tribes. No.2 and 5 are hunting Spears which is also used as walking stick by old men. The decorated Spears are used during Festival and dancing.

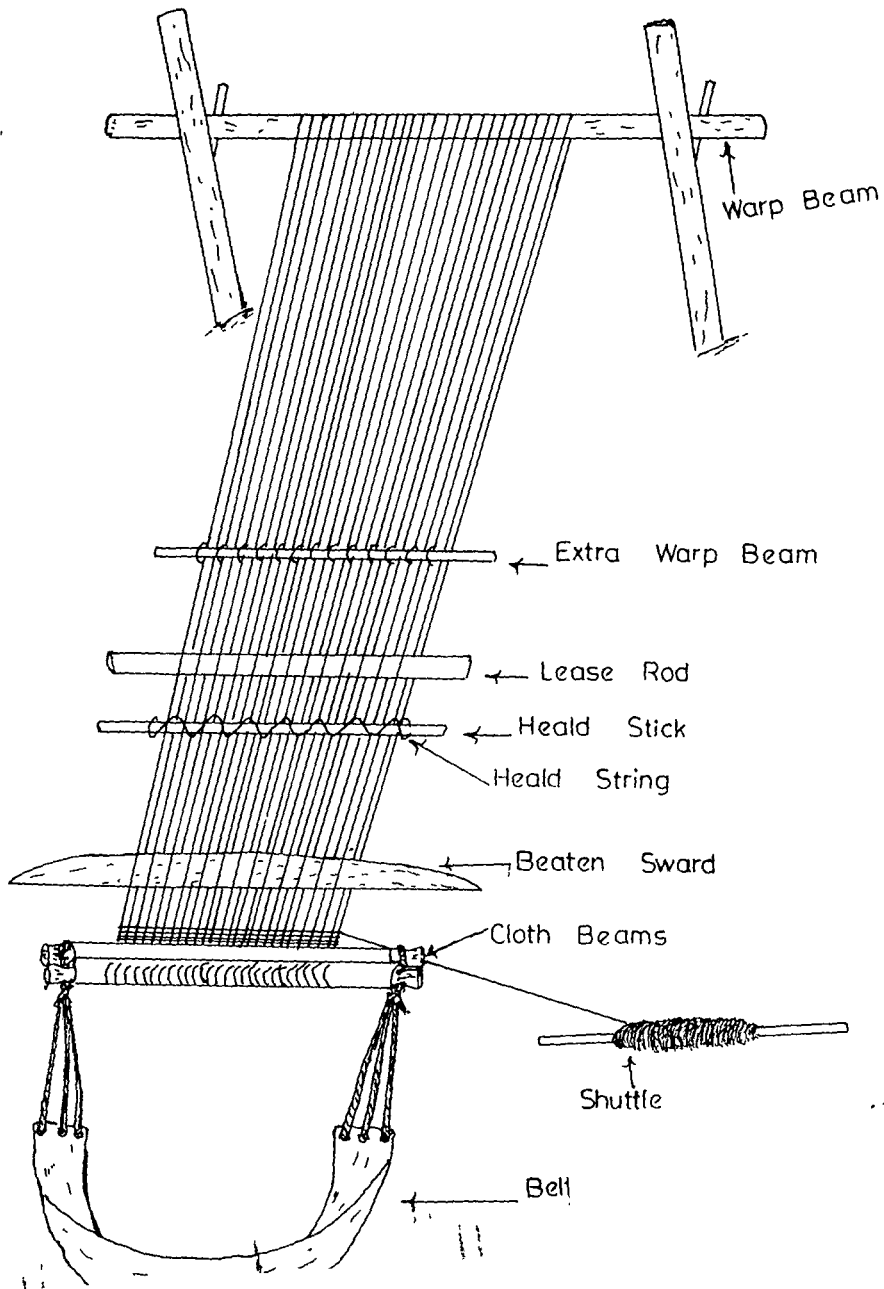


PLATE-9

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