



# Forest in the Life of the Khasis

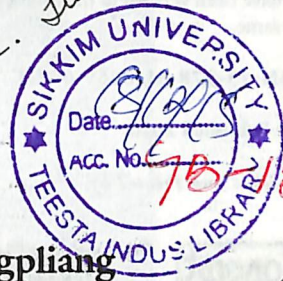
**Rekha M. Shangpliang**



ASC  
50899393  
GB1362

# Forest in the Life of the Khasis

I,  
My Teacher and Guide  
at every step of my student  
life and even now.  
Prof. A.C. Linda



**Rekha M. Shangpliang**  
Department of Sociology  
North Eastern Hill University  
Shillong

With utmost gratitude and warm regards  
Rekha M. Shangpliang  
12/05/2010  
Shillong.

CONCEPT PUBLISHING COMPANY PVT. LTD.  
NEW DELHI-110059

## PREFACE

This book is an outgrowth of my Ph.D. thesis under the title "Forest in the Life of the Khasis : A Study in the Role of Forest in Khasi Socio-economic Structure" which I have worked on for almost 6 years. The idea of bringing out this book sparked off from a casual tea-time conversation that I had with my friends and colleagues at the department who held out high opinion about the relevance of the work to the present ecological scenario of the state and about its usefulness for educating and generating eco-consciousness among the people. It also occurred to me that besides being useful to general readers, this book if made available, would be beneficial for academicians, planners and research scholars as well. Keeping this in mind, I set to pattern out my work into two separate volumes. The present volume is based on the ecological dimensions of forest in Khasi culture. It is intended to disseminate knowledge about Khasis, their land, ecology and economy and the parameters of forest usage among the Khasis. While the other volume is meant for a deeper understanding about the Khasi concept of forest and ecology; their implications in the socio-economic and spiritual life of the Khasis including a case study of two sample villages with empirical data-base.

This Book is divided into 4 chapters. First chapter lays emphasis on the background of Khasi society throwing light on the origin, history and ecological heritage of the Khasi people. This chapter also discusses at length the system of classification of land and forest in Khasi Hills, the land tenure system and forest cover information of the State.

The second chapter focuses on the Khasi concept of forest explaining the various connotations of forest as a sacred entity which finds expression in Khasi beliefs, legends, folklores, folktales and literature. With a view to analyse the eco-theandric view of nature, this chapter discovers the wholeness of nature and ecology in the socio-religious life of the Khasis, reminiscent to those found in the life of the Maler tribe studied by L.P. Vidyarthi.

Chapter 3 gives a detailed account of the parameters of forest usage in Khasi society covering various aspects of Khasi life and culture such as shelter, food, medicinal herbs, musical instruments, weaving and dying, rituals and ceremonies.

Chapter 4 is a conclusive evidence of the fact that nature still occupies a central place in Khasi life and culture in spite of large scale destruction of forest by some vested interests to satisfy his needs and greed. Truly, today it is quite a deplorable sight to see our forests disappearing at an alarming rate, but this state of things has come to the fore only in recent times. In the past, the Khasis adored nature and treated her with due respect and reverence. While it is true that we cannot get back the golden era or "Aiom Ksiar" when men and nature and beasts lived peacefully, there is still a ray of hope that the tradition of eco-spirituality embedded in Khasi culture can serve as a starting point to continue the pristine relationship with the forest that has existed in the past.

The weaknesses of this book are precisely my own—its strengths mine, too. There were several people who extended invaluable help, which I am eager to recognize here. I sincerely thank the faculty at the Department of Sociology, NEHU, who have supported me throughout my years as a student and even today as a colleague. A special word of thanks to Prof. A.C. Sinha an erudite mentor in the early stages of my work and still a valued supporter in every way. To others who read all portions of my manuscript and provided advice and criticism, I am indebted to all of them.

The most important acknowledgement, however, is reserved for my father. His support and good judgment is recorded at every page.

Last but not the least, I dedicate this book to my most beloved mother who passed away five months before the book was due to be out. I'm sure she would have been very proud of me as she always dreamed of her youngest daughter achieving new heights in her life and career.

**Rekha M. Shangpliang**  
Department of Sociology  
NEHU, Shillong

## CONTENTS

<i>Preface</i>	vii
<i>Glossary of Vernacular Terms</i>	x
<i>Introduction</i>	xiii
1. <b>The Khasis-People, Land and Ecology</b>	1
Classification of Land and Forest in Khasi Hills	10
Land Tenure System in the Khasi Hills	10
Classification of Forest Lands in Meghalaya	16
General Account of Forest Types of Meghalaya	23
2. <b>People and Forests in Khasi Hills</b>	28
Forest : A Sacred Entity	29
Sacred Groves or <i>Law Kyntang</i> : An Ecological Legacy	29
Forest Wisdom of the Khasis	35
Khasi Rural Women and Forest Livelihood	36
Jhum Cultivation or <i>Thang Shyrtyi</i>	39
3. <b>Parameters of Forest Usage in Khasis Society</b>	45
4. <b>Conclusion</b>	68
<i>Appendices</i>	73
<i>Bibliography</i>	79
<i>Index</i>	83

## GLOSSARY OF VERNACULAR TERMS

<i>Bylla Sngi</i>	- daily labourer
<i>Bylla Surok</i>	- Muster roll
<i>Ka Kper</i>	- Homestead Land
<i>Ka iuh moi</i>	- a harrow
<i>Ka Latar</i>	- A type of tree, the bark of which is used as ropes for constructing houses
<i>Ka Rashi</i>	- a sickle
<i>Kha</i>	- born of
<i>Khanatang bad Puriskam</i>	- Khasi folktales and legends
<i>Khlam</i>	- Serious plague
<i>Khlaw Shimet</i>	- Private Forest
<i>Khlaw Shnong</i>	- Village Forest
<i>Kham</i>	- Khasi arrow
<i>Khoh</i>	- Bamboo basket
<i>Ki khlaw ki btap</i>	- the forest
<i>Ki Lum Makachiang</i>	- the Himalayas
<i>Kmp</i>	- Bamboo Umbrella, Rain shields
<i>Kvai</i>	- Betelnut
<i>Kynbat Samthiah</i>	- a particular flower the petals of which open when the sun rises and close as the sun begins to set
<i>Dawai Kynbat</i>	- Khasi Folk Medicine
<i>Dieng Kseh Bilat</i>	- Pure Oak
<i>Durbar Shnong</i>	- Village council where all disputes are settled
<i>Haat</i>	- weekly market
<i>Hynniewtrep-Hynniewskum</i>	- Seven Huts – Seven Nests
<i>Ja</i>	- Cooked Rice
<i>Law Adong or Law Shnong</i>	- Protected or village forest

<i>Law Kyantang</i>	- Sacred Groves
<i>Law Sumar</i>	- Private Forest
<i>Lei Khlaw</i>	- Forest spirits
<i>Lei Lum</i>	- mountain or hill spirits
<i>Lei Muluk</i>	- God of the State
<i>Lei Umtong</i>	- Water Spirits
<i>Lei wah</i>	- river Spirits
<i>Lyngknot</i>	- Wooden stool for sitting upon
<i>Mawshamok</i>	- White Stones
<i>Meiramew</i>	- Mother Earth
<i>Mohkbiew</i>	- Khasi Hoe
<i>Myntris</i>	- ministers
<i>Niam</i>	- religion
<i>Nuli, Pantaro, Sohtung</i>	- Species of trees used as a dye
<i>Poikha poiman</i>	- marriage
<i>Putharo Pukhleim</i>	- Rice Pancakes
<i>Pynthor</i>	- Plains or wet paddy
<i>Ri-Kynti</i>	- Private Land
<i>Ri Lum</i>	- Hilly Land
<i>Ri-Raid</i>	- Community Land
<i>Rngai</i>	- Shadow or spirit of the dead
<i>Sapied Siej</i>	- Sharp Edged Bamboo Stick
<i>Sboh sem masi</i>	- lumps of decomposed cowdung
<i>Sboh Sem sniang</i>	- Pig Sty
<i>Shang Kwai</i>	- Bamboo Basket for storing betelnut
<i>Shoh Kba</i>	- thrashing of sheaves
<i>Shoh Maw</i>	- stone crusher
<i>Shylliah</i>	- Mats made of plaited cane
<i>Siej lieh</i>	- species of bamboo out of which mats are woven
<i>Sohpetbneng</i>	- the navel of Heaven
<i>Tang Jait</i>	- a ceremony by which a new clan bearing the name of the non- Khasi mother is created
<i>Tari</i>	- kitchen knife

<i>Thang Sgyrti</i>	- Jhum Cultivation
<i>Thup or Thak</i>	- a Stake of firewood
<i>Tiew Diengsong</i>	- a particular flower associated with the onset of fever
<i>Tih Shyiap</i>	- sand tiller
<i>Tymmen Shnong</i>	- Village headman
<i>U Blei nongbuh nongthaw</i>	- God the Supreme Being
<i>U ryngkew U basa</i>	- the guardian spirit
<i>U Sdie</i>	- An axe for felling trees and shrubs
<i>Wait Bnoh</i>	- hooked knife
<i>Wait Lyngkut</i>	- curved knife
<i>Wait Sum</i>	- butcher's knife

NB: The alphabetical order here follows the Khasi alphabets.



## INTRODUCTION

The Khasis are one of the tribal communities of the North East who have maintained a very close symbiotic relationship with the environment since time immemorial, and whose ethno-cultural traits have been greatly influenced by the natural surroundings. Like any other tribal group, the Khasis have a very close affinity to nature therefore forest which is an important component of nature is intricately linked to the life of the Khasis.

For a Khasi the forest is a well-loved home, a game sanctuary and also an abode of worship, all rolled in one, around which his social, cultural and religious activities revolve.

In the words of H.O Mawrie

*“U Khasi U im bad ka mariang, bad ka mariang ka im bad U”*, which literally means: “A Khasi lives with nature and nature lives with him”. This strong bond created between the Khasi and the environment also leads one to believe that the forest, which is a vital component of the environment, is the very source of life. It is in the Khasi custom to believe that the earth with all its bounty is referred to as *Meiramew* which means “*mother earth*”, *Meiramew* being a combination of land, forest, rivers and streams, the Khasis do not separate these elements of the mother and the earth as separate entities. Forests are a treasure trove of a large variety of food. It is estimated that 60-70 per cent of the food consumed by the tribals comes from the forest. It is a familiar sight to see Khasi women and children setting off into the woods to collect edible fruits and roots. They look upon the forest as the ultimate storehouse of wealth, a source of immediate help at difficult times, a readymade kitchen and a

Khasi would spare no pains from running to the forest and grabbing any edible fruit to offer to an unexpected guest who just pays a sudden visit.

Forest products such as tubers, rhizome, succulent shoots, fruits and mushrooms have provided the villagers with an alternative source of economic activity besides supplementing their basic requirements of food. An estimated study reveals that most of the village folk who still continue the collection of wild mushroom from the Upper Shillong Reserve Forest in Laitkor peak collects about 5 kgs. of mushroom per day and sell them in the markets of Shillong. An interesting study made by a well known Khasi author, S. Khongsit brings out a list of 113 food items comprising edible leaves, bark of trees, fruits and vegetables that are procured from the forest which begin with the prefix "Ja", which in Khasi means 'cooked rice'.

With the increase in the realization of global value of medicinal plants, today the medicinal plant trade (eco-piracy) is a hidden economy. According to a research conducted by the North Eastern Bio-diversity Research Cell, the North Eastern Region alone has more than 10,278 plant species documented so far and contributes to more than 17 per cent of the country's genetic resources. Besides, the herbal practitioners conducted a preliminary survey covering 200 herbal practitioners on the use of medicinal plants and related activities in East Khasi Hills, Jaintia Hills and West Khasi Hills and Ri Bhoi, which documented the use of more than 150 species of plants. There is a growing concern among the local practitioners and environmentally conscious citizens for the rapid rate of species depletion in certain areas due to the absence of any effective regulatory and monitoring agency. There is a lurking danger of biopiracy, which may be responsible for the unrestricted depletion of the State's bio-resources. However for any research along the field of forest as a source of medicinal plants it is necessary to reflect on its traditional assumption and then to analyze the Indigenous Knowledge System (IKS) pertaining to their usage in the Khasi society.

Forest has provided the Khasi with food, fodder, water, shelter and medicine. For their food, they collect from forest a great variety of minor forest produce. The forests of Khasi Hills possess a vast resource of medicinal plants and herbs on which the Khasis have traditionally depended for the treatment of various diseases. The rural folk have practiced this age-old herbal-lore and developed the system of Khasi folk medicine (*dawai kynbat*) into a lasting tradition, which continues even today.

Thus the Khasi have a very close affinity with the forests, which encompasses a wide spectrum of life including food, medicine, shelter, housing, agricultural implements, musical instruments besides having a strong cultural link.

Like many other hill people of the North East, the economy of the Khasi is essentially land and forest oriented. Agriculture is the mainstay of the people, which is largely carried out, in primitive method of *jhum* or shifting cultivation. This practice is, however, considered destructive as vast areas of forest is cleared and burnt so that cultivation can be carried on for at least 3 to 4 consecutive years. After a gap of 4 to 5 years, those areas are again used for cultivation without allowing the land to rejuvenate. *Jhum* cultivation, which is locally known as "*thang shyrti*" is still practiced by a large section of the community in Khasi Hills.

Nature has endowed the Khasi homeland with the quality of soil and climate suitable for a wide variety of crops, fruits and vegetables. The Central plateau of the district is suitable for growing high altitude paddy, maize, millets, potato and temperate fruits and vegetables; while the southern slopes bordering Bangladesh grows plantation crops like oranges, bananas, pineapples, arecanuts, betel leaves, bay leaf etc. In the northern side of the district bordering Assam, paddy, maize, banana, and pineapple are widely grown. But the Khasi economy has essentially remained a tribal economy till today, characterized by simple technology and primitive method, geographical isolation and single-family unit of production and consumption. No appreciable change appears to have taken place in the style

and technique of rural economy despite Government efforts during the last 50 years and more of planning for development.

A majority of the village industries in the Khasi Hills are forest based. Industries like carpentry, cane and bamboo work, bee-keeping, broomstick making etc. derive their raw materials from the forest which provides employment opportunities to a large section of the rural people who work in the forests by felling trees and sawing timbers in lime kilns and burning and selling charcoal. The womenfolk and children of the poor families traditionally eke out their living by cutting and selling firewood, collecting broomstick, selling wild fruits and vegetables while the men folk penetrate deeper into the forest and gather valuable orchids and wild flora for earning handsome prices for the urban rich.

Thus forest occupies the central place in the socio-economic and religious life of the Khasi who constitute an integral component of the forest ecosystem. The forest has always been a plus item and it will continue to remain so with added interest and it will be on forestry that the future economy of our people can find sound footing (Mathew, 1980:26).

### **A Word on the Existing Literature**

Literature has little to offer on environmental issues in Meghalaya in general and the Khasi Hills in particular. Some scholarly works of research has already been done on subjects relating to the forest resources of Meghalaya, the existence of Sacred Groves, the natural environment of the Khasis and System of Forest Management in the Khasi Hills etc. However, the vagueness of such references and the obvious richness of the subject led to the initiation of this present study. A few books that contained references relevant to the present study are :

A.C Sinha's book *Beyond the Trees, Tigers and Tribes* (1993) which has thrown light on the system of Forest administration starting from the colonial to post-colonial stage with particular reference to early efforts of forest utilization in North East

frontier. His work reveals some alarming facts about the discovery of valuable plant species in and around the forests of Khasi and Jaintia Hills. David Arnold and Ramachandra Guha's co-edited book *Nature, Culture Imperialism* (1996), introduces the reader to the nature-man relationship embedded in the cultures of South East Asia. H.O Mawrie's book *The Khasi Milieu* (1981) is a compilation of some important themes in Khasi life and culture like marriage, family, religion, village, administration, folktales etc. and he devotes 2 chapters exclusively to the role of nature in Khasi life. His resounding declaration "A Khasi lives with nature and nature lives in him" summarises the close affinity between the Khasi and nature. Mawrie also relates the symbolic significance of trees by associating them with Khasi folk tales and legends. Mawrie's book also unfolds the rich storehouse of Khasi folk tales and legends that centre on things and objects seen in nature. Besides the moral values attached to these folk tales, they are also an important source of information about the long attachment between the Khasi and nature that have existed since time immemorial. The book "*The Last Frontier-People and Forests in Mizoram*"(1996) written by Daman Singh presents a 'realistic' account of Mizoram backed by some useful data on forest as a mode of resource use. The author interprets the term "forest" in Mizoram in two ways: forest cover which includes the total area under tree or bamboo vegetation and forest by use which excludes those areas used for non-forestry purposes, e.g. *jhumming*. With regard to *jhum* cultivation, it is the well-established Mizo custom of '*tlawmngaihna*' which goes along with the principle of collective use of land for shifting cultivation. Daman Singh notes the strong element of mutual cooperation shared by members of the Mizo community in agricultural operations. She also examines the changing interaction of man and his environment in Mizoram over the span of a century and attributes this change to a set of four parameters: Belief Systems, Domain, Social institutions and Technology.

A number of books in vernacular literature also proved

fruitful for the present study. Amongst them, K. Dhirendro Ramsiej (1992) in his book entitled "*Ka Mariang ha U Khasi bad Ki purinam-puriskam*", brings out the intricate relationship between nature and culture amongst the Khasis. A number of Khasi folktales and legends associated with nature-man relationship have been highlighted by the author which throws light on the part played by nature in shaping the Khasi culture. In the book, "*Ka Dieng bad ka Culture Jong Ngi*", S. Khongsit narrates the numerous species of trees, plant and herbs that grow in Khasi-Jaintia hills which have played an important role in the life of the Khasi both in the past and present. Talking about the role of theology and culture in the maturity of human civilization, H.O. Mawrie in his book "*Ka Theology Jong ka Niam Khasi*" stresses the importance of understanding the theology of a tribe. The author also speaks about the role played by the environment in shaping the theology and belief of humanity. Man is already a part of nature and nature is already a part of man.

Published literature in the form of official reports and documents has also been useful sources of information on historical and administrative matters. On the whole, what proved to be most fruitful was the real life situations revealed by my field trips which formed part of my research work for my Ph. D. These visits aimed at gaining insight through interview and observation on the role and importance of forest in the life of the Khasis.

# 1 THE KHASIS-PEOPLE, LAND AND ECOLOGY

## The People

The Khasis occupy a unique position both from ethnic and linguistic points of view among the congeries of the tribes inhabiting the mountainous terrain of India's North East. There are numerous interpretations of the word "Khasi". Hamlet Barch suggests that the term "*Khasi*" means "*born of the mother*"; "*kha*" means "*born of*" and "*si*" refers to "*ancient mother*", thus bringing out the matrilineal character of the Khasis who trace their descent from the mother. The origin of the Khasis as a race is shrouded in mystery, which has led historians to trace the roots of history in order to understand, "who is a Khasi?"<sup>1</sup>

The Land Reforms Commission for Khasi Hills (Vol. 1) opined that a person who is acceptable as a Khasi is one whose parents descended since time immemorial from the descendants of the people inhabiting *Ka Ri Khadar Doloi*, *Ka Ri Laiphew Syiem*, or who has adopted Khasi socio-political customs and way of life, conducts and comports himself as a Khasi, speaks Khasi language, follows a matrilineal system, and in the case of male adults have a right to take part in traditional durbars of the Khasis in a place where he lives or do take part in the election of hereditary Chiefs of his *elaka* where popular election is held in which women cannot take part and is accepted by the rest of the people as belonging to their tribe [R.T. Rymbai and others, *Report of Land Reforms Commission for Khasi Hills* (Vol. I), Shillong, 1973, p.34, Government of Meghalaya].

David Roy defined a Khasi as a person who is a descendant of the folk, who found a home in these hills and is governed by Khasi laws of consanguinity and kinship. A Khasi is a Khasi because of his religion (*Niam*) which regulates all his thoughts and activities.

Hamlet Bareh describes "Khasi" as a general term encompassing the various tribes and sub-tribes inhabiting the Khasi and Jaintia Hills, namely :

1. *Khynriams* or *Nonglum* (Khasi proper) inhabiting the middle ranges of the Khasi Hills, comprising the *Khynriams* proper and their allied tribes in the central plateau;
2. The *Pnars* inhabiting the central plateau of the Jaintia Hills. The *Pnars* are also called the *Syntengs*, but they prefer to be called *Pnars*;
3. The *War* people of the south, comprising the *Shella* people and their allied tribes;
4. The *Amwi* people and their allied war, *Synteng* and other tribes in the south Jaintia Hills who form apparent tribe of the present *Khasi-Pnars* in their earliest period of settlement in the land;
5. The *Bhoi* people, both *Khasi* and *Pnar* inhabiting the north of Khasi and Jaintia Hills with their different sub-groups.<sup>2</sup>

According to A.S. Khongphai, the non-controversial definition of a Khasi is a person born of a Khasi mother, irrespective of the fact whether he is a Khasi or a non-Khasi. However, their definition has been modified with the introduction of Khasi Lineage Bill, 1997, which defines a Khasi as one whose parents are/were both Khasis and whose clan name is taken from the mother. For those born of a Khasi father and a non-Khasi mother, the Bill has invoked the old custom of "*Tang Jait*" a ceremony by which a new clan bearing the name of the non-Khasi mother is created. The Bill further states that



to be a Khasi the person will have to know the Khasi language unless prevented from knowing it by circumstances beyond his control like living outside the area. He must also observe and be governed by the Khasi matrilineal system, Khasi law of inheritance and succession and the Khasi laws of consanguinity and kinship.

In short, as mentioned by Mr. Thomas, the Magistrate of the District Council Court, to be a Khasi, one has to live like a Khasi, dress like a Khasi, eat like a Khasi, speak Khasi language and follow the Khasi customs and traditions. Though all Khasis have fundamentally the same language and social structure, their culture, dialects, economy, social usage and political organisation vary greatly owing to the ecological and politico-historical differences among them.

The various myths and legends associated with the origin of the Khasis provide us with ample evidence about their long period of association with Gods and heavenly beings. One such interpretation is incorporated in their legend of the *Hynniewtrep-Hynniewskum* or the Seven Huts—the Seven Nests. This legend tells the story of how God in the beginning created sixteen families and let them stay with him in heaven. He allowed them to move freely between Heaven and Earth with the help of a golden ladder which touched the top of a mountain peak name *Sohpetbneng* (The Navel of Heaven) until one day when seven of them chose to remain on earth leaving the remaining nine in heaven. From that day God removed the ladder and the seven families on earth came to be known as *Ki Hynniew Ha Tbian* (The Seven Below) and those who remained in Heaven as *Ki Khyndai Hajrong* (The Nine Above). The Khasis, as we know them today, according to their timeless tale are the descendants of the Seven Below, and they have flourished throughout their beautiful land.

The migration pattern of the Khasis has also led to a paucity of beliefs and traditions about the movement of this tribe into the hills that took place in times long past. The commonly accepted view is that they came from the far East and used the

same route of migration followed by other immigrants from Burma. Gurdon states that many affinities can be traced between the Khasis and the Mon-Khmer from the Far East on grounds of resemblance.<sup>3</sup> It is also interesting to note that the Himalayan ranges have a close association with the Khasis because they have their own name for these ranges '*Ki Lum Makachiang*' which indicates that the Khasis had once settled in the neighbourhood of the Himalayas, or at the foothills of these mountains around Darrang, Sadiya and Dibrugarh.<sup>4</sup>

According to J.R. Logan, the Khasis have a close relationship with the Mons or Talaings of Pegu and Tenasserim, the Khmers of Combodia and the inhabitants of Aman. Logan identifies a tribe called the Palungs who inhabit the Shan state of Myanmar, as the closest kinsmen of the Khasis. In the opinion of Roy, the Khasis belong to the Mongoloid family on account of the similarity of the languages of these two groups, stating that the close similarity between the Mundas and Khasis rites and rituals during veneration of the dead. Walter G. Griffith was of the opinion that the Mundas who are located in the Chotanagpur area were the ancestors of the Khasis.

While it is true that the Khasis have established themselves in these hills for a very long time and that the process of negation was from east to west, many support the view that the Khasis are linguistically and racially an offshoot of the Monkhmer branch of the Austro-Asiatic stock and are believed to be due remnants of the first Mongolian overflow into India.<sup>5</sup>

### Land and Geography

The Khasi Hills are located in the northeastern corner of India in the middle of the Meghalaya plateau with East and West Garo Hills lying towards its West and Karbi Anglong District of Assam towards the East.

The United Khasi and Jaintia Hills was one of the districts in the erstwhile composite state of Assam. After the creation of the Autonomous State of Meghalaya on 2<sup>nd</sup> April 1970 and the

attainment of full statehood on 21<sup>st</sup> January 1972, the United Khasi and Jaintia Hills and the Garo Hills District formed the constituent Districts of Meghalaya with the headquarters at Shillong and Tura respectively. Thereafter, the Khasi Hills District was divided into two districts, namely the East Khasi Hills District and the West Khasi Hills District on 28<sup>th</sup> October 1976. However, on June 4<sup>th</sup> 1992, East Khasi Hills District was further divided into two administrative districts of East Khasi Hills District and Ri Bhoi District. According to the Census of India 2001, the total population of East and West Khasi Hills is 955,109 persons.

### **Climate**

In association with the varying physiography, the climate ranges from temperate to tropical with sufficient supply of rainfall that helps the growth of luxuriant and thick vegetation. The orography of the southern part of Meghalaya too helps the occurrence of heavy monsoon rain where Mawsynram and Cherrapunjee receives the highest annual rainfall in the world (Sarma, 2003). The winter season begins in December and continues till the end of February with the temperature falling down to 1°C in some high altitude areas. The lives of the inhabitants here are thus to a large extent ruled by the decree of nature. The climate is pleasant in autumn and spring and it is suitable for various crops and fruits. With the varying climate and sufficient rainfall, evergreen tropical forests are to be found on the northern slopes.

### **Minerals**

Mineral deposits in the Khasi Hills have acquired a unique place in the geographical map of the country. The principal mineral deposits being limestone and coal. Uranium deposits in Domiasiat area of West Khasi Hills District is one of the 12<sup>th</sup> largest deposits in the world.<sup>6</sup>

## Mountain and River System

Due to the undulating topography, one finds the principal rivers of the region running from the higher ranges with their tributaries flowing into the Brahmaputra river. These rivers situated in the region of heavy rainfall are seasonally fed by the monsoon rains. The principal rivers that flow towards the north are *the Khri, the Umtrew, the Wah Umiam* and *the Wah Umkhen* and those which flow towards the south are *the Kynshi iong, the Umiew* or *Umiam Mawphlang* and *the Umngot*. Most of these rivers are swift-flowing because of the rapid change in height and rocky land which carves its pathway into deep gorges thereby forming magnificent waterfalls and cataracts. Some of these well known majestic waterfalls are *Kshaid Noh-Sngi-Thiang, Kshaid Noh-Ka-Likai, Kshaid Dain-Thlen, Kshaid Umshyrpi* or Beadon Falls, *Kshaid Sunapani* or Bishop's Falls, *Kshaid Umdiengpun* or Elephants Falls, *Kshaid Weitdem* or Sweet Falls (*Kshaid* is the Khasi term for waterfall).

## Flora and Fauna

Perhaps the floristic composition of the Khasi Hills is nowhere commented with such appreciation as has been done by Dr. Joseph Dalton Hooker in his Himalayan Journals. Hooker's journey up to these hills in 1850 was indeed rewarding, taking into account his valuable observations of the richness and variety of the colour, form and size of each blossoming plant. In his own words, "It is extremely difficult to give within the limits of this narrative any idea of the Khasi flora which is, in extent and number of fine plants, the richest in India, and probably in all Asia, the collected upwards of 2,000 flowering plants within ten miles of the station of Churra (Cherra) besides 150 ferns, with a profusion of masses, lichen and fungi..... Orchidaceae are, perhaps, the largest natural order in the Khasia where fully 250 kinds grow, chiefly on trees and rocks, but many are terrestrial, inhabiting damp woods and grassy slopes. I doubt

whether in any other part of the globe the species of orchids outnumber those of any other natural order, or form so large a population of the flora.”

On the whole, there can still be ample scope for exploration of plant species in these hills. However, one cannot deny the Herculean efforts of plant explorers like Griffith (1847), Hooker (1854), Clarke (1889), Bor (1938, 1942), Biswas (1941, 1943), Kingdon-Ward (1960) and Burhill (1965) who have given accounts of the flora of this region. The first systematic treatment of the flora of the north eastern region is by Kanjilat *et al.* (1939-40), a work in five volumes (incomplete). The first four volumes cover the Dicotyledons, chiefly the woody species being forest flora and the fifth volume by Bor (1940) deals with the Germinae only.

The establishment of the Botanical Survey of India in the country way back in 1890 led to some significant efforts to create public interest in the plant life of Khasi Hills after 1956. One laudible effort of the BSI has been to work in collaboration with the North Eastern Council in launching a programme for the cultivation, multiplication, preservation and supply of orchids to collectors at a cheaper rate with a view to prevent depletion of the natural habitats.

A careful survey of the vegetation in these hills reveals some alarming facts and remarkable instances of disjunct distribution. The discovery of novelties of very rare species have been found such as *Nymphaea pygmaea* (South Siberia and North China); *Magnolia lanuginosa* (Nepal); *Hemalium schleichii* (Burma), etc. which add to the diversity of species composition in the region.

Another remarkable feature of the floristic variety of the Khasi Hills is found in the Sacred Groves located at several areas in and around Shillong Peak, Mawphlang and Mawsmal. These groves are home to some very rare species of orchids and a number of plants. A number of botanical explorations over the last 50 years have revealed that *Ilex khasiana* a small evergreen tree that grows with thick foliage in the forests of Meghalaya is facing extinction.

The National Orchidarium at Shillong maintains over 300 species of orchids of North Eastern Region and the Experimental Garden at Umiam (Barapani) maintains the germplasm bank of many rare and threatened orchids, besides several rare, endangered, medicinal plants (Mao *et al.*, 1999).

A recent survey conducted by the National Botanical Research Institute, Lucknow which is one of the premier institutes of Council of Scientific and Industrial Research (CSIR) has undertaken a project on research and development work in the North Eastern Region. Under this project, Dr. V. P. Kapoor, Head of the Plant Chemistry Division, National Botanical Research Institute reported that Meghalaya has enough dye-yielding plants which may be utilised to set up local dye producing units. It was reported that the roots and stem of a prominent plant *Rubia cordifolia* (local name Sacre) contain yellow dye and the leaves of *Camellia caduca* (Samkhi) contain brown dye. With the increasing trend now-a-days for use of textile and consumer goods dye by natural dyes, there is enough potential to use these dye yielding plants for local industry and generate awareness to local people and entrepreneurs through training programmes.<sup>7</sup>

## Fauna

“The fauna of the Khasi Hills is intimately connected with the geomorphological evolution of the area. This region served as a fauna gateway through which their Indo-Chinese elements of Oriental fauna and Palearctic montane fauna spread to the main subcontinent. As a result, a complex assemblage of Indo-Chinese Indo-Myanmar, Ethiopian and Palearctic montane elements could now be observed” (Dr. C. Radhakrishnan, Zoologist and Officer-in-Charge, E. Regional Station, Zoological Survey of India).

The existing eco-systems are conducive to the growth of evergreen forests that are the habitat of rich mammalian fauna and other forms of animal life, mammals like the Hoolock (Gibbon) the Golden Cat (*Felis termnuckii* Vigors and Horefeld)

the leopard cat (*Felis bangalensis* Kerr), the Jungle Cat (*Felis chaus* Guldenstaedt), to name a few have added a unique assemblage to the oriental fauna of the Khasi Hills.

Besides mammals, birds of various species are found in abundance in the forests specially in low altitude areas like the forests of the Nongpoh-Lailad areas in Khasi Hills. The common birds found include the long tailed Broadbill (*Psarosomus dalhousiae* Jameson), the Burmese Roller (*Coracias bengalensis affinis* Horsfeld), the Blue throated Barbet (*Megalaima asiatica* Latham), the Red-vented Bulbul (*Pycnonotus cafer bengalensis* Blyth), the Himalayan Black Bulbul (*Hypsipetes madagascariensis psaroides vigors*), the Hill Mynah (*Gracula religiosa* Linn) etc. which are only a few of the many exotic species of birds found. Reptiles and fish species of the Khasi Hills also exhibit excellent qualities of adaptation to the climate and topography of the region. Mention should be made about the exotic species of butterflies like the Blue Peacock, the orange oak leaf and the Bhutan Glory that add to the interesting assemblage of insects in the region.

According to official reports on the faunal resources in the seven sister states of the North East, 650 species of plants and 70 species of animals who find a habitat in the region have been listed as endangered due to human depredation, poaching and other non-planned and non-forestry activities.<sup>8</sup> While there is a concerted effort to preserve the fragile eco-system in the region which has been identified as one of the 18 'hot spot' areas in the world with reference to threats to the rich bio-diversity. What is of serious concern today is the fact that there is a lack of positive activity on the part of both the Central and State Governments which has given little scope about the knowledge of the extent of bio-diversity, of micro-organisms, particularly of bacteria and viruses. Among the North Eastern States, Meghalaya is considered to have faunal diversity and vegetation including forest cover that is diverse in its climatic season which shows the richest assemblage of eco-diversity. The State recorded a total of 5538 species of faunal wealth in the country.<sup>9</sup>

## CLASSIFICATION OF LAND AND FOREST IN KHASI HILLS

'Land' and 'Forest' are both the natural endowments of nature on humankind. They have both played a historical role in the social, economic and cultural life of human communities through the centuries and one cannot undermine the importance of land and forest both as a resource and as property. As a valuable natural resource, land and forest represent the principal forms of wealth, are a symbol of social status and a constant source of economic and political power. Thus, ownership of these two vital resources has often led to a distinct control over positions of prestige, affluence and power in societies around the world. Land and Forest being an integral part of human habitat has since time immemorial led to a wide variation in the pattern of rights over them. In the cognitive frame, there is no ambiguity about people's rights over these two valuable resources, nor is there any similarity in the system of management of these two natural productive resources.<sup>10</sup> The concept of 'Land' and 'Forest' have in recent years evoked an equivocal response which makes it pertinent for us to discuss them as separate entities.

### LAND TENURE SYSTEM IN THE KHASI HILLS

Land locally known as "Ri" by the Khasis has a deep attachment to their pattern of social organization and permeates every aspect of their socio-economic life. Land to the Khasis is a "gift of nature" that belongs to the community, therefore access to land not ensures economic security for the individual, but control over it symbolizes territorial integrity for the community as a whole.<sup>11</sup> Realizing the need to determine who may be recognized and accepted as a Khasi, the Land Reforms Commission for Khasi Hills, 1975 stated that the social customs, religious beliefs and the singular pattern of inheritance prevalent among the Khasis are among the predominant factors of the people.<sup>12</sup> In the opinion of the Commission, the dominant factor in determining as to who is a Khasi, is one's adherence to the



matrilineal system of inheritance, observance of the socio-political system and acceptance by the Khasi Community as one who belongs to it. Land for a Khasi is thus a prized possession of economic gains as much as a sign of economic prosperity with a deep emotional attachment.

The Khasi principalities have been known by the common expression that has been handed down by oral tradition extending upto the present day as "*Ka Ri Khadar Dolois*", "*Ka Ri Laiphew Syiem*", which literally means the land of 12 *Dolois*, the land of 30 *syiems*. The *Dolois* were 'chieftains' under the raja of Jaintiapur and *Syiems* were rajahs in the Khasi Hills<sup>13</sup> while there are no official records to verify the exact number of *Dolois* and *Syiems* before the advent of the British, available records reveal that the British had recognized 20 *dolois* in Jaintia Hills and 25 out of the 30 States and 31 '*Sirdarships*' in the Khasi Hills. Out of the 25 Khasi States, 16 were known as *Syiemships*, 3 as *Lyngdohships*, 5 as *Sirdarships* and 1 as *Wahadadarship*. The 31 *Sirdarships* were called 'British villages' (Mathew, 1980). Tax on Land has always been unknown among the vast majority of Khasis.<sup>14</sup> In spite of British possession, some of the Khasi States sought protection from the British. There was no instance of the British substantially interfering with the tribal rights to land. Strictly speaking, the British generally did not interfere with the customary laws and practices of the people the governed.<sup>15</sup>

British administration showed considerable respect for customary land laws of the Khasis and never stood in the way of its normal operation. The Meghalaya Land and Reforms Manual while expressing its viewpoint on this matter noted, "The customs of the Khasis in regard to land was respected by the British from the day they came to these hills in 1829 till the day they departed in 1947. We may be surprised by the magnanimity of the British, strange though it may sound that they never thought it necessary to interfere in the customs of the Khasis. For their needs and requirements of land the British went through proper negotiations, after due agreements, paid for the land in cash" (Phira, 1989).

However, there were some instances which showed hostility demands by the colonial authority especially with regard to dealings concerned with transaction of land. This was evident in the series of rebellions staged by the Jaintias of Jaintia Hills which led to the imposition of taxation system by the British in order to put the chiefs under control. Following this imposition the Jaintias humbly complied with the order by paying the taxes, but in course of time their frustration made way for the historic Jaintia Rebellion of 1862.

A careful study of the Khasi Land Tenure system reveals some startling facts about the ambiguity of ownership and control of land. Thus with the attainment of statehood, one of the first functions of the government of Meghalaya was to make a detailed study of the land holding operations prevalent among the Khasis with a view towards codification of the customary land laws. The land tenure system in its intermediate state as at present is the most vexed questions amongst the Khasis, affecting their entire life because of their historical attachment to the land (Report of the Land Reforms Commission for Khasi Hills, 1975). From time immemorial land has always belonged, and is still held to belong, to the people and neither to the rulers nor the Government. Accordingly, the government of Meghalaya appointed the Land Reforms Commission in 1973 to bring about a logical order of the Khasi land tenure system and its related concepts of ownership, control and occupancy rights of land.

### Categories of Land and the Land Tenure System

The Commission has dealt with three categories of land in the Khasi Hills, viz., Community Land known as *Ri Raid*, Privately owned land called *Ri Kynti* and Government land.

#### 1. *Ri Raid (Community Land)*

*Ri Raid* is Community Land which is managed and controlled

by the concerned community. Every member of the community has the right of use and occupancy of the *Ri Raid* land without payment of land revenue. The community may be a village, a group of villages or an *elaka*. No person has proprietary, heritable or transferable rights over such land. He has only the right of use and occupancy, and such rights revert to the community when the person ceases to occupy or use the land for a period of three years or more. The only way in which a person can inherit land or obtain transferable rights over such land is by making permanent improvements on the land in the form of permanent buildings or cultivation of permanent crops and plant like fruit trees or cultivation. But these rights lapse if he abandons the land over a long period.

*Ri Raid* land comprises many sub-classes which can be categorized as forest lands and non-forest lands.

Forest lands are of the following kinds:

1. *Ri Law Kyntang, Ri Law Niam or Ri Law Lyngdoh* : These are forests in *Raid* lands set apart for religious purposes, managed and controlled by the *Raid* or the village or in the case of the *Ri Law Lyngdoh* by the *Lyngdoh* (Priest) of the community.
2. *Ri Law Adong, Ri Law Sang, Ri Law Shnong* : These are village forests reserved by the villagers so that any member could obtain timber or firewood for personal needs or for use as water catchment areas.
3. *Ri Law Sumar* : Which belongs to the individual, clan or the village who had first occupied and afforested then and maintains them thereafter.

Non-forest lands include the following types of land:

1. *Ri Shnong* (Village land) : It is a *raid* land forming part of the village and can be utilised by any member of the village.

2. *Ri Umsnam* (land acquired through war) : It is a *raid* land which an 'elaka' had won in the older days 'by the sword'.
3. *Ri Ialeh Mukotdama* (land acquired through litigation) : Those lands which have been acquired through litigation by an *elaka*.
4. *Ri Bamlang* (land given by the *Syiem*) : Any land when given over to the community by the *Syiem*.
5. *Ri Bam Syiem* (land used by the *Syiem*) : Any *raid* land which has been set apart for the exclusive use of the ruling chief and his clan (*kurs*).
6. *Ri Aitimom Sngewbha* : Any land gifted by private landowners to the community for public use.

## 2. *Ri Kynti* (Private Land)

'*Kynti*' means 'absolute possession'. Therefore, *Ri Kynti* lands are private lands which have been acquired by a man or woman individually, or in the case of a woman, inherited from her mother. Such lands must entirely be distinguished from lands of the clan. Colonel Gurdon notes that privately held lands "may be sub-divided into *Ri-Kur* or lands which are property of the clan, *Ri-Kynti*, family or acquired land property". The clan lands, originally when the population was sparse, were owned by families but as the members of the family increased and a clan was formed out of the increasing number of families sprung from a common ancestress, the lands became the property of the clan instead of the family. Such clan lands are properly demarcated by boundary marks.

Like the *Ri Raid* Land, *Ri Kynti* Land comprises many sub-classes:

1. *Ri Kur* (Land belonging to a Clan) : It is a *Ri Kynti* land which has not yet been divided among the different branches of a clan or among different families of a branch

of a clan. This land is apportionable by a *dorbar kur* (clan council) or *dorbar kpoh* (council of a branch of the clan) as the case may be.

2. *Ri Nongtymmen* (Land owned by Inheritance) : Is *Ri Kynti* Land which has descended from generation to generation usually after two or three generations. This land is divisible or apportionable by a *dorbar* of the clan or by a branch of the clan if already divided among the several branches thereof. The head of the family, i.e. the mother may also divide this land among her children, usually daughters.
3. *Ri Maw* (Stone Land or Land acquired by Purchase) : Is *Ri Kynti* Land acquired by right of purchase or by right of apportionment among the member of the family or of the clan and the holders thereof have the right to erect boundary stones to demarcate their respective lots.
4. *Ri Seng* : Is *Ri Kynti* Land acquired from ancient time by a number of different clans or families and has not been divided. Income from this land is divided among the households of the clans or families holding it. The management of *Ri Seng* is in the hands of the representative elected by members of all owing clans or families. In certain cases, such lands may also devolve on male descendants when the clan or families have become extinct, that is when their female relations have died leaving no female issues.
5. *Ri Dakhol* (Land obtained by purchase or right of occupation) : Is land over which a person has obtained *Ri Kynti* rights by right of occupation and making permanent improvements thereon or by right of purchase or winning a court case.
6. *Ri Shyiang* (Land used for religious rites by the *khadduh*) : Is a portion of *Ri kur* specially allotted to *Ka Khadduh* (youngest daughter) of a clan or a family to

enable her to meet the expenses connected with the performance of religious rites ceremonies concerning the clan, *kpoh* or family, like depositing of the ashes of the dead in the co-urns of the clan. Such land is generally given to *Ka Khadduh* as an additional share.

7. *Ri Lyngdoh* : Is *Ri Kynti* land of the *Lyngdoh* or Priest of a particular native state.
8. *Ri Syiem* : Is *Ri Kynti* land of the *Syiem's* clan. In some *syiems*hips it can be Raid Land set apart for maintenance of the *Syiem's* clan.
9. *Ri Iapduh* (Land of a clan that has become extinct) : Is *Ri Kynti* land of a clan or a family which has become extinct. Such land according to the time-honoured custom reverts to the chief who is immune from a curse on that family but who will keep it for the *elaka* as *Ri Raid* or as *Ri Bam Syiem* for the family of a ruling chief (Report of the Land Reforms Commission).

### CLASSIFICATIONS OF FOREST LANDS IN MEGHALAYA

In Meghalaya, forest may be classified in a number of ways such as by composition, legal status, ownership, exploitation and functions.<sup>16</sup> However, as far as uses of the word forest is concerned, in Meghalaya it is found to be interpreted in the following three ways:

1. Forest Area
2. Forest Cover
3. Forest by Use

#### 1. *Forest Area*

Here refers to the area recorded as "forest" in the government records, often this term is also written as "recorded forest area".<sup>17</sup>

The recorded forest area in Meghalaya is categorised into "Reserved Forest", "Protected Forest" and "Unclassed Forest".

- (i) *Reserved Forest (RF)* : These forests are managed and directly controlled by the State Government. These areas are notified under the provisions of Indian Forest Act or the State Forest Acts having full degree of protection. In Reserved Forests all activities are prohibited unless permitted.
- (ii) *Protected Forest (PF)* : These forests are notified under the provisions of Indian Forest Act or the State Forest Acts having limited degree of protection. In protected forest all activities are permitted unless prohibited.
- (iii) *Unclassed Forest (UF) or District Council Reserve Forest* : These forests are not included in reserved or protected forests category and ownership status of such forests varies from state to state. In Meghalaya they are directly controlled and managed by the District Councils under the Sixth Schedule to the Indian Constitution. All private forests or village forests are included in the unclassified forest.

The recorded forest area of Meghalaya is 9,496 sq. km or 42.34 per cent of the state's geographical area comprising 1,112 sq. km of Reserved Forest, 12 sq. km of protected forest and 8,372 sq. km of Unclassed Forest Table 1.1

This distribution is depicted in Fig. 1.1 representing distribution of forest area in the state.

**Table 1.1** : Distribution of forest area in Meghalaya

Recorded Forest Area	
Reserved Forest (RF)	1,112 km <sup>2</sup>
Protected Forest (PF)	12 km <sup>2</sup>
Unclassed Forest (UF)	8,372 km <sup>2</sup>
Total	9,496 km <sup>2</sup>
Of State Geographic Area	42.3%
Of Country's Forest Area	1.2%

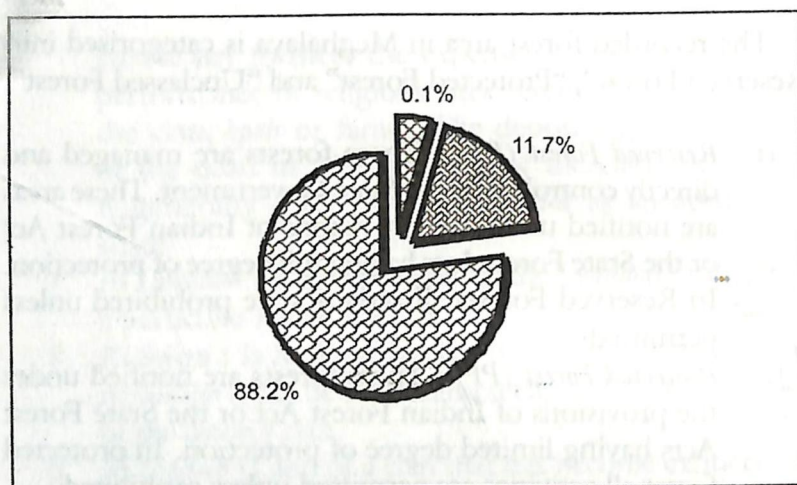


Fig. 1.1: PIE CHART : Distribution of forest area in Meghalaya.

Table 1.2 : District-wise Forest Cover (Meghalaya) (Area in Km<sup>2</sup>)

District	Geographical area	Forest Cover				Scrub
		Dense forest	Open forest	Total	Per cent	
East Garo Hills <sup>TH</sup>	2,603					8
South Garo Hills <sup>TH</sup>	1,849	1,038	2,737	3,775	84.79	8
East Khasi Hills <sup>TH</sup>	2,820	997	1,553	2,550	90.43	29
Jaintia Hills <sup>TH</sup>	3,819	890	1,047	1,937	50.72	117
Ri Bhoj <sup>TH</sup>	2,376	656	1,107	1,763	74.20	68
West Garo Hills <sup>TH</sup>	3,715	1,002	1,590	2,592	69.77	3
West Khasi Hills <sup>TH</sup>	5,247	1,098	1,869	2,967	56.55	34
<b>Total</b>	<b>22,429</b>	<b>5,681</b>	<b>9,903</b>	<b>15,584</b>	<b>69.48</b>	<b>259</b>

Source: State of Forest Report 2001.

## 2. Forest Cover

Consists of all lands more than 1 ha area having tree canopy density of more than 10 per cent irrespective of the tree species and its legal status or ownership or land use that can be interpreted from satellite data published by the National Remote Sensing Agency (NRSA) while interpreting satellite data, one can distinguish between reflectance of tree vegetation from other



Table 1.3 : State/UT-wise Forest Cover in Hill Districts

State / UT	No. of Hill Districts	Geographical area in Hill Districts	Forest Cover			Forest Cover (%)
			Dense	Open	Total	
Arunachal Pradesh	13	83,743	53932	14113	68045	81.25
Assam	3	19,153	7175	5849	13024	68.00
Himachal Pradesh	12	55,673	10429	3931	14360	25.79
J & K	14	222,236	11850	9389	21237	9.56
Karnataka	6	48,046	19100	4953	24053	50.06
Kerala	10	29,572	9830	3141	12971	43.86
Maharashtra	7	69,905	7886	4126	12012	17.18
Manipur	9	22,327	5710	11216	16926	75.81
Meghalaya	7	22,429	5,681	9,903	15,584	69.48
Mizoram	8	21,081	8936	8558	17494	82.98
Nagaland	8	16,579	5,393	7,952	13,345	80.49
Sikkim	4	7,096	2,391	802	3,193	45.00
Tamil Nadu	5	22,789	3555	2328	5883	25.82
Tripura	3	10,486	3,502	3,563	7,065	67.38
Uttarakhand	13	53,483	19,023	4,915	23,938	44.76
West Bengal	1	3,149	1,417	779	2,196	69.74
<b>Total</b>	<b>123</b>	<b>707,747</b>	<b>175,771</b>	<b>95,557</b>	<b>217,236</b>	<b>38.34</b>

Table 1.4 : Forest Cover in Meghalaya

## Forest Cover

Dense Forest	5,681 km <sup>2</sup>
Open Forest	9,903 km <sup>2</sup>
Total	15,584 km <sup>2</sup>
Of State Geographic Area	69.5%
Of Country's Forest Cover	2.3%

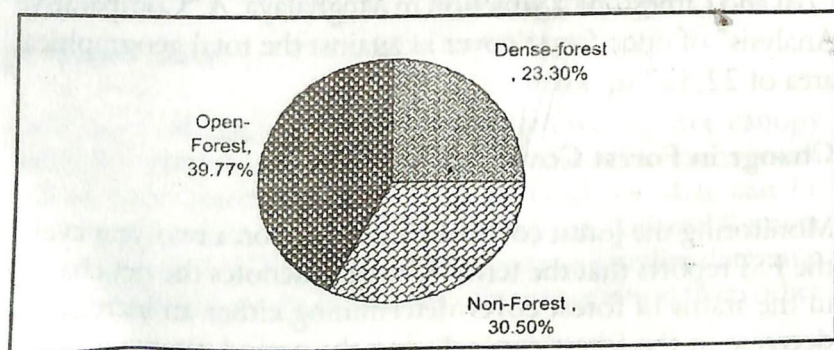


Fig. 1.2 : PIE CHART: Forest Cover in Meghalaya

two assessments. Table 1.5 shows net change in the extent of forest cover in Meghalaya between 1999 to 2001.

Table 1.5: Change in Forest Cover

1999 Assessment			2001 Assessment			Net difference
Dense	Open	Total	Dense	Open	Total	
5,925	9,708	15,633	5,681	9,903	15,584	-49 sq. km.

### 3. Forest by Use

Excludes those areas used for non-forestry purposes, typically *jhumming* and non-forest area etc.

We have seen above the three basic uses of the term forest in Meghalaya, viz. forest cover, forest area and forest by use. Besides this there are other legal classifications of forest in Meghalaya provided by various Commissions and Acts passed by the Government such as the following.

#### I. Land Reforms Commission Report (1974) on the Categorisation of Land in Khasi Hills

##### 1. *Ri Law kyntang, Ri law Lyngdoh and Ri Law Niam*

These are forests in Raid lands that are set apart for religious purposes, managed and controlled in the case of *Ri Law Lyngdoh* by the *Lyngdoh* and in the case of *Ri Law Kyntang* or *Law Niam* by the Raid of the village.

##### 2. *Ri Law Sumar*

It is a forest within the Raid lands belonging to an individual, a family, a clan or a village community as a whole depending on who first afforests the land and maintains the forest.

##### 3. *Ri Law Adong, Ri Law Sang and Ri Law Shmong*

These are village forests reserved by the villagers as water

catchment areas or to enable members of the village or Raid as the case may be to get firewood or timber for their personal needs or for any such purposes as the village or Raid durbar may decide from time to time.

## II. Khasi Hills Autonomous District (Management and Control of Forests) Act, 1958

According to the Act the following types of forest have been identified:

### 1. *Private Forests*

These forests are owned and managed by an individual or clan or a joint clan. They are either grown or inherited in recognised private lands (*Ri Kynti*).

### 2. *Green Block*

These are forests belonging to an individual family or clan or joint clan and Raid lands already declared as Green Block by the Government for aesthetic beauty and water supply of the town of Shillong and its suburbs.

### 3. *Raid Forests*

These are forests looked after by the heads of the Raid under the management of the local administrative heads.

### 4. *District Council Reserved Forests*

These are forests that may be so declared by the Executive Committee and shall be owned, managed, controlled by the Executive Committee.

### 5. *Unclassed Forests*

These are forests hitherto known as Unclassed State Forests

1942; Joseph, 1968; Balakrishnan, 1981; Baishya and Rao, 1982; Sarma, 2003 etc.).

Based on these fragmentary studies, as well as from the present study, the forests of Meghalaya can be broadly grouped under the following types:

## I. Tropical Forests

These forests are met within areas up to an elevation of 1200 m. and with an average rainfall of about 100–250 cm. There are numerous sub-types within this category, such as evergreen, semi-evergreen, moist and dry deciduous forests etc.

### (a) Tropical Evergreen Forests

This category of forest is confined to upper reaches of hill range beginning from Tura range extended up to Siju forest reserved. These forests usually occur in high rainfall areas as well as near catchment areas. They harbour a very rich species diversity where nature is at its extravaganza forming a closed evergreen canopy. Though these forests are not completely free from human interference due to *jhum* practice and seldom form continuous belts, yet the species available here are mighty and often blanketed by lush growth of tropical flora.

### (b) Tropical Semi-evergreen Forests

This category of forests occupy the north-eastern and northern slopes of the state, typically up to elevations of 1200 m., where annual rainfall is 150–200 cm. with a comparatively cooler winter. The number of species here are fewer than the evergreen zone. The areas of Saipung and Narpuh reserved forests fall under this category. The dominant trees in these forests are mostly deciduous species<sup>19</sup> such as *Careya arborea*, *Dillenia pentagyna* and *Callicarpa arborea*.

### (c) Tropical Moist and Dry Deciduous Forests

This type of forests occurs where annual rainfall is below 150 cm and at comparatively low elevations. Typical natural deciduous forests do not occur anywhere in Meghalaya but are only sub-climax or man-made forests.

These forests are characterised by seasonal leaf shedding and profuse flowering of the trees. Recurrent forest fires are a common phenomenon here. Deciduous forests are much more extensive in their distribution in the state and include a host of economically important trees like *Shorea robusta*, *Tectona grandis*, *Artocarpus chaplasha* etc. These types of forests are prevalent at lower elevations in Garo Hills, lower Khasi and Jaintia Hills under hot and humid climatic condition. Apart from mixed deciduous forests there are bamboo intruded deciduous forests where a good number of bamboos grow. Bamboo forests are not natural but appear in *jhum* fallows of 15–20 years. These forests at places form pure stands. The common bamboo species in Meghalaya are *Dendrocalamus hamiltonii*, *D. gigantea*, *Bambusa bambos*, *Cephalostachyum latifolium*, *Chimonobambusa khasiana*, *Melocanna bambusoides* etc. Bamboos also appear in comparatively older forests where there are some gaps in the canopy.

## II. Grasslands and Savannas

Grasslands of Meghalaya are also not of a climax type but are only as a result of removal of original forest cover. The rolling grasslands covering large areas can be seen throughout the Shillong plateau, around Riangdo, Ranikor, Weiloi, Mawphlang, Mawsynram, Cherrapunji, Shillong-Jowai, Jarain and Sutnga in Khasi and Jaintia Hills and major parts of West Garo Hills. Apart from giving a green look to these barren hills, these grasslands also support other dicotyledonous species.

## III. Sub-tropical Pine Forests

The pine forests in Meghalaya are confined to higher reaches of

the Shillong plateau in Khasi and Jaintia Hills, in a narrow belt showing an east-west direction. *Pinus kesiya* is the principal species, often forming pure strands. Pine forests of Meghalaya are, however, not a climax type, but are of secondary nature and is in a stage of succession termination.<sup>20</sup>

#### IV. Sal Forest

These forests occupy the northern part of Khasi Hills with pure varieties growing in certain parts of Garo Hills. The Rongrengiri Reserve forest is considered to be the best Sal reserve in India (Sarma, 2003:169). Bamboo forests grow within Sal forests. The wood from Sal (*Shorea robusta*) is generally used for the construction of furniture, railway tract and sleepers etc.

Classification of forest types in any terrain is such as directly related to environmental factors such as climate, physiography and edaphic (soil). These three factors play a vital role in the growth of particular species of trees and plant vegetation. For example, the climatic elements of temperature, rainfall, relative humidity etc. could be favourable to a particular plant growth over a considerable period. In the Central and Eastern upland of Meghalaya, sub-tropical moist hill (pine) type of forests is predominant and the dominant tree is pine (*Pinus kesiya*) (Sarma, 2003: 109).

#### REFERENCES

1. Bareh, Hamlet. 1985. *The History and Culture of the Khasi People*. Guwahati : Spectrum Publications, p. 10.
2. *Ibid.*, p. 9
3. Gurdon, P.R.T. 1975. *The Khasis*. Delhi: Cosmo Publications. p.11.
4. Bareh, Hamlet. 1985. *The History and Culture of the Khasi People*. Guwahati : Spectrum Publications, p.13.
5. *Ibid.*, p.15.
6. Sarma, Sidheswar. 2003. *Meghalaya the Land and Forest : A Remote Sensing Based Study*. Guwahati: Geophil Publishing House, p. 73.

7. *Shillong Times*, Vol. IV, No. 142. Shillong, November 7, 2000.
8. *Apphira Daily News*, Vol. III, No. 83. Shillong, May 14, 1997.
9. *Apphira Daily News*, Vol. III, No. 83. Shillong, May 14, 1997.
10. Nongbri, Tiplut. 2003. *Development, Ethnicity and Gender: Select Essays on Tribes in India*. New Delhi: Rawat Publications.
11. *Ibid.*, p.123.
12. Mathew, T. 1980. *Tribal Economy of North-Eastern Region*. Guwahati: Spectrum Publications, p. 36.
13. *Ibid.*, p. 56.
14. *The Assam Land Revenue Manual*, Vol. I, 7<sup>th</sup> Edition, 1965.
15. Nongbri, Tiplut. 2003. *Development, Ethnicity and Gender : Select Essays on Tribes in India*. New Delhi: Rawat Publications, p. 124.
16. Sinha, A.C. 1993. *Beyond the Trees, Tigers and Tribes: Historical Sociology of the Eastern Himalayan Forests*. New Delhi : Har Anand Publications, p. 21.
17. State of Forest Report 2001, Forest Survey of India, 2001, pp. 5-6.
18. Khasi Hills Autonomous District Council. 1995. *The United Khasi-Jaintia Hills Autonomous District (Management and Control of Forests) Act 1958*. Shillong : Ibani Printing Press, p. 6.
19. *Ibid.*, p. 166.
20. Sarma, Sidheswar. 2003 *Meghalaya the Land and Forest: A Remote Sensing Based Study*. Guwahati: Geophil Publishing House, p. 109.