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GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE
(Department of Agriculture & Cooperation)

REPORT
ON
FOREST RESOURCES OF

LOHIT & TIRAP
(ARUNACHAL PRADESH)

FOREST SURVEY OF INDIA
DEHRA DUN
1981

GOVERNMENT OF INDIA

MINISTRY OF AGRICULTURE

(DEPARTMENT OF AGRICULTURE & CO-OPERATION)

REPORT ON FOREST INVENTORY

ON

LOHIT & TIRAP DISTRICTS OF ARUNACHAL PRADESH.

FOREST SURVEY OF INDIA

DEHRADUN

1981

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2. A note on Working of the Paya and Dingaru forests, Lohit Forest Division, compiled by Shri S.B.Roy, A.I.F.C., Working Plan Officer, North-East Frontier Agency.

3. Working Scheme for the Namsa Range 1960-61 to 1969-70, Part-I & Part - II, compiled by Shri S.B.Roy, A.I.F.C., Working Plan and Utilisation, North-East Frontier Agency,

4. Yojana, 26th January, 1977.

5. Census of India, 1961 and 1971

PREFACE

The Arunachal Pradesh is the largest state in the North-Eastern Region of the country covering an area of 83,578 km^2. The survey of Forest Resources by Preinvestment Survey over an area of 2,649.75 km^2, extending over civil districts of Lohit and Tirap was undertaken during 1976-77. The objectives of the survey were (i) to determine the total growing stock of wood and bamboos separately for each division within an error of + 10% at 95% probability level and its break up into plywood, constructional, furniture, commercial and residual wood (ii) preparation of volume tables for commercially important species, (iii) study of various methods of felling, logging, transportation and to indicate the line of improvement. It will not be out of the way to mention here, that the forest department had started scientific management of forest after the II World War. Number of Working Plan covering the forests of Lohit and Tirap districts have been prepared, but no reliable data with respect to resources was available with the forest department. The Preinvestment Survey Of Forest Resources had been invited to undertake the survey work in the foot hill up to an altitude of 1000 m. in Lohit and Tirap districts to accrue the resources. The present report depicts the basic facts about areas surveyed, methodology adopted and various findings in view of the objectives narrated above. An Abridged report has also been prepared showing in a nutshell summary of the main report.

The findings of Preinvestment Survey Of Forest Resources reveal that there are vast and varied resources of wood and bamboos but unfortunately they have not been put to any economic and commercial use. There is an ample scope for development of Plywood industry. Matchwood and Furniture wood industry do not show an immediate prospect, while Saw milling industry can grow to a considerable extent. Based on the availability of resources consideration of a 130 tonnes per day Paper mill with 60% hardwood 40% bamboo may be a viable porposition provided other basic facilities are available.

The field work in the project area was carried out under the supervision of Shri J.N.Bhadury, Dy.Conservator Of Forests. The report has been drafted by Shri A.B.Chaudhuri and Shri J.N.Bhadury, D.C.F. The technical and non-technical staff of Eastern Zone has extended full cooperation in checking and compilation of data.

The Preinvestment Survey Of Forest Resources acknowledges the hard and arduous work put in by the members of the staff of Eastern Zone. The cooperation rendered by the State Forest Department Officers and Civil authorities is also gratefully acknowledged.

Dehradun, November 1980.

(A.B.Chaudhuri)
Chief Coordinator.

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INTRODUCTION:

The name Arunachal Pradesh has been rightly chosen since this is the first Indian soil to greet the rising sun. Historically speaking the region has suffered for centuries and it was under the iron curtain during the British rule in India. The then Govt. did not pay much attention to improve the condition of the people and develop the vast territory extending over an area of 83578 km^2. An Agency named North Eastern Frontier Agency was formed in the year 1951 under the control of a Governor.

Arunachal Pradesh is the largest State in the North Eastern region of our country. It lies between 26° 37' 30" & 29° 22' North latitude and 95° 11' to 97° 8' 30" East longitude. The area was divided into 5 districts namely Kameng, Subansiri, Siang, Lohit and Tirap. The territory has a total population of about 4.5 lakhs with a literacy range of about 10%. Lying within tropical monsoonic belt the Arunachal Himalayas make a favourable habitat for a variety of flora and fauna including a few rare species. About 82% of the state revenue in Arunachal Pradesh comes from its rich forest which cover 62% of the total area. Immediately after the independence a Forest Department was established under the control of a Director to exploit the locked up resources(green gold) and gradually an area of about 7257 km^2 was brought under reservation. Vast areas were left with the villagers for their use.

The altitude ranges from 100 m. in Brahmaputra valley to 8000 m. in high hills. Fluctuation in temperature is conspicuous. It is 35°C. in summer while it falls to freezing point during winter. Formidable mountains, turbulant rivers and streams, paucity of communication, innumerable local tribes, heavy monsoon, devastating land slides were common features of the area. As such the problem to develop the area is of enormous magnitude.

The economy of the State is primarily rural and agro-forestry based. Extensive areas were brought under Jhum cultivation(shifting cultivation) and as a result vast forest wealth was ruined. Gradually a fraction of those forests were brought under scientific management and Working Plans were drawn up for all such forests. Yet the extent of forest exploitation and regeneration was not fast. This gave way to the establishment of a Corporation designated as Arunachal Pradesh Forest & Plantation Development Corporation Ltd. with a view to exploit more and more of valuable forests and to regenerate the areas.

The forest wealth was of enormous magnitude but data available was limited. It was thus imperative that resources survey of the area was taken up to ascertain the potentiality of the forest so that the planning on forestry development in Arunachal Pradesh would be on some planned and scientific basis.

C H A P T E R - I

BACKGROUND INFORMATION

Information available on the past history of the forests in the project area is very scanty. It appears that there had been no exploitation on a commercial scale till the North East Frontier Agency Forest Department took over the management of their forests in 1951. During the World War II, some exploitation of timber and firewood had been carried out near and along the Still well road by the Army. There were no Working Plans and the exploitation was confined to a limited area and to a few important species only. Besides, the tribal population of nearby localities cleared a considerable area for their jhum cultivation.

The first Working Plan was drawn up for the Paya Reserve by Shri C.S.Purakayastha in 1934. The Paya felling series of Paya Reserve Forest was put under veneer wood Working Circle to meet the growing demand of the Assam Saw Mill. The demand was limited to Hollock only and the system of management prescribed was compensatory regeneration to replace the stock removed. First working schemes for scientific management of Kathang, Namchik and Nampong reserves was compiled by Shri S.B.Roy, for the period 1960-61 to 1969-70, while Manphuk R.F. was dealt under another scheme compiled for the period 1962-63 to 1971-72.

Owing to remoteness of the forests, difficult terrain, heavy rainfall, innumerable rivers flooded during the rainy season, paucity of transport facilities and lack of power supply, the forest based industries could not grow to a desired extent.

1.1. Name of the area:

Tirap and Lohit Districts of Arunachal Pradesh were surveyed in the year 1976-77 on request from Chief Conservator Of Forests, Arunachal Pradesh and with final approval of Govt. Of India. The present project area was confined to Lohit, Changlang and Khonsa Forest Divisions. The Headquarters of the forest divisions Lohit, Changlang & Khonsa were at Tezu, Joyrampur & Deomali respectively. The whole project area was under the southern circle of Arunachal Pradesh Forest Development with its Headquarters at Deomali. The distribution of the areas included in the survey are as given in para 2.2.2.

1.2. Location:

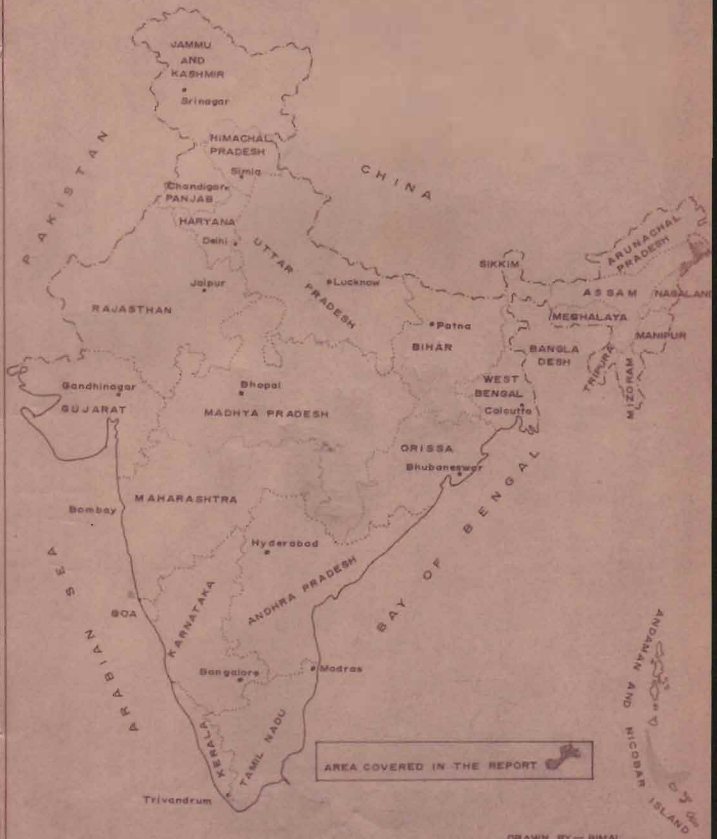
The District of Lohit is in the North East Corner of the State and is bounded by China in the North, China and Burma in the East, Siang district of Arunachal Pradesh in the West and Tirap District of Arunachal Pradesh in the South. The District lies between 95° 14' 54" to 97° 24' East longitude and 27° 30' 40" to 29° 22' North latitude approximately.

MAP OF INDIA

SHOWING PROJECT AREA IN LOHIT & TIRAP DISTRICT

(ARUNACHAL PRADESH)

SCALE – 1: 15,000,000



DRAWN BY — BIMAL.

Tirap district is situated in the south west corner of the State and is bounded by Lohit district of Arunachal in the North, Burma in the East and South Assam and Nagaland in the West. The district of Tirap lies between 95° 11' to 97° 8' 30" East longitude and 26° 37' 30" to 27° 39' North latitude approximately.

1.3. Factors of locality:

The terrain is mainly hilly with moderate to steep slopes. There are some plain areas on the South Western portion of Lohit district. Numerous hill streams cut up the area making it more inaccessible.

The soil is mostly alluvial and slightly acidic. It is more or less neutral towards the valley. It is very rich and consists of sand, silt and clay. The colour changes from yellowish to reddish and its texture varies from sandy loam to clay loam or clay with p^H ranging from 7.5 to 5.

The main occupation of the local people is cultivation by jhuming. The cultivators continue to live in their own traditional ways due to lack of contact with the outsiders. Their agriculture depends solely on the seasonal rain. Besides, weaving, painting pottery, smithy, bamboo and cane work, wood carving basketry and trading of deer musk, wild medicinal plants, animal skins, mishmitita etc. are their various means of livelihood.

The tract in consideration of temperature and rainfall is classified as moist tropical. The summer is severe with maximum temperature reaching 106° F and the minimum temperature dropping down upto 41° F in winter. The maximum and minimum monthly rainfall within the project area are 30.8 mm. & 0.37 mm. respectively. The maximum and minimum humidity are 94% and 56% respectively depending on the season.

The main seasons are summer(March to May), rains (June to October) and winter(November to February). During the winter precipitation is frequent which is a special feature of this area. The area receives precipitation from both the south western and the north eastern monsoons.

The pleasant months are November to February when humidity in the air is least. The rainfall varies widely from place to place and is high in areas nearer to the foot hills.

The innerline restriction is one of the most vital locality factor which has influenced the forests and forestry work to the maximum extent. There are restrictions for free entry of people and domestic animals in the project area. Owing to this restriction the forest crop has not suffered so much from biotic influences as the neighbouring areas. The intensity of grazing and fire in this area is also very low.

Frost and mist are common in high altitudes particularly during the winter. Storms and cyclones are not very common.

1.4. Physical Features:

(a) Lohit District:- Unprecedented and violent earthquake of 1950 followed by flood and erosion changed the overall physiography of the region and as a result the south western portion of the district became almost plain while the Northern and Eastern portion still remained high mountaneous.

A considereble number of rivers and streams such as Lohit, Tengapani, Digary, Noa Dehing and Kaulang flow through the project area. During the rainy season all the rivers and streams are flooded with water which inundate the entire land of the area. The flooded rivers make communication and crossing of rivers almost impossible.

The violent earthquake of 1950 rendered the entire hills fragile. Rivers were silted up. Erosion brought in huge masses of earth from the hills. This chocked the rivers still further; flood followed; and entire mass of vegetation was shaken or shattered.

(b) Tirap District:- The district Tirap is mainly hilly and very broken often with moderate to steep slopes at places. The existence of the important rivers and streams like Noadihing, Deban, Rima, Namphuk, Kersang, Namphai, Kaikhe, Maganton have improved the drainage system of the area. Noading river drains the Vijoynagar hills and Deban river drains the Burma hills.

Some of the rivers are perennial and during the rainy season these rivers often overflows their banks when they reach the lower flat areas. During the time of high floods the water carries, sand, silt and clay and the rivers often change their courses leaving behind the old course and mass of destruction.

1.5. Geology, Rock & Soil:

(A) Lohit District:- The Lohit district has been formed mainly by the accumulation of silt, sand and other finer materials which was brought down by the rivers and canals during the time of flood and erosion from time immemorial. The hilly regions of the south eastern portion and other high tracts have been formed by crushing, folding and denudations of the deposits as a result of violent earthquake. The other portion is mostly of alluvial origin. The land is generally rich in silt with depths varying from 15 cm. to 90 cm. overlying a thick bed of coarse sand and mixed with boulder and pebbles. The p^H varies from 7 to 5 keeping the soil mass as slightly acidic and that is due to heavy rainfall in this area.

The surface of the Dehing series is considerably deep. The soil is loam type and the colour varies from yellowish to reddish. Dehing series has been divided into four different types viz., Residual type, Old alluvium type, Recent alluvium type & Low level type.

(B) Tirap District:- So far as Tirap District is concerned it takes an orographic swerve in its eastern part. It belongs mainly to tertiary and quaternary formation.

The tertiary formation has been divided into two sequences such as oldest tertiary sequence and youngest rock tertiary sequence. The oldest tertiary sequence consists of a group of grey to black, splintery shales with the sand stone inter beds and the youngest tertiary sequence consists of pebble bed alternating with clays and soft sand stones.

The oldest of the tertiary sequence consists of a group like Disang group and the youngest of the tertiary sequence consists of a group like Dehing group.

The quarternary sequence consists of clays, loose coarse sand, gravel and boulder and comprises of a group of older alluvium. Rocks found in these areas are mostly sand-stone. It contains generally lightised fossilwood. Metamorphic rocks are also found in these areas. The metamorphic rocks are composed mainly of quartizites, slates and varieties of schistose rocks.

The soil can be classified into two classes, old alluvial and new alluvial. The new alluvial soil contains sandy loam or silt and occurs in the lower reaches along with bank of Noadihing river. The old alluvial soil contains clayey or sandy loam and occurs in the higher reaches. The texture of the soil at different parts varies from sandy loam to clay loam or clay with 1-5% of stones occupied by its volume and the p^H ranges from 7.5 to 5.5.

1.6. Natural Resources:

The forests are still the only appreciable renewable natural resources which earn considerable revenue in these areas of Lohit and Tirap Districts. The bulk of the revenue of these districts comes from its rich forest. The divergence of altitudinal and climatic conditions has produced a wide variety of trees and floral wealth. The important timber species that occur in the area are Hollock, Hollong, Nekai, Bola, Khokan, Mahar, Dhuna, Chaplash and Champak. Among the minor forest produce, Bamboos and Canes are important.

A great diversity in Wild Life is found in these areas due to dense vegetation, abundance of fodder and fruit plants and a wide range of climatic and geographical conditions. Among the Wild Life Mishmi Takin, Red Pandu, Snow Leopard, Clauded Leopard, Hollock, Sloth Bear, Himalayan Bear, Elephant, Wild Buffalow, Gaur, Sambhar, Swamp Deer, Muck Deer and Barking Deer, Tiger, Mithan and different types of snakes are also found. The natural resources potential of these regions are also very high, particularly with regards to oil, gas, hydel and thermal power potential, mineral and metal resources, water resources for navigations and agricultural purposes. The drilling for natural oil has given a positive reply in Namchik and Namabhun areas and that may bring a revolutionary change in the economy of these areas.

1.7. The people and their socio-economic conditions:

According to the census of 1971, the districts of Lohit & Tiarp have a population of 62,865 and 97,470 respectively.

Generally Mishmi, Khampti, Singpho, Khanjang, Miri, Padam, Tibetan and Chakmas live in Lohit District and Nocte, Wancho, Tangsa, Singpho, Chakmas and Lichu live in Tirap District. Some of these Jahor groups are further divided into sub-tribes mainly on the basis of difference in their dialects. Radically the tribes are Indo-Mongoloid.

Mishmis form the bulk of the population of Lohit district. There are also the Khamptis, the Singphos and a few Adisetlers. The Mishmis are divided into three main groups namely Idul, Digarus and Mijus. A section of the Idulmismis are also called Bobejia mishmis. Their women are expert weavers and make excellent coats and blouses. Agriculture is the main occupation of the people.

The Khamptis are the only tribe in Arunachal who have a script of their own. They are Buddhist by religion. The Singhpos are agriculturists and expert blacksmiths. The ladies are also good weavers. They follow Buddhism but at the same time believe in a host of spirits.

The Wanchos are a carefree, cheerful but hardworking people. They have a strict sense of discipline and the law and order of the society is maintained by a village council. Tattooing is a social custom among them. They believe in the existence of the powerful deities, Rang and Baurang. The women are good weavers but the art is restricted to the members of the chiefs' families only. They are experts in wood carving also.

The Noctes profess Vaishnavism and are disciples of the Baraghar Satra of Nazira. They are famous as salt producers and salt is their chief item of trade and barter. They are also agriculturists and cultivate betel leaves on a commercial scale.

The Tangsa believe in a number of spirits. Tangsa women are good in weaving. Agriculture is the main stay of the people of the project areas. The system of cultivation is mainly jhuming. For this purpose they clean the forests on a hill slope and burn the undergrowth to prepare the land for seasonal cultivation. Rice is the staple food though millet and maize are also eaten by them.

All the people have a tradition of artistic craftsmanship. The wide variety of craft which include, weaving, painting, pottery smithy, bamboo and cane work, wood carving, basketry etc. Government is making all round efforts to develop their traditional crafts. Their social life is highly democratic. Their social organization maintain law and order, decide dispute, take up all activities for the welfare of the tribes and the villages. The main feature of their material culture is shifting cultivation and hunting. They live in pile-dwellings made of bamboo and leaves. Their costumes are made of cotton. Their different categories of dresses are made from cotton and natural fibres locally available. But the Khamtis and the Singphos practice set-rice cultivation.

In the case of Noctes and Wanchos the society is governed by the chiefs. The Societies are casteless but have class distinction such as chiefs, aristocrats, commoners, slaves, freeman etc. The pattern of life is uniform, each individual lives in the same way and follows the same occupation. Disparity in economic status is hardly noticeable though the better off and the worse off are not unknown. Their entire economic life revolves round agriculture. The main occupation is agriculture with crafts such as weaving and basketry as subsidiary ones. All productive activities are on the consumption level and each family meets its own demand. Women are the main producers both in the field and at home(except in basketry) and they support the family.

Shikar is not very uncommon and till to date they follow group hunting.

In general it is difficult to get the people for any outside work. They are busy with their own household and in agricultural fields. They are also not very skilled and cannot undergo any physical hardship and as a result they are not good labourers. Most of the labourers in these areas are brought from outside viz., from Bihar and Nepal and settlers called as Chakmas.

1.8. Infrastructure:

According to available information a total of 633 km. and 419 km. of roads had been constructed in Lohit and Tirap districts respectively till March 1971. In Tirap district one main road designated "The Steel-Wel road" passes through Jairampur and enters Burma; the Nanchik-Hilao road goes upto Vijaynagar(the tri-junction of India, Burma and China). There are other several roads which connect Deomali, Khonsa, Nanchi, Borduns and other areas of the district. These are the only main ... roads and secondary road developments are very poor.

There are a few principal roads in the district of Lohit linking Sadiya, Tezy, Demni, Mara, Namsai, Chowkham & other trade and population centres. Recently several remote and difficult areas have become accessible but these are not sufficient for the transportation of timber, and other products. More roads and feeder roads will have to be constructed. The North East Frontier Agency's Engineering Department in collaboration with the Assam Public Works Department had undertaken the construction of an all weather road from Namsai and would join the Rupai-Koko pathar road. Footpath being the only link of the interior villages in the hilly areas have developed due to its own need and they also disappear when neglected for months together. In the rainy season waterways become the main link in some areas of Lohit district. Boats are widely used in rainy season. The big rivers namely Noadshing, Lohit and Brahmaputra are the main line of export from the folling site to different markets and mill places. A tramway has been built by the Assam Saw Mills through Namsai and Manabhum reserves for their own use. Logs are brought direct to the mill through the tramway and the finished product sent to the markets either by boat or by truck.

Electricity facility is very poor in both the districts and electricity is produced mainly with the diesel generators, and that too for limited hours of the night.

1.9. Existing Industries and markets:

The area is industrially undeveloped. The following are some industries that exist in the project area.

Name of the District:	Particulars of the industries & Saw Mills/Plywood Factories.
Lohit	1) Namsai Saw Mill, Tezu.
	2) Kobasang Pinsya Cooperative Saw Mill Limited, Tezu.
	3) Arunachal Saw Mill(Roing)
	4) M/S Chowkhamon Gohains Saw Mill (Roing).
	5) Lohit Saw Mill(Roing).
	6) Assam Saw Mill & Timber Co. Ltd.
Tirap	1) Narottam Cooperative Industries, Deomali.
	2) Nocto Timber Co. Ltd., Deomali.
	3) Arunachal Saw and Veneer Mill (Jairampur Circle).

Craft Centres.

Lohit	- 9 Nos.
Tirap	- 10 Nos.

A major portion of the forest produce harvested from the forests are supplied to the markets of Assam and West Bengal. Timber is mainly supplied to Sleeper Treatment Plant of the Railways at Naharkatia and the Plywood and saw mills located at Lakhapani, Ledo, Margherita, Digboi and Tinsukia. A small percentage of Hollock and Hollong logs are supplied to the plywood industries of Calcutta and various other parts of the country for different purposes. Hollock is used mainly in Calcutta market or in local tea garden for the manufacture of baskets and other purposes. The other important species are Amari, Sau, Jutuli, Khokan, Bola, Hingori, Milika, Bahora, Gamari, Bogipoma, Ponn & Sopa. Amari is used for rifle butts and in ship building industry.

Substantial quantity of bamboo resources are utilised locally. But bulk remains in the forest as unutilized due to lack of extraction facilities.

The survey has revealed vast potentiality of the project area where various utility class timbers are in surplus. As such these wealth can be exploited to develop various wood based industries.

MAP OF LOHIT AND TIRAP DISTRICTS (ARUNACHAL PRADESH) SHOWING FOREST

SCALE — 1: 1000000

95° 15' | 96° 0' | 96° 30' | 97° 0'

29° 15' | 29° 0' | 28° 15' | 28° 0' | 27° 0'

CHINA

DIST. ANGLAND

ASSAM

NAGALAND

MYANMAR (BURMA)

DAFI R.

EMRA R.

AGOLIN

EMILI

APANLI

TAGON R.

ENGALIN

KHI R.

SISSAR R.

DAMBUK

LOHIT DISTRICT

ROING

SIKANG R.

DENNING

NARA

TEZU

LOHIT RIVER

BRAHMAKUND

CHOWKHAM

DELA R.

GOILING

WALONG

TEELA R.

BHALUM R.

NOA DIHING R.

MIAO

TIRAP DISTRICT

RIMA

VIJAYANAGAR

DEOMALI

NAMSANG

NAKPHAN

BORDURIA

SENUA

PANCHAO

REFERENCES

- INTERNATIONAL BOUNDARY
- STATE BOUNDARY
- DISTRICT BOUNDARY
- RIVER.
- R. F. (LOHIT)
- R. F. (TIRAP)
- P. R. F. (LOHIT)
- P. R. F. (TIRAP)
- PROJECT BOUNDARY.

NAME OF FORESTS

1. DIBANG R.F.	11. NAMSAI R.F.	20. HONKAP R.F.
2. KERIM R.F.	12. NOA DEHING R.F.	21. RIMA P.R.F.
3. DEOPANI R.F.	13. BORDUMSA R.F.	22. PANGSAU R.F.
4. HAZING P.R.F.	14. DIYUN R.F.	23. LUNGAKHAN P.R.F.
5. DIGARU R.F.	15. NAMPHUK R.F.	24. NAMDANG P.R.F.
6. DENNING P.R.F.	16. MIAO R.F.	25. NAMSANG R.F.
7. PAYA R.F.	17. NAMDAPHA R.F.	26. BORDURIA R.F.
8. GURUNG R.F.	18. NAMCHIK R.F.	27. NAKFAN P.R.F.
9. TENGAPANI R.F.	19. KATHANG R.F.	
10. MANABHUM R.F.		

DRAWN BY — SUMAN.

C H A P T E R - II.

THE RESOURCES BASE

2.1. Forest type:

Composition and condition of the crop:

Excessive rainfall, temperature and humidity have blessed the area with a luxuriant vegetation which is typical of tropics and the forests occurring in the area possess the general characteristics of Tropical Wet Evergreen forests. The heterogeneous forests found in the tract dealt with can be broadly classified into the following types according to Champion and Seth's classification of forest types (Champion & Seth).

1. I C/c 1 - Assam valley tropical wet evergreen forest (Dipterocarpus).
2. 3c/182 (b) - North Indian Moist Deciduous Forest(Eastern Terminalia myriocarpa Forest).
3. Miscellaneous Forest.
4. Bamboo Forest.
5. Riverain Forest.

There is no clear cut delimitation of the types on the ground and these are generally found interspersed due to edaphic, micro-climatic and biotic factors. Type I is easily distinguishable owing to the dominance of Hollong(Dipterocarpus macrocarpus) and Mekai Shorea assamica), the main veneer wood timbers in the locality; while type 2 predominates in Hollock type(Terminalia myriocarpa), Type 3, as the name indicates includes open under stocked inferior miscellaneous species where grasses and shrubs like Thatch(Imperata cylindrica), Khagri(Saccharum spontaneum), (Phragmites karka), Tora (Alpinia spp.) and Ekra(Erianthus ravennae) abound with inferior tree species such as outenga (Gillenia indica), Madar(Erythrina suberosa), Uriun (Bischofia javanica) and Pichola (Kydia calycina) etc. are scattered here and there.

Hollong(Dipterocarpus macrocarpus) is the dominant species in the upper storey with patches of pure Mekai(Shorea assamica) and occurs almost gregariously on the well drained high level alluvial plains and on the foot hills while at higher elevation of Kuwen Bun (Namchik R.F.) Mekai (Shorea assamica) occurs in more or less pure patches of varying extent on comparatively drier and gravelly soils.

Hollock(Terminalia myriocarpa) occurs mainly along the streams and in the flat plains as a dominant species in the upper storey of the forest

Jutuli (Altingia excelsa) is also one of the species of the upper storey in admixture with Hollong but in smaller proportions; occassionally it occurs more or less pure.

Other important species of the upper storey are Amari(Amoora wallichii), Champ (Michelia champaca), Sopa (Magnolia species), Pona (Toona ciliata), Sam(Artocarpus chaplasha), Hilika(Terminalia citrina), Gonsoroi (Cinnamomum cecedodaphne), Makahi (Phoebe cooperiana) etc.

The second storey consists predominantly of Mahor (Mesua ferrea); in wet and ill drained patches Mahor give way to Morhal (Vatica lanceaefolia);other associates are Hingori(Castanopsis indica), Banderdima(Dysoxylum binecteriferum), Baranthuri(Talauma hodgsonii), Jamuk (Syzygium cumini), Dalnugra(Gymocardia odorata), Pichola (Kydia calycina), Rudrakh(Elaeocarpus ganitrus) etc.

The lower storey consists mainly of shade bearers such as Gohara (Premna bengalensis), Jaguru (Macaranga denticulata), Bali (Cyclostemon ellipticus), Thekera (Garcinia cowa), Lateku(Baccaurea sapida), Jengu (Calamus erectus) and bamboos such as Kako(Dendrocalamus hamiltonii), Daly(Teinostachyum dullooa) and Bojal (Pseudostachyum polymorphum) etc.

The ground cover consists mainly of woody evergreen shrubs, such as Carupatanul(Pinanga gracilis), Sorot(Laportea crenulata), Tora (Alpinia alluchas), Kukra tenga (Leea sambucina), Kaupat (Phrynium imbricatum), Ligustrum robustum, Melastoma malabathricum, Eugenia balsamica, Baidang cane (Calamus flagellum) and ferns.

1. Assam valley Tropical Wet Evergreen Forest(Dipterocarpus macrocarpus).

(a) Hollong - Mahor Forest:-

(Dipterocarpus macrocarpus - Mesua ferrea):-

Hollong(Dipterocarpus macrocarpus), a magnificent tall tree with its clear straight, cylindrical bole, can be recognised from a long distance in the forest and occupies almost exclusively the upper most canopy. It attains its best growth in localities just along the foot hills on well drained soil and prefers rich sandy loam.

The soil in the forests of this type is generally of the residual and old alluvium type of the Daling series. The occurrence of other miscellaneous species in the order of frequency in the top storey area is as follows:-

Jutuli(Altingia excelsa), Amari(Amoora wallichii), Hilika (Terminalia citrina), Phulganeri(Itea chinensis), Kathal chapa (Michelia manii), Dhuna(Canarium resiniferum), Sam(Artocarpus chaplasha),Tita sopa(Michelia champaca), Hatipoila(Persperum acerifolium), Gonsoroi(Cinnamomum cecidodaphane), Gendheli pona (Dysoxylum hamiltonii), Pona (Cedrella toona), Ficus spp. Khokan (Duabanga sonneritioides) besides Hollock occurs with Hollong near stream-beds.

The composition of the middle storey is as follows:-

Mahor (Mesua ferrea) forms the principal component of the middle storey species; its proportion in the composition of the middle storey varies from place to place; in some localities, it forms the middle storey almost exclusively.

Besides these, Morhal (Vatica lanceaefolia), Hingori Castanopsis sp.,), Sandardina (Dysoxylum binectiferum), Baranthuri Talauma hodgsonii), Outenga (Dillenia indica), Thekera (Garcinia spp.), Moz (Albizzia lucida), Jamuk (Eugenia jambolana), Pichola (Kydia calycina), Dalangra (Cynocordia odorata), Kadam(Anthocephalus cadamba), etc. are the other common constituents.

Of the bamboos, Kako (Dendrocalamus hamiltonii) is very common in the middle storey, Dalu bamboo (Teinostachyum dullca) has also been found mixed with Kako in small patches. A few patches of Jati bamboo(Bambusa tulda) have also been seen.

Under growth:-

There are many woody shrubs of which, Kaupat(Phrynium imbricatum), Surot (Laportea crenulata), Tora (Alpinia allughus), Kukura tenga (Lea accuminata), Clerodendron species, Mussoenda glabra, Teka pat (Livistona jenkinsii) etc. are common. Jengu (Calamus orectus) and Raidang (Calamus flagellum) are the common canes. Garuga Tamul(Pinanga gracilis) is very common.

(b) Mekai Forests(Shorea assamica):

Mekai(Shorea assamica), a tree similar to Hollong in size and shape, generally occurs in the comparatively higher elevations; it prefers well drained gravelly soil. Mekai forms almost a pure crop in most of the places where it occurs, it is gregarious in nature.

The soil in the forests of this type is generally of the residual type of the Daling series.

The predominant species is Mekai, Mekai (Shorea assamica) occupies almost 70% of the stocking in the top canopy. Hollong is a common associate and other miscellaneous species like Amari(Amoora wallichii), Champa (Michelia champaca), Sopa (Magnolia spp.), Poma (Cedrela toona), Sam (Artocarpus chaplasha) etc. also occur in different storeys.

2. North Indian Moist Deciduous Forest:

Hollock Forests:

The striking characteristics of this type are that most of the species occupy the emergent layer, shed their leaves for a short period during February-March while the understorey is composed of evergreen species. These are found generally on alluvial flat along river and stream banks. The soil is of the recent alluvium type and low level type of Daling series.

Hollock(Terminalia myriocarpa) is the most dominant species which occurs almost in pure patches of varying extent on favourable sites formed by fresh deposits near the river banks. Other associates in the canopy in order of predominance are Khokon (Duabanga sonneritioides), Hilika (Terminalia citrina), Bohera (Terminalia bolerica), Champ (Michelia champaca), Tita sopa (Talauma rbellocarpa), Sopa (Magnolia spp.), Hatipolia (Pterospermum acerifolium), Gamari (Gmelina arborea), Amari(Amoora wallichii), Sam (Artocarpus chaplasha), Bola (Morus laevigata), Uriun (Bischofia javanica), Dhuna (Canarium resiniferum), Barpat (Ailanthus grandis), Bogipoma (Chikrasia tabularis), Udal (Sterculia villosa).

The middle storey is generally dense and consist mainly of Uriun (Bischofia javanica), Outenga (Dillenia indica), Banderdima (Dysoxylum binectiferum), Hingori (Castanopsis indica), Jamuk(Eugenia jambolana), Pichola (Kydia calycina), Bararithuri (Talauma hodgsonii), Morolia (Macaranga denticulata), Dalmugra(Gynocardia odorata), Gerumora (Crypteronia species), Mornal (Vatica lanceaefolia), Moz (Albizzia lucida) and Bamboos (Dendrocalamus hamiltonii) and (Pseudostachyum polymorphum) etc.

Under growth:

The under growth is very dense and consist of mainly Tota (Alpinia allughus), Surot (Laportea crenulata), Jengu(Calamus flagellum), Lezai bet(Calamus floribundus), Kukratenga(Lea acuminata) Mussaenda glabra, Eupatorium, Kaupat (Phrynium inbricatum) etc.

The forest is infested with numerous climbsers like Acacia pennata, Vitis latifolia, Tinospora, Mikania cordata etc.

Open forest:

Same as Assam valley Tropical Wet Evergreen Forest.

3. Miscellaneous forest:

The types occur in scattered patches of varying sizes in all the reserves and there is no clear cut delimitation of this type on the ground. No single species is particularly dominant in this type. The completion of crop in such areas primarily depends on the composition of the soil and its drainage.

The soil is low level alluvium, subject to inundation during the rainy seasons when water stagnates for a considerable length of time. Some of the important species found in such type of forests are Khokan(Duabanga sonneritioides), Barpat(Ailanthus grandis), Hilika (Terminalia citrina), Hingori(Castanopsis spp.), Outenga (Dillenia indica), Udal (Sterculia villosa), Uriun (Bischofia javanica), Hatipolia (Pterospermum acerifolium), Stereospermum chelanoides, Salmalia insignis, Kydia calycina etc. in the top storey. Dillenia indica and Salmalia insignis are found almost exclusively on poor sandy soil. The economically important species like Mekai, Hollong, Hollock etc. are generally absent in this type.

Under growth:

Under growth occurs very densely in this type. Calamus erectus, Calamus falcellum, Phrynium imbricatum, Lea acuminata etc. are very common shrubs. The area is infested with climbers like Acacia pennata, Mikania cordata etc.

4. Bamboo Forests:

Bamboos are found in almost pure patches of various sizes scattered all over the areas. The slopes of the ridge and the higher hilly areas contain this type of forest. Besides, it also occurs in low lying areas where soil and water conditions do not permit other species to grow. Steepness of the slope and the dryness of the soil may be the two factors mainly dictating the occurrence of this type. Old jhum areas are predominantly bamboo areas.

Amongst the bamboos Kako (Dendrocalamus hamiltonii), Bojai (Pseudostachyum polymorphum), Dalu (Teinostachyum dalloa) are very common species; other bamboos are Jati (Bambusa tulda), Bijuli (Bambusa pallida) etc. Miscellaneous species occur sporadically. Undergrowth is not very dense.

5. Riverain Forest:

There is no clear cut delimitation of this type on the ground; this conforms mostly to the type 3C/1S1 (Low alluvial Savannah Woodland, Salmalia - Albizzia) of Indian Forest Type.

This type occurs in scattered patches of varying sizes mainly in Lohit district of the project area. No single species is particularly dominant in this type. This is the most extensively occurring tall grassy areas and having scattered trees in their early stages of the natural succession on new riverain soils.

This type is met within the more stable riverain flats which tend to be flooded during the rainy season but dry out during the rest of the year; the soil is alluvial, mainly sandy but with local clay patches which forms due to depressions. There is usually a thin surface layer of loam soil with presence of humus of different degrees. Some of the important species found in such type of forests are - Salmalia insignis, Albizzia procera, Albizzia lucida, Kydia calycina, Dillenia indica, Sterculia villosa, Dalbergia sissoo.

Under growth:

Imperata arundinacea (Thatch), Saccharum spontaneum (Khagri), Erianthus ravennae (Ekra) etc. are common.

Swamp:

Occurrence of this type is in the depressions, where water stagnates for a long time in the rainy season, making the conditions impossible for tree growth.

Pani kadam (Cephalanthus occidentalis) and Bamanbih are common trees. In this type a few pichola (Kydia calycina), Outenga (Dillenia indica), Morhal (Vatica lanceaefolia), Uriam (Bischofia javanica) etc. are also found here and there. Undergrowth is very poor.

2.1 Distribution of forest resources:

An analysis of crop shows that in Khonsa Division Mesua ferrea, Dipterocarpus macrocarpus, Shorea assamica, Michelia champaca, Castanopsis species, Amoora wallichii, Mansonia dipikae and Canarium resiniferum excels other species in number; but Mesua ferrea and Dipterocarpus species stand conspicuous with 33.912 and 29.017 stems per ha. respectively.

In Lohit Forest Division, Dipterocarpus macrocarpus, Amoora wallichii, Kydia calycina, Pterospermum acerifolium, Bischofia javanica, Terminalia myriocarpa, Mesua ferrea, Michelia champaca, Canarium resiniferum, Schima wallichii, Ailanthus grandis, Gmelina arborea, Terminalia citrina etc. are high in number. In stratum I it is seen that Dipterocarpus macrocarpus and Amoora wallichii excel other species with 12.628 and 6.602 stems/ha. respectively. In stratum II, Kydia calycina and Pterospermum acerifolium have maximum concentration with 5.344 and 4.139 stems/ha. respectively. In stratum IV, Bischofia javanica and Gmelina arborea have maximum concentration with 3.705 and 2.779 stems/ha. respectively.

In Changlang Forest Division, Dipterocarpus macrocarpus and Castanopsis species are predominant with 15.775 stems/ha. in stratum I and 15.396 stems/ha. in stratum II respectively.

The Khonsa Division is rich in the occurrence of Mesua ferrea and Dipterocarpus macrocarpus and Changlang Division is rich in the occurrence of Castanopsis species while Lohit Division is rich in the occurrence of Kydia calycina and Bischofia javanica. In respect of volume however, Dipterocarpus macrocarpus surpluses all other species with 719.845 m3/ha., 79.614 m3/ha., and 30.026 m3/ha. respectively in stratum I in all the divisions.

Various resources and their detailed availability are enumerated(abstract) in a few tables as follows:

Density of species (per ha. and total) as per Division and strata.

Species Code	Name of the species	Stems per ha.			Total stems(in'000 unit		
		Lohit Divn.	Chang-lang Divn.	Khonsa Divn.	Lohit Divn.	Changlang Division.	Khonsa Divn.
1	2	3	4	5	6	7	8
001	Morus laevigata	-	1	-	-	9.333	-
002	Michelia champaca	-	3	-	-	27.999	-
003	Amoora wallichii	-	1	-	-	9.333	-
004	Dipterocarpus macrocarpus	-	1	-	-	9.333	-
005	Shorea assamica	-	-	-	-	-	-
006	Terminalia myriocarpa	-	4	-	-	37.332	-
007	Gmelina arborea	-	-	-	-	-	-
008	Chukrassia tabularis	-	-	-	-	-	-
009	Cinnamomum cecidodaphne	-	-	-	-	-	-
010	Mesua ferrea	-	1	-	-	9.333	-
011	Talauma phellocarpa	-	-	-	-	-	-
012	Adina cordifolia	-	-	-	-	-	-
013	Lagerstroemia speciosa	-	-	-	-	-	-
014	Altingia excelsa	-	1	-	-	9.333	-
015	Castanopsis spp.	-	4	-	-	37.332	-
016	Terminalia citrina	-	-	-	-	-	-
017	Duabanga grandiflora	-	5	-	-	46.665	-
018	Bischofia javanica	-	-	-	-	-	-
019	Toona ciliata	-	2	-	-	18.666	-
020	Canarium resiniferum	-	-	-	-	-	-
021	Ailanthus grandis	-	-	-	-	-	-
022	Mansonia dipikae	-	-	-	-	-	-
023	Phoebe cooperiana	-	-	-	-	-	-
024	Pterospermum acerifolium	-	-	-	-	-	-
025	Schima wallichii	-	-	-	-	-	-
026	Bombax ceiba	-	2	-	-	18.666	-
027	Adina oligocephala	-	-	-	-	-	-
028	Betula alnoides	-	-	-	-	-	-
029	Trewia nudiflora	-	-	-	-	-	-
030	Tetrameles nudiflora	-	-	-	-	-	-
031	Alstonia scholaris	-	-	-	-	-	-
032	Anthocephalus cadamba	-	-	-	-	-	-
033	Dillenia indica	-	-	-	-	-	-
034	Kayea assamica	-	-	-	-	-	-
035	Pterospermum lanceaefolium	-	-	-	-	-	-
036	Stereospermum chelanoides	-	2	-	-	18.666	-
037	Albizzia lucida	-	-	-	-	-	-
038	Artocarpus lakoocha	-	-	-	-	-	-
039	Kayea floribunda	-	-	-	-	-	-
040	Kydia calycina	-	1	-	-	9.333	-
041	Dendrocalamus hamiltonii	-	-	-	-	-	-
042	Bambusa pallida	-	-	-	-	-	-
043	Melocanna bamboosicoides	-	-	-	-	-	-
044	Teinostachyum dalooa	-	-	-	-	-	-
045	Pseudostachyum polymorphum	-	-	-	-	-	-
046	Dendrocalamus strictus	-	-	-	-	-	-
047	Bambusa tulda	-	-	-	-	-	-
048	Other bamboos	-	-	-	-	-	-
049	Dalbergia sisoo	-	-	-	-	-	-
050	Terminalia belerica	-	-	-	-	-	-
051	Others	-	42	-	-	391.986	-
		-	70	-	-	653.310	-

Density of species(per ha. and total) over the project area(Divisionwise)

Sp. Code	Name of the species	Stems per ha.			Total stems(in'000 Unit)		
		Lohit	Changl-ang	Khonsa	Lohit	Changl-ang	Khonsa
001	Morus laevigata	0.936	0.407	0.352	157.185	33.568	5.095
002	Michelia champaca	1.943	11.469	8.026	326.452	946.468	115.922
003	Amoora wallichii	2.895	2.883	5.205	486.318	237.917	75.158
004	Dipterocarpus macrocarpus	4.623	5.304	29.017	776.631	437.725	419.104
005	Shorea assamica	1.630	1.943	8.158	273.923	160.363	117.833
006	Terminalia myriocarpa	2.609	3.059	0.661	438.327	252.435	9.554
007	Gmelina arborea	0.201	0.397	0.220	33.803	32.791	3.184
008	Chukrassia tabularis	0.747	0.377	0.220	125.450	31.151	3.184
009	Cinnamomum cecicodaphne	0.824	1.058	0.220	138.372	87.310	3.184
010	Mesua ferrea	1.647	1.816	33.912	276.739	149.833	489.804
011	Talauma phellocarpa	0.604	0.020	0.044	101.539	1.625	0.636
012	Adina cordifolia	-	-	-	-	-	-
013	Lagerstroemia speciosa	-	0.220	0.088	-	18.173	1.273
014	Albingia excelsa	0.349	1.002	0.661	58.546	82.726	9.554
015	Castanopsis spp.	2.777	12.671	7.001	466.607	1045.711	101.272
016	Terminalia citrina	1.441	2.760	1.631	242.080	227.775	23.566
017	Duabanga grandiflora	1.137	2.961	0.308	190.985	244.329	4.458
018	Bischofia javanica	2.059	0.888	0.881	345.974	73.270	12.738
019	Toona ciliata	1.332	2.176	0.970	223.799	179.564	14.012
020	Canarium resiniferum	1.906	1.667	2.822	320.211	137.559	40.763
021	Ailanthus grandis	2.038	1.188	0.352	342.379	98.070	5.095
022	Mansonia dipikae	-	0.598	4.542	-	49.309	65.604
023	Phoebe cooperiana	0.410	-	-	68.913	-	-
024	Pterospermum acerifolium	2.209	1.035	-	371.064	85.395	-
025	Schima wallichii	-	1.156	0.176	-	95.381	2.547
026	Bombax ceiba	0.672	0.359	-	112.848	29.591	-
027	Adina oligocephala	0.597	0.285	-	100.365	23.505	-
028	Betula alnoides	-	0.578	-	-	47.684	-
029	Trewia nudiflora	0.483	0.013	0.044	81.083	1.033	0.636
030	Tetrameles nudiflora	0.066	0.063	0.132	11.151	5.166	1.910
031	Alstonia scholaris	0.548	0.285	0.264	92.109	23.505	3.821
032	Anthocephalus cadamba	0.268	0.606	0.132	45.060	49.987	1.910
033	Dillenia indica	0.432	0.965	1.102	72.539	79.622	15.923
034	Kayea assamica	0.017	0.079	-	2.787	6.517	-
035	Pterospermum lanceaefolium	0.232	0.567	0.176	39.031	46.527	2.547
036	Stereospermum chelanoides	0.363	1.542	0.396	61.011	127.209	5.732
037	Albizzia lucida	0.615	0.741	-	103.341	61.159	-
038	Artocarpus lakoocha	0.486	0.998	0.749	81.667	82.387	10.827
039	Kayea floribunda	-	-	-	-	-	-
040	Kydia calycina	3.169	2.764	0.176	532.333	228.111	2.547
041	Dendrocalamus hamiltonii	-	-	-	-	-	-
042	Bambusa pallida	-	-	-	-	-	-
043	Melocanna bamboosioides	-	-	-	-	-	-
044	Teinostachyum xx dalooa	-	-	-	-	-	-
045	Pseudostachyum polymorphum	-	-	-	-	-	-
046	Dendrocalamus strictus	-	-	-	-	-	-
047	Bambusa tulda	-	-	-	-	-	-
048	Other bamboos	-	-	-	-	-	-
049	Dalbergia sissoo	0.107	0.428	0.396	17.901	35.341	5.732
050	Terminalia belerica	0.561	0.723	0.573	94.189	59.671	8.280
051	Others	91.076	100.111	184.604	15301.396	8261.676	2666.215
		134.602	168.156	294.233	22614.157	13877.117	4210.620

Growing stock of species(per ha. and total) as per Division and Strata.

Hollong Mekai Strata

Sp. Code	Name of the species	Volume per ha. Lohit Divn.	Changlang Div. Divn.	Khonsa	Total Growing stock ('000 m^3) Lohit Divn.	Changlang Dvn.	Khonsa Dvn.
001	Morus laevigata	0.049	0.132	0.242	2.680	2.891	3.521
002	Michelia champaca	2.203	5.393	4.338	117.263	117.492	62.719
003	Anoora wallichii	4.582	2.633	4.599	243.974	57.364	66.475
004	Dipterocarpus macrocarpus	30.021	33.045	79.614	1597.547	719.845	1149.909
005	Shorea assamica	11.841	29.435	42.152	630.254	641.208	608.876
006	Terminalia myriocarpa	8.978	11.041	2.341	477.943	240.530	33.874
007	Gmelina arborea	0.160	0.331	0.076	8.600	7.229	1.103
008	Chukrassia tabularis	0.589	0.014	0.078	31.483	0.321	1.146
009	Cinnamomum cecidodaphne	0.493	0.557	0.066	26.320	12.138	0.976
010	Mesua ferrea	3.192	2.296	31.511	170.088	50.028	455.150
011	Talauma phellocarpa	2.639	0.030	0.009	140.693	0.672	0.134
012	Adina cordifolia	-	-	-	-	-	-
013	Lagerstroemia speciosa	-	0.104	0.187	-	2.273	2.709
014	Altingia excelsa	3.850	0.554	3.029	205.104	12.067	43.786
015	Castanopsis sp.	2.387	5.432	2.535	127.145	118.327	36.659
016	Terminalia citrina	4.523	1.510	1.380	240.962	32.906	19.967
017	Duabanga grandiflora	5.018	3.213	0.251	267.006	69.993	3.631
018	Bischofia javanica	2.656	0.776	1.677	141.518	16.916	24.276
019	Toona ciliata	3.324	1.358	1.317	177.074	29.600	19.067
020	Canarium resiniferum	7.200	3.840	5.443	383.243	83.668	78.669
021	Ailanthus grandis	7.483	2.319	0.672	398.432	50.521	9.719
022	Mansonia dipikao	-	0.075	3.769	-	1.642	54.466
023	Phoebe cooperiana	0.657	-	-	35.074	-	-
024	Pterospermum acerifolium	2.153	0.739	-	114.737	16.102	-
025	Schima wallichii	-	0.425	0.547	-	9.277	7.912
026	Bombax ceiba	0.171	0.002	-	9.150	0.058	-
027	Adina oligocephala	1.111	0.065	-	59.276	1.434	-
028	Betula alnoides	-	0.116	-	-	2.545	-
029	Trewia nudiflora	0.675	-	0.186	36.009	-	2.693
030	Tetrameles nudiflora	0.125	-	0.771	6.663	-	11.155
031	Alstonia scholaris	0.155	0.517	0.581	8.346	11.277	8.404
032	Anthocephalus cadamba	0.210	0.494	0.058	11.288	10.763	0.852
033	Dillenia indica	3.515	0.775	2.055	187.204	16.998	29.732
034	Kayea assamica	0.014	0.383	-	0.754	8.355	-
035	Pterospermum lanceaefolium	0.201	0.224	0.128	10.770	4.890	1.858
036	Stereospermum chelanoides	0.519	1.078	0.816	27.717	23.499	11.835
037	Albizzia lucida	1.661	1.072	-	88.492	23.358	-
038	Artocarpus lakoocha	3.206	1.008	2.037	170.718	21.958	29.447
039	Kayea floribunda	-	-	-	-	-	-
040	Kydia calycina	1.358	1.129	0.143	72.487	24.613	2.082
041	Dendrocalamus hamiltonii	-	-	-	-	-	-
042	Banbusa pallida	-	-	-	-	-	-
043	Melocanna bambosioides	-	-	-	-	-	-
044	Teinostachyum dalzeia	-	-	-	-	-	-
045	Pseudostachyum polymorphum	-	-	-	-	-	-
046	Dendrocalamus strictus	-	-	-	-	-	-
047	Banbusa tulda	-	-	-	-	-	-
048	Other bamboos	-	-	-	-	-	-
049	Dalbergia sissoo	0.230	0.253	0.104	12.282	5.530	1.515
050	Terminalia belerica	1.091	0.252	0.391	58.259	5.508	5.673
051	Others	56.148	30.560	48.520	2987.553	665.718	700.825
		174.499	143203	241.623	9284.218	3119.514	3489.764

Growing stock of species (per ha. and total) as per Division and strata.
Miscellaneous Strata.

Spp. code	Name of the species	Volume per ha. Lohit Divn.	Changl- ang Div.	Khonsa Divn.	Total Growing stock ('000 m3) Lohit Divn.	Changlang Divn.	Khonsa Divn.
001	Morus laevigata	1.310	0.129	-	77.311	6.634	-
002	Michelia champaca	0.455	9.057	-	26.880	465.621	-
003	Amoora wallichii	5.765	2.750	-	340.030	141.417	-
004	Dipterocarpus macrocarpus	4.418	2.711	-	260.590	139.382	-
005	Shorea assamica	8.027	1.082	-	473.431	54.619	-
006	Terminalia myriocarpa	7.672	12.6056	-	452.491	648.059	-
007	Gmelina arborea	0.804	0.369	-	47.468	19.010	-
008	Chukrassia tabularis	5.526	0.354	-	325.915	18.243	-
009	Cinnamomum cecidodaphne	0.657	1.178	-	38.767	60.591	-
010	Mesua ferrea	0.411	1.212	-	24.265	62.336	-
011	Talauma phellocarpa	0.350	0.031	-	20.653	1.636	-
012	Adina cordifolia	-	-	-	-	-	-
013	Lagerstroemia speciosa	-	0.165	-	-	8.511	-
014	Altingia excelsa	-	4.104	-	-	211.010	-
015	Castanopsis spp.	4.108	8.047	-	241.289	413.706	-
016	Terminalia citrina	1.646	3.633	-	97.087	186.774	-
017	Duabanga grandiflora	5.532	2.872	-	326.302	147.651	-
018	Bischofia javanica	3.891	2.551	-	229.508	131.158	-
019	Toona ciliata	4.973	3.533	-	293.292	181.643	-
020	Canarium resiniferum	5.221	4.844	-	307.940	249.031	-
021	Ailanthus grandis	12.612	5.156	-	743.822	265.108	-
022	Mansonia dipikae	-	0.931	-	-	47.880	-
023	Phoebe cooperiana	0.122	-	-	7.200	-	-
024	Pterospermum acerifolium	5.918	0.872	-	349.043	44.836	-
025	Schima wallichii	-	2.021	-	-	103.921	-
026	Bombax ceiba	1.813	1.371	-	106.943	70.504	-
027	Adina oligocephala	-	0.072	-	-	3.709	-
028	Betula alnoides	-	0.777	-	-	39.950	-
029	Trewia nudiflora	-	0.022	-	-	1.173	-
030	Tetrameles nudiflora	-	0.253	-	-	13.023	-
031	Alstonia scholaris	0.471	0.246	-	27.965	12.696	-
032	Anthocephalus cadamba	0.255	0.237	-	15.148	12.214	-
033	Dillenia indica	0.170	1.729	-	10.079	88.894	-
034	Kayea assamica	-	-	-	-	-	-
035	Pterospermum lanceaefolium	-	0.438	-	-	22.538	-
036	Stereospermum chelanoides	0.887	2.873	-	52.928	147.744	-
037	Albizzia lucida	3.403	2.202	-	200.691	113.240	-
038	Artocarpus lakoocha	0.910	3.207	-	53.725	164.888	-
039	Kayea floribunda	-	-	-	-	-	-
040	Kydia calycina	4.582	1.847	-	270.231	94.980	-
041	Dendrocalamus hamiltonii	-	-	-	-	-	-
042	Bambusa pallida	-	-	-	-	-	-
043	Melocanna bambosioides	-	-	-	-	-	-
044	Teinostachyum dalooa	-	-	-	-	-	-
045	Pseudostachyum polymorphum	-	-	-	-	-	-
046	Dendrocalamus strictus	-	-	-	-	-	-
047	Bambusa tulda	-	-	-	-	-	-
048	Other bamboos	-	-	-	-	-	-
049	Dalbergia sissoo	0.021	0.331	-	1.264	17.049	-
050	Terminalia belerica	1.462	0.542	-	86.257	27.891	-
051	Others	34.411	36.526	-	2029.421	1877.778	-
		127.833	122.879	-	7538.936	6317.068	

GROWING STOCK (IN '000 m^3) BY DIVISION AND DIA- CLASS.

Diameter class	Division		
	Lohit	Changlang	Khonsa
10-19	1813.856(8.95%)	1103.043(11.30%)	362.938(10.40%)
20-29	1880.150(9.27%)	1279.527(12.99%)	396.345(11.36%)
30-39	1936.611(9.55%)	1273.877(12.93%)	413.618(11.85%)
40-49	1938.451(9.56%)	1130.925(11.48%)	383.548(10.99%)
50-59	2141.532(10.57%)	973.602(9.89%)	431.326(12.36%)
60-69	1846.906(9.11%)	846.162(8.59%)	426.921(12.23%)
70-79	1579.950(7.80%)	764.344(7.76%)	382.263(10.95%)
80-89	1371.382(6.77%)	601.818(6.11%)	279.761(8.02%)
90-99	959.379(4.73%)	397.840(4.04%)	118.288(3.39%)
100+	4800.882(23.69%)	1468.351(14.91%)	294.753(8.45%)
Total:	20269.098(100.00%)	9848.579(100.00%)	3489.764(100.00%)

GROWING STOCK OF TIMBER(IN '000 m^3) BY DIVISION AND UTILITY CLASS

Utility Class	Division		
	Lohit	Changlang	Khonsa
Plywood	7725.855(38.12%)	3486.140(35.40%)	1554.082(44.53%)
Constructional wood	1279.104(6.31%)	813.723(8.26%)	387.434(11.10%)
Match wood	411.066(2.03%)	137.392(1.39%)	21.260(0.61%)
Furniture wood	23.357(0.12%)	0.926(0.01%)	-
Other wood	5177.349(25.54%)	1989.107(20.20%)	359.572(10.30%)
Residual wood	1240.925(6.12%)	822.171(8.35%)	277.334(7.95%)
Small wood	4411.442(21.76%)	2599.103(26.39%)	890.078(25.51%)
	20269.098(100.00%)	9848.579(100.00%)	3489.764(100.00%)

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DENSITY OF STEMS(IN '000 UNIT) AND PERCENTAGE BY DIVISION AND DIAGCLASS.

Dia-class	Division		
	Lohit	Changlang	Khonsa
10-19	12316.415 (54.46%)	7381.571(53.19%)	2378.298(55.97%)
20-29	4537.252 (20.06%)	3197.980 (23.04)	897.429(21.12%)
30-39	2193.394 (9.70%)	1495.016(10.77%)	423.542(9.97%)
40-49	1227.575(5.43%)	733.910(5.29%)	196.262(4.62%)
50-59	830.199(3.67%)	399.291(2.88%)	138.202(3.24%)
60-69	503.720(2.23%)	235.466(1.70%)	90.434(2.13%)
70-79	330.572(1.46%)	167.991(1.21%)	59.861(1.41%)
80-89	219.996(0.97%)	96.500(0.70%)	33.749(0.79%)
90-99	122.732(0.54%)	50.750(0.37%)	12.733(0.30%)
100+	334.137(1.48%)	118.515(0.85%)	19.101(0.45%)
	22614.157(100.00%)	13877.117(100.00%)	4249.620(100.00%)

DENSITY OF STEMS (IN '000 UNIT) BY DIVISION AND UTILITY CLASS.

Utility Class	Division		
	Lohit	Changlang	Khonsa
1. Plywood	4359.565(19.29%)	3348.532(24.13%)	892.976(21.01%)
2. Construct-ional wood	1373.396(6.07%)	1677.285(12.09%)	645.850(15.20%)
3. Match wood	342.251(1.51%)	109.282(0.79%)	8.277(0.20%)
4. Furniture wood	100.365(0.44%)	23.505(0.17%)	0.000(0.00%)
5. Miscella-neous wood	16438.580(72.69%)	8718.513(62.82%)	2702.517(63.59%)
	22614.157(100.00%)	13877.117(100.00%)	4249.620(100.00%)

GROWING STOCK OF SPECIES(PER HA. AND TOTAL) OVER THE PROJECT AREA (DIVISIONWISE)

Spp. Code	Name of the species	Volume per ha.			Total Growing stock ('000 m3)		
		Lohit Div.	Changlang Div.	Khonsa Div.	Lohit Div.	Changlang Div.	Khonsa Div.
1	2	3	4	5	6	7	8
001	Morus laevigata	0.865	0.189	0.242	145.295	15.634	3.521
002	Michelia champaca	0.867	7.245	4.338	145.670	597.909	62.719
003	Amoora wallichii	3.607	2.487	4.599	605.928	205.255	66.475
004	Dipterocarpus macrocarpus	11.891	10.414	79.614	1997.730	859.414	1149.909
005	Shorea assamica	10.568	8.432	42.159	1775.425	695.827	608.876
006	Terminalia myriocarpa	9.536	11.791	2.341	1602.174	973.063	33.874
007	Gmelina arborea	0.723	0.318	0.076	121.510	26.239	1.103
008	Chukrassia tabularis	2.574	0.225	0.078	432.363	18.564	1.146
009	Cinnamomum cecidodaphne	0.387	0.881	0.066	65.087	72.729	0.976
010	Mesua ferrea	0.116	1.396	31.511	194.353	115.239	455.150
011	Talauma phellocarpa	0.960	0.028	0.009	161.346	2.308	0.134
012	Adina cordifolia	-	-	-	-	-	-
013	Lagerstroemia speciosa	-	0.131	0.187	-	10.784	2.709
014	Altingia excelsa	1.221	3.119	3.029	205.104	257.406	43.786
015	Castanopsis spp.	2.502	6.562	2.535	420.412	541.512	36.659
016	Terminalia citrina	2.119	2.662	1.380	355.955	219.677	19.967
017	Dunbanga grandiflora	3.673	3.184	0.251	617.122	262.788	3.631
018	Bischofia javanica	2.747	1.794	1.677	461.576	148.074	24.276
019	Toona ciliata	3.667	2.618	1.317	616.060	216.042	19.067
020	Canarium resiniferum	4.319	4.032	5.443	725.558	332.699	78.669
021	Ailanthus grandis	7.997	3.800	0.672	1343.505	313.629	9.719
022	Mansonia dipikae	-	0.600	3.769	-	49.522	54.466
023	Phoebe cooperiana	0.780	-	-	131.019	-	-
024	Pterospermum acerifolium	3.677	0.739	-	617.735	60.958	-
025	Schima wallichii	-	1.372	0.547	-	113.198	7.912
026	Bombax ceiba	1.973	1.149	-	331.407	94.810	-
027	Adina oligocephala	0.353	0.062	-	59.276	5.143	-
028	Betula alnoides	-	0.515	-	-	42.495	-

1	2	3	4	5	6	7	8
029	Trewia nudiflora	0.221	0.014	0.186	37.190	1.173	2.693
030	Tetrameles nudiflora	0.040	0.158	0.771	6.663	13.023	11.155
031	Alstonia scholaris	0.361	0.291	0.581	60.568	23.973	8.404
032	Anthocephalus cadamba	0.204	0.278	0.058	34.295	22.977	0.852
033	Dillenia indica	1.357	1.283	2.055	228.039	105.892	29.732
034	Kayea assamica	0.005	0.101	-	0.754	8.355	-
035	Pterospermum lanceaefolium	0.064	0.332	0.128	10.770	27.428	1.858
036	Stereospermum chelanoides	0.497	2.886	0.816	83.567	238.141	11.835
037	Albizzia lucida	1.941	1.655	-	326.115	136.598	-
038	Artocarpus lakoocha	1.417	2.264	2.037	238.092	186.846	29.447
039	Kayea floribunda	-	-	-	-	-	-
040	Kydia calycina	2.677	1.461	0.143	449.699	120.525	2.082
041	Dendrocalamus hamiltonii	-	-	-	-	-	-
042	Bambusa pallida	-	-	-	-	-	-
043	Melocanna bamboosioides	-	-	-	-	-	-
044	Teinostachyum dalooa	-	-	-	-	-	-
045	Pseudostachyum polymorphum	-	-	-	-	-	-
046	Dendrocalamus strictus	-	-	-	-	-	-
047	Bambusa tulda	-	-	-	-	-	-
048	Other bamboos	-	-	-	-	-	-
049	Dalbergia sissoo	0.081	0.274	0.104	13.546	22.579	1.515
050	Terminalia belerica	0.860	0.405	0.391	144.516	33.399	5.673
051	Others	36.757	32.175	48.520	6175.424	2655.269	700.825
		120.644	119.340	241.623	20269.098	9848.559	3409.764

GROWING STOCK OF SPECIES(PER HA. AND TOTAL) AS PER DIVISION AND STRATA

BAMBOO STRATA

Spp. Code	Name of the species	Volume/ha. Lohit Divn.	Changlang Div.	Khonsa Div.	Total Growing stock ('000 m³) Lohit Div.	Changlang Div.	Khonsa Div.
001	Morus laevigata	-	0.654	-	-	6.109	-
002	Michelia champaca	-	1.527	-	-	14.256	-
003	Amoora wallichii	-	0.693	-	-	6.474	-
004	Dipterocarpus macrocarpus	-	0.020	-	-	0.187	-
005	Shorea assamica	-	-	-	-	-	-
006	Terminalia myriocarpa	-	9.051	-	-	84.474	-
007	Gmelina arborea	-	-	-	-	-	-
008	Chukrassia tabularis	-	-	-	-	-	-
009	Cinnamonum cecidodaphne	-	-	-	-	-	-
010	Mesua ferrea	-	0.307	-	-	2.875	-
011	Talauma phellocarpa	-	-	-	-	-	-
012	Adina cordifolia	-	-	-	-	-	-
013	Lagerstroemia speciosa	-	-	-	-	-	-
014	Altingia excelsa	-	3.678	-	-	34.329	-
015	Castanopsis spp.	-	1.015	-	-	9.479	-
016	Terminalia citrina	-	-	-	-	-	-
017	Duabanga grandiflora	-	4.837	-	-	45.144	-
018	Bischofia javanica	-	-	-	-	-	-
019	Toona ciliata	-	0.514	-	-	4.799	-
020	Canarium resiniferum	-	-	-	-	-	-
021	Ailanthus grandis	-	-	-	-	-	-
022	Mansonia dipikae	-	-	-	-	-	-
023	Phoebe cooperiana	-	-	-	-	-	-
024	Pterospermum acerifolium	-	-	-	-	-	-
025	Schima wallichii	-	-	-	-	-	-
026	Bombax ceiba	-	2.59	-	-	24.248	-
027	Adina oligocephala	-	-	-	-	-	-
028	Betula alnoides	-	-	-	-	-	-
029	Trewia nudiflora	-	-	-	-	-	-
030	Tetrameles nudiflora	-	-	-	-	-	-
031	Alstonia scholaris	-	-	-	-	-	-
032	Anthocephalus cadamba	-	-	-	-	-	-
033	Dillenia indica	-	-	-	-	-	-
034	Kayea assamica	-	-	-	-	-	-
035	Pterospermum lanceaefolium	-	-	-	-	-	-
036	Stereospermum chelanoides	-	7.167	-	-	66.098	-
037	Albizzia lucida	-	-	-	-	-	-
038	Artocarpus lakoocha	-	-	-	-	-	-
039	Kayea floribunda	-	-	-	-	-	-
040	Kydia calycina	-	0.099	-	-	0.932	-
041	Dendrocalamus hamiltonii	-	-	-	-	-	-
042	Bambusa pallida	-	-	-	-	-	-
043	Melocanna bambooscioides	-	-	-	-	-	-
044	Teinostachyum dalooa	-	-	-	-	-	-
045	Pseudostachyum polymorphum	-	-	-	-	-	-
046	Dendrocalamus strictus	-	-	-	-	-	-
047	Bambusa tulda	-	-	-	-	-	-
048	Other bamboos	-	-	-	-	-	-
049	Dalbergia sissoo	-	-	-	-	-	-
050	Terminalia belerica	-	-	-	-	-	-
051	Others	-	11.976	-	-	111.723	-
		-	44.142	-	-	411.977	-

GROWING STOCK OF SPECIES(PER HA. AND TOTAL) AS PER DIVISION AND STRATA

Sp. code	Name of the species	Volume/ha.			Riverain strata		
		Lohit Div.	Changlang Div.	Khonsa Div.	Total growing stock ('000 m3) Lohit Div.	Changlang Div.	Khonsa Div.
001	Morus laevigata	1.169	-	-	65.304	-	-
002	Michelia champaca	0.027	-	-	1.527	-	-
003	Amoora wallichii	0.392	-	-	21.924	-	-
004	Dipterocarpus macrocarpus	-	-	-	-	-	-
005	Shorea assamica	2.500	-	-	139.593	-	-
006	Terminalia myriocarpa	12.032	-	-	671.740	-	-
007	Gmelina arborea	1.172	-	-	65.442	-	-
008	Chukrassia tabularis	1.342	-	-	74.965	-	-
009	Cinnamomum cecidodaphne	-	-	-	-	-	-
010	Mesua ferrea	-	-	-	-	-	-
011	Talauma phellocarpa	-	-	-	-	-	-
012	Adina cordifolia	-	-	-	-	-	-
013	Lagerstroemia speciosa	-	-	-	-	-	-
014	Altingia excelsa	-	-	-	-	-	-
015	Castanopsis spp.	0.913	-	-	50.978	-	-
016	Terminalia citrina	0.320	-	-	17.906	-	-
017	Duabanga grandiflora	0.425	-	-	23.754	-	-
018	Bischofia javanica	1.621	-	-	90.550	-	-
019	Toona ciliata	2.609	-	-	145.694	-	-
020	Canarium resiniferum	0.615	-	-	34.375	-	-
021	Ailanthus grandis	3.603	-	-	201.201	-	-
022	Mansonia dipikae	-	-	-	-	-	-
023	Phoebe cooperiana	1.589	-	-	88.745	-	-
024	Pterospermum acerifolium	2.757	-	-	153.955	-	-
025	Schima wallichii	-	-	-	-	-	-
026	Bombax ceiba	3.856	-	-	215.314	-	-
027	Adina oligocephala	-	-	-	-	-	-
028	Betula alnoides	-	-	-	-	-	-
029	Trewia nudiflora	0.021	-	-	1.181	-	-
030	Tetrameles nudiflora	-	-	-	-	-	-
031	Alstonia scholaris	0.434	-	-	24.257	-	-
032	Anthocephalus cadamba	0.140	-	-	7.859	-	-
033	Dillenia indica	0.550	-	-	30.756	-	-
034	Kayea assamica	-	-	-	-	-	-
035	Pterospermum lanceaefolium	-	-	-	-	-	-
036	Stereospermum chelanoides	0.052	-	-	2.912	-	-
037	Albizzia lucida	0.661	-	-	36.932	-	-
038	Artocarpus lakoocha	0.244	-	-	13.649	-	-
039	Kayea floribunda	-	-	-	-	-	-
040	Kydia calycina	1.916	-	-	106.981	-	-
041	Dendrocalamus hamiltonii	-	-	-	-	-	-
042	Bambusa pallida	-	-	-	-	-	-
043	Melocanna bamboosioides	-	-	-	-	-	-
044	Teinostachyum dalooa	-	-	-	-	-	-
045	Pseudostachyum polymorphum	-	-	-	-	-	-
046	Dendrocalamus strictus	-	-	-	-	-	-
047	Bambusa tulda	-	-	-	-	-	-
048	Other bamboos	-	-	-	-	-	-
049	Dalbergia sissoo	-	-	-	-	-	-
050	Terminalia belerica	-	-	-	-	-	-
051	Others	20.750	-	-	1158.450	-	-
		61.724	-	-	3445.944	-	-

List of species as per utility class.

Spp. code	Name of the species	Utility class
001	Morus laevigata	Other wood
002	Michelia champaca	Ply wood
003	Amoora wallichii	Ply wood
004	Dipterocarpus macrocarpus	Ply wood
005	Shorea assamica	Ply wood
006	Terminalia myriocarpa	Ply wood
007	Gmelina arborea	Ply wood
008	Chukrassia tabularis	Ply wood
009	Cinnamomum cecidodaphne	Ply wood
010	Mesua ferrea	Constructional wood
011	Talauma phellocarpa	Other wood
012	Adina cordifolia	Furniture wood
013	Lagerstroemia speciosa	Constructional wood
014	Altingia excelsa	Other wood
015	Castanopsis spp.	Constructional wood
016	Terminalia citrina	Constructional wood
017	Duabanga grandiflora	Ply wood
018	Bischofia javanica	Other wood
019	Toona ciliata	Ply wood
020	Canarium resiniferum	Ply wood
021	Ailanthus grandis	Ply wood
022	Mansonia dipikae	Ply wood
023	Phoebe cooperiana	Ply wood
024	Pterospermum acerifolium	Other wood
025	Schima wallichii	Ply wood
026	Bombax ceiba	Match wood
027	Adina oligocephala	Furniture wood
028	Betula alnoides	Ply wood
029	Trewia nudiflora	Match wood
030	Tetrameles nudiflora	Match wood
031	Alstonia scholaris	Match wood
032	Anthocephalus cadamba	Match wood
033	Dillenia indica	Constructional wood
034	Kayea assamica	Other wood
035	Pterospermum lanceaefolium	Other wood
036	Stereospermum chelanoides	Other wood
037	Albizzia lucida	Constructional wood
038	Artocarpus lakoocha	Ply wood
039	Kayea floribunda	Other wood
040	Kydia calycina	Ply wood
041	Dendrocalamus hamiltonii	Bamboo
042	Bambusa pallida	Bamboo
043	Melocanna bamboosioides	Bamboo
044	Teinostachyum dalgoa	Bamboo
045	Pseudostachyum polymorphum	Bamboo
046	Dendrocalamus strictus	Bamboo
047	Bambusa tulda	Bamboo
048	Other Bamboos	Bamboo
049	Dalbergia sissoo	Constructional wood
050	Terminalia belerica	Constructional wood
051	Others	Other wood.

Density of species (per ha. and total) as per Division and Strata
Hollong - Mokai Strata.

Spp. code	Name of the species	Stems/ha.			Total stems('000 unit)		
		Lohit Div.	Changlang Div.	Khonsa Div.	Lohit	Changlang Div.	Khonsa Div.
1	2	3	4	5	6	7	8
001	Morus laevigata	0.104	0.353	0.352	5.575	7.702	5.095
002	Michelia champaca	4.136	10.143	8.026	220.246	221.009	115.922
003	Amoora wallichii	6.602	2.665	5.205	351.279	58.088	75.158
004	Dipterocarpus macrocarpus	12.625	15.765	29.017	671.891	343.661	419.104
005	Shorea assamica	3.039	6.555	8.158	161.700	142.797	117.833
006	Terminalia myriocarpa	2.829	2.855	0.661	150.548	62.214	9.554
007	Gmelina arborea	0.104	0.272	0.220	5.575	5.925	3.184
008	Chukrassia tabularis	0.576	0.054	0.220	30.667	1.185	3.184
009	Cinnamomum cecidodaphne	0.628	0.924	0.220	33.455	20.145	3.184
010	Mesua ferrea	4.503	3.509	33.912	239.762	76.435	489.804
011	Talauma phellocarpa	1.676	0.027	0.044	89.213	0.592	0.636
012	Adina cordifolia	-	-	-	-	-	-
013	Lagerstroemia speciosa	-	0.217	0.088	-	4.740	1.273
014	Altingia excelsa	1.100	0.380	0.661	58.546	8.295	9.554
015	Castanopsis spp.	4.087	9.955	7.011	217.458	216.862	101.272
016	Terminalia citrina	2.672	2.014	1.631	142.184	43.846	23.566
017	Duabanga grandiflora	0.576	3.998	0.308	30.667	87.100	4.458
018	Bischofia javanica	0.999	0.707	0.881	52.970	15.405	12.738
019	Toona ciliata	2.357	1.931	0.970	125.456	42.068	14.012
020	Canarium resiniferum	3.877	1.713	2.822	206.306	37.328	40.763
021	Ailanthus grandis	1.936	0.707	0.352	103.153	15.405	5.095
022	Mansonia dipikae	-	0.081	4.542	-	1.777	65.604
023	Phoebe cooperiana	0.314	-	-	16.727	-	-
024	Pterospermum acerifolium	1.254	0.979	-	66.910	21.330	-
025	Schima wallichii	-	0.299	0.176	-	6.517	2.547
026	Bombax ceiba	0.157	0.027	-	8.363	0.592	-
027	Adina oligocephala	1.886	0.462	-	100.365	10.072	-
028	Betula alnoides	-	0.054	-	-	1.185	-
029	Trewia nudiflora	1.360	-	0.044	72.486	-	0.636
030	Tetrameles nudiflora	0.209	-	0.132	11.151	-	1.910

1	2	3	4	5	6	7	8
031	Alstonia scholaris	0.366	0.462	0.264	19.515	10.072	3.821
032	Anthocephalus cadamba	0.419	1.251	0.132	22.303	27.255	1.910
033	Dillenia indica	2.515	0.761	1.102	133.820	16.590	15.923
034	Kayea assamica	0.052	0.299	-	2.787	6.517	-
035	Pterospermum lanceaefolium	0.733	0.380	0.176	39.031	8.295	2.547
036	Stercospermum chelanoides	0.524	0.951	0.396	27.879	20.738	5.732
037	Albizzia lucida	0.681	0.625	-	36.243	13.627	-
038	Artocarpus lakoocha	0.471	0.652	0.749	25.091	14.220	10.827
039	Kayea floribunda	-	-	-	-	-	-
040	Kydia calycina	1.414	2.311	0.176	75.274	50.364	2.547
041	Dendrocalamus hamiltonii	-	-	-	-	-	-
042	Bambusa pallida	-	-	-	-	-	-
043	Melocanna bamboosioides	-	-	-	-	-	-
044	Teinostachyum dalooa	-	-	-	-	-	-
045	Pseudostachyum polymorphum	-	-	-	-	-	-
046	Dendrocalamus strictus	-	-	-	-	-	-
047	Bambusa tulda	-	-	-	-	-	-
048	Other bamboos	-	-	-	-	-	-
049	Dalbergia sissoo	0.104	0.815	0.396	5.576	17.775	5.732
050	Terminalia belerica	0.785	0.462	0.573	41.818	10.072	8.280
051	Others	147.400	93.921	184.604	7842.452	2045.971	2666.215
		215.101	169.562	294.233	11444.441	3693.749	4249.620

Density of species(per ha. and total) as per Division and Strata

Miscellaneous Strata.

Spp. Code	Name of the species	Stems per ha.			Total stems(in '000 Unit)		
		Lohit Div.	Changla-Khonsang Div.	Div.	Lohit Div.	Changlang Khonsa Div.	Div.
001	Morus laevigata	1.988	0.321	-	117.242	16.533	-
002	Michelia champaca	1.719	13.568	-	101.900	697.460	-
003	Amoora wallichii	2.138	3.316	-	126.443	170.496	-
004	Dipterocarpus macrocarpus	1.781	1.646	-	104.740	84.731	-
005	Shorea assamica	1.832	0.341	-	107.925	17.566	-
006	Terminalia myriocarpa	2.243	2.974	-	132.751	152.889	-
007	Gmelina arborea	0.261	0.522	-	15.384	26.866	-
008	Chukrassia tabularis	1.100	0.582	-	64.695	29.966	-
009	Cinnamonum cecidodaphne	1.781	1.306	-	104.917	67.165	-
010	Mesua ferrea	0.628	1.246	-	36.977	64.065	-
011	Talauna phellocarpa	0.209	0.020	-	12.326	1.033	-
012	Adina cordifolia	-	-	-	-	-	-
013	Lagerstroenia speciosa	-	0.261	-	-	13.433	-
014	Altingia excelsa	-	1.266	-	-	65.098	-
015	Castanopsis spp.	3.343	15.396	-	197.566	791.517	-
016	Terminalia citrina	1.622	3.577	-	95.598	183.929	-
017	Duabanga grandiflora	2.356	2.150	-	138.827	110.564	-
018	Bischofia javanica	1.465	1.125	-	86.279	57.865	-
019	Toona ciliata	0.943	2.311	-	55.378	118.830	-
020	Canarium resiniferum	1.571	1.949	-	92.413	100.231	-
021	Ailanthus grandis	3.029	1.607	-	178.909	82.665	-
022	Mansonia dipikae	-	0.924	-	-	47.532	-
023	Phoebe cooperiana	0.157	-	-	9.200	-	-
024	Pterospermum acerifolium	4.136	1.246	-	243.920	64.065	-
025	Schima wallichii	-	1.728	-	-	88.664	-
026	Bombax ceiba	0.313	0.201	-	18.459	10.333	-
027	Adina oligocephala	-	0.261	-	-	13.433	-
028	Betula alnoides	-	0.904	-	-	46.499	-
029	Trewia nudiflora	-	0.020	-	-	1.033	-
030	Tetrameles nudiflora	-	0.100	-	-	5.166	-
031	Alstonia scholaris	0.574	0.261	-	33.852	13.433	-
032	Anthocephalus cadamba	0.313	0.442	-	18.459	22.732	-
033	Dillenia indica	0.366	1.226	-	21.526	63.032	-
034	Kayea assamica	-	-	-	-	-	-
035	Pterospermum lanceaefolium	-	0.743	-	-	38.232	-
036	Stereospermum chelanoides	0.419	1.708	-	24.535	87.805	-
037	Albizzia lucida	0.996	0.924	-	58.502	47.532	-
038	Artocarpus lakoocha	0.524	1.326	-	30.785	68.167	-
039	Kayea floribunda	-	-	-	-	-	-
040	Kydia calycina	5.344	3.276	-	314.982	168.414	-
041	Dendrocalamus hamiltonii	-	-	-	-	-	-
042	Banbusa pallida	-	-	-	-	-	-
043	Melocanna bamboosioides	-	-	-	-	-	-
044	Teinostachyum daloca	-	-	-	-	-	-
045	Pseudostachyum polymorphum	-	-	-	-	-	-
046	Dendrocalamus strictus	-	-	-	-	-	-
047	Banbusa tulda	-	-	-	-	-	-
048	Other bamboos	-	-	-	-	-	-
049	Dalbergia sissoo	0.209	0.341	-	12.326	17.566	-
050	Terminalia belerica	0.890	0.964	-	52.371	49.599	-
051	Others	80.581	113.283	-	4752.604	5823.719	-
		124.830	185.378	-	7361.829	9530.058	-

Density of species(per ha. and total) as per Division and Strata.

Riverain Strata.

Sp. code	Name of the species	Stems/ha. Lohit Div.	Changlang Div.	Khonsa Div.	Total stems(in'000unit Lohit Div.	Changlang Div.	Khonsa Div.
001	Morus laevigata	0.617	-	-	34.368	-	-
002	Michelia champaca	0.077	-	-	4.298	-	-
003	Anoora wallichii	0.154	-	-	8.596	-	-
004	Dipterocarpus macrocarpus	-	-	-	-	-	-
005	Shorea assamica	0.077	-	-	4.298	-	-
006	Terminalia myriocarpa	2.769	-	-	155.028	-	-
007	Gmelina arborea	0.231	-	-	12.894	-	-
008	Chukrassia tabularis	0.540	-	-	30.088	-	-
009	Cinnamomum cecidodaphne	-	-	-	-	-	-
010	Mesua ferrea	-	-	-	-	-	-
011	Talauma phellocarpa	-	-	-	-	-	-
012	Adina cordifolia	-	-	-	-	-	-
013	Lagerstroemia speciosa	-	-	-	-	-	-
014	Altingia excelsa	-	-	-	-	-	-
015	Castanopsis spp.	0.924	-	-	51.583	-	-
016	Terminalia citrina	0.077	-	-	4.298	-	-
017	Duabanga grandiflora	0.386	-	-	21.491	-	-
018	Bischofia javanica	3.703	-	-	206.725	-	-
019	Toona ciliata	0.772	-	-	42.965	-	-
020	Canarium resiniferum	0.386	-	-	21.492	-	-
021	Ailanthus grandis	1.080	-	-	60.237	-	-
022	Mansonia dipikae	-	-	-	-	-	-
023	Phoebe cooperiana	0.772	-	-	42.986	-	-
024	Pterospermum acerifolium	1.078	-	-	60.234	-	-
025	Schima wallichii	-	-	-	-	-	-
026	Bombax ceiba	1.541	-	-	86.026	-	-
027	Adina oligocephala	-	-	-	-	-	-
028	Betula almoides	-	-	-	-	-	-
029	Trewia nudiflora	0.154	-	-	8.597	-	-
030	Tetrameles nudiflora	-	-	-	-	-	-
031	Alstonia scholaris	0.694	-	-	38.742	-	-
032	Anthocephalus cadamba	0.077	-	-	4.298	-	-
033	Dillenia indica	0.308	-	-	17.193	-	-
034	Kayea assamica	-	-	-	-	-	-
035	Pterospermum lanceaefolium	-	-	-	-	-	-
036	Stereospermum chelanoides	0.154	-	-	8.597	-	-
037	Albizzia lucida	0.154	-	-	8.597	-	-
038	Artocarpus lakoocha	0.463	-	-	25.791	-	-
039	Kayea floribunda	-	-	-	-	-	-
040	Kydia calycina	2.543	-	-	142.077	-	-
041	Dendrocalamus hamiltonii	-	-	-	-	-	-
042	Bambusa pallida	-	-	-	-	-	-
043	Melocanna bamboosioides	-	-	-	-	-	-
044	Teinostachyum daloca	-	-	-	-	-	-
045	Pseudostachyum polymorphum	-	-	-	-	-	-
046	Dendrocalamus strictus	-	-	-	-	-	-
047	Bambusa tulda	-	-	-	-	-	-
048	Other bamboos	-	-	-	-	-	-
049	Dalbergia sissoo	-	-	-	-	-	-
050	Terminalia belerica	-	-	-	-	-	-
051	Others	48.477	-	-	2706.340	-	-
		68.208	-	-	3807.887	-	-

2.2.2. Area:

The districts Tirap and Lohit include three forest divisions, namely Changlang, Khonsa and Lohit. The altitudinal limit to which the project extended was restricted up to 900 m. in each forest division due to the inaccessibility of the area and non-availability of the maps. As a result all inaccessible areas beyond 900 m. were considered as locked up capital for the present. There is hardly any scope of extraction of produce in immediate future as the road developments would not be taken up by C.P.W.D. or by any other agency within a reasonable time.

Strata-wise areas are given below:-

AREA STATEMENT

LOHIT DIVISION - CHANGLANG DIVISION - KHONSA DIVISION

Division	Forest area (in ha.)	Hollong & Mekai (ha.)	Miscellaneous (ha.)	Bamboo stratun (ha.)	Riverain (ha.)	Other non-forest area rivers blanks etc.	Net forest area (ha.)
Lohit	186609.75	53204.81	58974.05	-	55827.38	18602.71	168007.04
Changlang	257342.94	21783.82	51408.59	9333.00	-	174817.53	82525.41
Khonsa	15943.00	14443.00	-	-	-	1500.00	14443.00
Total	459895.69	89433.63	110383.44	9333.00	55827.38	194920.24	264975.45

*Forest areas upto 300 metres altitude from the mean sea level were taken into consideration. Areas beyond that may be treated as locked up at present. Moreover, the maps of these areas were also not available.

VOLUME AND GROWING STOCK

2.2.3. Objective including precision:

The major objectives of the survey worked out in consultation with the State Forest Department are indicated below:-

(i) Determination of the total growing stock of wood and bamboo for three Forest Divisions separately within an error of ± 10% at 95% probability level and its break up into plywood, Constructional wood, Furniture wood, other commercial wood and residual wood.

(ii) Preparation of volume tables for commercially important species.

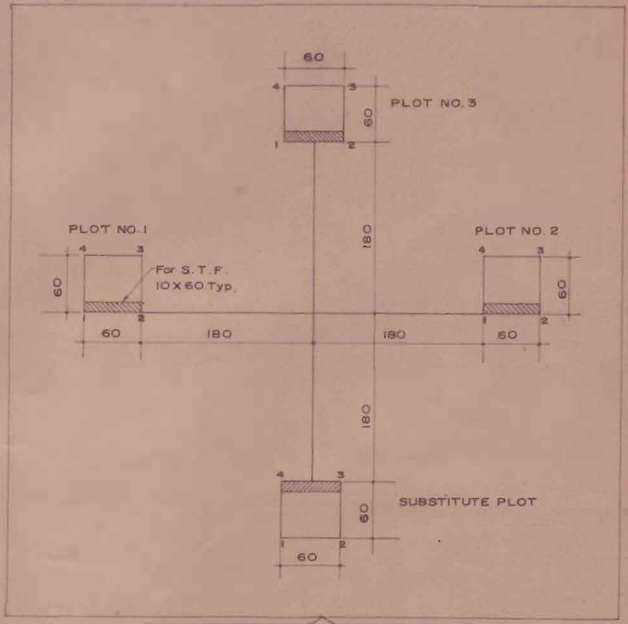
(iii) Study of various existing methods of felling, logging and extraction and to indicate the line of improvement.

2.2.4. Inventory Design:

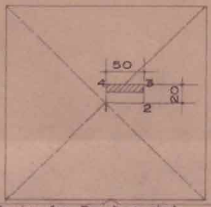
Stratified random sampling with a cluster of three plots within a grid block of 1' x 1' in Lohit(3.40 km^2) and ½' x ½' in Changlang and Khonsa (0.85 km^2).

ORIENTATION OF PLOTS IN THE GRID CENTRE LOHIT & TIRAP DIST.

(ARUNACHAL PRADESH)



Design for laying out of plots in all strata except Bamboo



Design for Bamboo plot

All dimensions are in metre

DRAWN BY-BIMAL

Contents

LOHIT AND TIRAP DISTRICTS
(ARUNACHAL PRADESH)

MAP SHOWING THE GRID POINTS

SCALE — 1:1000000

REFERENCES

INTERNATIONAL BOUNDARY
STATE BOUNDARY
DISTRICT BOUNDARY
RIVER
FOREST BOUNDARY
LOHIT DISTRICT GRID 0°—1' X 0°—1'
REVERAIN
HOLLONG MAKAI
MISCELLANEOUS
TIRAP DISTRICT GRID 0'—30" X 0'—30"
HOLLONG MAKAI
MISCELLANEOUS
PROJECT BOUNDARY

CHINA
SIANG DISTRICT
LOHIT DISTRICT
ASSAM
TIRAP DISTRICT
NAGALAND
BURMA
DRI R.
LOHIT R.
TAGON R.
95° 15'
96° 0'
96° 30'
97° 0'
29° 15'
29° 0'
28° 15'
28° 0'
27° 0'

DRAWN BY — BIMAL.

Size and shape of the sample plot:

Considering the terrain, vegetation and the type of the forests the plot size was fixed at 0.36 ha. of 60 m. x 60 m. size. A cluster of three plots constituted a grid. The Survey of India topo sheets were gridded. For Tirap it was ½' x ½' which comes to as 0.85 km². For Lohit the grids were 1' x 1' having an area of 3.40 km². The grid points were randomly picked up. The plots of the grid were laid out in such a way that all the three plots were 180 m. apart from the grid centre in the west, east and north directions. The substitute plot was laid out in the south at a distance of 180 m. from the grid centre.

There is comparatively a small area under pure bamboo and hence to find out the bamboo stocking a sample of 10 plots of size 0.1 ha. (50 m. east-west x 20 m. north-south) were taken.

Field work in plots:

During the field work the plots were located with the help of the Survey Of India maps. Plots were laid out as per design. Plot approach Form(Form No.I), Plot Description Form(Form No. II), Sample Tree Form(Refer Form No.III A), Plot Enumeration Form(Form No.III B), Bamboo Enumeration Form(Form No.IV), Bamboo Weight Form(Form No. V), Tree Volume and Cull Study Form(Form No.VI) were filled in. The details of the forms may be found in Appendix.

Technical report on data processing:

Computer Editing was given maximum attention and care as many errors came to light which otherwise escaped manual checking.

The editing operation involved the following steps:

a) Manual checking of the field forms.
b) Punching and verification.
c) Sharting of the data.
d) Error checking of the field data with the help of Electronic Computer.
e) Comparison of error list with field form.
f) Finalisation of the correction.
g) Incorporation of the correction in source document and punched cards.

.2.5. Tree Volume Study:

Felled Tree Volume: Volume

The over bark and under bark of each section of each tree portion was calculated by the Smalian formula.

$$V = \overline{11}/8(D_1^2 + D_2^2)\ L.$$

Where V is the volume, D_1 and D_2 average diameter at the two ends of a section while L is the length of each section.

D_1, D_2 represent over bark and under bark measurement respectively.

The volume of all sections were added up to give over bark and under bark volume of a particular tree.

General Volume equation:

Separate general volume equations were prepared from the felled tree data for all the form classes(I-VIII) and separate equations were developed for the miscellaneous species grouped in form class(IX).

The following types of equations were tried:-

1) $V = a+bD^2H$
2) $V/D^2H = a+b/D^2H$
3) $V/D^2 = a+b/D^2+ cH$
4) $V = a+bD +cH+ dD^2H$
5) $V = a+bH + cD^2H$
6) $V = a+bD+cD^2H$
7) $V= a+ bH + cD^2$

Where V = Under bark volume(m^3)
D = Diameter(cm.) at breast height.
H = Height in (m.)
a, b, c, d are constants and coefficients.

The selected general volume equation for each form class is given below:-

Form Class	Equations
I	$V/D^2H = 0.00003608 + 0.03849/D^2H$
II	$V/D^2H = 0.000035 + 0.01199/D^2H$
III	$V/D^2H = 0.0000257 + 0.0346/D^2H$
IV	$V = 0.0778 + 0.0000286\ D^2H$
V	$V/D^2H = 0.000039 + 0.04367/D^2H$
VI	$V = 0.06076 + 0.0000294\ D^2H$
VII	$V/D^2H = 0.0000411 - 0.01013/D^2H$
VIII	$V/D^2 = 0.000157 + 0.000035\ H - 0.03037/D^2$
IX	$V = -0.1368 + 0.00318\ D + 0.01424\ H + 0.0000176\ D^2H$.

N.B. Based on Form Factors and available data; all the species were classified into 9 (nine) form class as accepted earlier in Kaneng & Subansiri inventory(Arunachal Pradesh).

Local Volume equation:

Based on the selected general volume equations, volume of each sample trees of a species was estimated by substituting the diameter and height of the sample tree.

Taking the estimated volume or the transform of volume as dependent variable and the corresponding diameter at breast height as independent, a set of local volume equation of the following forms were tried:-

$V = a + bD^2$

$V = a + bD + cD^2$

$V/D^2 = a + b/D^2$

$V/D^2 = a + b/D + c/D^2$

$V = a + b\sqrt{D} + cD^2$

The selected local volume equations for each form class is as follows:-

Form Class	Equations
I	$V = -0.096323 + 0.0011645\ D^2$
II	$V/D^2 = 0.001469 - 0.0246/D + 0.1529/D^2$
III	$V/D^2 = 0.00092 - 0.01336/D + 0.1052/D^2$
IV	$V/D^2 = 0.00094 - 0.01248/D + 0.1305/D^2$
V	$V = 0.0942 - 0.0643\sqrt{D} + 0.00129\ D^2$
VI	$V = 0.2219 - 0.02827\ D + 0.001284\ D^2$
VII	$V/D^2 = 0.000889 - 0.00952/D + 0.0201/D^2$
VIII	$V/D^2 = 0.000936 - 0.0803/D^2$
IX	$V/D^2 = 0.000636 + 0.00331/D^2$

Estimation of error:

As per objective laid down, the error was separately estimated in total volume for each division.

The error percentage for each division is given below:-

Name of the Division	Volume per ha.	Estimated volume ('000 m3)	% of error
Lohit	120.644	20269.098	7.0
Changlang	119.339	9048.559	5.2
Khonsa	241.623	3489.764	8.7

2.2.6. Volume of growing stock:

The total growing stock in the survey area is 33607.421('000 m^3). Division-wise and strata-wise break up of the growing stock is as under:-

Division	Stratum	Area in ha.	Total volume in '000 m^3
Lohit	Hollong & Mekai(01)	53204.81	9284.196
	Miscellaneous (02)	50974.85	7538.962
	Riverain (04)	55827.38	3445.839
Total:		160007.04	20269.098
Changlang	Hollong & Mekai(01)	21783.82	3119.546
	Miscellaneous (02)	51408.59	6317.036
	Bamboo (03)	9333.00	411.977
Total:		82525.41	9848.559
Khonsa	Hollong & Mekai(01)	1443.00	3489.764
Total:		1443.00	3489.764
Grand Total:		264975.45	33607.421

A detailed analysis of the volume date reveals that the Lohit Division forms 60.38% of the total growing stock of wood of the project area.

2.2.7. Stand and stock table:

Distribution of stem/ha.:

Tables 1.1.1 to 1.3.1 indicate the number of stems/ha. by diameter class and species for each forest division. The break up of the number of stem/ha. by utility classes for each division is shown in table No.1.4.1.

It was found that no. of stem/ha. is 215.10 in Hollong and Mekai stratum in Lohit Division; in Changlang Division it is maximum in miscellaneous stratum with 185.37 stem/ha.; in Khonsa Division it is 294.23/ha. in Hollong and Mekai stratum.

2.2.8. Bamboo:

Bamboos are found in almost pure patches of various size scattered all over the area. Bamboo forests are confined mainly to the plain portion and on the slopes in the lower altitude. The main species found in these areas are Kako, Bojal, Bijuli, Daloo, Jati etc. These are found in an admixture or in pure patches. In the forests they are usually found in a mixture of tree species like Khokon, Urian, Pichola, Udal, Semul sporadically.

It is reported that some years ago gregarious flowering in Paly Bamboo was seen and a large number of dead clumps of Bijuli bamboo surrounded by profuse growth of regeneration were also noticed in Manchik of Tirap District. A few patches of Jai(Bambusa tulda) have also been seen most probably planted by Jhumias in their village sites but now abandoned. The bamboo stratum covers an area of 9333.00 ha. which is 3.5% of the net forest area of the project.

Dendrocalamus hamiltonii is the main dominant species. It is a clump forming bamboo. Other species are Bambusa pallida, Melocanna bamboosoides, Teinostachyum dullooa, Pseudostachyum polymorphum, Dendrocalamus strictus and Bambusa tulda.

It is observed that the occurrence of bamboo in Lohit Forest Division is dense with 265.33 number per ha. while in Changlang it is 135.50. It is interesting to note that bamboo per ha. in bamboo stratum in Changlang Division is significantly high with 766.00 per ha. (For details refer to table 5.1.1.).

Error:

The percentage error for bamboo is estimated to be 13.18% for the project area.

C H A P T E R - III.

MARKET STUDY & CONSUMPTION PATTERN.

3.1. The demand zone:

Lohit, Tirap and adjoining districts of Assam constitute the main demand zone of the project area. There are certain important species which is in great demand by the N.F.Railway., Defence, West Bengal and other organisations and industries. In comparison to huge stock, the local demand is quite low till now. Principal industries are mainly forest based. At present four plywood mills and four saw-mills are functioning in Lohit and Tirap Districts and their total installed capacity is approximately 49693.206 m^3 per annun which is very insignificant in comparison to the resources availlable. These industries are fully dependent on local timbers and have no future plan to import any timber from outside the project area.

After meeting the local demands almost entire forest produce , harvested from these forests find its way to the markets in the adjoining areas of Assam State. Timber is mainly used by the Plywood and Saw mills located at Tinsukia, Naharkatia, Digboi, Doondooma, Lekhpani, Ledo and Margarita. A small percentage of Shorea assamica and Dipterocarpus macrocarpus are despatched to Calcutta and other stations in the country to feed the plywood and other industries.

The defective logs are converted into Railway sleepers and are sent to the sleeper treatment plant at Naharkatia. Terminalia myriocarpa is the main constructional and commonly used timber that commands a heavy demand in and around the project area. A huge quantity is supplied to Assam and other parts of India for construction of buildings, furniture etc. Oil India, C.P.W.D. and Defence are also some of the main customers of timbers of Arunachal Pradesh.

Anoora wallichii has recently been found suitable for manufacturing Carom boards and is in good demand especially in Calcutta.

At present the total annual requirement of match wood timber in India is approximately 4.00 lakh m^3 & WIMCO alone requires 1,43,000 m^3 timbers every year. Salmalia insignis, Tetrameles nudiflora, Anthocephalus cadamba, Trewia nudiflora are used as match wood. These species are found in some quantities and supplied to Calcutta(WIMCO) and Dhubri(AMCO) match industries.

Other important local timbers which have fairly good demand in the area in the form of Sawn timber are Artocarpus chaplasha, Altingia excelsa, Duabanga grandiflora, Castanopsis sp., Terminalia citrina, Terminalia bolerica, Gmelina arborea, Chukrassia tabularis, Toona ciliata, Magnolia sp. etc.

With the expansion of the Railway Department in this area the demand of Arunachal timbers will increase. A sizeable portion of this demand in Calcutta market is met from the surplus wood from Arunachal Pradesh.

The demand zone normally increases upto the point of utilization of finished products depending on the cost of transportation of raw material upto the mill site and bringing the finished products from the mill site to the utilization point. The road transport system in Eastern Zone is less developed and costlier. The Railways have their terminal station at Sadiya, Tinsukia & Digboi and at present there is no proposal to extend the Railways to Arunachal in the Northern Bank of the Brahmaputra.

3.2. Timber Supply:

The present production of the project area is approx. 106099.172 m^3 of logs per annum of which 49685 m^3 is supplied to local wood based industries and the balance wood is supplied to the adjoining areas of Assam State, including other parts of India. Local sale comprises less than 50% of the total production at present in a year. This clearly indicate that Arunachal is much more dependent on outside market for utilization of its timber. More intensive management of forests has already been initiated in Arunachal and conversion is likely to intensify under the Arunachal Forest Development Corporation.

During the year 1975-76 the different ranges of the project area supplied the following quantities of timbers to different wood based industries:-

Name of the Range	Matchwood	Const.wood	Furniture wood	Others	Plywood	Total
Migo	901.829	1243.919	-	3497.593	5601.308	12244.649
Changlang	-	40.809	-	85.029	2569.171	9693.009
Bordumsa	264.364	132.966	-	738.071	4654.071	5789.472
Namchik	68.205	597.081	-	1150.045	7376.423	9191.754
Nakphon	-	-	-	13.590	1031.120	1044.710
Pumsangmukh	-	-	-	2944.136	5523.101	8467.237
Joyrampur	-	353.000	-	-	14372.000	14680.000
Deomali	-	-	-	1247.529	11227.763	12475.292
Miyon	Not Available from Forest Department					
Gumpura	34.289	11.881	-	30.795	2226.544	2303.509
Santipur	354.474	90.641	-	154.161	4468.272	5067.548
Tezu	Categoriwise not available					
Namsai & Chowkham	Categoriwise not available					

3.3. Consumption pattern:

The local consumption is very negligible in comparison to the bulk of produce(Resources available) at present. The local people collect for their domestic need of firewood from their homestead land keeping the pressure on forest resources low. They also collect lops and tops of trees from local forests which serve their purpose of fuel.

For the construction of the houses the local people mainly use bamboos which they also grow in their homestead land. But for the purpose of construction of the house they require some timber and for which they mainly depend on the supply from Forest Department. The wood requirement at present is approx. 4644 m^3/year is likely that with growth of population and establishment of industry more houses will be built. Therefore, over all requirement of timber would be about 7044 m^3 in a decade.

Local saw milling and plywood industries need approx. 24000 m^3 and 26000 m^3 of timber respectively annually. The future demand for ply timber and paper pulp in adjoining Assam State and all over India may be manifold within the turn of this country.

The firewood requirement per capita per year has been taken as 0.2 m^3. The current population being 160335, the firewood requirement per year comes to 32067 m^3.

3.4. Future demand trend:

The existing wood based industries which consume about 50,000 m^3 of timber annually would likely need double the quantity (about 1,00,000 m^3) of timber in next ten years. The National Commission on Agriculture while analysing the future of "Production Forestry and Manmade Forests" envisages increase of demand to about 35.5% in next 10 years in this country.

Rapid space of population increases, industrialisation and shrinkage of forests in the plains of India are bound to put tremendous pressure on the vast forest resources of Arunachal for their rapid exploitation.

C H A P T E R - IV.

MANAGEMENT OPPORTUNITIES AND POTENTIAL ANNUAL CUT.

4.1. Management opportunities:

It has already been explained that lack of adequate communication facilities and limited number of industrial establishment with minimum local demand the valuable forests of the project area could not be exploited extensively. Foot hill forests were exploited to the maximum while valuable forests in remote areas remained untapped. Moreover, only a small percentage of the forests was brought under reservation leaving extensive areas under the control of local villagers. As such, forests were depleted extensively.

Exploitation of a few selected species were on the way. Extensive forests have been clearfelled and burnt by the local villagers for raising agricultural crop under the practice of Jhuming(Shifting cultivation).

4.2. Present management activities:

For scientific and systematic management of forest in the project area, a Conservator Of Forests with the help of three Divisional Forest Officers In-charge of Khonsa Division, Changlang Division and Lohit Division administers the entire area. The entire area has been divided into 15 ranges and 25 Beats. Working Plan have been drawn up for most of the Divisions but exploitation has been confined to a few commercially important species felled under Selection system.

Forest Working Plan was drawn up in 1934. It was primarily to exploit veneer wood species from the forest and the forests were put under veneer wood Working Circle. Regular Working Plan covered more of Reserved forests since 1960 onwards. Selection system with compensatory regeneration was prescribed for all the reserves. Minimum exploitable girth originally fixed at 274.32 cm. for the species Hollong, Mekai and Hollock has been gradually lowered down owing to more and more demand.

The trees are marked and sold in auction. Trees those falling in the cultivation area, road construction sides are however sold in permit system where royalty is realised on the basis of actual volume extracted. Local people are eligible to get permits.

Canes and other minor forest produce are also worked. Elephant trapping is done by the Department which also gives handsome revenue to the Department. Latest management activity centres round creation of Anchal Pradesh Sanity. It has been contemplated that there would be better protection if the local people were given responsibility to protect and earn revenue from the forests. It is also expected that gradually the Villagers will be convinced about their welfare and abandon the practice of Shifting Cultivation. In this system profits after deduction of management cost are to be shared between the members of the Anchal.

According to Arunachal Pradesh Reserve Forest Act, passed in the year 1975, economically viable forests are to be handed over to the Forest Department byAnchal Sanity. The Forest Department would raise tree plantation as well as cash crops and the net profit is to be shared between the Forest Department & Anchal Sanity. However, the proprietory rights of the land remains with the Anchal Sanities.

A considerable area has been brought under artificial regeneration of Teak & Hollong primarily besides other species. Natural regeneration of Hollong & Mekai with assisted planting has been undertaken over Hollong Mekai strata.

4.3. Rotation, exploitable girth & felling cycles:

Reliable statistics of growth and outturn for any of the economically important species is not available. No standard yield or volume table has been compiled so far. The evergreen forests of Assam adjoining the project area had sufficient outturn data for Hollong, Mekai, Hollock, Chuna, Jutuli, Amari etc. Growth study of Hollong in a linear sample plot revealed that the C.A.I. for trees of sizes from 30 cm. to 240 cm. girth remained stable at about 188 cm. and then declined gradually for trees of higher girths. It was estimated that in about 112 years Hollong grew to a girth of 225 cm. from age/diameter data also, this rate of growth was found similar. The growth rate of Mekai was faster. Mahar reaches a girth of 180 cm. in 140 years. In the adjoining forests of Assam it was found from experience that 108 cm. to 204 cm. girth for plywood species was best for commercial exploitation. The girth of 204 cm. was likely to be attained at an age of 84 years. Hollong and Mekai formed sizable bulk in volume. As such adoption of 90 years rotation would be appropriate.

For the miscellaneous species no reliable growth data was available. Bombax ceiba in plantations had been found to attain a girth of 180 cm. in 45 years. It was found that most of other miscellaneous species had similar growth pattern.

The existing system in the States of Assam and Arunachal Pradesh is to fix the yield of Hollong, Mekai & Hollock by volume. Other miscellaneous species of exploitable girth and above are felled but control is affected by a prescribed number of trees.

About exploitable girth, rotation and felling cycle different Working Plans adopted different figures. In order to fix those periods in the present survey all such facts mentioned in those Working Plans were taken into consideration. With the establishment of the Arunachal Pradesh Forest Development Corporation Ltd., the pattern of work and method of exploitation has completely changed. It had already started exploiting Hollong & Mekai at 180 cm. girth and are insisting to lower down the limit. In Honkap Reserve exploitable girth of all the species in the hills were fixed at 180 cm. in the last Working Plan.

As such, fixation of exploitable girth, rotation, conversion period and felling cycle had to be done very judiciously. The exploitable girth of Hollong & Mekai has therefore been fixed at 180 cm. which would be attained in 75 years and for miscellaneous species 210 cm. which would be attained in 90 years, but owing to dearth of growth data and the crop having suffered some depletion, the rotation is about 90 years for Hollong-Mekai, raised beyond 75 years to guard any over felling.

In selection fellings, a cycle of 30 years were adopted in various Divisions. This resulted in lasting gaps in many forests and the extent of regeneration was affected. It was thought to be extremely safe to adopt a felling cycle of 30 years. No data on mortality of species were available. In some Working Plans present increment was taken to neutralise the rate of mortality.

4.4. Annual Yield:

Annual yield has been calculated using the formula A=G/R on the assumption that full available yield from the usual Von Mantal's formula (A=2 G/R) can only be obtained if the growing stock is normal and the planner is confident that normal growing stock can be grown in the area in 'R' years.

Annual yield has been calculated from selection felling for all the species by volume for different utility classes. In the miscellaneous and riverain strata artificial regeneration is done. In order to safeguard probable loss from flood, pilferage and unregulated felling in the area (owing to extension of location and for various other purposes to meet the requirement of the Civil & Forest Administration), yield from clearfelling areas has not been included in the yield calculation.

The table below shows the calculation of annual yield:-

ANNUAL YIELD - ARUNACHAL PRADESH.

Utility Class	Estimated growing stock volume ('000 m^3)	Rotation	Annual yield ('000 m^3)
* Plywood	12766.077	90	141.845
Constructional wood	2480.261	75	33.070
Other wood	7526.028	75	100.347
Match wood	569.718	75	7.596
Furniture wood	24.283	75	0.324
Residual wood	2340.430	75	31.205
Small wood	7900.624	75	105.342
	33607.421		419.729

Of the total plywood, the contribution of Diptorocarpus(Hollong) is 32257.30 m^3, Shorea assamica(Mekai) is 20285.93 m^3 and Terminalia myriocarpa(Hollock) is 30334.66 m^3.

4.5. Silvicultural System:

The Silvicultural system adopted in various Working Plan was selection system with compensatory regeneration in accessible localities. The forests are irregular and complex. Natural regeneration of Hollong & Mekai is primarily aimed at.

In the open and in mixed miscellaneous forests where natural regeneration is inadequate or absent, artificial plantation of species like Hollock and other valuable species including Teak has been done. Exploitation of marketable species above a specified girth is prescribed. Felling of trees have to be done keeping silvicultural principles in view. As the miscellaneous forests suffered much from irregular felling the Working Plans suggested deduction of 20% of the total number of trees marked for selection felling. In the present survey, all outturn from the clearfelling areas have been excluded from yield calculation.

C H A P T E R - V

WOOD BALANCE.

5.1. Determining wood balance:

To establish a new wood-based industries or to augment the existing capacities of wood based industries, it is essential to assess the present quantum of consumption and thereafter make a realistic projection of the balance forest resources likely to be required in future. After meeting the local requirements the balance left from the potential annual cut could be used in forest based industries. The present wood balance offers a wide scope for formation of a sound development plan for the better utilization of the resources.

5.2. Local Consumption:

It has already been indicated that the population of the area is small and their requirement is meagre. Wood requirement for the local population would be approximately 4644 m^3 a year and it is likely to increase up to 704 m^3 in a decade. Local Saw Milling & Plywood industries need approximately 24,000 m^3 and 26,000 m^3 of timber respectively annually.

Future demand:

The existing wood based industries need 50,000 m^3 timber annually which is likely to be about 1,00,000 m^3 in 10 years.

5.3. Net Wood balance:

Almost bulk produce from the annual cut would be available for growth of industry at site. The following table will show net wood balance of category-wise timber.

NET WOOD BALANCE

Utility Class	Annual yield (in '000' m^3)	Local demand (in '000' m^3)	Available for new industries annually (in '000' m^3)
Plywood	141.845	26.000	115.845
Constructional wood	33.070	4.644	28.426
Other wood	100.347	24.000	76.347
Match wood	7.596	Insignificant	7.596
Furniture wood	0.324	Insignificant	0.324
Residual wood	31.205	Insignificant	31.205
Small wood	105.42	32.087	73.275
	419.807	86.731	333.018

5.4. Bamboo balance:

The total bamboo stock of the area is 55831555 in number or about 659311 metric tonne(dry weight).

The annual yield of bamboo is calculated using the formula given below:-

$$\text{Annual yield} = \frac{\text{Total sound bamboo weight}}{\text{Felling cycle}} = \frac{659311 \text{ metric tonne}}{4}$$

or 164827.75 metric tonne.

In general, the people of this eastern region use bamboo to a larger extent than those utilized by the people of other region. It is used for house building, making of baskets, fencing and also used as firewood etc.

It is estimated that on an average the bamboo requirement per capita/year is about 50 numbers. The population of the project area as per 1971 census is 1,60,335. Hence the total local consumption is 50 x 1,60,335 = 8016750 or 106622.70 metric tonne.

Air dry weight of bamboo exceeds 10% of the oven dry weight. As such a deduction of 10% or 5820.49 M.T. is desirable to be made. Besides this, deduction of another 5820.49 M.T. or 10% is desirable as the area statement is not based on aerial photograph or on reliable ground survey data and one should be on the safe side of estimation.

As such net bamboo balance would be 58204.97 - 11640.98 or 46,563.99 M.T.

C H A P T E R - VI

ECONOMIC AVAILABILITY & COST OF RAW MATERIAL DELIVERY.

6.1. Why cost studies:

Cost study is an imperative necessity for utilization of timber for various industries. Accessible areas, where resources are abundant and easily available do not pose any problem in exploitation, but where the forests are in remote areas and are cut up by streams and rivers without any ready communications, it possess a very big problem to plan suitable design to bring the material out for economic utilization. In such areas a big capital is involved in developing infrastructure. Moreover, trained technical personnel are necessary at various phases of operation which is a problem in Arunachal forest areas.

Considering all these, scientific forests operation planning is necessary giving due weightage to different factors. Thus, cost study is of utmost importance to ascertain the feasibility of wood based industry in this area.

6.2. Objectives:

The vast untapped resources of Arunachal Pradesh need economic exploitation and immediate utilization of overmature and mature trees for removing congestion as well as for healthy and economic maintenance of the forests.

The broad objectives of cost analysis is to study the various existing methods of logging, felling, transportation and to suggest improvement, if any.

6.3. Premises adopted:

Intricate problems will not however arise in the present study, as the project area is confined to forests occurring below 900 m. altitude. The expansion programme of roads in the forests by the Central Public Works Department will be of immense help for exploitation of forest produce. In consideration of these facts extraction cost of forest produce to the various forest and road side Depots with different lead length such as upto 1 km. from 1-2 km. and over 2 km. from exploitation sites have been collected.

6.4. Logging operations:

Till to-date Arunchal forests could not adopt the modern methods of fellings, delimbing and logging operations and they still follow the old systems. The present need dictates a modern and scientific method of felling, logging, dragging and transportation of logs. All these operations are done by individual petty purchaser and that is the reason why it could not be brought on modern footing. In felling, delimbing and cross cutting saw or axe are used.

Trees are felled at a much higher level from the ground leaving the buttresses. Logs are dragged to the nearest road side depot by elephants and from there Trucks are normally used to take the logs upto the mill site or to the export depot points (Rail heads). The use of elephants cannot be discouraged in view of high rainfall and undeveloped road system in this area. An elephant on average generally bring out 90-110 m^3/month upto a dragging distance of 500-800 m. The limitations are that the elephants require one day's rest after 4-5 days work.

Local labourers are not generally trained in forestry operations and hence imported Nepali labourers are mainly engaged for felling and other logging operations. The length of logs that can be extracted is limited to the hauling capacity of the elephants and they vary generally from 2 to 2.5 m. and the length decreases with increasing girth. The specific gravity of the logs also play a vital role and thus providing greater length to the soft wood timbers.

6.5. Felling and Logging Rate:

The prevalent rates for various operations involved in felling, delimbing, logging and transportation of the forest produce vary from place to place depending upon the physical feature of the terrain and other local circumstances particularly the remoteness of the area.

The cost of felling including delimbing and cross cutting (per m^3) in different ranges are as follows:-

Changlang Range pay Rs.10.59, Namchik Range Rs.8.83, Diyun Forest Range Rs.10.59, Namsangnukh Range Rs.7.06, Bordonsa Range Rs.8.83, Nakphane Range Rs.10.59 in plain area and Rs.14.13 in hilly area, Nansai Range Rs.10.59, Chowkhan Range Rs.10.59, Tezu Range Rs.8.83, Sunpura Forest Range Rs.10.00, Santipur Range Rs.10.50.

6.6. Transportation cost:

Range-wise transportation cost is as under:-

(A) Changlang Range:

(i) Elephant dragging per m^3 of logs (within 1 km.) - Rs.25.31
(ii) By C.M.C. truck/m^3/km. - Rs. 7.06
(iii) From road point to market/m^3/km. - Rs. 2.12

(B) Namchik Range:

(i) Dragging by elephant/m^3 (a) upto 1km. - Rs.44.14
(b) upto 1½km. - Rs.52.97
(c) upto 2km. - Rs.70.63
(d) upto 3km. - Rs.88.29

(C) Diyun Forest Range:

(i) Dragging by elephant (a) upto ½km. - Rs.52.97/m^3.
(ii) ½ to 1 km. - Rs.105.94/m^3.

(D) Namsangnukh Range:

(i) Dragging by elephant(upto 1.2km.) - Rs.88.29/m^3.

(E) Bordonsa Range:

(i) Dragging by elephant(upto 1-2km.) - Rs.70.63/m^3
(ii) Transport cost by Truck(a) 1-10 km. - Rs.17.65/m^3.

(F) Nakphang Range:

(i) Dragging upto 1 km.	- Rs.70.63/m^3
(ii) Dragging upto 1-2 km.	- Rs.105.94 to Rs.141.26/m^3
(iii) Transportation upto Naharkatia (43 km.)	- Rs.45.44/ m^3.

(G) Nansai Range:

(i) Dragging by elephant upto ½ km.	- Rs.21.19/m^3
(ii) Dragging by elephant upto 1 km.	- Rs.35.31/m^3
(iii) Dragging upto 2 km.	- Rs.52.97/m^3.
(iv) Dragging upto 2-3 km.	- Rs.52.97/m^3.
(v) Transportation (a) upto Nansai Saw mill	- Rs.44.14/m^3.
(b) Upto Tinsukia	- Rs.61.60/m^3.

(H) Chowkham Range :

(i) Dragging upto 1 km.	- Rs.35.31/m^3

(I) Tezu Range:

(i) Dragging upto 1 km.	- Rs.44.14/m^3.

(J) Sumpura Forest Range:

(i) Elephant dragging from 1 km. to 1½km.	- Rs.17.50/m^3
(ii) Transportation by vehicle from forest to saw mill upto 50 km.	- Rs.52.50/m^3
(iii) Loading and unloading cost	- Rs.5.25/m^3.

(K) Santipur Range:

(i) Dragging by elephant from Forest to road side from 1 km. to 1½ km.	- Rs.17.50/m^3.
(ii) Transportation in the Forest (1 to 5 km.)	- Rs.25.00/m^3
(iii) By river per 3 km.	- Rs.30.00/m^3.

6.7. Schedule of Rates:

According to the available information the prices of various categories of timber in the nearby markets are as follows:-

(a) Ply Logs:

(i) Hollong and Nekai	- Rs.300.00/m^3
(ii) Other of "B" and "C" classes	- Rs.200.00/m^3
(iii) Hollock logs	- Rs.250.00/m^3

(b) Sawn timber:

(i) Scantlings of Hollock	- Rs.635.67/m^3 to Rs.649.78/m^3.
(ii) Planks of Hollock	- Rs.688.64/m^3 to Rs.709.81/m^3.
(iii) Scants other than Hollock	- Rs.600.30/m^3.
(iv) Planks other than Hollock	- Rs.662.16/m^3
(v) Scants of Nahar upto 12'(3.66 ms.)	- Rs.706.30/m^3
12' to 15'(3.66 ms. to 4.57 ms.)	- Rs.776.93/m^3
(vi) Planks of Nahar upto 12'(3.66 ms.)	- Rs.741.62/m^3
12' to 15'(3.66 ms. to 4.57 ms.)	- Rs.812.25/m^3.

C H A P T E R - VII.

DEVELOPMENT OF ROADS

7.1. Development of Roads:

The length of roads that exist in the area according to the 1971 census is 1052 km. or 355 m. per ha. In comparison to Lohit, Tirap is more developed owing to its nearness to Railways heads though a large area of Tirap(Changlang Division) is very much locked up. Khonsa is most developed in this respect. The development of roads in the project area as a whole shows a very poor picture. Most of the roads are situated in the plain areas and on easy terrain.

To improve the socio-economic condition of the people and transport system sufficient permanent roads should be constructed. An average road density of nearly 3 meter/ha. is the basic need. This indicates the magnitude of the problem to be tackled to develop the area.

7.2. Planning for new roads:

To improve the transport, communication and to ensure proper and prompt mobility within the area it has been planned to construct the following roads within a very short time:

(1) Chowkham to Tezu via Kamlang Nagar(Proposed N.H. way under construction by C.P.W.D.). This is still in nebular stage.

(2) The NEFA Engineering Department have undertaken the construction of an all weather road from Namsai joining the Rupai Kokopathar road in collaboration with the Assam P.W.D. This is under construction.

(3) A road connecting Miao, Diyun, Bardunsa and Namsai though the forest is being developed as an all weather road by the O.N. G.C. for getting a constant supply of materials from Rail heads. This road will ultimately act as a vertibra for extraction of forest produce.

7.3. Road existing in the area:

The road communication within the project area is still unsatisfactory. A very important road connects Margarita with Pangsu Pass(Steelwell Road) via Jairampur. Another road which would be of importance if properly maintained is Namchik - Miao - Vijaynagar Road. Existing roads in Tirap district are, Kathang road, 8 km., Namchik - Namphuk road 9 km., Maganton road 6 km., Kharsang Hka road 7 km. Kharsang road 1 km., Namchik-Miao road 27 km., Namchik Ali Road 8 km., Link road 3 km., Namphai Access Road - under construction & Muklon road 3 km.

Besides, the roads Miao ferryghat to Mirip Hka, Mirip Hka to Kunchai Hka connect the Namsai - Modoi road. There is a road from Miao to Namsai via Bardunsa. This road is fair weather at present but is being made an all weather road.

In the Lohit district the main road runs from Tezu to Dholaghat(Assam) via Sonpura and Roing.

MAP OF LOHIT AND TIRAP DISTRICT (ARUNACHAL PRADESH) SHOWING ROADS

SCALE- 1: 1000000

95° 15' | 96° 0' | 96° 30' | 97° 0'

29° 15' | 29° 0' | 28° 15' | 28° 0' | 27° 0'

CHINA

SIANG DISTRICT

LOHIT DISTRICT

TIRAP DISTRICT

ASSAM

NAGALAND

BURMA

CHINA

BURMA

BASAM
ACHOLIN
MIPI
ANINI
AGOLIN
ASOLIN
EMILI
APANLI
AMBOLIN
ARUNLIN
IPINGO
ENGALIN
MURI BASTI
ALULLI
KORON
HUNLI
DONLI
DAMBUK
KURAMNA
CHAGLOHAGON
THAPA
WALONG
GOILING
SITUL
MENJANG
MAKRONG
SANGTANG
RAMA JUR
ROING
KORONI
CHIPHRO-LING
DENNING
NARA
SITARAMPUR
TEZU
DEMMI
GUDH
BRAHMAKUND
MENDO
CHOWKHAM
OPHI
INCHHA
PEHMI
KAMERA
NINGRU
MODOI
MIAO
LIKHAPANI
JAIRAMPUR
RIMA
TENGAPUM
NAM-PONG
VIJAYANAGAR
NAMSANGMUKH
DEOMALI
NAMSANG
NAKPHAN
BORDURIA
SENUA
PANGHAO

DRAWN BY — BIMAL

REFERENCES

- INTERNATIONAL BOUNDARY
- STATE BOUNDARY
- DISTRICT BOUNDARY
- RIVER
- METALLED ROAD
- UNMETALLED ROAD
- CART TRACK ROAD
- FOOT PATH
- RAILWAY LINE
- PROJECT BOUNDARY
- FOREST BOUNDARY

The local forest department have constructed some forest roads in Lohit district and these are, Santipur - Dibang road 11.64 km., Santipur Kundil road 3.4 km., Deopani Extraction Road 4.8 km. & Dibang - Bijari road 4.3. km.

The Assam saw mill have built a tramway line through Namsai and Manabhum reserve for extraction of logs from the forest. They have also constructed some forest road through Tenkapani Reserve. There is another forest road from Namsai to Tirap district via Payong(Lohit). Further, some extraction paths purely of temporary nature are constructed for extraction of selection felling logs and boulders.

4. Preparation of estimates:

In order to improve about 1,200 km. of road and 90 km. of porter track and expenditure of Rs. 117.7 million was estimated by the Administration.

The road estimates have been drawn up under the categories, Construction of new metal roads, Improvements of existing Kachha roads, Construction of porter tracks, Improvement of Porter Tracks, Construction of wooden bridges and culverts and temporary extraction paths(for 1 season).

7.4.1. Schedule of rates:

The schedule of rates of construction and improvement has been based on the schedule being used by the different Government Departments.

Sl.No.	Operation	Approximate estimated average cost per km. in Rupees.
1.	Construction of Tar Roads	1,20,000 to 1,50,000/-(Depending on earth cutting involved and availability of road material).
2.	Construction of new metal roads.	80,210/-
3.	Improvement of Kuchha Roads to Metal Roads.	76,385/-
4.	Construction of new Porter Track.	20,000/-
5.	Improvement of existing Porter Track.	15,833/-
6.	Construction of wooden bridges and culverts(per running feet) having 8' width(hand driving).	400/-
7.	Temporary extraction paths (1 season)	10,000/-

7.4.2. Scheme for improvement of roads:

For the better communication and transportation of timber of the existing roads and porter tracks need immediate improvement. The Government of India have drawn some schemes as given below:-

Spill over scheme	Total	Length proposed to be completed upto 73-74.	1974-75 in km.	1975-76 in km.	1976-77 in km.	1977-78 in km.	1978-79 in km.	Total during fifth plan.
1. Improvement of Roads.	445	213	126	98	40	18	12	192
2. Improvement of Porter Track.	90	26	22	21	21	-	-	64
New Schemes:								
Improvement of Roads.	758	-	45	90	93	98	82	408

The total expenditure to improve 12.3 km. road and 90 km. porter track would be approximately Rs. 111.7 million.

Construction of New Roads and Extraction Paths.

According to the different schemes adopted by the Govt., the following roads were proposed to be constructed within the year 1979.

Spill over the scheme	Total length proposed to be completed	Length(km.) 1974-75	1975-76	1976-77	1977-78	1978-79.	Total during fifth plan
1. Construction of Roads.	290	187	66	26	11	-	-	103
New Schemes								
Construction of Roads.	571	-	65	123	143	127	113	674
Construction of Port Track	100	-	20	20	20	20	20	100
	961	187	151	169	174	147	133	774

Construction of 574 km. of roads and 100 km. of Porter Tracks had been proposed during the fifth five year plan. This would have increased the percentage of roads to a reasonable extent (per 100 km. from 3.55% to 5.83%).

This rate of development appears to be very negligible in comparison to a target of 3 m. per ha. With the establishment of Arunachal Forest Development Corporation Ltd., the prospect of development of roads and extraction paths has become brighter. The economic consideration including its social benefits i.e. tangible and intangible benefits of cost benefit analysis will be soon taken up by the Forest Development Corporation to justify the development of roads and extraction paths. Though forestry will be the main beneficiary for the development of roads other social benefits like employment opportunity, trade, education, health will follow.

On analysis of the facts and figures collected and considering the important role of forestry in this region we can safely state that the future development of the region particularly in the sector of socio-economic development depends solely on the development in the forestry sector. (As forestry only contribute 32% of the state revenue). Forestry in this region has a sizable quantity of raw materials which could be brought out only by developing the infrastructure of road and communication. Ramification of roads for opening up the accessible portion of the forest followed by some modern technicx for bringing the timbers upto the road side depot(by using which, skyling crains, skidders, etc.) are of basic need, utilization of modern tools in felling, delimbing and cross cutting can also be carried on gradually. This will not only increase the efficiency of work but also will reduce the loss of timber in the field and will also make the process of conversion quicker. If required a preliminary training of the manpower including proper acquaintance of handling and maintenance of tools may be taken up to improve the whole process of felling, logging and extraction. Complete mechanization of a whole may not be a very effective suggestion to start with and it has to be gradually introduced along with training of suitable personnel. The detail planning of such operations can be carried out on a micro level basis for each operational zone in collaboration with the technical experts from different sectors of operation.

SUMMARY AND RECOMMENDATION.

The survey of Lohit, Changlang and Khonsa forest Divisions in the lower hills and plains reveals the preponderance of Hollong, Mekai & Hollock, (three commercially most important species) to a substantial quantity. All these species are primarily plywood species and are available as wood balance. There is also a substantial quantity of surplus miscellaneous timber in the Hollong-Mekai, Miscellaneous and Riverain strata.

This gives a wide scope to utilise vast surplus forest resources of the project area and a judicious utilization of the produce in various types of industrial use will enable to improve socio-economic status and uplift the lot of the people of Arunachal.

Forests are the only major sources of revenue in Arunachal and as such development of forest industry is an imperative necessity. Constant and heavy demand for plywood timber in various plywood factories of Assam bordering the project area call for keeping constant vigilance on the forests to nullify any act of pilferage.

There are some retarding factors in the industrial development in the project area which are (i) torrential and big rivers cutting up the area into many segments (ii) inadequate road development (iii) problems of skilled labour & (iv) electricity. The local population is sparse and are involved in jhum cultivation in all the areas outside Reserved Forests. Any development of the area, as such, will mean involvement of outside labours which may stand on the way of economic development of the local people.

The Government of India is conscious about bringing in economic development of this backward area and have granted several special incentives such as grant of subsidy, exemption of interest on subsidy, transport subsidy, special tax rebate and other concessions. Besides, the local administration also provides financial assistance to the industrialists to an amount of Rs.20,000 at 6% interest. One practical point must not be lost sight of while planning any development of industry in the project area that there are vast locked up resources in the higher hills(present survey was confined to forests upto 900 m.) and their economic extraction would boost up any industrial venture in the project area in the future. Development of infrastructure should be done right at this moment, keeping this in view that as soon as the resources are available no extra time will be wasted for this. Besides the development of wood based industries, there is tremendous scope for development of other small scale industries like cane, bamboos, zingu, tezpata, tubers, cardamom etc.

From the results of the inventory survey the following resources under different classes of utility are available annually:-

	(Volume in '000 m^3)
Ply wood	115.845
Constructional wood	28.426
Miscellaneous wood	76.347
Match wood	7.596
Residual wood	31.205
Small wood	73.275
Bamboo	46563.99 mt.

From the above figures, it can be observed that there are vast and varied resources of wood and bamboo available in surplus which unfortunately have not been put to any economic/commercial use.

From the surplus it is clear that there is ample scope to develop plywood and panel wood industry. Match wood and furniture wood industry do not show an immediate prospect, while saw-milling industry can grow to a considerable extent.

The annual availability of bamboo and hard wood(residual, small & other wood) would be 46563.99 Oven Dry metric tonnes and 100822 m^3 respectively. Based on the above resources, consideration of a 130 tonnes/dry paper mill with 60% Hard wood & 40% bamboo is a viable proposition provided other basic facilities are available.

It may be stressed that the present observations are with regards to the foot hill areas only. Consequently an expansion of the capacity upto 250 tonne/day or more may be expected in near future as the bamboos of the locked up areas and private land gradually flow and serve as the input for future industrial expansion programme.

Table No. 1.1.1

PER HECT. DISTRIBUTION OF STEMS BY SPECIES AND DIAMETER CLASS

STRATUM - HOLLONG-NEKAI. LOHIT DIVISION

SPECIES	D I A M E T E R C L A S S E S (in cm)									
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	0.052	0.000	0.052	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.104
2	1.938	1.048	0.681	0.209	0.104	0.052	0.052	0.052	0.000	0.000	4.136
3	3.301	1.729	0.576	0.366	0.262	0.157	0.052	0.052	0.104	0.000	6.602
4	3.353	2.305	2.096	1.048	1.310	0.995	0.628	0.419	0.209	0.262	12.625
5	0.943	0.524	0.419	0.366	0.209	0.262	0.104	0.104	0.000	0.104	3.039
6	0.890	0.262	0.104	0.262	0.262	0.262	0.052	0.262	0.157	0.314	2.629
7	0.000	0.000	0.052	0.000	0.052	0.000	0.000	0.000	0.000	0.000	0.104
8	0.157	0.209	0.052	0.052	0.052	0.000	0.052	0.000	0.000	0.000	0.576
9	0.366	0.157	0.000	0.000	0.000	0.052	0.052	0.000	0.000	0.000	0.628
10	2.253	1.152	0.524	0.262	0.157	0.052	0.052	0.052	0.000	0.000	4.503
11	0.628	0.366	0.262	0.052	0.104	0.052	0.000	0.104	0.052	0.052	1.676
14	0.052	0.104	0.157	0.157	0.157	0.052	0.052	0.209	0.052	0.104	1.100
15	1.834	1.257	0.366	0.314	0.104	0.104	0.052	0.000	0.052	0.000	4.087
16	0.681	0.419	0.157	0.471	0.366	0.314	0.104	0.052	0.052	0.052	2.672
17	0.052	0.052	0.104	0.000	0.000	0.000	0.000	0.000	0.052	0.314	0.576
18	0.314	0.000	0.052	0.052	0.209	0.157	0.000	0.157	0.000	0.052	0.999
19	1.152	0.471	0.209	0.104	0.209	0.052	0.000	0.052	0.000	0.104	2.357
20	1.624	0.786	0.628	0.366	0.209	0.209	0.000	0.052	0.000	0.000	3.877
21	0.524	0.419	0.157	0.157	0.209	0.209	0.052	0.052	0.052	0.104	1.936
23	0.000	0.104	0.052	0.000	0.052	0.052	0.000	0.000	0.052	0.000	0.314
24	0.314	0.052	0.314	0.104	0.157	0.157	0.104	0.000	0.052	0.000	1.254
26	0.104	0.000	0.000	0.000	0.052	0.000	0.000	0.000	0.000	0.000	0.157
27	0.576	0.524	0.471	0.209	0.104	0.000	0.000	0.000	0.000	0.000	1.886

SPECIES CODE	DIAMETER CLASSES (cm) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
29	0.262	0.733	0.262	0.104	0.000	0.000	0.000	0.000	0.000	0.000	1.360
30	0.104	0.000	0.000	0.104	0.000	0.000	0.000	0.000	0.000	0.000	0.209
31	0.157	0.104	0.052	0.052	0.000	0.000	0.000	0.000	0.000	0.000	0.366
32	0.209	0.104	0.052	0.000	0.052	0.000	0.000	0.000	0.000	0.000	0.419
33	0.314	0.471	0.419	0.576	0.262	0.262	0.209	0.000	0.000	0.000	2.515
34	0.000	0.052	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.052
35	0.628	0.052	0.000	0.000	0.052	0.000	0.000	0.000	0.000	0.000	0.733
36	0.209	0.000	0.157	0.104	0.000	0.000	0.052	0.000	0.000	0.000	0.524
37	0.157	0.052	0.209	0.104	0.157	0.000	0.000	0.000	0.000	0.000	0.681
38	0.104	0.000	0.052	0.052	0.000	0.000	0.052	0.000	0.000	0.209	0.471
40	0.209	0.366	0.419	0.262	0.104	0.000	0.052	0.000	0.000	0.000	1.414
49	0.052	0.000	0.000	0.000	0.000	0.000	0.000	0.052	0.000	0.000	0.104
50	0.052	0.209	0.157	0.052	0.209	0.052	0.052	0.000	0.000	0.000	0.785
51	93.324	30.392	12.785	5.135	2.410	1.781	0.786	0.471	0.157	0.157	147.400
TOTAL	116.904	44.487	22.060	11.108	7.597	5.292	2.619	2.148	1.047	1.833	215.101

DIVISION - LOHIT

Table No. 1.1.2

PER HEC DISTRIBUTION OF STEMS BY SPECIES AND DIAMETER CLASS (IN CM)

STRATUM - MISCELLANEOUS

SPECIES	D I A M E T E R C L A S S E S (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	1.205	0.262	0.104	0.104	0.209	0.000	0.052	0.052	0.000	0.000	1.988
2	1.310	0.262	0.000	0.104	0.052	0.000	0.000	0.000	0.000	0.000	1.719
3	0.524	0.628	0.314	0.052	0.052	0.104	0.052	0.052	0.209	0.157	2.138
4	0.366	0.209	0.209	0.366	0.209	0.209	0.104	0.104	0.000	0.000	1.781
5	0.471	0.366	0.157	0.157	0.366	0.152	0.052	0.000	0.052	0.052	1.832
6	0.838	0.262	0.052	0.157	0.262	0.157	0.104	0.000	0.000	0.419	3.243
7	0.000	0.000	0.000	0.104	0.052	0.052	0.000	0.000	0.052	0.000	0.261
8	0.262	0.104	0.157	0.052	0.104	0.052	0.052	0.052	0.000	0.262	1.100
9	1.152	0.209	0.314	0.052	0.000	0.000	0.052	0.000	0.000	0.000	1.781
10	0.209	0.262	0.104	0.000	0.052	0.000	0.000	0.000	0.000	0.000	0.628
11	0.157	0.000	0.000	0.000	0.000	0.000	0.000	0.052	0.000	0.000	0.209
15	1.257	0.838	0.262	0.209	0.209	0.209	0.157	0.157	0.000	0.052	3.343
16	0.681	0.104	0.209	0.314	0.157	0.104	0.000	0.052	0.000	0.000	1.622
17	0.524	0.366	0.524	0.104	0.366	0.104	0.052	0.000	0.052	0.262	2.356
18	0.262	0.262	0.209	0.209	0.104	0.157	0.000	0.052	0.104	0.104	1.465
19	0.209	0.209	0.000	0.000	0.104	0.052	0.000	0.104	0.052	0.209	0.943
20	0.209	0.471	0.314	0.104	0.209	0.000	0.104	0.104	0.052	0.000	1.571
21	1.205	0.366	0.419	0.157	0.366	0.052	0.052	0.052	0.104	0.262	3.029
23	0.104	0.000	0.000	0.000	0.052	0.000	0.000	0.000	0.000	0.000	0.157
24	1.624	0.733	0.282	0.471	0.419	0.209	0.157	0.157	0.052	0.052	4.136
26	0.209	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.104	0.313
31	0.366	0.000	0.104	0.000	0.000	0.052	0.052	0.000	0.000	0.000	0.574
32	0.104	0.000	0.157	0.000	0.052	0.000	0.000	0.000	0.000	0.000	0.313
33	0.052	0.209	0.104	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.366
36	0.052	0.052	0.104	0.052	0.052	0.052	0.000	0.000	0.052	0.000	0.419
37	0.209	0.104	0.157	0.104	0.262	0.052	0.000	0.104	0.000	0.000	0.996
38	0.052	0.157	0.000	0.052	0.157	0.000	0.104	0.000	0.000	0.000	0.524
40	1.729	1.257	0.995	0.733	0.419	0.052	0.104	0.052	0.000	0.000	5.344
49	0.209	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.209
50	0.052	0.209	0.157	0.157	0.157	0.052	0.052	0.052	0.000	0.000	0.890
51	52.190	15.824	6.026	3.039	1.467	0.576	0.628	0.157	0.209	0.471	80.581
TOTAL	67.804	23.747	11.423	6.864	5.821	2.463	1.939	1.362	0.995	2.410	124.830

DIVISION - LOHIT

Table No. 1.1.3

PER HEC DISTRIBUTION OF STEMS BY SPECIES AND DIAMETER CLASS (IN CM)

STRATUM - RIVERAIN

SPECIES	D I A M E T E R C L A S S E S (CM)									
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	0.231	0.231	0.000	0.077	0.000	0.000	0.000	0.000	0.000	0.077	0.617
2	0.000	0.077	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077
3	0.000	0.000	0.077	0.000	0.000	0.000	0.077	0.000	0.000	0.000	0.154
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077	0.077
6	0.540	0.308	0.849	0.077	0.000	0.000	0.077	0.154	0.000	0.772	2.769
7	0.000	0.000	0.077	0.077	0.000	0.000	0.000	0.000	0.000	0.077	0.231
8	0.154	0.154	0.000	0.000	0.077	0.077	0.000	0.000	0.000	0.077	0.540
15	0.231	0.154	0.231	0.231	0.000	0.000	0.077	0.000	0.000	0.000	0.924
16	0.000	0.000	0.000	0.000	0.000	0.000	0.077	0.000	0.000	0.000	0.077
17	0.154	0.000	0.077	0.077	0.000	0.077	0.000	0.000	0.000	0.000	0.386
18	2.161	1.003	0.231	0.154	0.077	0.000	0.077	0.000	0.000	0.000	3.703
19	0.231	0.308	0.000	0.000	0.000	0.000	0.077	0.000	0.000	0.154	0.772
20	0.154	0.077	0.000	0.154	0.000	0.000	0.000	0.000	0.000	0.000	0.386
21	0.154	0.077	0.154	0.386	0.077	0.077	0.154	0.000	0.000	0.000	1.080
23	0.000	0.231	0.000	0.077	0.231	0.000	0.231	0.000	0.000	0.000	0.772
24	0.077	0.386	0.154	0.077	0.000	0.231	0.000	0.077	0.000	0.077	1.078
26	0.077	0.463	0.077	0.308	0.154	0.231	0.154	0.000	0.000	0.077	1.541
29	0.154	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.154
31	0.540	0.000	0.000	0.077	0.000	0.000	0.077	0.000	0.000	0.000	0.694
32	0.000	0.000	0.000	0.000	0.077	0.000	0.000	0.000	0.000	0.000	0.077
33	0.000	0.000	0.077	0.077	0.154	0.000	0.000	0.000	0.000	0.000	0.308
36	0.000	0.154	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.154
37	0.077	0.000	0.000	0.000	0.000	0.000	0.077	0.000	0.000	0.000	0.154
38	0.308	0.000	0.000	0.154	0.000	0.000	0.000	0.000	0.000	0.000	0.463
40	0.926	0.540	0.540	0.308	0.077	0.154	0.000	0.000	0.000	0.000	2.543
51	31.420	9.650	3.628	1.852	0.463	0.540	0.231	0.231	0.154	0.308	48.477
TOTAL	37.586	13.808	6.176	4.168	1.379	1.387	1.387	0.463	0.154	1.696	68.208

DIVISION - CHANGLANG. Table. No. 1.2.1

PER HEC. DISTRIBUTION OF STEMS BY SPECIES AND DIAMETER CLASS

STRATUM - HOLLONG - MEKAI.

SPECIES	DIAMETER CLASS (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	0.163	0.108	0.054	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.353
2	4.460	3.046	1.360	0.843	0.081	0.190	0.054	0.027	0.054	0.027	10.143
3	0.571	1.060	0.516	0.326	0.054	0.027	0.027	0.027	0.000	0.054	2.865
4	3.916	3.590	2.529	1.740	1.441	0.870	0.816	0.353	0.190	0.326	15.765
5	1.985	1.033	0.870	0.843	0.571	0.353	0.244	0.244	0.108	0.299	6.555
6	0.870	0.217	0.190	0.190	0.217	0.136	0.272	0.081	0.081	0.598	2.855
7	0.054	0.081	0.000	0.054	0.054	0.027	0.000	0.000	0.000	0.000	0.272
8	0.027	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.054
9	0.408	0.190	0.163	0.081	0.027	0.054	0.000	0.000	0.000	0.000	0.924
10	1.414	1.306	0.571	0.462	0.027	0.000	0.000	0.027	0.000	0.000	3.509
11	0.000	0.000	0.000	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.027
13	0.136	0.027	0.027	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.217
14	0.108	0.136	0.027	0.000	0.027	0.027	0.000	0.027	0.027	0.000	0.380
15	4.161	3.209	1.332	0.680	0.244	0.081	0.108	0.054	0.054	0.027	9.955
16	0.870	0.408	0.217	0.217	0.136	0.108	0.054	0.000	0.000	0.000	2.014
17	1.305	1.196	0.680	0.516	0.108	0.027	0.081	0.000	0.027	0.054	3.998
18	0.217	0.136	0.163	0.027	0.054	0.054	0.054	0.000	0.000	0.000	0.707
19	0.625	0.816	0.217	0.136	0.000	0.027	0.108	0.000	0.000	0.000	1.931
20	0.516	0.326	0.435	0.244	0.136	0.000	0.000	0.000	0.000	0.054	1.713
21	0.326	0.081	0.000	0.081	0.054	0.081	0.054	0.000	0.000	0.027	0.707

SPECIES	DIAMETER CLASSES (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
22	0.027	0.054	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.081
24	0.353	0.272	0.108	0.108	0.081	0.054	0.000	0.000	0.000	0.000	0.979
25	0.081	0.027	0.081	0.027	0.000	0.027	0.000	0.054	0.000	0.000	0.299
26	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.027
27	0.435	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.462
28	0.000	0.000	0.000	0.027	0.000	0.027	0.000	0.000	0.000	0.000	0.054
31	0.108	0.136	0.081	0.027	0.054	0.027	0.000	0.000	0.027	0.000	0.462
32	0.435	0.544	0.244	0.027	0.000	0.000	0.000	0.000	0.000	0.000	1.251
33	0.190	0.163	0.108	0.136	0.108	0.027	0.027	0.000	0.000	0.000	0.761
34	0.000	0.081	0.054	0.081	0.054	0.000	0.027	0.000	0.000	0.000	0.299
35	0.163	0.081	0.108	0.000	0.000	0.000	0.027	0.000	0.000	0.000	0.380
36	0.190	0.163	0.244	0.190	0.108	0.000	0.027	0.027	0.000	0.000	0.951
37	0.244	0.190	0.108	0.027	0.000	0.027	0.000	0.027	0.000	0.000	0.625
38	0.217	0.136	0.027	0.081	0.027	0.054	0.027	0.054	0.027	0.000	0.652
40	0.924	0.816	0.272	0.244	0.054	0.000	0.000	0.000	0.000	0.000	2.311
49	0.325	0.081	0.081	0.000	0.000	0.027	0.000	0.000	0.000	0.000	0.815
50	0.190	0.108	0.081	0.054	0.027	0.000	0.000	0.000	0.000	0.000	0.462
51	60.656	21.433	7.099	2.556	1.060	0.598	0.244	0.108	0.027	0.136	93.921
TOTAL	87.012	41.017	18.060	10.118	4.814	2.937	2.257	1.115	0.625	1.804	169.582

DIVISION - CHANGLANG

Table No. 1.2.2

PER HECT. DISTRIBUTION OF STEMS BY SPECIES AND DIAMETER CLASS

STRATUM - MISCELLANEOUS.

SPECIES CODE	DIAMETER CLASSES (IN CM)										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	0.180	0.100	0.020	0.000	0.020	0.000	0.000	0.000	0.000	0.000	0.321
2	5.306	3.598	2.412	1.085	0.502	0.301	0.120	0.180	0.000	0.060	13.568
3	1.246	0.703	0.683	0.381	0.180	0.000	0.060	0.020	0.020	0.020	3.313
4	0.582	0.341	0.140	0.201	0.201	0.100	0.040	0.040	0.000	0.000	1.648
5	0.120	0.040	0.060	0.040	0.040	0.040	0.000	0.000	0.000	0.000	0.341
6	0.482	0.241	0.221	0.160	0.301	0.321	0.261	0.241	0.140	0.603	2.975
7	0.080	0.241	0.120	0.040	0.020	0.020	0.000	0.000	0.000	0.000	0.522
8	0.281	0.140	0.100	0.000	0.020	0.040	0.000	0.000	0.000	0.000	0.582
9	0.663	0.321	0.120	0.040	0.000	0.060	0.020	0.000	0.060	0.020	1.306
10	0.402	0.361	0.100	0.221	0.140	0.020	0.000	0.000	0.000	0.000	1.246
11	0.000	0.000	0.000	0.020	0.000	0.000	0.000	0.000	0.000	0.020	0.020
13	0.160	0.020	0.040	0.020	0.000	0.020	0.000	0.000	0.000	0.000	0.261
14	0.241	0.201	0.180	0.060	0.120	0.040	1.100	0.060	0.060	0.201	1.266
15	5.286	5.326	3.015	1.105	0.281	0.261	0.080	0.000	0.020	0.020	15.396
16	0.884	0.984	0.723	0.321	0.321	0.140	0.100	0.040	0.000	0.060	3.578
17	0.763	0.321	0.221	0.261	0.261	0.100	0.080	0.100	0.080	0.020	2.150
18	0.180	0.180	0.201	0.100	0.140	0.100	0.120	0.080	0.020	0.020	1.125
19	0.703	0.462	0.321	0.301	0.201	0.100	0.020	0.100	0.020	0.080	2.311
20	0.442	0.542	0.462	0.201	0.100	0.080	0.080	0.000	0.000	0.040	1.949
21	0.442	0.321	0.321	0.160	0.080	0.040	0.080	0.100	0.060	0.020	1.608
22	0.582	0.221	0.080	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.924

SPECIES	DIAMETER CLASSES (IN CM.)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
24	0.502	0.442	0.100	0.060	0.060	0.060	0.000	0.020	0.000	0.000	1.246
25	0.080	0.361	0.643	0.321	0.140	0.080	0.040	0.040	0.000	0.020	1.728
26	0.100	0.000	0.000	0.000	0.000	0.000	0.020	0.000	0.020	0.060	0.201
27	0.180	0.040	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.261
28	0.140	0.321	0.120	0.201	0.080	0.020	0.000	0.020	0.000	0.000	0.904
29	0.000	0.000	0.000	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.020
30	0.040	0.020	0.000	0.020	0.000	0.000	0.000	0.000	0.000	0.020	0.100
31	0.060	0.040	0.060	0.060	0.020	0.000	0.020	0.000	0.000	0.000	0.261
32	0.201	0.140	0.060	0.000	0.020	0.000	0.020	0.000	0.000	0.000	0.442
33	0.180	0.201	0.321	0.180	0.160	0.100	0.040	0.000	0.040	0.000	1.226
35	0.402	0.160	0.120	0.000	0.000	0.020	0.000	0.040	0.000	0.000	0.743
36	0.321	0.180	0.241	0.321	0.301	0.160	0.120	0.060	0.000	0.000	1.708
37	0.281	0.140	0.201	0.100	0.120	0.020	0.060	0.000	0.000	0.000	0.924
38	0.341	0.140	0.160	0.201	0.140	0.040	0.100	0.080	0.000	0.120	1.326
40	1.226	1.005	0.805	0.341	0.040	0.040	0.000	0.020	0.020	0.000	3.276
49	0.261	0.020	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.020	0.341
50	0.281	0.341	0.180	0.120	0.020	0.000	0.020	0.000	0.000	0.000	0.964
51	75.817	24.240	7.758	2.894	1.306	0.643	0.180	0.160	0.080	0.221	113.283
TOTAL	99.454	42.451	20.160	9.627	5.366	2.974	1.768	1.407	0.542	1.628	185.378

Table No. 1.2.3

PER HEC DISTRIBUTION OF STEM BY SPECIES AND DIAMETER CLASS.

DIVISION - CHANGLANG

STRATUM - B A M B O O

SPECIES	D I A M E T E R C L A S S E S (IN CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	-	-	1	-	-	-	-	-	-	-	1
2	2	-	-	1	-	-	-	-	-	-	3
3	-	-	1	-	-	-	-	-	-	-	1
4	1	-	-	-	-	-	-	-	-	-	1
8	-	1	-	1	-	1	1	-	-	-	4
10	-	1	-	-	-	-	-	-	-	-	1
14	-	-	-	-	-	-	1	-	-	-	1
15	2	1	1	-	-	-	-	-	-	-	4
17	1	-	3	-	-	1	-	-	-	-	5
19	-	2	-	-	-	-	-	-	-	-	2
26	-	-	1	-	1	-	-	-	-	-	2
36	-	1	-	-	-	-	-	-	1	-	2
40	1	-	-	-	-	-	-	-	-	-	1
51	33	7	-	-	1	-	1	-	-	-	42
TOTAL	40	13	7	2	2	2	3	-	1	-	70

DIVISION - KHONSA.

Table No.1.3.1

PER HECT. DISTRIBUTION OF STEMS BY SPECIES AND DIAMETER CLASS

STRATUM - HOLLONG MEKAI.

SPECIES	DIAMETER CLASS (IN CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	0.088	0.132	0.088	0.000	0.000	0.044	0.000	0.000	0.000	0.000	0.352
2	3.483	2.160	1.278	0.573	0.220	0.220	0.044	0.000	0.044	0.000	8.026
3	1.323	1.631	1.102	0.396	0.441	0.176	0.044	0.088	0.000	0.000	5.205
4	6.747	4.321	3.087	3.660	3.528	3.087	2.028	1.587	0.573	0.396	29.017
5	1.764	1.367	0.970	1.058	0.661	1.014	0.617	0.308	0.044	0.352	8.158
6	0.176	0.176	0.000	0.044	0.044	0.000	0.044	0.044	0.044	0.088	0.661
7	0.176	0.000	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.220
8	0.132	0.044	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.220
9	0.132	0.044	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.220
10	11.025	8.511	7.761	3.660	1.852	0.661	0.396	0.044	0.000	0.000	33.912
11	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.044
13	0.044	0.000	0.000	0.000	0.000	0.000	0.044	0.000	0.000	0.000	0.088
14	0.088	0.000	0.044	0.000	0.176	0.044	0.088	0.044	0.000	0.176	0.661
15	3.572	1.984	0.970	0.396	0.044	0.044	0.000	0.000	0.000	0.000	7.011
16	0.529	0.220	0.485	0.220	0.088	0.000	0.088	0.000	0.000	0.000	1.631
17	0.044	0.000	0.220	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.308
18	0.264	0.088	0.132	0.044	0.088	0.044	0.176	0.044	0.000	0.000	0.881
19	0.176	0.220	0.044	0.176	0.220	0.132	0.000	0.000	0.000	0.000	0.970
20	1.146	0.661	0.352	0.132	0.352	0.000	0.176	0.000	0.000	0.000	2.822
21	0.176	0.000	0.088	0.000	0.088	0.000	0.000	0.000	0.000	0.000	0.352
22	3.704	0.661	0.044	0.088	0.000	0.000	0.000	0.000	0.044	0.000	4.542

SPECIES	DIAMETER CLASSES (IN CM.)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
25	0.000	0.000	0.000	0.000	0.044	0.088	0.000	0.000	0.044	0.000	0.176
29	0.000	0.000	0.000	0.000	0.000	0.000	0.044	0.000	0.000	0.000	0.044
30	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.044	0.000	0.044	0.132
31	0.088	0.000	0.088	0.044	0.000	0.000	0.000	0.000	0.000	0.044	0.264
32	0.044	0.044	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.132
33	0.220	0.044	0.132	0.176	0.264	0.132	0.088	0.000	0.000	0.044	1.102
35	0.000	0.000	0.176	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.176
36	0.044	0.000	0.044	0.088	0.132	0.044	0.044	0.000	0.000	0.000	0.396
38	0.044	0.132	0.088	0.132	0.132	0.088	0.000	0.044	0.000	0.088	0.749
40	0.044	0.044	0.044	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.176
49	0.220	0.176	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.396
50	0.220	0.088	0.132	0.044	0.088	0.000	0.000	0.000	0.000	0.000	0.573
51	128.860	39.381	11.774	2.557	1.102	0.441	0.220	0.088	0.088	0.088	184.304
TOTAL	184.669	62.136	29.326	13.582	9.569	6.262	4.185	2.337	0.881	1.322	294.233

Table No. 1.4.1

DIVISION - LOHIT.

PER HEC. DISTRIBUTION OF STEMS BY UTILITY CLASS & STRATUM

STRATUM	PLY WOOD	CONST.WOOD	MATCH WOOD	FURNITURE WOOD	OTHER WOOD
HOLLONG & MAKAI (0 1)	41.500	15.353	2.515	1.886	153.846
MISCELLANEOUS (0 2)	26.779	8.052	1.200	-	88.798
RIVERAIN (0 4)	10.250	1.163	2.466	-	54.029

DIVISION - CHANGLANG.

HOLLONG & MAKAI (C 1)	50.999	18.359	1.740	0.462	98.001
MISCELLANEOUS (0 2)	40.439	23.939	1.025	0.261	119.714
BAMBOO (0 3)	17.000	5.000	2.000	-	46.000

DIVISION - KHONSA

HOLLONG & MAKAI (0 1)	61.827	44.717	0.573	-	187.115

Table No. 2.1.1

DIVISION - LOHIT

TOTAL STEMS (in 000 unit) BY SPECIES AND DIAMETER CLASS.

STRATUM - HOLLONG MEKAI

SPECIES CODE	DIAMETER CLASS (IN CM) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	2.787	0.000	2.787	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.575
2	103.153	55.758	36.243	11.151	5.575	2.787	2.787	2.787	0.000	0.000	220.246
3	175.639	92.001	30.667	19.515	13.939	8.363	2.787	2.787	5.575	0.000	351.279
4	178.427	122.669	111.517	55.758	69.698	52.970	33.455	22.303	11.151	13.939	671.891
5	50.182	27.879	22.303	19.515	11.151	13.939	5.575	5.575	0.000	5.575	161.700
6	47.394	13.939	5.575	13.939	13.939	13.939	2.787	13.939	8.363	16.727	150.548
7	0.000	0.000	2.787	0.000	2.787	0.000	0.000	0.000	0.000	0.000	5.575
8	8.363	11.151	2.787	2.787	2.787	0.000	2.787	0.000	0.000	0.000	30.667
9	19.515	8.363	0.000	0.000	0.000	2.787	2.787	0.000	0.000	0.000	33.455
10	119.881	61.334	27.879	13.939	8.363	2.787	2.787	2.787	0.000	0.000	239.762
11	33.455	19.515	13.939	2.787	5.575	2.787	0.000	5.575	2.787	2.787	89.213
14	2.787	5.575	8.363	8.363	8.363	2.787	2.787	11.151	2.787	5.575	58.546
15	97.577	66.910	19.515	16.727	5.575	5.575	2.787	0.000	2.787	0.000	217.458
16	36.243	22.303	8.363	25.091	19.515	16.727	5.575	2.787	2.787	2.787	142.184
17	2.787	2.787	5.575	0.000	0.000	0.000	0.000	0.000	2.787	16.727	30.667
18	16.727	0.000	2.787	2.787	11.151	8.363	0.000	8.363	0.000	2.787	52.970
19	61.334	25.091	11.151	5.575	11.151	2.787	0.000	2.787	0.000	5.575	125.456
20	86.425	41.818	33.455	19.515	11.151	11.151	0.000	2.787	0.000	0.000	206.306
21	27.879	22.303	8.363	8.363	11.151	11.151	2.787	2.787	2.787	5.575	103.153
23	0.000	5.575	2.787	0.000	2.787	2.787	0.000	0.000	2.787	0.000	16.727
24	16.727	2.787	16.727	5.575	8.363	8.363	5.575	0.000	2.787	0.000	66.910

SPECIES	DIAMETER CLASSES (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
26	5.575	0.000	0.000	0.000	2.787	0.000	0.000	0.000	0.000	0.000	8.363
27	30.667	27.879	25.091	11.151	5.575	0.000	0.000	0.000	0.000	0.000	100.365
29	13.939	39.031	13.939	5.575	0.000	0.000	0.000	0.000	0.000	0.000	72.486
30	5.575	0.000	0.000	5.575	0.000	0.000	0.000	0.000	0.000	0.000	11.151
31	8.363	5.575	2.787	2.787	0.000	0.000	0.000	0.000	0.000	0.000	19.515
32	11.151	5.575	2.787	0.000	2.787	0.000	0.000	0.000	0.000	0.000	22.303
33	16.727	25.091	22.303	30.667	13.939	13.939	11.151	0.000	0.000	0.000	133.820
34	0.000	2.787	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.787
35	33.455	2.787	0.000	0.000	2.787	0.000	0.000	0.000	0.000	0.000	39.031
36	11.151	0.000	8.363	5.575	0.000	0.000	2.787	0.000	0.000	0.000	27.879
37	8.363	2.787	11.151	5.575	8.363	0.000	0.000	0.000	0.000	0.000	36.243
38	5.575	0.000	2.787	2.787	0.000	0.000	2.787	0.000	0.000	11.151	25.091
40	11.151	19.515	22.303	13.939	5.575	0.000	2.787	0.000	0.000	0.000	75.274
49	2.787	0.000	0.000	0.000	0.000	0.000	0.000	2.787	0.000	0.000	5.575
50	2.787	11.151	8.363	2.787	11.151	2.787	2.787	0.000	0.000	0.000	41.818
51	4965.296	1617.000	680.255	273.217	128.244	94.789	41.618	25.091	8.363	8.363	7842.452
TOTAL	6219.845	2366.959	1173.699	591.022	404.229	281.565	139.380	114.293	55.748	97.568	11444.441

Table No. 2.1.2

DIVISION - LOHIT TOTAL STEMS (in 000 unit) BY SPECIES AND DIAMETER CLASS

STRATUM - (0 2) MISCELLANEOUS

SPECIES CODE	DIAMETER CLASS (IN CM) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	71.065	15.451	6.133	6.133	12.326	-	3.067	3.067	-	-	117.242
2	77.257	15.451	-	6.133	3.067	-	-	-	-	-	101.908
3	30.903	37.036	18.518	3.067	3.067	6.133	3.067	3.067	12.326	9.259	126.443
4	21.585	12.326	12.326	21.585	12.326	12.326	6.133	6.133	-	-	104.740
5	27.777	21.585	9.259	9.259	21.585	9.259	3.067	-	3.067	3.067	107.925
6	49.421	15.451	3.067	9.259	15.451	9.259	6.133	-	-	24.710	132.751
7	-	-	-	6.133	3.067	3.067	-	-	3.067	-	15.334
8	15.451	6.133	9.259	3.067	6.133	3.067	3.067	3.067	-	15.451	64.695
9	67.939	12.326	18.518	3.067	-	-	3.067	-	-	-	104.917
10	12.326	15.451	6.133	-	3.067	-	-	-	-	-	36.977
11	9.259	-	-	-	-	-	-	3.067	-	-	12.326
15	74.131	49.421	15.451	12.326	12.326	12.326	9.259	9.259	-	3.067	197.566
16	40.162	6.133	12.326	18.518	9.259	6.133	-	3.067	-	-	95.598
17	30.903	21.585	30.903	6.133	21.585	6.133	3.067	-	3.067	15.451	138.827
18	15.451	15.451	12.326	12.326	6.133	9.259	-	3.067	6.133	6.133	86.279
19	12.326	12.326	-	-	6.133	3.067	-	6.133	3.067	12.326	55.378
20	12.326	27.777	18.518	6.133	12.326	-	6.133	6.133	3.067	-	92.413
21	71.065	21.585	24.710	9.259	21.585	3.067	3.067	3.067	6.133	15.451	178.989
23	6.133	-	-	-	3.067	-	-	-	-	-	9.200
24	95.775	43.229	15.451	27.777	24.710	12.326	9.259	9.259	3.067	3.067	243.920
26	12.326	-	-	-	-	-	-	-	-	6.133	18.459
31	21.585	-	6.133	-	-	3.067	3.067	-	-	-	33.852
32	6.133	-	9.259	-	3.067	-	-	-	-	-	18.459
33	3.067	12.326	6.133	-	-	-	-	-	-	-	21.526
36	3.067	3.067	6.133	3.067	3.067	3.067	-	-	3.067	-	24.535
37	12.326	6.133	9.259	6.133	15.451	3.067	-	6.133	-	-	58.502
38	3.067	9.259	-	3.067	9.259	-	6.133	-	-	-	30.785
40	101.967	74.131	58.679	43.228	24.710	3.067	6.133	3.067	-	-	314.982
49	12.326	-	-	-	-	-	-	-	-	-	12.326
50	3.067	12.326	9.259	9.259	9.259	3.067	3.067	3.067	-	-	52.371
51	3077.897	933.218	355.382	179.224	86.516	33.969	37.036	9.259	12.326	27.777	4752.604
TOTAL	3998.083	1399.177	673.135	404.153	348.542	144.726	113.822	79.912	58.387	141.892	7361.829

Table No. 2.1.3

DIVISION - LIGHT TOTAL STEMS (in 000 unit) BY SPECIES AND DIAMETER CLASS
STRATUM - RIVERAIN

SPECIES	DIAMETER CLASS (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	12.896	12.896	-	4.298	-	-	-	-	-	4.298	34.388
2	-	4.298	-	-	-	-	-	-	-	-	4.298
3	-	-	4.298	-	-	-	4.298	-	-	-	8.596
5	-	-	-	-	-	-	-	-	-	4.298	4.298
6	30.146	17.194	47.397	4.298	-	-	4.298	8.597	-	43.098	155.028
7	-	-	4.298	4.298	-	-	-	-	-	4.298	12.894
8	8.597	8.597	-	-	4.298	4.298	-	-	-	4.298	30.088
15	12.896	8.597	12.896	12.896	-	-	4.298	-	-	-	51.583
16	-	-	-	-	-	-	4.298	-	-	-	4.298
17	8.597	-	4.298	4.298	-	4.298	-	-	-	-	21.491
18	120.642	55.994	12.896	8.597	4.298	-	4.298	-	-	-	206.725
19	12.896	17.194	-	-	-	-	4.298	-	-	8.597	42.985
20	8.597	4.298	-	8.597	-	-	-	-	-	-	21.492
21	8.597	4.298	8.597	21.549	4.298	4.298	8.597	-	-	-	60.237
23	-	12.896	-	4.298	12.896	-	12.896	-	-	-	42.986
24	4.298	21.549	8.597	4.298	-	12.896	-	4.298	-	4.298	60.234
26	4.298	25.848	4.298	17.194	8.597	12.896	8.597	-	-	4.298	86.026
29	8.597	-	-	-	-	-	-	-	-	-	8.597
31	30.146	-	-	4.298	-	-	4.298	-	-	-	38.742
32	-	-	-	-	4.298	-	-	-	-	-	4.298
35	-	-	4.298	4.298	8.597	-	-	-	-	-	17.193
36	-	8.597	-	-	-	-	-	-	-	-	8.597
37	4.298	-	-	-	-	-	4.298	-	-	-	8.596
38	17.194	-	-	8.597	-	-	-	-	-	-	25.791
40	51.696	30.146	30.146	17.194	4.298	8.597	-	-	-	-	142.077
51	1764.096	538.734	202.541	103.392	25.848	30.146	12.896	12.896	8.597	17.194	2706.340
TOTAL	2088.487	771.136	344.580	232.400	77.428	77.429	77.370	25.791	8.597	94.677	3807.987

Table No. 2.2.1

TOTAL STEMS (in 000 unit) BY SPECIES AND DIAMETER CLASS

DIVISION - CHANGLANG

STRATUM - HOLLONG MEKAI

SPECIES	DIAMETER CLASS (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	3.555	2.370	1.185	0.592	0.000	0.000	0.000	0.000	0.000	0.000	7.702
2	97.173	66.362	29.625	18.368	1.777	4.147	1.185	0.592	1.185	0.592	221.009
3	12.442	23.108	11.257	7.110	1.195	0.592	0.592	0.592	0.000	1.185	58.066
4	85.322	78.212	55.104	37.921	31.403	18.960	17.775	7.702	4.147	7.110	343.661
5	43.253	22.515	18.960	18.368	12.442	7.702	5.332	5.332	2.370	6.517	142.797
6	18.980	4.740	4.147	4.147	4.740	2.962	5.925	1.777	1.777	13.035	62.214
7	1.185	1.777	0.000	1.185	1.185	0.592	0.000	0.000	0.000	0.000	5.925
8	0.592	0.592	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.185
9	8.887	4.147	3.555	1.777	0.592	1.185	0.000	0.000	0.000	0.000	20.145
10	30.811	21.925	12.442	10.072	0.592	0.000	0.000	0.592	0.000	0.000	76.435
11	0.000	0.000	0.000	0.592	0.000	0.000	0.000	0.000	0.000	0.000	0.592
13	2.962	0.592	0.592	0.592	0.000	0.000	0.000	0.000	0.000	0.000	4.740
14	2.370	2.962	0.592	0.000	0.592	0.592	0.000	0.592	0.592	0.000	8.295
15	90.655	69.917	29.033	14.812	5.332	1.777	2.370	1.185	1.185	0.592	216.862
16	18.960	8.887	4.740	4.740	2.962	2.370	1.185	0.000	0.000	0.000	43.846
17	28.440	26.070	14.812	11.257	2.370	0.592	1.777	0.000	0.592	1.185	87.100
18	4.740	2.962	3.555	0.592	1.185	1.185	1.185	0.000	0.000	0.000	15.405

SPECIES	DIAMETER CLASSES (CM)										
code	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
19	15.627	17.775	4.470	2.962	0.000	0.592	2.370	0.000	0.000	0.000	42.468
20	11.257	7.110	9.480	5.332	2.962	0.000	0.000	0.000	0.000	1.185	37.326
21	7.110	1.777	0.000	1.777	1.185	1.777	1.185	0.000	0.000	0.592	15.405
22	0.592	1.185	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.777
24	7.702	5.925	2.370	2.370	1.777	1.185	0.000	0.000	0.000	0.000	21.330
25	1.777	0.592	1.777	0.592	0.000	0.592	0.000	1.185	0.000	0.000	6.517
26	0.592	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.592
27	9.480	0.592	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	10.072
28	0.000	0.000	0.000	0.592	0.000	0.592	0.000	0.000	0.000	0.000	1.185
31	2.370	2.962	1.777	0.592	1.185	0.592	0.000	0.000	0.592	0.000	10.072
32	9.480	11.850	5.332	0.592	0.000	0.000	0.000	0.000	0.000	0.000	27.255
33	4.147	3.555	2.370	2.962	2.370	0.592	0.592	0.000	0.000	0.000	16.590
34	0.000	1.777	1.185	1.777	1.185	0.000	0.592	0.000	0.000	0.000	6.517
35	3.555	1.777	2.370	0.000	0.000	0.000	0.592	0.000	0.000	0.000	8.295
36	4.147	3.555	5.332	4.147	2.370	0.000	0.592	0.592	0.000	0.000	20.738
37	5.332	4.147	2.370	0.592	0.000	0.592	0.000	0.592	0.000	0.000	13.627
38	4.740	2.962	0.592	1.777	0.592	1.185	0.592	1.185	0.592	0.000	14.220
40	20.145	17.775	5.925	5.332	1.185	0.000	0.000	0.000	0.000	0.000	50.364
49	13.627	1.777	1.777	0.000	0.000	0.592	0.000	0.000	0.000	0.000	17.775
50	4.147	2.370	1.777	1.185	0.592	0.000	0.000	0.000	0.000	0.000	10.072
51	1321.329	466.805	154.647	55.696	23.108	13.035	5.332	2.370	0.592	2.962	2045.971
TOTAL	1895.453	893.504	393.420	220.402	104.868	63.682	49.173	24.288	13.624	34.255	3693.749

Table No. 2.2.2

DIVISION - CHANGLAND.

unit

TOTAL STEMS (in '000) BY SPECIES AND DIAMETER CLASS

STRATUM-MISCELLANEOUS.

SPECIES	D I A M E T E R C L A S S E S (IN CM)									
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	9.299	5.166	1.033	0.000	1.033	0.000	0.000	0.000	0.000	0.000	16.533
2	272.794	185.968	123.997	55.798	25.832	15.499	6.199	9.299	3.099	3.099	697.460
3	64.065	36.165	35.132	19.632	9.299	0.000	3.099	1.033	1.033	1.033	170.496
4	29.966	17.566	7.233	10.333	10.333	5.166	2.066	2.066	0.000	0.000	84.731
5	6.199	2.066	3.099	2.066	2.066	2.066	0.000	0.000	0.000	0.000	17.566
6	24.799	12.399	11.366	8.266	15.499	16.533	13.433	12.389	7.233	30.999	152.389
7	4.133	12.399	6.199	2.066	1.033	1.033	0.000	0.000	0.000	0.000	26.866
8	14.466	7.233	5.166	0.000	1.033	2.066	0.000	0.000	0.000	0.000	29.966
9	34.099	16.533	6.199	2.066	0.000	3.099	1.033	0.000	3.099	1.033	67.165
10	20.666	18.599	5.166	11.366	7.233	1.033	0.000	0.000	0.000	0.000	64.365
11	0.000	0.000	0.000	1.033	0.000	0.000	0.000	0.000	0.000	0.000	1.033
13	8.266	1.033	2.066	1.033	0.000	1.033	0.000	0.000	0.000	0.000	13.432
14	12.399	10.333	9.299	3.099	8.199	2.066	5.166	3.099	3.099	10.333	85.089
15	271.761	275.827	154.996	58.832	14.466	13.433	4.133	0.000	1.033	1.033	791.517
16	45.465	50.632	37.199	16.533	16.533	7.233	5.166	2.066	0.000	3.099	183.929
17	39.265	16.533	11.366	13.433	13.433	5.166	4.133	5.166	1.033	1.033	110.564
18	9.299	8.266	10.333	5.166	7.233	5.166	6.199	4.133	1.033	1.033	57.865
19	36.165	23.796	16.533	15.499	10.333	5.166	1.033	5.166	1.033	4.133	118.830
20	22.732	27.899	23.766	10.333	5.166	4.135	[illegible]	[illegible]	[illegible]	2.066	100.231

SPECIES	DIAMETER CLASS (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	Total
21	22.732	16.533	16.533	8.266	4.133	2.066	3.099	5.166	3.099	1.033	82.865
22	29.966	11.366	4.133	1.033	1.033	0.000	0.000	0.000	0.000	0.000	47.532
24	25.832	22.732	5.166	3.099	3.099	3.099	0.000	1.033	0.000	0.000	64.065
25	4.133	18.599	33.066	16.533	7.233	4.133	2.066	2.066	0.000	1.033	88.864
26	5.166	0.000	0.000	0.000	0.000	0.000	1.033	0.000	1.033	3.099	10.333
27	9.299	2.066	1.033	1.033	0.000	0.000	0.000	0.000	0.000	0.000	13.433
28	7.233	16.533	6.199	10.333	4.133	1.033	0.000	1.033	0.000	0.000	46.499
29	0.000	0.000	0.000	1.033	0.000	0.000	0.000	0.000	0.000	0.000	1.033
30	2.066	1.033	0.000	1.033	0.000	0.000	0.000	0.000	0.000	1.033	5.166
31	3.099	2.066	3.099	3.099	1.033	0.000	1.033	0.000	0.000	0.000	13.433
32	10.333	7.233	3.099	0.000	1.033	0.000	1.033	0.000	0.000	0.000	22.732
33	9.299	10.333	16.533	9.299	8.266	5.166	2.066	0.000	2.066	0.000	63.032
35	20.666	8.266	6.199	0.000	0.000	1.033	0.000	2.066	0.000	0.000	38.232
36	16.533	9.299	12.399	16.533	15.474	8.266	6.199	3.099	0.000	0.000	87.805
37	14.466	7.233	10.333	5.166	6.199	1.033	3.099	0.000	0.000	0.000	47.532
38	17.566	7.233	8.266	10.333	7.233	2.066	5.166	4.133	0.000	6.199	68.167
40	63.032	51.665	30.999	17.566	2.066	2.066	0.000	1.033	0.000	0.000	166.414
49	13.433	1.033	1.033	1.033	0.000	0.000	0.000	0.000	0.000	1.033	17.566
50	14.466	17.566	9.299	6.199	1.033	0.000	1.033	0.000	0.000	0.000	49.599
51	3997.655	1246.175	398.828	148.797	67.165	33.066	9.299	8.266	3.099	11.366	5823.719
TOTAL	5112.798	2183.147	1036.265	494.842	275.757	152.618	90.819	72.212	27.793	83.560	9530.058

Table No. 2.2.3

DIVISION - CHANGLANG

TOTAL STEMS (in 000 unit) BY SPECIES AND DIAMETER CLASS (in cm)

STRATUM - BAMBOO

SPECIES CODE	DIAMETER CLASS (CM) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	-	-	9.333	-	-	-	-	-	-	-	9.333
2	18.666	-	-	9.333	-	-	-	-	-	-	27.999
3	-	-	9.333	-	-	-	-	-	-	-	9.333
4	9.333	-	-	-	-	-	-	-	-	-	9.333
6	-	9.333	-	9.333	-	9.333	9.333	-	-	-	37.332
10	-	9.333	-	-	-	-	-	-	-	-	9.333
14	-	-	-	-	-	-	9.333	-	-	-	9.333
15	18.666	9.333	9.333	-	-	-	-	-	-	-	37.332
17	9.333	-	27.999	-	-	9.333	-	-	-	-	46.665
19	-	18.666	-	-	-	-	-	-	-	-	18.666
26	-	-	9.333	-	9.333	-	-	-	-	-	18.666
36	-	9.333	-	-	-	-	-	-	9.333	-	18.666
40	9.333	-	-	-	-	-	-	-	-	-	9.333
51	307.989	65.331	-	-	9.333	-	9.333	-	-	-	391.986
TOTAL	373.320	121.329	65.331	18.666	18.666	18.666	27.999	-	9.333	-	653.310

Table No. 2.3.1

DIVISION - KHONSA. TOTAL STEMS (in "000" unit) BY SPECIES AND DIAMETER CLASS.
STRATUM - HOLLONG NEKAI.

SPECIES	D I A M E T E R C L A S S E S (in cm)									
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	1.273	1.910	1.273	0.000	0.000	0.636	0.000	0.000	0.000	0.000	5.095
2	50.317	31.280	18.471	8.280	3.184	3.184	0.636	0.000	0.636	0.000	115.922
3	19.108	23.566	15.923	5.732	6.369	2.547	0.636	1.273	0.000	0.000	75.158
4	97.451	62.419	44.585	52.965	50.954	44.585	29.299	22.929	8.280	5.732	419.104
5	25.477	19.745	14.012	15.286	9.554	14.649	8.917	4.458	0.636	5.095	117.833
6	2.547	2.547	0.000	0.636	0.636	0.000	0.636	0.636	0.636	1.273	9.554
7	2.547	0.000	0.636	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.184
8	1.910	0.636	0.636	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.184
9	1.910	0.636	0.636	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.184
10	159.234	122.928	112.100	52.965	26.751	9.554	5.732	0.636	0.000	0.000	489.804
11	0.636	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.636
13	0.636	0.000	0.000	0.000	0.000	0.000	0.636	0.000	0.000	0.000	1.273
14	1.273	0.000	0.636	0.000	2.547	0.636	1.273	0.636	0.000	2.547	9.554
15	51.591	28.662	14.012	5.732	0.636	0.636	0.000	0.000	0.000	0.000	101.272
16	7.643	3.184	7.006	3.184	1.273	0.000	1.273	0.000	0.000	0.000	23.566
17	0.636	0.000	3.184	0.636	0.000	0.000	0.000	0.000	0.000	0.000	4.458
18	3.821	1.273	1.910	0.636	1.273	0.636	2.547	0.636	0.000	0.000	12.738
19	2.547	3.184	0.636	2.547	3.184	1.910	0.000	0.000	0.000	0.000	14.012
20	16.560	9.554	5.095	1.910	5.095	0.000	2.547	0.000	0.000	0.000	40.763
21	2.547	0.000	1.273	0.000	1.273	0.000	0.000	0.000	0.000	0.000	5.095
22	53.502	9.554	0.636	1.273	0.000	0.000	0.000	0.000	0.636	0.000	65.604
25	0.000	0.000	0.000	0.000	0.636	1.273	0.000	0.000	0.636	0.000	2.547
29	0.000	0.000	0.000	0.000	0.000	0.000	0.636	0.000	0.000	0.000	0.636
30	0.636	0.000	0.000	0.000	0.000	0.000	0.000	0.636	0.000	0.636	1.910
31	1.273	0.000	1.273	0.636	0.000	0.000	0.000	0.000	0.000	0.636	3.821
32	0.636	0.636	0.636	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.910
33	3.184	0.636	1.910	2.547	3.821	1.910	1.273	0.000	0.000	0.636	15.923
35	0.000	0.000	2.547	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.547
36	0.636	0.000	0.636	1.273	1.910	0.636	0.636	0.000	0.000	0.000	5.732
38	0.636	1.910	1.273	1.910	1.910	1.273	0.000	0.636	0.000	1.273	10.827
40	0.636	0.636	0.636	0.636	0.000	0.000	0.000	0.000	0.000	0.000	2.547
49	3.184	2.547	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.732
50	3.184	1.273	1.910	0.636	1.273	0.000	0.000	0.000	0.000	0.000	8.280
51	1661.127	538.794	170.061	36.942	15.923	3.369	3.184	1.273	1.273	1.273	2666.215
TOT	2370.298	897.429	423.542	196.262	138.202	90.434	59.061	33.749	12.733	19.101	4249.620

Table No.2.4.1 TOTAL STEMS (in'000 unit) BY UTILITY CLASS AND STRATUM

DIVISION	STRATUM	PLYWOOD	CONST.WOOD	MATCH WOOD	FURNITUREWOOD	OTHERWOOD	TOTAL
LOHIT	HOLLONG & MAKAI (01)	2208.035	816.860	133.818	100.365	8185.363	11444.441
	MISCELLANEOUS (02)	1579.287	474.866	79.770	-	5236.906	7361.829
	RIVERAIN (04)	572.243	81.670	137.663	-	3016.311	3807.887
	TOTAL	4359.565	1373.396	342.251	100.365	16438.580	22614.157
CHANGLANG	HOLLONG & MAKAI (01)	1110.986	399.947	37.919	10.072	2134.845	3693.749
	MISCELLANEOUS (02)	2078.905	1230.673	52.697	13.433	6154.350	9530.058
	BAMBOO (05)	158.661	46.665	18.666	-	429.318	653.310
	TOTAL	3348.532	1677.285	109.282	23.505	8718.513	13077.117
KHONSA	HOLLONG & MAKAI (01)	892.976	645.050	8.277	0.000	2702.517	4249.820
TOTAL		892.976	645.050	8.277	0.000	2702.517	4249.820

Table No. 3.1.1

PER HECT. DISTRIBUTION OF VOLUME (IN M³) BY SPECIES AND DIAMETER CLASSES (CM)

DIVISION - LOHI

STRATUM - HOLLONG - MAKAI

SPECIES	D I A M E T E R C L A S S E S										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	0.004	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.049
2	0.291	0.397	0.548	0.237	0.179	0.134	0.180	0.235	0.000	0.000	2.202
3	0.505	0.528	0.456	0.559	0.577	0.506	0.252	0.342	0.757	0.000	4.582
4	0.506	1.331	2.709	2.380	4.319	4.811	4.133	3.380	2.099	4.302	30.921
5	0.732	0.861	1.149	1.503	1.262	2.049	1.089	1.290	0.000	1.906	11.841
6	0.105	0.080	0.079	0.372	0.540	0.865	0.254	1.368	1.106	4.209	8.978
7	0.000	0.000	0.057	0.000	0.103	0.000	0.000	0.000	0.000	0.000	0.160
8	0.026	0.103	0.035	0.080	0.127	0.000	0.218	0.000	0.000	0.000	0.589
9	0.043	0.056	0.000	0.000	0.000	0.183	0.211	0.000	0.000	0.000	0.493
10	0.216	0.517	0.496	0.456	0.492	0.255	0.354	0.408	0.000	0.000	3.192
11	0.108	0.133	0.211	0.034	0.233	0.172	0.000	0.598	0.402	0.718	2.639
12	0.006	0.030	0.091	0.236	0.347	0.186	0.234	1.129	0.413	1.178	3.850
13	0.234	0.350	0.275	0.387	0.222	0.292	0.251	0.000	0.408	0.000	2.387
14	0.001	0.139	0.127	0.565	0.852	0.997	0.475	0.258	0.337	0.604	4.523
15	0.008	0.011	0.067	0.000	0.000	0.000	0.000	0.000	0.395	4.537	5.018
16	0.057	0.000	0.057	0.075	0.475	0.480	0.000	0.864	0.000	0.648	2.656
17	0.159	0.171	0.169	0.167	0.440	0.184	0.000	0.273	0.000	1.761	3.324
18	1.002	1.019	1.259	1.205	0.800	1.342	0.000	0.473	0.000	0.000	7.200
19	0.363	0.521	0.286	0.460	0.819	1.240	0.456	0.495	0.680	2.163	7.483
20	0.000	0.034	0.041	0.000	0.110	0.139	0.000	0.000	0.333	0.000	0.657
21	0.051	0.023	0.261	0.132	0.357	0.497	0.456	0.000	0.376	0.000	2.153
22	0.010	0.000	0.000	0.000	0.161	0.000	0.000	0.000	0.000	0.000	0.171
27	0.104	0.207	0.366	0.254	0.180	0.000	0.000	0.000	0.000	0.000	1.114
29	0.045	0.278	0.202	0.150	0.000	0.000	0.000	0.000	0.000	0.000	0.675

SPECIES	DIAMETER CLASSES (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
30	0.014	0.000	0.000	0.111	0.000	0.000	0.000	0.000	0.000	0.000	0.125
31	0.013	0.032	0.044	0.066	0.000	0.000	0.000	0.000	0.000	0.000	0.155
32	0.027	0.043	0.045	0.000	0.095	0.000	0.000	0.000	0.000	0.000	0.210
33	0.033	0.167	0.310	0.798	0.507	0.803	0.897	0.000	0.000	0.000	3.515
34	0.000	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014
35	0.091	0.018	0.000	0.000	0.092	0.000	0.000	0.000	0.000	0.000	0.201
36	0.027	0.000	0.128	0.156	0.000	0.000	0.208	0.000	0.000	0.000	0.519
37	0.092	0.077	0.414	0.316	0.262	0.000	0.000	0.000	0.000	0.000	1.661
38	0.008	0.000	0.044	0.086	0.000	0.000	0.220	0.000	0.000	2.848	3.206
40	0.044	0.160	0.347	0.357	0.239	0.000	0.211	0.000	0.000	0.000	1.358
49	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.227	0.000	0.000	0.230
50	0.005	0.077	0.097	0.081	0.418	0.183	0.230	0.000	0.000	0.000	1.091
51	12.651	11.294	9.479	6.498	4.500	4.785	2.776	2.180	0.917	1.068	56.148
TOTAL	17.634	18.771	19.972	17.821	19.289	20.101	13.105	13.520	8.223	25.942	174.499

Table No. 3.1.2

DIVISION - LOHJT PER HEC. DISTRIBUTION OF VOLUME (M3) BY SPECIES AND DIAMETER CLASS

STRATUM - MISCELLANEOUS

SPECIES	D I A M E T E R C L A S S E S (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	0.157	0.078	0.078	0.134	0.437	0.000	0.180	0.243	0.000	0.000	1.310
2	0.141	0.091	0.000	0.135	0.086	0.000	0.000	0.000	0.000	0.000	0.455
3	0.084	0.236	0.254	0.095	0.139	0.297	0.231	0.299	1.484	2.642	5.765
4	0.040	0.131	0.248	0.790	0.657	1.068	0.667	0.815	0.000	0.000	4.418
5	0.404	0.588	0.385	0.677	2.142	1.325	0.531	0.000	0.817	1.155	8.027
6	0.083	0.093	0.034	0.224	0.522	0.485	0.438	0.000	0.000	5.799	7.672
7	0.000	0.000	0.000	0.136	0.122	0.187	0.000	0.000	0.359	0.000	0.804
8	0.058	0.048	0.158	0.069	0.261	0.163	0.202	0.342	0.000	4.241	5.526
9	0.116	0.060	0.211	0.075	0.000	0.000	0.192	0.000	0.000	0.000	0.657
10	0.041	0.113	0.109	0.000	0.147	0.000	0.000	0.000	0.000	0.000	0.411
11	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.326	0.000	0.000	0.350
15	0.130	0.284	0.204	0.287	0.409	0.647	0.589	0.839	0.000	0.615	4.108
16	0.078	0.027	0.163	0.422	0.331	0.328	0.000	0.294	0.000	0.000	1.646
17	0.049	0.132	0.343	0.127	0.751	0.341	0.241	0.000	0.357	3.213	5.532
18	0.032	0.096	0.168	0.259	0.230	0.520	0.000	0.310	0.783	1.486	3.891
19	0.031	0.089	0.000	0.000	0.203	0.166	0.000	0.595	0.363	3.522	4.973
20	0.156	0.505	0.607	0.338	0.988	0.000	0.808	1.114	0.700	0.000	5.221
21	0.722	0.435	0.775	0.497	1.656	0.274	0.440	0.478	1.257	0.072	12.612
23	0.009	0.000	0.000	0.000	0.112	0.000	0.000	0.000	0.000	0.000	0.122
24	0.224	0.292	0.248	0.722	0.959	0.746	0.709	0.861	0.363	0.791	5.918
26	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.799	1.813
31	0.048	0.000	0.096	0.000	0.000	0.140	0.187	0.000	0.000	0.000	0.471
32	0.023	0.000	0.139	0.000	0.093	0.000	0.000	0.000	0.000	0.000	0.255
33	0.000	0.088	0.074	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.170
36	0.011	0.015	0.095	0.068	0.132	0.150	0.000	0.000	0.424	0.000	0.897
37	0.111	0.105	0.310	0.289	1.239	0.326	0.000	1.020	0.000	0.000	3.405
38	0.004	0.057	0.000	0.075	0.343	0.000	0.429	0.000	0.000	0.000	0.910
40	0.294	0.484	0.858	1.091	0.958	0.181	0.440	0.273	0.000	0.000	4.582
49	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021
50	0.004	0.071	0.126	0.221	0.343	0.158	0.211	0.325	0.000	0.000	1.462
51	6.765	5.963	4.479	3.843	2.723	1.505	2.162	0.729	1.170	5.048	34.411
TOTAL	9.872	10.086	10.174	10.585	15.996	9.015	8.728	8.871	8.083	36.386	127.033

Table No. 3.1.3

DIVISION - LOWIT
STRATUM - RIVERAIN

PER HECT. DISTRIBUTION OF VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES

SPECIES	DIAMETER CLASSES (CM)									
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	0.024	0.073	0.000	0.106	0.000	0.000	0.090	0.000	0.000	0.962	1.169
2	0.000	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.027
3	0.000	0.000	0.085	0.000	0.000	0.000	0.307	0.000	0.000	0.000	0.392
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.500	2.500
6	0.053	0.097	0.608	0.095	0.000	0.000	0.330	0.056	0.000	9.980	12.032
7	0.000	0.000	0.085	0.131	0.000	0.000	0.000	0.000	0.000	0.955	1.172
8	0.029	0.056	0.000	0.000	0.209	0.280	0.000	0.000	0.000	0.767	1.342
15	0.028	0.051	0.189	0.322	0.000	0.000	0.320	0.000	0.000	0.000	0.913
16	0.000	0.000	0.000	0.000	0.000	0.000	0.320	0.000	0.000	0.000	0.320
17	0.010	0.000	0.067	0.102	0.000	0.245	0.000	0.000	0.000	0.000	0.425
18	0.302	0.393	0.200	0.221	0.173	0.000	0.331	0.000	0.000	0.000	1.621
19	0.045	0.123	0.000	0.000	0.000	0.000	0.346	0.000	0.000	2.094	2.609
20	0.089	0.073	0.000	0.452	0.000	0.000	0.000	0.000	0.000	0.000	0.615
21	0.107	0.071	0.355	0.185	0.312	0.410	1.161	0.000	0.000	0.000	3.603
23	0.000	0.077	0.000	0.087	0.464	0.000	0.959	0.000	0.000	0.000	1.589
24	0.013	0.113	0.107	0.108	0.000	0.709	0.000	0.408	0.000	1.297	2.757
26	0.005	0.154	0.089	0.459	0.364	0.851	0.791	0.000	0.000	1.161	3.856
29	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021
31	0.067	0.000	0.000	0.091	0.000	0.000	0.276	0.000	0.000	0.000	0.434
32	0.000	0.000	0.000	0.000	0.140	0.000	0.000	0.000	0.000	0.000	0.140
33	0.000	0.000	0.061	0.127	0.361	0.000	0.000	0.000	0.000	0.000	0.550
36	0.000	0.052	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.052
37	0.035	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.661
38	0.029	0.000	0.000	0.214	0.000	0.000	0.000	0.000	0.000	0.000	0.244
40	0.152	0.206	0.453	0.448	0.190	0.483	0.000	0.000	0.000	0.000	1.916
51	4.215	3.539	2.608	2.387	0.840	1.432	0.779	1.037	0.804	3.105	20.750
TOTAL	5.239	5.116	4.892	6.542	3.057	4.392	6.550	2.302	0.804	22.825	61.724

DIVISION - CHANGIANG

Table.No. 3.2.1

PER HECT. DISTRIBUTION OF VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES

STRATUM - HOLLONG- MAKU.

SPECIES	DIAMETER CLASSES (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	0.024	0.039	0.040	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.132
2	0.611	1.159	1.033	1.031	0.160	0.528	0.183	0.126	0.305	0.173	5.393
3	0.094	0.440	0.427	0.461	0.120	0.088	0.106	0.161	0.000	0.732	2.633
4	0.652	2.229	3.268	3.833	4.505	4.127	5.070	2.951	1.969	4.356	33.045
5	1.829	1.653	2.414	3.527	3.283	2.772	2.566	3.195	1.681	6.710	29.435
6	0.039	0.076	0.162	0.241	0.477	0.418	1.172	0.437	0.539	7.427	11.041
7	0.010	0.032	0.000	0.088	0.123	0.077	0.000	0.000	0.000	0.000	0.331
8	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014
9	0.046	0.071	0.118	0.090	0.063	0.165	0.000	0.000	0.000	0.000	0.557
10	0.150	0.467	0.557	0.858	0.076	0.000	0.000	0.186	0.000	0.000	2.296
11	0.000	0.000	0.000	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.030
13	0.023	0.009	0.025	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.104
14	0.017	0.048	0.014	0.000	0.060	0.075	0.000	0.139	0.198	0.000	0.554
15	0.517	1.012	0.963	0.860	0.486	0.257	0.453	0.275	0.386	0.219	5.432
16	0.099	0.144	0.142	0.297	0.266	0.326	0.233	0.000	0.000	0.000	1.510
17	0.146	0.400	0.469	0.659	0.214	0.080	0.548	0.000	0.198	0.393	3.213
18	0.027	0.050	0.141	0.036	0.113	0.179	0.226	0.000	0.000	0.000	0.776
19	0.110	0.308	0.179	0.198	0.000	0.076	0.484	0.000	0.000	0.000	1.358
20	0.324	0.399	0.870	0.800	0.577	0.000	0.000	0.000	0.000	0.868	3.840

SPECIES CODE	DIAMETER CLASSES (CM) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
21	0.208	0.104	0.000	0.253	0.259	0.499	0.432	0.000	0.000	0.561	2.319
22	0.013	0.061	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.075
24	0.050	0.095	0.081	0.134	0.183	0.194	0.000	0.000	0.000	0.000	0.739
25	0.014	0.012	0.063	0.029	0.000	0.063	0.000	0.242	0.000	0.000	0.425
26	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
27	0.057	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.065
28	0.000	0.000	0.000	0.039	0.000	0.077	0.000	0.000	0.000	0.000	0.116
31	0.020	0.051	0.062	0.038	0.113	0.064	0.000	0.000	0.166	0.000	0.517
32	0.064	0.208	0.192	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.494
33	0.013	0.055	0.087	0.205	0.228	0.084	0.100	0.000	0.000	0.000	0.775
34	0.000	0.034	0.038	0.117	0.103	0.000	0.089	0.000	0.000	0.000	0.383
35	0.021	0.028	0.074	0.000	0.000	0.000	0.100	0.000	0.000	0.000	0.224
36	0.030	0.086	0.193	0.260	0.245	0.000	0.130	0.111	0.000	0.000	1.078
37	0.151	0.214	0.204	0.085	0.000	0.164	0.000	0.251	0.000	0.000	1.072
38	0.021	0.043	0.027	0.097	0.053	0.173	0.125	0.288	0.177	0.000	1.006
40	0.174	0.341	0.212	0.315	0.115	0.000	0.000	0.000	0.000	0.000	1.129
49	0.090	0.023	0.060	0.000	0.000	0.078	0.000	0.000	0.000	0.000	0.253
50	0.021	0.043	0.068	0.059	0.059	0.000	0.000	0.000	0.000	0.000	0.252
51	8.250	7.793	5.181	3.222	2.015	1.602	0.868	0.404	0.149	0.981	30.580
TOTAL	13.791	17.750	17.380	18.039	13.987	12.178	12.694	8.088	5.773	22.723	143.203

Table No. 3.2.2

PER HECT. DISTRIBUTION OF VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (in cm)

DIVISION - CHANGLANG

STRATUM - MISCELLANEOUS

SPECIES	D I A M E T E R C L A S S E S (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	0.032	0.042	0.019	0.000	0.035	0.000	0.000	0.000	0.000	0.000	0.129
2	0.809	1.399	1.802	1.395	0.957	0.790	0.439	0.808	0.000	0.654	9.057
3	0.218	0.267	0.551	0.553	0.376	0.000	0.273	0.129	0.136	0.244	2.750
4	0.096	0.203	0.193	0.465	0.705	0.479	0.240	0.326	0.000	0.000	2.711
5	0.116	0.087	0.161	0.147	0.241	0.328	0.000	0.000	0.000	0.000	1.082
6	0.053	0.076	0.166	0.330	0.678	1.059	1.137	1.340	0.980	6.877	12.606
7	0.015	0.096	0.099	0.057	0.044	0.057	0.000	0.000	0.000	0.000	0.369
8	0.044	0.053	0.080	0.000	0.046	0.129	0.000	0.000	0.000	0.000	0.354
9	0.082	0.085	0.091	0.050	0.000	0.186	0.076	0.000	0.424	0.181	1.178
10	0.043	0.154	0.093	0.427	0.405	0.088	0.000	0.000	0.000	0.000	1.212
11	0.000	0.000	0.000	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.031
13	0.020	0.011	0.031	0.055	0.000	0.058	0.000	0.000	0.000	0.000	0.165
14	0.030	0.052	0.135	0.079	0.269	0.122	0.423	0.326	0.390	2.284	4.104
15	0.652	1.754	2.173	1.450	0.566	0.792	0.330	0.000	0.127	0.200	8.047
16	0.110	0.312	0.569	0.423	0.674	0.437	0.445	0.217	0.000	0.501	3.633
17	0.099	0.108	0.133	0.326	0.552	0.329	0.356	0.543	0.151	0.219	2.872
18	0.026	0.059	0.162	0.135	0.312	0.347	0.541	0.477	0.149	0.337	2.551
19	0.100	0.170	0.203	0.429	0.448	0.328	0.098	0.502	0.157	0.945	3.533
20	0.293	0.360	0.958	0.845	0.463	0.477	0.644	0.000	0.000	0.699	4.844

SPECIES CODE	DIAMETER CLASS (CM) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
21	0.267	0.386	0.677	0.500	0.355	0.252	0.485	0.983	0.771	0.496	5.156
22	0.375	0.241	0.169	0.065	0.079	0.000	0.000	0.000	0.000	0.000	0.931
24	0.085	0.194	0.084	0.075	0.133	0.189	0.000	0.109	0.000	0.000	0.872
25	0.012	0.150	0.493	0.411	0.268	0.222	0.132	0.188	0.000	0.143	2.021
26	0.007	0.000	0.000	0.000	0.000	0.000	0.110	0.000	0.162	1.090	1.371
27	0.020	0.016	0.011	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.072
28	0.025	0.131	0.090	0.240	0.144	0.061	0.000	0.081	0.000	0.000	0.777
29	0.000	0.000	0.000	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.022
30	0.008	0.010	0.000	0.026	0.000	0.000	0.000	0.000	0.000	0.209	0.253
31	0.035	0.017	0.047	0.054	0.037	0.000	0.074	0.000	0.000	0.000	0.246
32	0.028	0.056	0.057	0.000	0.035	0.000	0.078	0.000	0.000	0.000	0.237
33	0.012	0.060	0.253	0.257	0.345	0.322	0.166	0.000	0.301	0.000	1.729
35	0.070	0.058	0.090	0.000	0.000	0.052	0.000	0.165	0.000	0.000	0.438
36	0.050	0.085	0.163	0.488	0.669	0.510	0.528	0.357	0.000	0.000	2.873
37	0.180	0.173	0.403	0.318	0.533	0.116	0.477	0.000	0.000	0.000	2.202
38	0.044	0.043	0.132	0.263	0.311	0.118	0.450	0.430	0.000	1.412	3.207
40	0.182	0.400	0.457	0.444	0.096	0.148	0.000	0.117	0.000	0.000	1.847
49	0.057	0.035	0.013	0.026	0.000	0.000	0.000	0.000	0.000	0.250	0.331
50	0.035	0.100	0.128	0.155	0.039	0.000	0.082	0.000	0.000	0.000	0.542
51	10.325	8.827	5.727	3.613	2.416	1.709	0.622	0.754	0.327	2.202	36.526
TOTAL	14.441	16.556	16.699	13.082	12.246	9.718	8.196	7.942	4.061	10.935	122.079

Table No. 3.2.3

PER HEC DISTRIBUTION OF VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (IN CM)

DIVISION - CHANGLANG

STRATUM - BAMBOO

SPECIES	D I A M E T E R C L A S S E S (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	0.000	0.000	0.654	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.654
2	0.292	0.000	0.000	1.234	0.000	0.000	0.000	0.000	0.000	0.000	1.527
3	0.000	0.000	0.693	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.693
4	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020
6	0.000	0.415	0.000	1.387	0.000	2.864	4.404	0.000	0.000	0.000	9.051
10	0.000	0.307	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.307
14	0.000	0.000	0.000	0.000	0.000	0.000	3.678	0.000	0.000	0.000	3.678
15	0.276	0.206	0.532	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.015
17	0.163	0.300	1.530	0.000	0.000	2.733	0.000	0.000	0.000	0.000	4.837
19	0.244	0.269	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.514
26	0.000	0.000	0.529	0.000	2.068	0.000	0.000	0.000	0.000	0.000	2.598
36	0.000	0.388	0.000	0.000	0.000	0.000	0.000	0.000	6.778	0.000	7.167
40	0.099	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.099
51	4.248	2.509	0.000	0.000	2.142	3.075	0.000	0.000	0.000	0.000	11.976
TOTAL	5.345	4.478	3.940	2.621	4.211	8.703	8.082	0.000	6.778	0.000	44.142

Table No. 3.3.1

PER HEC. DISTRIBUTION OF VOLUME (in M^3) BY SPECIES AND DIAMETER CLASS (CM)

DIVISION - KHONSA

STRATUM - HOLLONG & MAKAI.

SPECIES	DIAMETER CLASSES (IN CM.)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	0.015	0.047	0.060	0.000	0.000	0.120	0.000	0.000	0.000	0.000	0.242
2	0.463	0.783	1.000	0.706	0.421	0.574	0.162	0.000	0.229	0.000	4.338
3	0.204	0.627	0.889	0.619	0.960	0.623	0.175	0.502	0.000	0.000	4.599
4	0.977	2.581	4.217	8.186	11.861	14.492	12.950	12.956	5.788	5.808	79.614
5	1.497	2.227	2.702	4.291	3.997	8.096	6.117	3.997	0.641	8.507	42.152
6	0.020	0.044	0.000	0.040	0.094	0.000	0.194	0.220	0.187	1.434	2.341
7	0.029	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.076
8	0.024	0.015	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.078
9	0.015	0.014	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.066
10	1.309	4.044	8.249	6.883	5.645	2.686	2.325	0.370	0.000	0.000	31.511
11	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009
13	0.009	0.000	0.000	0.000	0.000	0.000	0.178	0.000	0.000	0.000	0.187
14	0.010	0.000	0.033	0.000	0.414	0.130	0.356	0.254	0.000	1.832	3.029
15	0.398	0.715	0.684	0.516	0.106	0.115	0.000	0.000	0.000	0.000	2.535
16	0.065	0.071	0.355	0.298	0.205	0.000	0.388	0.000	0.000	0.000	1.380
17	0.008	0.000	0.180	0.063	0.000	0.000	0.000	0.000	0.000	0.000	0.251
18	0.039	0.030	0.113	0.058	0.218	0.121	0.046	0.252	0.000	0.000	1.677
19	0.028	0.093	0.027	0.269	0.486	0.414	0.000	0.080	0.000	0.000	1.317
20	0.372	0.818	0.685	0.403	1.539	0.000	1.326	0.000	0.000	0.000	5.443
21	0.092	0.000	0.169	0.000	0.411	0.000	0.000	0.000	0.000	0.000	0.372
22	2.235	0.697	0.282	0.254	0.000	0.000	0.000	0.000	0.491	0.000	3.769
25	0.000	0.000	0.000	0.000	0.075	0.237	0.000	0.000	0.237	0.000	0.547
29	0.000	0.000	0.000	0.000	0.000	0.000	0.186	0.000	0.000	0.000	0.186
30	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.217	0.000	0.549	0.771
31	0.013	0.000	0.071	0.036	0.000	0.000	0.000	0.000	0.000	0.431	0.581
32	0.004	0.021	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.058
33	0.013	0.020	0.098	0.291	0.566	0.367	0.342	0.000	0.000	0.358	2.055
35	0.000	0.000	0.128	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.128
36	0.007	0.000	0.031	0.139	0.296	0.165	0.178	0.000	0.000	0.000	0.816
38	0.003	0.045	0.072	0.206	0.297	0.266	0.000	0.226	0.000	0.922	2.037
40	0.007	0.025	0.043	0.068	0.000	0.000	0.000	0.000	0.000	0.000	0.143
49	0.038	0.066	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.104
50	0.019	0.031	0.121	0.047	0.173	0.000	0.000	0.000	0.000	0.000	0.391
51	16.899	14.426	8.463	3.147	2.102	1.153	0.744	0.384	0.517	0.685	48.520
TOTAL	25.129	27.442	28.838	26.556	29.864	29.559	26.467	19.370	8.190	20.408	241.523

DIVISION - LOHIT

Table No. 3.4.1

PER HEC. DISTRIBUTION OF PIN SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASS (CM)

STRATUM - HOLLONG MAKAI

SPECIES CODE	DIAMETER CLASS (IN CM) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
2	0.291	0.397	0.548	0.237	0.179	0.134	0.180	0.235	0.000	0.000	2.203
3	0.505	0.628	0.456	0.559	0.577	0.506	0.252	0.342	0.757	0.000	4.585
4	0.506	1.331	2.789	2.380	4.310	4.811	4.133	3.390	2.099	4.302	30.026
5	0.732	0.861	1.149	1.503	1.262	2.049	1.089	1.290	0.000	1.906	11.845
6	0.105	0.080	0.079	0.372	0.540	0.865	0.254	1.368	1.106	4.209	8.983
7	0.000	0.000	0.057	0.000	0.103	0.000	0.000	0.000	0.000	0.000	0.161
8	0.026	0.103	0.035	0.080	0.127	0.000	0.218	0.000	0.000	0.000	0.591
9	0.043	0.056	0.000	0.000	0.000	0.103	0.211	0.000	0.000	0.000	0.494
17	0.008	0.011	0.067	0.000	0.000	0.000	0.000	0.000	0.395	4.537	5.019
19	0.159	0.171	0.169	0.187	0.440	0.184	0.000	0.273	0.000	0.761	3.328
20	1.002	1.019	1.259	1.205	0.900	1.342	0.000	0.473	0.000	0.000	7.203
21	0.363	0.521	0.286	0.460	0.819	1.240	0.456	0.495	0.680	2.163	7.489
23	0.000	0.034	0.041	0.000	0.110	0.139	0.000	0.000	0.333	0.000	0.659
38	0.008	0.000	0.044	0.086	0.000	0.000	0.220	0.000	0.000	2.848	3.208
40	0.044	0.160	0.347	0.357	0.239	0.000	0.211	0.000	0.000	0.000	1.362
TOTAL	3.798	5.379	7.331	7.393	9.612	11.457	7.229	7.359	5.373	21.719	87.160

Table No. 3.4.2

DIVISION - LOWER. PER HECT. DISTRIBUTION OF CONSTRUCTION SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASS (CM)
STRATUM - HOLLONG MAKAI.

SPECIES CODE	Diameter Classes (in cm.) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
10	0.216	0.517	0.496	0.456	0.192	0.253	0.354	0.408	0.000	0.000	3.196
15	0.204	0.350	0.273	0.307	0.222	0.292	0.251	0.000	0.408	0.000	2.389
16	0.081	0.139	0.127	0.655	0.052	0.997	0.475	0.258	0.337	0.604	4.528
33	0.033	0.167	0.310	0.798	0.507	0.803	0.897	0.000	0.000	0.000	3.518
37	0.092	0.077	0.414	0.316	0.762	0.000	0.000	0.000	0.000	0.000	1.663
49	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.227	0.000	0.000	0.230
50	0.005	0.077	0.097	0.081	0.418	0.183	0.230	0.000	0.000	0.000	1.094
TOTAL	0.637	1.330	1.718	2.696	3.255	2.530	2.200	0.893	0.745	0.604	16.823

Table No. 3.4.3

PER HECT. DISTRIBUTION OF OTHER SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASS (CM)

1	0.004	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.050
11	0.108	0.133	0.211	0.064	0.233	0.172	0.000	0.598	0.402	0.718	2.644
14	0.006	0.030	0.091	0.236	0.347	0.186	0.234	1.129	0.413	1.178	3.854
18	0.057	0.000	0.057	0.075	0.475	0.480	0.000	0.864	0.000	0.348	2.859
24	0.051	0.023	0.261	0.132	0.357	0.497	0.456	0.000	0.376	0.000	2.156
34	0.000	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014
35	0.091	0.018	0.000	0.000	0.092	0.000	0.000	0.000	0.000	0.000	0.202
36	0.027	0.000	0.128	0.156	0.000	0.000	0.208	0.000	0.000	0.000	0.520
51	12.651	11.294	9.479	6.498	4.500	4.705	2.776	2.180	0.917	1.068	56.151
TOTAL	12.998	11.514	10.276	7.165	6.005	6.123	3.675	4.773	2.109	3.314	68.256

Table No. 3.4.4

DIVISION - LOHIT. PER HECT. DISTRIBUTION OF FURNITURE SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASS (CM)
STRATUM - HOLLONG MAKAI.

SPECIES CODE	DIAMETER CLASSES (IN CM.) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
12	-	-	-	-	-	-	-	-	-	-	-
27	0.104	0.207	0.366	0.254	0.180	-	-	-	-	-	1.114
TOTAL	0.104	0.207	0.366	0.254	0.180	-	-	-	-	-	1.114

Table No. 3.4.5 PER HECT. DISTRIBUTION OF MATCH SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASS (CM)

26	0.010	-	-	-	0.161	-	-	-	-	-	0.171
29	0.045	0.278	0.202	0.150	-	-	-	-	-	-	0.675
30	0.014	-	-	0.111	-	-	-	-	-	-	0.125
31	0.013	0.032	0.044	0.066	-	-	-	-	-	-	0.155
32	0.027	0.043	0.045	-	0.095	-	-	-	-	-	0.210
TOTAL	0.109	0.353	0.291	0.327	0.256	-	-	-	-	-	1.336

Table No. 3.5.1

DIVISION - LOHIT

PER HECT. DISTRIBUTION OF PLY SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASS (CM)

STRATUM - MISCELLANEOUS

SPECIES CODE	Diameter Classes (in cm.)									
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
2	0.141	0.091	0.000	0.135	0.086	0.000	0.000	0.000	0.000	0.000	0.455
3	0.004	0.236	0.254	0.095	0.139	0.297	0.231	0.299	1.404	2.642	5.765
4	0.040	0.131	0.248	0.790	0.857	1.068	0.667	0.815	0.000	0.000	4.418
5	0.404	0.588	0.385	0.877	2.142	1.325	0.531	0.000	0.817	1.155	8.027
6	0.003	0.003	0.034	0.224	0.522	0.485	0.438	0.000	0.000	5.799	7.672
7	0.000	0.000	0.000	0.136	0.122	0.187	0.000	0.000	0.359	0.000	0.804
8	0.038	0.048	0.158	0.089	0.261	0.183	0.202	0.342	0.000	4.241	5.526
9	0.116	0.060	0.211	0.075	0.000	0.000	0.192	0.000	0.000	0.000	0.657
17	0.049	0.132	0.343	0.127	0.751	0.341	0.214	0.000	0.357	3.213	5.532
19	0.031	0.039	0.000	0.000	0.203	0.166	0.000	0.595	0.383	3.522	4.973
20	0.156	0.505	0.607	0.338	0.988	0.000	0.808	1.114	0.700	0.000	5.221
21	0.722	0.435	0.775	0.497	1.656	0.274	0.440	0.478	1.257	6.072	12.612
23	0.009	0.000	0.000	0.000	0.112	0.000	0.000	0.000	0.000	0.000	0.122
38	0.004	0.057	0.000	0.075	0.343	0.000	0.429	0.000	0.000	0.000	0.910
40	0.294	0.484	0.858	1.091	0.958	0.181	0.449	0.273	0.000	0.000	4.592
TOTAL	2.176	2.947	3.878	4.334	8.948	4.492	4.498	3.919	5.341	26.646	67.284

Table No. 3.5.2

DIVISION - LOHIT. PER HECT. DISTRIBUTION OF CONSTRUCTION SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASS.
STRATUM - MISCELLANEOUS.

SPECIES CODE	DIAMETER CLASS (CM)										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
10	0.041	0.113	0.109	0.000	0.147	0.000	0.000	0.000	0.000	0.000	0.411
15	0.130	0.204	0.204	0.287	0.409	0.647	0.689	0.839	0.000	0.615	4.100
16	0.078	0.027	0.163	0.422	0.331	0.328	0.000	0.294	0.000	0.000	1.646
33	0.008	0.088	0.074	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.170
37	0.111	0.105	0.310	0.289	1.239	0.326	0.000	1.020	0.000	0.000	3.403
49	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021
50	0.004	0.071	0.126	0.221	0.343	0.158	0.211	0.325	0.000	0.000	1.462
TOTAL	0.395	0.691	0.988	1.220	2.471	1.460	0.900	2.478	0.000	0.615	11.224

Table No. 3.5.3

PER HECT. DISTRIBUTION OF OTHER SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASS (CM)

1	0.157	0.078	0.078	0.134	0.437	0.000	0.180	0.243	0.000	0.000	1.310
11	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.326	0.000	0.000	0.350
18	0.032	0.098	0.168	0.259	0.230	0.520	0.000	0.310	0.703	1.486	3.891
24	0.224	0.292	0.248	0.722	0.959	0.746	0.709	0.861	0.363	0.791	5.918
38	0.011	0.015	0.095	0.068	0.132	0.158	0.000	0.000	0.424	0.000	0.897
51	6.765	5.903	4.479	3.843	2.723	1.505	2.182	0.729	1.170	5.048	34.411
TOTAL	7.211	6.440	5.070	5.026	4.482	2.921	3.072	2.472	2.741	7.326	46.700

Table No. 3.5.4

DIVISION - LIGHT. PER HECT. DISTRIBUTION OF FURNITURE SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (IN CM.)

STRATUM - MISCELLANEOUS.

SPECIES	DIAMETER CLASSES (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
12	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-	-

Table No. 3.5.5

PER HECT. DISTRIBUTION OF MATCH SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASS (CM).

26	0.014	-	-	-	-	-	-	-	-	1.799	1.813
29	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-
31	0.010	-	0.096	-	-	0.140	0.187	-	-	-	0.471
32	0.023	-	0.139	-	0.093	-	-	-	-	-	0.255
TOTAL	0.095	-	0.235	-	0.093	0.140	0.187	-	-	1.799	2.539

Table No. 3.6.1

DIVISION - LOHIT. PER HECT. DISTRIBUTION OF PIN SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (CM.)

STRATUM - RIVERAIN.

SPECIES CODE	DIAMETER CLASSES (IN CM.)										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	Total
2	0.000	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.027
3	0.000	0.000	0.085	0.000	0.000	0.000	0.307	0.000	0.000	0.000	0.392
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.500	2.500
6	0.063	0.097	0.608	0.095	0.000	0.000	0.330	0.856	0.000	9.980	12.032
7	0.000	0.000	0.085	0.131	0.000	0.000	0.000	0.000	0.000	0.955	1.172
8	0.029	0.056	0.000	0.000	0.209	0.280	0.000	0.000	0.000	0.767	1.342
17	0.010	0.000	0.087	0.102	0.000	0.245	0.000	0.000	0.000	0.000	0.425
19	0.045	0.123	0.000	0.000	0.000	0.000	0.346	0.000	0.000	2.095	2.609
20	0.089	0.073	0.000	0.452	0.000	0.000	0.000	0.000	0.000	0.000	0.615
21	0.107	0.071	0.355	1.185	0.312	0.410	1.161	0.000	0.000	0.000	3.803
23	0.000	0.077	0.000	0.087	0.464	0.000	0.959	0.000	0.000	0.000	1.589
38	0.029	0.000	0.000	0.224	0.000	0.000	0.000	0.000	0.000	0.000	0.244
40	0.152	0.208	0.453	0.448	0.190	0.463	0.000	0.000	0.000	0.000	1.916
TOTAL	0.527	0.735	1.655	2.718	1.177	1.399	3.105	0.856	0.000	16.299	28.473

Table No. 3.6.2

DIVISION - LOHIT. PER HECT. DISTRIBUTION OF CONSTRUCTION SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (CM.)

STRATUM - RIVERAIN.

SPECIES CODE	DIAMETER CLASSES (CM)										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
15	0.028	0.051	0.189	0.322	0.000	0.000	0.320	0.000	0.000	0.000	0.913
16	0.000	0.000	0.000	0.000	0.000	0.000	0.320	0.000	0.000	0.000	0.320
33	0.000	0.000	0.061	0.127	0.361	0.000	0.000	0.000	0.000	0.000	0.550
37	0.055	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.661
TOTAL	0.084	0.051	0.251	0.449	0.361	0.000	1.267	0.000	0.000	0.000	2.446

Table No. 3.6.3

PER HECT. DISTRIBUTION OF OTHER SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (CM)

1	0.024	0.076	0.000	0.106	0.000	0.000	0.000	0.000	0.000	0.962	1.169
10	0.302	0.393	0.200	0.221	0.173	0.000	0.331	0.000	0.000	0.000	1.621
24	0.013	0.113	0.107	0.108	0.000	0.709	0.000	0.400	0.000	1.297	2.757
36	0.000	0.052	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.052
51	4.215	3.539	2.608	2.387	0.840	1.432	0.779	1.037	0.804	3.105	20.750
TOTAL	4.555	4.175	2.916	2.824	1.013	2.142	1.111	1.445	0.804	5.364	26.352

Table No. 3.6.4

DIVISION - LOMIT. PER HECT. DISTRIBUTION OF FURNITURE SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (in cm)

STRATUM - RIVERAIN.

SPECIES CODE	DIAMETER CLASSES (CM) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
12	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-	-

Table No. 3.6.5.

PER HECT. DISTRIBUTION OF MATCH SPECIES VOLUME(M^3) BY SPECIES AND DIAMETER CLASSES (in cm)

26	0.005	0.154	0.089	0.459	0.364	0.051	0.791	-	-	1.161	3.056
29	0.021	-	-	-	-	-	-	-	-	-	0.021
30	-	-	-	-	-	-	-	-	-	-	-
31	0.067	-	-	0.091	-	-	0.276	-	-	-	0.434
32	-	-	-	-	0.140	-	-	-	-	-	0.140
TOTAL	0.093	0.154	0.089	0.550	0.504	0.051	1.067	-	-	1.161	4.451

Table No. 3.7.1

DIVISION - CHANGLANG.

PER HECT. DISTRIBUTION OF PLY SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (IN CM.)

STRATUM - HOLLONG - MAKAI.

SPECIES CODE	DIAMETER CLASSES (CM) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
2	0.642	1.159	1.033	1.031	0.160	0.528	0.183	0.126	0.305	0.173	5.393
3	0.094	0.440	0.427	0.481	0.120	0.088	0.106	0.161	0.000	0.732	2.633
4	0.652	2.229	3.288	3.033	4.505	4.127	5.070	2.951	1.969	4.356	32.045
5	1.629	1.653	2.414	3.527	3.203	2.772	2.586	3.195	1.801	6.710	29.435
6	0.009	0.076	0.162	0.241	0.477	0.418	1.172	0.437	0.539	7.427	11.041
7	0.010	0.032	0.000	0.088	0.123	0.077	0.000	0.000	0.000	0.000	0.331
8	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014
9	0.046	0.071	0.118	0.090	0.063	0.165	0.000	0.000	0.000	0.000	0.557
17	0.146	0.400	0.489	0.659	0.214	0.080	0.346	0.000	0.198	0.693	3.213
19	0.110	0.308	0.179	0.198	0.000	0.076	0.404	0.000	0.000	0.000	1.350
20	0.324	0.399	0.870	0.800	0.577	0.000	0.000	0.000	0.000	0.068	3.040
21	0.200	0.104	0.000	0.253	0.259	0.490	0.432	0.000	0.000	0.581	2.319
22	0.013	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.075
25	0.014	0.012	0.063	0.029	0.000	0.063	0.000	0.242	0.000	0.000	0.425
28	0.000	0.000	0.000	0.339	0.000	0.077	0.000	0.000	0.000	0.000	0.116
38	0.021	0.043	0.027	0.097	0.053	0.173	0.125	0.288	0.177	0.000	1.000
40	0.141	0.341	0.212	0.315	0.115	0.000	0.000	0.000	0.000	0.000	1.129
TOTAL	4.151	7.343	9.239	11.719	10.033	9.149	10.491	7.404	4.072	21.522	95.936

Table No. 3.7.2

DIVISION - CHANGLANG

PER HECT. DISTRIBUTION OF CONSTRUCTION SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (CM)

STRATUM - HOLLONG - MAKAI.

SPECIES CODE	Diameter Classes (in cm.) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
10	0.150	0.487	0.557	0.358	0.076	0.000	0.000	0.186	0.000	0.000	2.296
13	0.023	0.009	0.025	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.104
15	0.517	1.012	0.963	0.860	0.466	0.257	0.453	0.275	0.386	0.219	5.432
16	0.099	0.144	0.142	0.297	0.266	0.326	0.233	0.000	0.000	0.000	1.510
33	0.013	0.055	0.007	0.205	0.228	0.084	0.100	0.000	0.000	0.000	0.775
37	0.151	0.214	0.204	0.085	0.000	0.164	0.000	0.251	0.000	0.000	1.072
49	0.096	0.023	0.060	0.000	0.000	0.078	0.000	0.000	0.000	0.000	0.253
50	0.021	0.043	0.068	0.059	0.059	0.000	0.000	0.000	0.000	0.000	0.252
TOTAL	1.069	1.970	2.109	2.411	1.117	0.913	0.787	0.713	0.386	0.219	11.894

Table No. 3.7.3

DIVISION - CHANGLANG.

PER HECT. DISTRIBUTION OF OTHER SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (CM)

STRATUM - HOLLONG - MAKAI.

SPECIES CODE.	DIAMETER CLASSES (IN CM.) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	0.024	0.039	0.040	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.132
11	0.000	0.000	0.000	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.030
14	0.017	0.048	0.014	0.000	0.060	0.075	0.000	0.139	0.198	0.000	0.554
18	0.027	0.050	0.141	0.036	0.113	0.179	0.226	0.000	0.000	0.000	0.776
24	0.050	0.095	0.001	0.134	0.103	0.194	0.000	0.000	0.000	0.000	0.739
34	0.000	0.034	0.038	0.117	0.103	0.000	0.089	0.000	0.000	0.000	0.383
35	0.021	0.028	0.074	0.000	0.000	0.000	0.100	0.000	0.000	0.000	0.224
36	0.030	0.076	0.193	0.260	0.245	0.000	0.130	0.141	0.000	0.000	1.078
51	8.250	7.793	5.131	3.232	2.015	1.802	0.068	0.404	0.149	0.901	30.560
TOTAL	8.423	8.107	5.765	3.039	2.722	2.051	1.416	0.765	0.348	0.901	34.477

Table No. 3.7.4

DIVISION - CHANGLANG.

STRATUM - HOLLONG - MIXED. PER HECT. DISTRIBUTION OF FURNITURE SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (IN CM.)

SPECIES CODE	DIAMETER CLASSES (CM) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
12	-	-	-	-	-	-	-	-	-	-	-
27	0.057	0.008	-	-	-	-	-	-	-	-	0.065
TOTAL	0.057	0.008	-	-	-	-	-	-	-	-	0.065

Table No. 3.7.5

DIVISION - CHANGLANG.

STRATUM - HOLLONG - MIXED. PER HECT. DISTRIBUTION OF MATCH SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (IN CM.)

28	0.002	-	-	-	-	-	-	-	-	-	0.002
29	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-
31	0.020	0.051	0.302	0.030	0.113	0.064	-	-	-	-	-
32	0.064	0.270	0.192	0.020	-	-	-	-	0.166	-	0.514
									-	-	0.493
TOTAL	0.086	.259	0.254	.067	0.113	0.064	-	-	0.166	-	1.009

Table No. 3.0.1

DIVISION - CHANGLANG.

PER HECT. DISTRIBUTION OF PLY SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (CM.)

STRATUM - MISCELLANEOUS.

SPECIES	DIAMETER CLASSES (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
2	0.809	1.399	1.802	1.325	0.957	0.790	0.439	0.008	0.000	0.654	9.057
3	0.218	0.267	0.551	0.553	0.376	0.000	0.273	0.129	0.136	0.244	2.750
4	0.096	0.203	0.193	0.465	0.705	0.479	0.240	0.326	0.000	0.000	2.711
5	0.116	0.067	0.161	0.147	0.241	0.328	0.000	0.000	0.000	0.000	1.062
6	0.058	0.076	0.166	0.230	0.678	1.059	1.137	1.340	0.980	6.077	12.806
7	0.015	0.096	0.099	0.057	0.044	0.057	0.000	0.000	0.000	0.000	0.369
8	0.044	0.053	0.080	0.000	0.048	0.129	0.000	0.000	0.000	0.000	0.354
9	0.002	0.085	0.091	0.050	0.000	0.106	0.076	0.000	0.424	0.101	1.178
17	0.099	0.108	0.183	0.326	0.552	0.329	0.356	0.543	0.151	0.219	2.072
19	0.108	0.170	0.283	0.429	0.449	0.328	0.090	0.582	0.137	0.945	3.533
20	0.293	0.660	0.958	0.645	0.463	0.477	0.644	0.000	0.000	0.699	4.844
21	0.267	0.306	0.677	0.500	0.355	0.252	0.485	0.903	0.771	0.496	5.156
22	0.375	0.241	0.169	0.065	0.079	0.000	0.000	0.000	0.000	0.000	0.931
25	0.012	0.150	0.493	0.411	0.266	0.222	0.132	0.196	0.000	0.143	2.721
28	0.025	0.131	0.090	0.240	0.144	0.061	0.000	0.081	0.000	0.000	0.777
38	0.044	0.043	0.132	0.268	0.311	0.118	0.450	0.430	0.000	1.412	3.207
40	0.102	0.100	0.457	0.444	0.096	0.148	0.000	0.117	0.000	0.000	1.347
TOTAL	2.850	4.541	6.591	6.229	5.772	4.970	4.314	5.534	2.602	11.075	55.278

Table No. 3.8.2

DIVISION - CHANGIANG.

PER HECT. DISTRIBUTION OF CONSTRUCTION SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (CM.)

STRATUM - MISCELLANEOUS.

SPECIES CODE	DIAMETER CLASSES (CM.) 1-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
10	0.043	0.154	0.093	0.427	0.195	0.088	0.000	0.000	0.000	0.000	1.212
13	0.028	0.011	0.031	0.035	0.000	0.058	0.000	0.000	0.000	0.000	0.165
15	0.652	1.754	2.173	1.450	0.566	0.792	0.330	0.000	0.127	0.200	8.047
16	0.110	0.512	0.539	0.423	0.674	0.437	0.445	0.217	0.000	0.501	3.633
33	0.012	0.068	0.253	0.257	0.345	0.322	0.166	0.000	0.301	0.000	1.729
37	0.100	0.173	0.408	0.318	0.533	0.118	0.477	0.000	0.000	0.000	2.202
49	0.037	0.005	0.013	0.023	0.000	0.000	0.000	0.000	0.000	0.250	0.331
50	0.035	0.100	0.128	0.155	0.039	0.000	0.002	0.000	0.000	0.000	0.542
TOTAL	1.101	2.500	3.638	3.092	2.564	1.815	1.502	0.217	0.429	0.952	17.860

Table No. 3.8.3

PER HECT. DISTRIBUTION OF OTHER SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (CM)

1	0.032	0.342	0.019	0.000	0.035	0.000	0.000	0.000	0.000	0.000	0.309
11	0.300	0.000	0.000	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.31
14	0.030	0.062	0.135	0.079	0.269	0.122	0.423	0.326	0.390	2.264	4.104
18	0.026	0.059	0.162	0.135	0.312	0.347	0.541	0.477	0.149	0.337	2.551
24	0.005	0.194	0.084	0.075	0.133	0.189	0.000	0.109	0.000	0.000	0.672
35	0.070	0.058	0.090	0.000	0.000	0.052	0.000	0.185	0.000	0.000	0.430
36	0.050	0.085	0.183	0.486	0.669	0.510	0.528	0.357	0.000	0.070	2.873
51	10.325	8.827	5.727	3.613	2.416	1.709	0.622	0.754	0.327	2.202	36.526
TOTAL	10.622	9.331	6.402	4.424	3.837	2.932	2.115	2.190	0.867	4.806	47.526

Table No. 3.8.4

DIVISION - CHANGLANG.
STRATUM - MISCELLANEOUS.

PER HECT. DISTRIBUTION OF FURNITURES SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (CM.)

SPECIES CODE	DIAMETER CLASS (cm) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
12	-	-	-	-	-	-	-	-	-	-	-
27	0.020	0.018	0.011	0.021	-	-	-	-	-	-	0.072
TOTAL	0.020	0.018	0.011	0.021	-	-	-	-	-	-	0.072

Table No. 3.8.5

PER HECT. DISTRIBUTION OF MATCH SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (CM)

28	0.007	-	-	-	-	-	0.110	-	0.102	1.090	1.309
29	-	-	-	0.022	-	-	-	-	-	-	0.022
30	0.006	0.010	-	0.026	-	-	-	-	-	0.209	0.252
31	0.005	0.017	0.027	0.064	0.037	-	0.074	-	-	-	0.244
32	0.028	0.056	0.037	-	0.035	-	0.078	-	-	-	0.234
TOTAL	0.046	0.083	0.064	0.112	0.072	-	0.262	-	0.102	1.299	2.121

Table No. 3.9.1

DIVISION - CHANGLANG.

PER HECT. DISTRIBUTION OF PLY WOOD SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (IN CM)

STRATUM - BAMBOO

SPECIES CODE	D I A M E T E R C L A S S E S (CM)										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
2	0.292	0.000	0.000	1.234	0.000	0.000	0.000	0.000	0.000	0.000	1.527
3	0.000	0.000	0.693	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.693
4	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020
6	0.000	0.415	0.000	1.367	0.000	2.864	4.404	0.000	0.000	0.000	9.051
17	0.183	0.380	1.530	0.000	0.000	2.763	0.000	0.000	0.000	0.000	4.837
19	0.244	0.269	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.514
40	0.099	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.099
TOTAL	0.820	1.065	2.224	2.601	0.000	5.627	4.404	0.000	0.000	0.000	16.743

Table No. 3.9.2

PER HEC. DISTRIBUTION OF CONSTRUCTION WOOD SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (IN CM)

10	0.000	0.307	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.307
15	0.276	0.206	0.532	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.015
TOTAL	0.276	0.514	0.532	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.323

Table No. 3.9.3

PER HEC. DISTRIBUTION OF OTHER SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (IN CM)

SPECIES CODE	DIAMETER CLASSES (CM) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	0.000	0.000	0.654	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.654
14	0.000	0.000	0.000	0.000	0.000	0.000	3.670	0.000	0.000	0.000	3.670
36	0.000	0.388	0.000	0.000	0.000	0.000	0.000	0.000	6.778	0.000	7.167
51	4.248	2.509	0.000	0.000	2.142	3.075	0.000	0.000	0.000	0.000	11.976
TOTAL	4.248	2.898	0.654	0.000	2.142	3.075	3.670	0.000	6.778	0.000	23.477

Table No. 3.9.4

DIVISION - CHANGLANG

STRATUM - BAMBOO

PER HEC. DISTRIBUTION OF MATCH SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (IN CM)

SPECIES CODE	DIAMETER CLASSES (CM) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	Total
26	-	-	0.529	-	2.060	-	-	-	-	-	2.590
29	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	0.529	-	2.060	-	-	-	-	-	2.590

Table No. 3.10.1

DIVISION - KHONSA.

PER HECT. DISTRIBUTION OF PLY SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (IN CM.)

STRATUM - HOLONG MAKAI.

SPECIES CODE	DIAMETER CLASSES (CM) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
2	0.463	0.783	1.000	0.706	0.421	0.574	0.162	0.000	0.229	0.000	4.338
3	0.204	0.627	0.889	0.619	0.960	0.623	0.175	0.502	0.000	0.000	4.599
4	0.977	2.502	4.217	8.168	11.861	14.492	12.950	12.956	5.788	5.506	79.614
5	1.497	2.227	2.702	4.291	3.997	8.096	6.117	3.997	0.841	8.587	42.152
6	0.020	0.044	0.000	0.048	0.094	0.000	0.194	0.220	0.287	1.434	2.341
7	0.029	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.076
8	0.024	0.015	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.078
9	0.015	0.014	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.066
17	0.008	0.000	0.180	0.063	0.000	0.000	0.000	0.000	0.000	0.000	0.251
19	0.028	0.093	0.027	0.269	0.486	0.414	0.000	0.000	0.000	0.000	1.317
20	0.672	0.818	0.685	0.403	1.539	0.000	1.326	0.000	0.000	0.000	5.443
21	0.092	0.000	0.189	0.000	0.411	0.000	0.000	0.000	0.000	0.000	0.672
22	2.235	0.697	0.092	0.254	0.000	0.000	0.000	0.000	0.491	0.000	3.769
25	0.000	0.000	0.000	0.000	0.073	0.237	0.000	0.000	0.237	0.000	0.547
38	0.003	0.045	0.072	0.206	0.297	0.286	0.000	0.226	0.000	0.922	2.037
40	0.007	0.025	0.043	0.068	0.000	0.000	0.000	0.000	0.000	0.000	0.143
TOTAL	8.274	7.939	10.199	15.133	20.129	24.702	20.924	17.901	7.673	16.549	147.443

Table No. 3.10.2

DIVISION - KHONSA. PER HECT. DISTRIBUTION OF CONSTRUCTION SPECIES VOLUME (M^3)
STRATUM - HOLLONG MAKAI. BY SPECIES AND DIAMETER CLASS (IN CM)

SPECIES CODE	DIAMETER CLASS (CM) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	Total
10	1.309	4.044	8.249	6.883	5.645	2.686	2.325	0.370	0.000	0.000	31.511
13	0.009	0.000	0.000	0.000	0.000	0.000	0.178	0.000	0.000	0.000	0.187
15	0.399	0.715	0.684	0.516	0.106	0.115	0.000	0.000	0.000	0.000	2.535
16	0.065	0.071	0.355	0.296	0.205	0.000	0.388	0.000	0.000	0.000	1.380
33	0.013	0.020	0.098	0.291	0.566	0.367	0.342	0.000	0.000	0.358	2.055
49	0.030	0.063	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.104
50	0.019	0.031	0.121	0.047	0.173	0.000	0.000	0.000	0.000	0.000	0.391
TOTAL	1.852	4.947	9.507	8.033	6.695	3.168	3.233	0.370	0.000	0.358	38.163

Table No. 3.10.3

PER HECT. DISTRIBUTION OF OTHER SPECIES VOLUME (M^3)
BY SPECIES AND DIAMETER CLASS (IN CM)

1	0.015	0.047	0.000	0.000	0.000	0.120	0.000	0.000	0.000	0.000	0.242
11	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009
14	0.010	0.000	0.033	0.000	0.414	0.130	0.356	0.254	0.000	1.882	3.029
18	0.039	0.030	0.113	0.058	0.218	0.121	0.046	0.252	0.000	0.000	1.377
35	0.000	0.000	0.128	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.128
36	0.007	0.000	0.031	0.130	0.296	0.165	0.178	0.000	0.000	0.000	0.816
51	16.890	14.426	8.463	3.147	2.102	1.153	0.744	0.384	0.517	0.635	48.520
TOTAL	16.979	14.503	8.826	3.344	3.030	1.689	2.124	0.890	0.517	2.517	54.421

Table No. 3.10.4
DIVISION - KHONSA.

PER HECT. DISTRIBUTION OF FURNITURE SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASSES (CM.)

STRATUM - HOLLONG MAKAI.

SPECIES CODE	DIAMETER CLASSES (CM) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
12	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-	-

Table No. 3.10.5

PER HECT. DISTRIBUTION OF MATCH SPECIES VOLUME (M^3) BY SPECIES AND DIAMETER CLASS (IN CM).

26	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	0.186	-	-	-	0.186
30	0.005	0 -	-	-	-	-	-	0.217	-	0.549	0.771
31	0.013	-	0.071	0.066	-	-	-	-	-	0.431	0.581
32	0.004	0.021	0.033	-	-	-	-	-	-	-	0.058
TOTAL	0.022	0.021	0.104	0.066	-	-	0.186	0.217	0.000	0.980	1.596

Table No. 3.11.1

PER HEC. DISTRIBUTION OF PIN WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASSES (IN CM)

Division - Lohit

ARUNACHAL PRADESH

STRATUM	Diameter Classes (in cm.) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
HOLLONG & MAKAI.(01)	-	-	2.602	4.879	7.543	9.818	6.433	7.112	4.889	19.990	63.266
MISCELLANEOUS (02)	-	-	1.376	2.860	7.024	3.849	4.092	3.546	4.060	24.514	52.121
RIVERAIN (04)	-	-	0.587	1.793	0.823	1.198	2.763	0.774	-	14.995	23.033

PER HEC. DISTRIBUTION OF RESIDUAL WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASSES (IN CM)

HOLLONG & MAKAI(01) -	4.034	2.032	1.441	0.913	0.630	0.361	0.385	0.241	0.869	11.806
MISCELLANEOUS (02) -	2.210	1.551	0.845	0.850	0.247	0.229	0.192	0.240	1.065	7.429
RIVERAIN (04) -	0.551	0.632	0.530	0.111	0.076	0.155	0.041	-	0.851	2.777

PER HEC. DISTRIBUTION OF SMALL WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASSES (IN CM)

HOLLONG & MAKAI (01) 5.798	1.345	1.797	1.073	1.154	1.009	0.435	0.362	0.248	0.870	12.006
MISCELLANEOUS (02) 2.176	0.737	0.951	0.629	1.074	0.396	0.277	0.181	0.241	1.087	7.729
RIVERAIN (04) 0.527	0.184	0.406	0.595	0.143	0.125	0.187	0.041	-	0.653	2.361

Table No. 3.11.2

DIVISION - LOHIT.

PER HEC. DISTRIBUTION OF CONST. VOLUME (M^3) BY STRATUM AND DIAMETER CLASSES (IN CM)

ARUNACHALPRADESH

STRATUM	Diameter Classes (in cm.) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
HOLLONG & MAKAI(01)	-	0.591	1.245	2.116	2.652	2.087	1.865	0.763	0.644	0.525	12.488
MISCELLANEOUS (02)	-	0.307	0.716	0.967	2.013	1.204	0.760	2.118	-	0.535	8.610
RIVERAIN (04)	-	0.022	0.181	0.352	0.294	-	1.070	-	-	-	1.919

PER HEC. DISTRIBUTION OF SMALL WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASSES (IN CM)

HOLLONG & MAKAI (01)	0.637	0.739	0.473	0.580	0.603	0.423	0.343	0.130	0.101	0.079	4.128
MISCELLANEOUS (02)	0.395	0.384	0.272	0.263	0.458	0.256	0.140	0.360	-	0.080	2.608
RIVERAIN (04)	0.064	0.029	0.070	0.097	0.067	-	0.197	-	-	-	0.524

Table No. 3.11.3

DIVISION - LOHIT PER HEC. DISTRIBUTION OF OTHER WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASSES (IN CM)

ARUNACHAL PRADESH

STRATUM	Diameter Classes (in cm.) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
HOLLONG & MAKAI (01)	-	4.317	7.347	6.197	5.554	5.786	3.509	4.605	2.056	3.541	42.912
MISCELLANEOUS (02)	-	2.418	3.625	4.349	4.145	2.760	2.933	2.385	2.672	7.179	32.436
RIVERAIN (04)	-	1.565	2.004	2.442	0.937	2.024	1.061	1.394	0.783	5.256	17.546

PER HEC. DISTRIBUTION OF SMALL WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASS (IN CM)

HOLLONG & MAKAI (01)	12.998	7.197	2.929	0.968	0.451	0.337	0.166	0.168	0.053	0.073	25.340
MISCELLANEOUS (02)	7.214	4.030	1.445	0.679	0.337	0.161	0.139	0.087	0.069	0.147	14.308
RIVERAIN (04)	4.555	2.610	0.832	0.302	0.076	0.118	0.050	0.051	0.021	0.108	8.803

Table No. 3.11.4

DIVISION - LOHIT. PER HEC. DISTRIBUTION OF MATCH WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASSES (IN CM)

ARUNACHAL PRADESH

STRATUM	Diameter Classes (in cm.) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
HOLLONG & MAKAI (01)	-	0.241	0.234	0.286	0.231	-	-	-	-	-	0.992
MISCELLANEOUS (02)	-	-	0.109	-	0.084	0.128	0.174	-	-	1.727	2.302
RIVERAIN (04)	-	0.105	0.055	0.482	0.456	0.778	0.997	-	-	1.114	3.986

PER HEC. DISTRIBUTION OF SMALL WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASSES (IN CM)

HOLLONG & MAKAI (01)	0.169	0.112	0.057	0.041	0.025	-	-	-	-	-	0.344
MISCELLANEOUS (02)	0.085	-	0.048	-	0.009	0.012	0.013	-	-	0.072	0.237
RIVERAIN (04)	0.093	0.049	0.014	0.069	0.048	0.073	0.070	-	-	0.047	0.463

Table No. 3.11.5

DIVISION - LOHIT

PER HEC. DISTRIBUTION OF FURNITURE WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASS (cm)

ARUNACHAL PRADESH

STRATUM	DIAMETER CLASSES (IN CM.) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
HOLLONG & MAKAI.	-	-	0.130	0.168	0.141	-	-	-	-	-	0.439
MISCELLANEOUS	-	-	-	-	-	-	-	-	-	-	-
RIVERAIN	-	-	-	-	-	-	-	-	-	-	-

PER HEC. DISTRIBUTION OF RESIDUAL WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASS (cm)

HOLLONG & MAKAI.	-	0.155	0.146	0.050	0.018	-	-	-	-	-	0.369
MISCELLANEOUS	-	-	-	-	-	-	-	-	-	-	-
RIVERAIN	-	-	-	-	-	-	-	-	-	-	-

PER HEC. DISTRIBUTION OF SMALLWOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASS (cm)

HOLLONG & MAKAI	0.184	0.052	0.090	0.037	0.023	-	-	-	-	-	0.306
MISCELLANEOUS	-	-	-	-	-	-	-	-	-	-	-
RIVERAIN	-	-	-	-	-	-	-	-	-	-	-

Table No. 8.12.1

DIVISION - CHANGLANG

PER HEC. DISTRIBUTION OF FIX VOLUME (M^3) BY STRATUM AND DIAMETER CLASSES (IN CM)

ARUNACHAL PRADESH

STRATUM	DIAMETER CLASSES (IN CM.) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
HOLLONG & MAKAI(01)	-	-	3.283	7.734	7.076	7.840	9.337	6.700	4.433	19.800	67.003
MISCELLANEOUS (02)	-	-	2.339	4.111	4.531	4.259	3.839	5.008	2.367	10.925	37.379
BAMBOO (03)	-	-	0.789	1.716	-	4.822	3.919	-	-	-	11.246

PER HEC. DISTRIBUTION OF RESIDUAL WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASSES (IN CM)

HOLLONG & MAKAI.	-	5.507	3.699	2.285	0.953	0.503	0.524	0.362	0.219	0.860	14.912
MISCELLANEOUS	-	3.405	2.636	1.214	0.504	0.273	0.215	0.271	0.117	0.475	9.154
BAMBOO	-	0.799	0.389	0.507	-	0.309	0.220	-	-	-	2.724

PER HEC. DISTRIBUTION OF SMALL WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASSES (IN CM)

HOLLONG & MAKAI	4.154	1.835	2.267	1.720	1.204	0.806	0.650	0.342	0.220	0.862	14.021
MISCELLANEOUS	2.850	1.136	1.016	0.901	0.693	0.438	0.2[illegible]	0.255	0.118	0.475	8.745
BAMBOO	0.820	0.286	0.548	0.378	-	0.496	0.235	-	-	-	2.791

Table No. 3.12.2

DIVISION - CHANGLANG.

PER HEC. DISTRIBUTION OF CONSTRUCTION WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASS (IN CM)

ARUNACHAL PRADESH

STRATUM	DIAMETER CLASSES (CM)										&
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
HOLLONG & MAKAI.	-	0.876	1.529	1.892	0.810	0.753	0.685	0.609	0.333	0.190	7.757
MISCELLA-NEOUS.	-	1.148	2.615	2.427	2.089	1.497	1.269	0.186	0.371	0.828	12.430
BAMBOO	-	0.229	0.386	-	-	-	-	-	-	-	0.615

PER HEC. DISTRIBUTION OF SMALL WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASS (IN CM)

HOLLONG & MAKAI.	1.069	1.094	0.580	0.519	0.207	0.160	0.122	0.104	0.053	0.029	3.937
MISCELLA-NEOUS.	1.101	1.432	0.998	0.665	0.475	0.318	0.233	0.031	0.058	0.124	5.430
BAMBOO	0.276	0.285	0.146	-	-	-	-	-	-	-	0.707

Table No. 3.12.3

DIVISION - CHANGLANG.

PER HEC. DISTRIBUTION OF OTHER WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASSES (IN CM.)

ARUNACHAL PRADESH

STRATUM	DIAMETER CLASSES (CM)										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
HOLLONG & MAKAI	-	3.062	4.121	3.320	2.517	1.938	1.352	0.730	0.339	0.961	18.348
MISCELLANEOUS	-	3.490	4.577	3.827	3.549	2.771	2.020	2.113	0.045	4.718	27.911
BAMBOO	-	1.067	0.267	-	1.981	2.905	3.512	-	6.608	-	16.560

PER HEC. DISTRIBUTION OF SMALL WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASSES (IN CM)

HOLLONG & MAKAI	8.423	5.105	1.644	0.519	0.205	0.113	0.064	0.027	0.009	0.020	16.129
MISCELLANEOUS	10.622	5.832	1.825	0.597	0.288	0.161	0.095	0.077	0.022	0.096	19.615
BAMBOO	4.248	1.811	0.187	-	0.161	0.170	0.166	-	0.170	-	6.913

Table No. 3.12.4

DIVISION - CHANGLANG

PER HEC. DISTRIBUTION OF MATCH WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASSES (IN CM.)

ARUNACHAL PRADESH

STRATUM	DIAMETER CLASSES (CM)										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100.+	Total
HOLLONG & MAKAI	-	0.177	0.204	0.058	0.102	0.058	-	-	0.158	-	0.757
MISCELLANEOUS	-	0.057	0.068	0.096	0.065	-	0.245	-	0.155	1.247	1.935
BAMBOO	-	-	0.425	-	1.871	-	-	-	-	-	2.296

PER HEC. DISTRIBUTION OF SMALL WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASS (IN CM)

HOLLONG & MAKAI	0.065	0.082	0.050	0.009	0.011	0.006	-	-	0.009	-	0.252
MISCELLANEOUS	0.046	0.026	0.016	0.014	0.007	-	0.017	-	0.007	0.052	0.185
BAMBOO	-	-	0.104	-	0.197	-	-	-	-	-	0.301

Table No. 3.12.5
DIVISION - SUBANSIRI

PER HEC. DISTRIBUTION OF FURNITURE WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASS (CM)

ARUNACHAL PRADESH

STRATUM	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	Total
HOLLONG & MAKAI	-	-	-	-	-	-	-	-	-	-	-
MISCELLANEOUS	-	-	0.004	0.014	-	-	-	-	-	-	0.018
BAMBOO	-	-	-	-	-	-	-	-	-	-	-

PER HEC. DISTRIBUTION OF RESIDUAL WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASS (CM)

HOLLONG & MAKAI	-	-	0.006	-	-	-	-	-	-	-	0.006
MISCELLANEOUS	-	0.014	0.004	0.005	-	-	-	-	-	-	0.023
BAMBOO	-	-	-	-	-	-	-	-	-	-	-

PER HEC. DISTRIBUTION OF SMALL WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASS (CM)

HOLLONG & MAKAI	0.057	0.032	-	-	-	-	-	-	-	-	0.089
MISCELLANEOUS	0.020	0.005	0.003	0.003	-	-	-	-	-	-	0.031
BAMBOO	-	-	-	-	-	-	-	-	-	-	-

Table No. 3.13.1

DIVISION - MONSA.

PER HEC. DISTRIBUTION OF PIN WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASS (IN CM)

ARUNACHAL PRADESH

STRATUM	DIAMETER CLASSES (CM)										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	Total
HOLLONG & MAKAI (01)	-	-	3.620	9.974	15.809	21.169	18.822	16.200	6.982	15.225	107.601

PER HEC. DISTRIBUTION OF RESIDUAL WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASS (IN CM)

HOLLONG & MAKAI (01)	-	5.076	4.079	2.947	1.913	1.358	1.046	0.877	0.345	0.661	19.202

PER HEC. DISTRIBUTION OF SMALL WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASS (IN CM)

HOLLONG & MAKAI (01)	6.274	1.993	2.500	2.192	2.417	2.175	1.256	0.824	0.346	0.663	20.460

Table No. 3.13.2

DIVISION - KHONSA

PER HEC. DISTRIBUTION OF CONSTRUCTION WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASS (IN CM)

ARUNACHAL PRADESH

STRATUM	DIAMETER CLASSES (CM)										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	Total
HOLLONG & MAKAI (01)	-	2.201	6.892	6.305	5.456	2.613	2.731	0.316	-	0.311	26.825

PER HEC. DISTRIBUTION OF SMALL WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASS (IN CM)

HOLLONG & MAKAI (01)	1.052	2.746	2.615	1.728	1.239	0.555	0.502	0.054	-	0.047	11.338

Table No.3.13.3

DIVISION - KHONSA.

PER HEC. DISTRIBUTION OF OTHER WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASS (IN CM)

STRATUM	DIAMETER CLASSES (IN CM.)										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	Total
HOLLONG & MAKAI (01)	-	5.430	6.312	2.892	2.802	1.596	2.028	0.058	0.504	2.486	24.098

PER HEC. DISTRIBUTION OF SMALL WOOD VOLUME (M^3) BY STRATUM & DIAMETER CLASS (IN CM)

HOLLONG & MAKAI (01)	16.979	9.065	2.516	0.452	0.228	0.093	0.096	0.032	0.013	0.051	29.525

Table No. 3.13.4

DIVISION - KHONSA

PER HEC. DISTRIBUTION OF MATCH WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASS (IN CM)

ARUNACHAL PRADESH

STRATUM	DIAMETER CLASSES (CM)										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	Total
HOLLONG &MAKAI (01)	-	0.014	0.083	0.057	-	-	0.173	0.205	-	0.940	1.472

PER HEC. DISTRIBUTION OF SMALL WOOD VOLUME (M^3) BY STRATUM AND DIAMETER CLASS (IN CM)

HOLLONG & MAKAI (01)	0.022	0.007	0.021	0.009	-	-	0.013	0.012	-	0.040	0.124

Table No. 3.14.1
DIVISION - LOHIT.

PER HEC. DISTRIBUTION OF VOLUME (M^3) BY UTILITY CLASS AND STRATUM

ARUNACHAL PRADESH

STRATUM.	PLY WOOD.	CONST.WOOD.	OTHER WOOD.	MATCH WOOD.	FURNITURE WOOD.	RESIDUAL WOOD.	SMALL WOOD.	TOTAL.
HOLLONG & MAKAI								
(01)	63.268	12.484	42.912	0.992	0.439	12.175	42.229	174.499
MISCELLANEOUS								
(02)	52.120	8.810	32.465	2.302	-	7.429	24.904	127.030
RIVERAIN(04)	23.032	1.919	17.546	3.986	-	2.777	12.464	61.724
TOTAL	45.035	7.013	30.016	2.447	0.140	7.145	26.469	121.615
DIVISION - CHANGLANG.								
HOLLONG& MAKAI								
(01)	67.003	7.757	18.348	0.757	-	14.918	32.420	143.203
MISCELLANEOUS								
(02)	37.379	12.430	27.911	1.935	0.018	9.177	34.030	122.879
BAMBOO (03)	11.246	0.615	16.560	2.296	-	2.724	10.701	44.142
TOTAL	32.243	9.860	24.103	0.865	0.011	9.948	31.495	119.340
DIVISION - KHONSA.								
HOLLONG & MAKAI								
(01)	107.601	26.825	24.896	1.472	-	19.202	61.627	241.62
TOTAL	107.601	26.825	24.896	1.472	-	19.202	61.627	241.62

Table No. 3.15.1

PER HEC. DISTRIBUTION OF VOLUME (M^3) BY UTILITY CLASS OVER THE PROJECT.

	PLY WOOD.	CONST.WOOD.	OTHER WOOD.	MATCH WOOD.	FURNITURE WOOD.	RESIDUAL WOOD.	SMALL WOOD.	TOTAL.
ARUNACHAL PRADESH	48.178	9.360	28.403	2.150	0.092	8.833	29.016	126.032

Table No. 4.1.1

DIVISION - LOHIT. TOTAL VOLUME (IN '000' M^3) BY SPECIES AND DIAMETER CLASS (IN CM.)

STRATUM - HOLLONG MAKAI.

SPECIES CODE	DIAMETER CLASSES (CM)										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	0.243	0.000	2.436	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.680
2	15.509	21.149	29.175	12.634	9.526	7.158	9.588	12.520	0.000	0.000	117.263
3	26.880	33.454	24.266	29.790	30.708	28.944	13.407	18.241	40.309	0.000	243.974
4	26.970	70.853	148.402	125.600	229.340	225.994	219.940	179.035	111.705	228.892	1597.547
5	38.980	45.350	61.136	80.015	67.179	109.021	57.950	68.664	0.000	101.447	630.254
6	5.630	4.279	4.206	19.826	28.746	46.037	15.543	72.825	58.871	223.976	477.943
7	0.000	0.000	3.078	0.000	5.522	0.000	0.000	0.000	0.000	0.000	8.600
8	1.425	5.501	1.868	4.308	6.765	0.000	11.616	0.000	0.000	0.000	31.483
9	2.307	2.991	0.000	0.000	0.000	9.777	11.243	0.000	0.000	0.000	26.320
10	11.501	27.551	26.416	24.289	26.215	13.498	18.866	21.757	0.000	0.000	170.088
11	5.786	7.126	11.264	3.133	12.417	9.174	0.000	31.866	21.410	38.213	140.693
14	0.333	1.637	4.881	12.800	18.463	9.835	12.455	60.095	21.881	62.721	205.104
15	10.966	18.624	14.534	20.638	11.828	15.548	13.359	0.000	21.745	0.000	127.145
16	4.312	7.427	6.766	34.883	45.368	53.092	25.278	13.729	17.930	2.113	240.962
17	0.427	0.608	3.586	0.000	0.000	0.000	0.000	0.000	21.045	241.397	267.066
18	3.033	0.000	3.078	4.005	25.291	25.580	0.000	46.006	0.000	34.822	141.518
19	8.493	9.128	9.017	8.932	23.444	9.796	0.000	14.545	0.000	93.715	177.074
20	53.323	54.250	67.017	64.132	47.922	71.418	0.000	25.176	0.000	0.000	383.243

SPECIES	DIAMETER CLASSES (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
21	19.345	27.749	15.265	24.503	43.802	66.002	24.301	26.369	36.221	115.122	398.492
23	0.000	1.837	2.204	0.000	5.882	7.428	0.000	0.000	17.717	0.000	35.074
24	2.731	1.230	13.934	7.071	10.998	26.469	24.279	0.000	20.021	0.000	114.737
26	0.540	0.000	0.000	0.000	8.602	0.000	0.000	0.000	0.000	0.000	9.150
27	5.502	11.024	19.518	13.543	9.607	0.000	0.000	0.000	0.000	0.000	59.276
29	2.410	14.006	10.799	7.904	0.000	0.000	0.000	0.000	0.000	0.000	36.009
30	0.756	0.000	0.000	5.907	0.000	0.000	0.000	0.000	0.000	0.000	6.663
31	0.712	1.742	2.371	3.520	0.000	0.000	0.000	0.000	0.000	0.000	8.346
32	1.461	2.306	2.436	0.000	5.004	0.000	0.000	0.000	0.000	0.000	11.208
33	1.705	8.932	16.506	42.505	27.009	42.727	47.737	0.000	0.000	0.000	187.204
34	0.000	0.754	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.754
35	4.885	0.988	0.000	0.000	4.896	0.000	0.000	0.000	0.000	0.000	10.770
36	1.440	0.000	6.822	0.350	0.000	0.000	11.104	0.000	0.000	0.000	27.717
37	4.929	4.140	22.038	19.830	40.553	0.000	0.000	0.000	0.000	0.000	88.492
38	0.433	0.000	2.351	4.627	0.000	0.000	11.755	0.000	0.000	151.551	170.716
40	2.378	8.542	10.513	19.013	12.767	0.000	11.273	0.000	0.000	0.000	72.487
49	0.204	0.000	0.000	0.000	0.000	0.000	0.000	12.077	0.000	0.000	12.282
50	0.312	4.134	5.107	4.312	22.256	9.777	12.278	0.000	0.000	0.000	58.259
51	673.127	600.911	504.358	345.766	239.439	254.618	147.714	115.306	48.797	56.334	2987.553
TOTAL	939.088	999.540	1063.443	949.605	1027.430	1069.984	697.690	719.698	437.756	1300.576	9204.210

Table No. 4.1.2

DIVISION - LOUIT. TOTAL VOLUME (000 M^3) BY SPECIES AND DIAMETER CLASS (IN CM)
STRATUM - MISCELLANEOUS.

SPECIES	D I A M E T E R C L A S S (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	9.273	4.656	4.637	7.912	25.825	0.000	10.627	14.377	0.000	0.000	77.311
2	8.345	5.408	0.000	8.004	5.122	0.000	0.000	0.000	0.000	0.000	26.880
3	4.982	13.943	14.985	5.511	8.239	17.585	13.652	17.660	87.570	155.817	340.030
4	2.365	7.768	14.630	46.326	38.749	62.985	39.358	48.105	0.000	0.000	260.590
5	23.833	34.689	22.745	39.947	126.372	78.178	31.332	0.000	48.198	68.135	475.431
6	4.325	4.926	2.059	13.223	30.820	28.649	25.886	0.000	0.000	342.000	452.491
7	0.000	0.000	0.000	8.028	7.210	11.035	0.000	0.000	21.194	0.000	47.468
8	2.253	2.848	9.321	4.126	15.435	9.667	11.937	20.220	0.000	250.114	325.915
9	6.875	3.585	12.496	4.442	0.000	0.000	11.367	0.000	0.000	0.000	38.767
10	2.440	6.716	6.435	0.000	8.673	0.000	0.000	0.000	0.000	0.000	24.265
11	1.384	0.000	0.000	0.000	0.000	0.000	0.000	19.269	0.000	0.000	20.653
15	7.668	16.730	12.082	16.962	24.156	38.189	40.641	49.495	0.000	36.311	242.289
16	4.642	1.633	9.632	24.897	19.578	19.344	0.000	17.357	0.000	0.000	97.087
17	2.893	7.842	20.266	7.531	44.338	20.167	12.650	0.000	21.073	189.537	326.302
18	1.910	5.811	9.957	15.330	13.582	30.896	0.000	18.341	46.198	87.861	229.508
19	1.872	5.297	0.000	0.000	11.983	9.833	0.000	35.105	21.441	207.757	293.292
20	9.258	29.827	35.851	19.970	58.306	0.000	47.678	65.709	41.339	0.000	307.940

SPECIES	DIAMETER CLASS (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
21	42.590	25.708	45.753	29.336	97.720	16.181	25.984	28.234	74.175	358.137	743.822
23	0.545	0.000	0.000	0.000	6.655	0.000	0.000	0.000	0.000	0.000	7.200
24	13.212	17.253	14.658	42.589	56.571	44.005	41.870	50.781	21.441	46.658	349.048
26	0.840	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	106.105	106.945
31	2.879	0.000	5.696	0.000	0.000	8.314	11.035	0.000	0.000	0.000	27.965
32	1.366	0.000	8.250	0.000	5.531	0.000	0.000	0.000	0.000	0.000	15.148
33	0.494	5.190	4.395	0.000	0.000	0.000	0.000	0.000	0.000	0.000	10.079
36	0.683	0.918	5.611	4.011	7.789	8.859	0.000	0.000	25.055	0.000	52.928
37	6.582	6.218	18.297	17.059	73.096	19.270	0.000	60.165	0.000	0.000	200.691
38	0.254	3.405	0.000	2.442	20.270	0.000	25.352	0.000	0.000	0.000	53.725
40	17.374	28.583	50.633	84.349	56.511	10.684	25.972	16.122	0.000	0.000	270.231
49	1.264	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.264
50	0.240	4.242	7.462	13.086	20.262	9.328	12.462	19.171	0.000	0.000	86.257
51	398.960	351.688	264.186	226.690	180.609	88.759	128.698	43.046	69.004	297.758	2029.421
TOTAL	582.234	594.943	600.047	624.170	943.415	531.716	516.538	523.165	476.695	2146.013	7538.936

Table No. 4.1.3
DISTRICT - LOHIT
STRATUM - RIVERAIN

TOTAL VOLUME (IN 000 M^3) BY SPECIES AND DIAMETER CLASS WISE (IN CM)

SPECIES CODE	DIAMETER CLASS (CM)									
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	1.349	4.274	0.000	5.941	0.000	0.000	0.000	0.000	0.000	53.739	65.304
2	0.000	1.527	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.527
3	0.000	0.000	4.758	0.000	0.000	0.000	17.166	0.000	0.000	0.000	21.924
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	139.596	139.596
6	3.560	5.423	33.978	5.310	0.000	0.000	18.439	47.833	0.000	557.194	671.740
7	0.000	0.000	4.758	7.314	0.000	0.000	0.000	0.000	0.000	53.368	65.442
8	1.637	3.152	0.000	0.000	11.704	15.368	0.000	0.000	0.000	42.832	74.965
15	1.598	2.897	10.563	18.011	0.000	0.000	17.906	0.000	0.000	0.000	50.976
16	0.000	0.000	0.000	0.000	0.000	0.000	17.906	0.000	0.000	0.000	17.906
17	0.582	0.000	3.752	5.744	0.000	13.694	0.000	0.000	0.000	0.000	23.754
18	16.877	21.961	11.175	12.376	9.664	0.000	18.495	0.000	0.000	0.000	90.550
19	2.517	6.914	0.000	0.000	0.000	0.000	19.316	0.000	0.000	116.945	145.694
20	4.984	4.127	0.000	25.282	0.000	0.000	0.000	0.000	0.000	0.000	34.375
21	5.988	3.997	19.842	36.176	17.437	22.911	64.847	0.000	0.000	0.000	201.201
23	0.000	4.345	0.000	4.894	25.928	0.000	53.587	0.000	0.000	0.000	88.745
24	0.738	6.356	6.011	6.039	0.000	39.588	0.000	22.786	0.000	72.437	155.955
26	0.287	8.630	3.881	25.659	20.326	47.534	44.173	0.000	0.000	64.822	215.314
29	1.181	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.181
31	3.741	0.000	0.000	5.082	0.000	0.000	15.432	0.000	0.000	0.000	24.257
32	0.000	0.000	0.000	0.000	7.859	0.000	0.000	0.000	0.000	0.000	7.859
33	0.000	0.000	3.457	7.107	20.191	0.000	0.000	0.000	0.000	0.000	30.756
36	0.000	2.912	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.912
37	1.997	0.000	0.000	0.000	0.000	0.000	34.934	0.000	0.000	0.000	36.932
38	1.653	0.000	0.000	11.996	0.000	0.000	0.000	0.000	0.000	0.000	13.649
40	8.524	11.552	25.324	25.043	10.559	25.867	0.000	0.000	0.000	0.000	103.981
51	235.332	197.591	145.614	133.315	46.916	79.977	43.516	57.899	44.928	173.359	1158.450
TOTAL	292.534	285.867	273.121	365.276	170.678	245.206	365.722	128.519	44.928	1274.293	3445.944

Table No. 4.2.1

DIVISION - CHANGLANG.
STRATUM - HOLLONG MAKAI.

TOTAL VOLUME (in '000 M^3) BY SPECIES AND DIAMETER CLASSES (IN CM)

SPECIES CODE	DIAMETER CLASS (CM) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	0.541	0.856	0.890	0.604	0.000	0.000	0.000	0.000	0.000	0.000	2.891
2	13.984	25.249	22.810	23.566	3.490	11.507	3.996	2.758	6.664	3.770	117.492
3	2.054	9.585	9.317	10.063	2.617	1.817	2.324	3.516	0.000	15.961	57.364
4	14.208	48.560	71.195	83.509	99.888	89.914	110.457	64.303	42.913	94.898	719.845
5	35.501	36.025	52,597	76.851	71.516	60.397	55.908	69.603	36.636	146.174	641.208
6	1.942	1.661	3.533	5.261	10.393	9.118	25.547	9.533	11.752	161.790	240.530
7	0.218	0.709	0.000	1.920	2.664	1.698	0.000	0.000	0.000	0.000	7.229
8	0.137	0.184	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.321
9	1.021	1.565	2.590	1.961	1.382	3.609	0.000	0.000	0.000	0.000	12.138
10	3.277	10.180	12.139	18.707	1.662	0.000	0.000	4.063	0.000	0.000	50.028
11	0.000	0.000	0.000	0.672	0.000	0.000	0.000	0.000	0.000	0.000	0.672
13	0.514	0.211	0.566	0.982	0.000	0.000	0.000	0.000	0.000	0.000	2.273
14	0.570	1.053	0.315	0.000	1.328	1.857	0.000	5.058	4.328	0.000	12.067
15	11.276	22.055	20.980	18.742	10.590	5.618	9.886	5.985	8.413	4.772	118.327
16	2.178	3.146	3.087	6.477	5.807	7.121	5.077	0.000	0.000	0.000	32.903
17	3.194	8.735	10.232	14.372	4,680	1.757	7.588	0.000	4.326	15.109	69.993
18	0.602	1.110	3.086	0.789	2.479	3.906	4.944	0.000	0.000	0.000	16.916
19	2.407	6.719	3.915	4.332	0.000	1.668	10.559	0.000	0.000	0.000	29.800
20	7.668	8.705	18.966	17.431	12.585	0.000	0.000	0.000	0.000	18.911	83.668
21	4.535	2.275	0.000	5.514	5.657	10.879	9.429	0.000	0.000	12.232	50.521

SPECIES CODE	DIAMETER CLASSES (CM) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
22	0.297	1.345	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.642
24	1.109	2.087	1.764	2.921	3.989	4.232	0.000	0.000	0.000	0.000	16.102
25	0.311	0.266	1.393	0.635	0.000	1.381	0.000	5.291	0.000	0.000	9.277
26	0.058	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.058
27	1.250	0.184	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.434
28	0.000	0.000	0.000	0.852	0.000	1.693	0.000	0.000	0.000	0.000	2.545
31	0.448	1.128	1.367	0.834	2.475	1.404	0.000	0.000	3.621	0.000	11.277
32	1.396	4.533	4.184	0.650	0.000	0.000	0.000	0.000	0.000	0.000	10.763
33	0.229	1.211	1.888	4.471	4.983	1.839	2.197	0.000	0.000	0.000	16.998
34	0.000	0.748	0.840	2.558	2.257	0.000	1.955	0.000	0.000	0.000	8.358
35	0.477	0.619	1.616	0.000	0.000	0.000	2.178	0.000	0.000	0.000	4.890
36	0.664	1.669	4.205	5.684	5.337	0.000	2.849	3.091	0.000	0.000	23.499
37	3.300	4.666	4.465	1.859	0.000	3.592	0.000	5.476	0.000	0.000	23.358
38	0.464	0.940	0.600	2.133	1.174	3.772	2.723	6.288	3.856	0.000	21.958
40	3.147	7.447	4.637	6.876	2.506	0.000	0.000	0.000	0.000	0.000	24.613
49	1.980	0.513	1.319	0.000	0.000	1.718	0.000	0.000	0.000	0.000	5.530
50	0.473	0.948	1.495	1.290	1.302	0.000	0.000	0.000	0.000	0.000	5.508
51	179.719	169.777	112.886	70.405	43.805	34.910	18.919	10.554	3.261	21.385	665.718
TOTAL	300.447	386.579	378.604	392.956	304.697	265.288	267.543	193.514	125.772	485.007	3119.514

Table No.4.2.2

DIVISION - CHANGLANG
STRATUM - MISCELLANEOUS.

TOTAL VOLUME (in '000' M^3) BY SPECIES AND DIAMETER CLASSES (IN CM)

SPECIES	DIAMETER CLASSES (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	1.649	2.167	1.002	0.000	1.814	0.000	0.000	0.000	0.000	0.000	6.334
2	41.634	71.926	92.648	71.753	49.229	40.615	22.582	41.563	0.000	33.666	465.821
3	11.224	13.767	28.342	28.647	19.338	0.000	14.037	6.680	7.004	12.574	141.417
4	4.975	10.418	9.935	23.934	36.282	24.634	12.367	16.803	0.000	0.000	139.382
5	5.990	3.456	8.282	7.579	12.407	16.902	0.000	0.000	0.000	0.000	54.619
6	3.001	3.927	8.545	11.869	34.872	54.487	58.464	68.929	50.423	353.537	648.059
7	0.776	4.936	5.093	2.970	2.270	2.962	0.000	0.000	0.000	0.000	19.010
8	2.262	2.769	4.162	0.000	2.411	6.637	0.000	0.000	0.000	0.000	18.243
9	4.219	4.389	4.698	2.800	0.000	9.606	3.921	0.000	21.829	9.327	60.591
10	2.236	7.922	4.800	21.983	20.857	4.534	0.000	0.000	0.000	0.000	62.336
11	0.000	0.000	0.000	1.635	0.000	0.000	0.000	0.000	0.000	0.000	1.636
13	1.460	0.577	1.621	1.835	0.000	3.015	0.000	0.000	0.000	0.000	8.511
14	1.550	3.193	6.940	4.112	13.866	6.312	21.756	16.759	20.096	116.421	211.010
15	33.549	90.184	111.740	74.545	29.100	40.735	16.993	0.000	6.566	10.289	413.706
16	5.678	16.069	26.215	21.793	34.676	22.475	22.914	11.173	0.000	25.777	186.774
17	5.117	5.558	9.420	16.803	28.027	16.948	18.340	27.934	7.800	11.299	147.651
18	1.383	3.079	8.548	6.983	16.083	17.884	17.813	24.539	7.675	17.367	131.156
19	5.803	8.743	14.555	22.099	23.073	16.879	5.038	29.939	7.066	48.623	181.643
20	15.110	33.972	49.271	33.186	23.849	24.563	33.123	0.000	0.000	35.954	249.031
21	13.751	19.892	34.823	25.704	18.284	12.978	23.929	50.579	39.636	25.526	265.108

SPECIES	DIAMETER CLASSES (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
22	19.290	12.410	8.701	3.368	4.109	0.000	0.000	0.000	0.000	0.000	47.880
24	4.381	10.014	4.341	3.888	6.871	9.750	0.000	5.808	0.000	0.000	44.856
25	0.827	7.722	25.376	21.144	13.711	11.436	6.823	9.689	0.000	7.387	103.921
26	0.406	0.000	0.000	0.000	0.000	0.000	5.672	0.000	8.347	56.078	70.504
27	1.048	0.938	0.614	1.108	0.000	0.000	0.000	0.000	0.000	0.000	3.709
28	1.319	6.748	4.662	12.383	7.448	3.177	0.000	4.209	0.000	0.000	39.950
29	0.000	0.000	0.000	1.173	0.000	0.000	0.000	0.000	0.000	0.000	1.173
30	0.332	0.556	0.000	1.363	0.000	0.000	0.000	0.000	0.000	10.770	13.023
31	0.289	0.882	2.429	3.325	1.919	0.000	3.849	0.000	0.000	0.000	12.686
32	1.445	2.915	1.948	0.000	1.849	0.000	4.053	0.000	0.000	0.000	12.214
33	0.660	3.506	13.054	13.245	17.746	16.582	8.584	0.000	15.511	0.000	88.894
35	3.649	3.034	4.633	0.000	0.000	2.695	0.000	8.524	0.000	0.000	22.510
36	2.582	4.384	9.458	25.103	34.408	26.240	27.165	18.400	0.000	0.000	147.744
37	9.262	8.922	20.731	16.382	27.402	6.001	24.536	0.000	0.000	0.000	113.240
38	2.264	2.249	6.822	13.528	16.038	6.087	23.158	22.132	0.000	72.606	164.838
40	9.378	20.570	23.500	22.868	4.996	7.620	0.000	6.056	0.000	0.000	94.930
50	1.829	5.174	6.610	7.998	2.047	0.000	4.229	0.000	0.000	0.000	27.891
51	530.822	453.834	294.431	185.742	124.211	67.871	32.011	38.778	16.022	113.251	1877.778
TOTAL	752.718	851.127	858.490	713.682	629.599	499.638	421.386	408.304	208.801	973.341	6317.079

Table No. 4.2.3

DIVISION - CHANGLANG.

STRATUM - BAMBOO.

TOTAL VOLUME (in '000 m^3) BY SPECIES AND DIAMETER CLASSES (IN CM)

SPECIES CODE	DIAMETER CLASSES (CM)										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	0.000	0.000	6.109	0.000	0.000	0.000	0.000	0.000	0.000	0.000	6.109
2	2.734	0.000	0.000	11.522	0.000	0.000	0.000	0.000	0.000	0.000	14.256
3	0.000	0.000	6.474	0.000	0.000	0.000	0.000	0.000	0.000	0.000	6.474
4	0.187	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.187
6	0.000	3.877	0.000	12.761	0.000	26.732	41.106	0.000	0.000	0.000	84.474
10	0.000	2.872	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.875
14	0.000	0.000	0.000	0.000	0.000	0.000	34.329	0.000	0.000	0.000	34.329
15	2.581	1.925	4.971	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.479
17	1.322	3.547	14.282	0.000	0.000	25.792	0.000	0.000	0.000	0.000	45.144
19	2.282	2.517	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.799
26	0.000	0.000	4.940	0.000	19.307	0.000	0.000	0.000	0.000	0.000	24.248
36	0.000	3.630	0.000	0.000	0.000	0.000	0.000	0.000	63.268	0.000	66.898
40	0.930	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.932
51	39.849	23.423	0.000	0.000	19.996	28.702	0.000	0.000	0.000	0.000	111.773
TOTAL	49.886	41.795	36.776	24.285	39.306	81.226	75.433	0.000	63.268	0.000	411.977

Table No. 4.3.1
DIVISION - KHONSA. ESTIMATION OF VOLUME (in '000'M^3) BY SPECIES AND DIAMETER CLASS (in cm.)
STRATUM - HOLLONG MAKAI.

SPECIES CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
1	0.224	0.680	0.877	-	-	1.740	-	-	-	-	3.521
2	6.695	11.314	14.445	10.210	6.092	8.303	2.341	-	3.319	-	62.719
3	2.951	9.058	12.850	8.953	13.877	9.000	2.536	7.250	-	-	66.475
4	14.111	37.283	60.915	118.243	171.308	209.309	187.041	187.124	83.599	80.976	1149.909
5	21.635	32.165	39.032	61.988	57.736	116.934	88.360	57.732	9.271	124.023	608.876
6	0.300	0.649	-	0.705	1.371	-	2.805	3.179	4.145	20.722	33.874
7	0.420	-	0.683	-	-	-	-	-	-	-	1.103
8	0.348	0.226	0.572	-	-	-	-	-	-	-	1.146
9	0.229	0.210	0.537	-	-	-	-	-	-	-	0.976
10	18.906	58.413	19.143	99.416	81.537	38.804	33.581	5.350	-	-	455.150
11	0.134	-	-	-	-	-	-	-	-	-	0.134
13	0.134	-	-	-	-	-	2.575	-	-	-	2.709
14	0.153	-	0.487	-	5.980	1.889	5.142	3.669	-	26.466	43.786
15	5.764	10.336	9.885	7.464	1.544	1.663	-	-	-	-	36.659
16	0.946	1.031	5.128	4.280	2.972	-	5.610	-	-	-	19.967
17	0.117	-	2.599	0.915	-	-	-	-	-	-	3.331
18	0.571	0.435	1.639	0.846	3.158	1.761	12.225	3.639	-	-	24.273
19	0.406	1.353	0.397	3.893	7.032	5.966	-	-	-	-	19.057
20	9.717	11.824	9.894	5.831	22.239	-	19.164	-	-	-	78.669
21	1.337	-	2.444	-	5.938	-	-	-	-	-	9.719
22	32.285	10.089	1.339	3.760	-	-	-	-	7.103	-	54.466
25	-	-	-	-	1.055	3.427	-	-	3.430	-	7.912
29	-	-	-	-	-	-	2.693	-	-	-	2.393
30	0.075	-	-	-	-	-	-	3.139	-	7.941	11.155
31	0.193	-	1.027	0.954	-	-	-	-	-	6.230	8.404

SPECIES	DIAMETER CLASSES (CM)										
CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
32	0.060	0.308	0.484	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.852
33	0.060	0.299	1.420	4.203	8.181	5.313	4.949	0.000	0.000	5.175	29.732
35	0.000	0.000	1.858	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.858
36	0.114	0.000	0.457	2.017	4.287	2.385	2.575	0.000	0.000	0.000	11.835
38	0.044	0.665	1.043	2.981	4.297	3.845	0.000	3.265	0.000	13.317	29.447
40	0.103	0.369	0.626	0.984	0.000	0.000	0.000	0.000	0.000	0.000	2.082
49	0.560	0.955	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.515
50	0.282	0.452	1.757	0.683	2.499	0.000	0.000	0.000	0.000	0.000	5.673
51	244.083	208.357	122.238	45.458	30.359	16.660	10.752	5.552	7.470	9.886	700.825
TOTAL	362.938	396.345	413.618	383.548	431.326	426.921	382.263	279.761	118.288	294.753	3489.764

Table No.4.4.1
DIVISION - LOHIT. TOTALPIN WOOD VOLUME (in '000 M^3) BY STRATUM & DIAMETER CLASS (IN CM)

ARUNACHAL PRADESH

STRATUM	DIAMETER CLASS (cm.) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	Total
HOLLONG & MAKAI (01)	-	-	138.438	259.586	401.430	522.364	342.266	378.392	260.118	1063.564	3366.158
MISCELLANEOUS (02)	-	-	81.149	168.668	414.239	226.994	241.325	209.124	286.617	1445.709	5073.825
RIVERAIN (04)	-	-	52.771	100.098	51.529	66.881	154.251	43.210	-	837.132	1285.872
ALL	-	-	252.358	528.352	867.198	818.239	737.842	630.725	546.735	3346.406	7725.855

TOTAL RESIDUAL WOOD VOLUME (in '000 M^3) BY STRATUM & DIAMETER CLASS (IN CM)

HOLLONG & MAKAI (01)	-	214.688	155.996	76.668	48.576	33.519	19.207	20.484	12.822	46.235	620.135
MISCELLANEOUS (02)	-	130.334	91.470	49.834	50.129	14.567	13.505	11.323	14.154	42.808	438.124
RIVERAIN (04)	-	30.761	36.958	29.588	6.197	4.243	8.653	2.209	-	36.344	155.035
ALL	-	375.723	284.424	156.090	104.902	52.329	41.365	34.096	26.976	145.387	1221.292

TOTAL SMALL WOOD VOLUME (in '000 M^3) BY STRATUM & DIAMETER CLASS (IN CM)

HOLLONG & MAKAI (01)	202.072	71.560	95.609	57.189	61.398	53.684	23.244	19.360	12.928	46.388	643.432
MISCELLANEOUS (02)	128.329	43.464	56.085	37.195	63.349	23.465	16.446	10.674	14.323	62.936	456.266
RIVERAIN (04)	29.421	10.372	22.666	22.152	7.983	6.978	10.441	2.209	-	36.465	148.737
ALL	359.822	125.396	174.360	116.536	132.730	84.127	50.131	32.323	27.251	145.789	1248.465

Table No. 4.4.2
DIVISION - LOHIT. TOTAL CONSTRUCTIONAL WOOD VOLUME (in '000 M^3) BY STRATUM & DIAMETER CLASS (IN CM)

ARUNACHAL PRADESH

STRATUM	DIAMETER CLASS (cm.)										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	Total
HOLLONG & MAKAI (01)	-	31.224	66.240	112.581	141.099	11.038	99.227	40.595	34.264	27.932	664.200
MISCELLANEOUS (02)	-	18.105	42.226	59.439	118.716	71.006	44.821	124.908	-	31.551	507.772
RIVERAIN (04)	-	1.228	10.105	19.651	16.413	-	59.735	-	-	-	107.132
TOTAL	-	50.557	118.571	188.671	276.228	182.044	203.783	165.503	34.264	59.483	1279.104

TOTAL SMALL WOOD VOLUME (in '000 M^3) BY STRATUM & DIAMETER CLASS (IN CM)

HOLLONG & MAKAI (01)	33.891	39.328	25.267	30.858	32.283	23.669	18.349	6.928	5.375	4.325	220.273
MISCELLANEOUS (02)	23.395	22.656	16.061	15.522	27.122	15.197	8.266	21.353	-	4.718	154.290
RIVERAIN (04)	3.573	1.619	3.928	5.558	3.765	-	10.999	-	-	-	29.442
TOTAL	60.859	63.603	45.256	51.937	63.170	38.866	37.614	28.281	5.375	9.043	404.005

Table No.4.4.3
DIVISION - LOHIT. TOTAL ESTIMATION OF OTHER WOOD VOLUME (in '000' M^3) BY STRATUM & DIAMETER CLASS (IN CM)

ARUNACHAL PRADESH

STRATUM	DIAMETER CLASS (cm.)										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	Total
HOLLONG & MAKAI (01)	-	229.685	390.896	329.710	295.499	307.843	186.696	245.008	109.389	188.398	2283.124
MISCELLANEOUS (02)	-	142.601	213.784	256.482	244.451	162.771	172.973	140.655	167.581	423.380	1914.678
RIVERAIN (04)	-	87.370	116.344	136.330	52.310	112.995	59.233	77.823	43.713	293.429	979.547
TOTAL	-	459.656	721.024	722.522	592.260	583.609	418.902	463.486	310.683	905.207	5177.349

TOTAL SMALL WOOD VOLUME (in '000' M^3) BY STRATUM & DIAMETER CLASS (IN CM)

HOLLONG & MAKAI (01)	691.556	382.915	155.837	51.612	23.995	17.930	8.932	8.938	2.821	3.984	1348.520
MISCELLANEOUS (02)	425.444	237.608	85.218	40.156	19.876	9.496	8.298	5.233	4.169	8.689	844.227
RIVERAIN (04)	254.294	145.709	46.448	21.426	4.245	8.588	2.793	2.849	1.175	6.129	491.654
TOTAL	1371.294	766.292	287.503	113.194	48.116	34.014	20.023	17.020	8.183	18.782	2684.401

Table No. 4.4.4

DIVISION - LOHIT.

TOTAL MATCH WOOD VOLUME (in '000 M^3) BY STRATUM AND DIAMETER CLASS (IN CM)

ARUNACHAL PRADESH

STRATUM	DIAMETER CLASSES (in cm.)										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
HOLLONG & MAKAI (01)	-	12.822	12.450	15.216	12.290	-	-	-	-	-	52.778
MISCELLANEOUS (02)	-	-	11.146	-	4.954	7.549	10.262	-	-	101.849	135.760
RIVERAIN (04)	-	5.862	3.070	26.853	25.457	43.434	55.660	-	-	62.192	222.528
TOTAL	-	18.684	26.666	42.069	42.701	50.083	65.922	-	-	164.041	411.066

TOTAL SMALL WOOD VOLUME (in 000 M^3) BY STRATUM & DIAMETER CLASS (IN CM)

HOLLONG & MAKAI (01)	5.799	5.969	3.035	2.183	1.342	-	-	-	-	-	18.328
MISCELLANEOUS (02)	5.013	-	2.715	-	0.523	0.718	0.768	-	-	4.247	13.993
RIVERAIN (04)	5.192	2.735	0.781	3.862	2.682	4.175	3.918	-	-	2.624	25.969
TOTAL	16.004	8.704	6.531	6.045	4.556	4.893	4.686	-	-	6.871	58.290

Table No. 4.4.5
DIVISION - LOHIT.

TOTAL FURNITURE WOOD VOLUME (in '000 M^3) BY STRATUM AND DIAMETER CLASS (IN CM)

ARUNACHAL PRADESH

STRATUM	Diameter Classes (in cm.) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
HOLLONG & MAKAI	-	-	6.917	8.938	7.502	-	-	-	-	-	23.357
MISCELLANEOUS	-	-	-	-	-	-	-	-	-	-	-
RIVERAIN	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	6.917	8.938	7.502	-	-	-	-	-	23.357

TOTAL RESIDUAL WOOD VOLUME (in '000 M^3) BY STRATUM AND DIAMETER CLASS (IN CM)

HOLLONG & MAKAI	-	8.247	7.768	2.660	0.958	-	-	-	-	-	19.633
MISCELLANEOUS	-	-	-	-	-	-	-	-	-	-	-
RIVERAIN	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	8.247	7.768	2.660	0.958	-	-	-	-	-	19.633

TOTAL SMALL WOOD VOLUME (in '000 M^3) BY STRATUM AND DIAMETER CLASS (IN CM)

HOLLONG & MAKAI	5.533	2.767	4.788	1.969	1.224	-	-	-	-	-	16.281
MISCELLANEOUS	-	-	-	-	-	-	-	-	-	-	-
RIVERAIN	-	-	-	-	-	-	-	-	-	-	-
TOTAL	5.533	2.767	4.788	1.969	1.224	-	-	-	-	-	16.281

Table No. 4.5.1

DIVISION - CHANGLANG.

TOTAL PIN WOOD VOLUME (in '000 M^3) BY STRATUM & DIAMETER CLASS (IN CM)

ARUNACHAL PRADESH

STRATUM	DIAMETER CLASS (IN CM)										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
HOLLONG & MAKAI (01)	-	-	71.516	168.476	171.569	170.785	203.395	145.951	96.588	431.320	1459.580
MISCELLANEOUS (02)	-	-	120.245	211.341	232.932	218.949	197.357	257.454	121.684	561.639	1921.601
BAMBOO (03)	-	-	7.364	16.015	-	45.004	36.576	-	-	-	104.959
TOTAL	-	-	199.125	395.832	404.501	434.738	437.328	403.405	218.252	992.959	3486.140

TOTAL RESIDUAL WOOD VOLUME (in '000 M^3) BY STRATUM & DIAMETER CLASS (IN CM)

HOLLONG & MAKAI (01)	-	119.963	80.578	49.776	20.760	10.957	11.415	7.886	4.771	18.734	324.840
MISCELLANEOUS (02)	-	175.046	135.513	62.410	28.172	14.034	11.053	13.932	6.015	24.419	470.594
BAMBOO (03)	-	7.457	8.297	4.732	-	2.884	2.053	-	-	-	25.423
TOTAL	-	202.466	224.388	116.918	48.932	27.875	24.521	21.818	10.786	43.153	820.857

TOTAL SMALL WOOD VOLUME (in '000 M^3) BY STRATUM & DIAMETER CLASS (IN CM)

HOLLONG & MAKAI (01)	90.490	39.973	49.385	37.053	26.238	17.645	13.734	7.562	4.794	18.778	305.652
MISCELLANEOUS (02)	146.514	58.402	85.176	46.575	35.627	22.619	13.468	13.209	6.166	24.519	450.275
BAMBOO (03)	7.653	2.669	5.096	3.528	-	4.629	2.473	-	-	-	26.048
TOTAL	244.657	101.044	137.657	137.657	87.156	61.885	44.893	29.675	20.771	10.960	781.975

Table No. 4.5. 2
DIVISION - CHANGLANG

TOTAL CONSTRUCTIONAL WOOD VOLUME (in '000 M^3) BY STRATUM & DIAMETER CLASS (IN CM)

ARUNACHAL PRADESH

STRATUM	DIAMETER CLASSES (CM)										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
HOLLONG & MAKAI (01)	-	19.083	33.307	41.215	19.823	16.403	14.486	13.266	7.254	4.139	168.976
MISCELLANEOUS (02)	-	59.017	134.433	124.769	107.392	76.959	65.237	9.562	19.073	42.566	639.008
BAMBOO (03)	-	2.137	3.602	-	-	-	-	-	-	-	5.739
TOTAL	-	80.237	171.342	165.984	127.215	93.362	79.723	22.828	26.327	46.705	813.723

TOTAL SMALL WOOD VOLUME (in '000 M^3) BY STRATUM & DIAMETER CLASS (IN CM)

HOLLONG & MAKAI (01)	23.287	23.842	12.636	11.326	4.529	3.486	2.668	2.266	1.166	0.634	85.840
MISCELLANEOUS (02)	56.601	73.828	51.159	36.189	24.129	16.358	11.978	1.596	2.983	6.376	279.297
BAMBOO (03)	2.576	2.630	1.362	-	-	-	-	-	-	-	6.598
TOTAL	82.464	100.130	65.157	45.515	28.658	19.844	14.646	3.862	4.149	7.010	371.735

Table No. 4.5.3

DIVISION - CHANGLANG. TOTAL OTHER WOOD VOLUME (in '000 M^3) BY STRATUM & DIAMETER CLASS (IN CM)

ARUNACHAL PRADESH

STRATUM	DIAMETER CLASS (CM)									
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	Total
HOLLONG & MAKAI (01)	-	66.720	89.771	72.322	54.330	42.217	29.452	16.076	7.385	20.934	399.689
MISCELLANEOUS (02)	-	179.879	235.297	196.741	172.449	142.453	103.845	108.626	43.440	242.134	1434.864
BAMBOO (03)	-	10.145	4.359	-	18.489	27.112	32.777	-	61.672	-	154.554
TOTAL	-	256.726	329.427	269.063	255.768	211.782	166.074	124.702	112.497	263.068	1989.107

TOTAL SMALL WOOD VOLUME (in '000 M^3) BY STRATUM & DIAMETER CLASS (IN CM)

HOLLONG & MAKAI (01)	183.485	111.306	35.825	11.326	4.466	2.462	1.394	0.588	0.196	0.456	351.504
MISCELLANEOUS (02)	546.062	299.825	93.831	30.792	14.826	8.387	4.885	3.958	1.152	4.855	1008.673
BAMBOO (03)	39.646	16.902	1.745	-	1.403	1.587	1.549	-	1.587	-	64.419
TOTAL	769.193	428.033	131.401	42.118	20.695	12.436	7.828	4.546	2.935	5.411	1424.596

Table No. 4.5.4
DIVISION - CHANGLANG.

TOTAL MATCH WOOD VOLUME (in '000 M^3) BY STRATUM & DIAMETER CLASS (IN CM)

ARUNACHAL PRADESH

STRATUM	DIAMETER CLASSES (CM)										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
HOLLONG & MAKAI (01)	-	3.846	4.444	1.263	2.222	1.263	-	-	3.442	-	16.490
MISCELLANEOUS (02)	-	2.930	3.496	5.038	3.341	-	12.595	-	7.968	64.106	99.474
BAMBOO (03)	-	-	3.966	-	17.462	-	-	-	-	-	21.428
TOTAL	-	6.786	11.906	6.301	23.025	1.263	12.595	-	11.410	64.106	137.392

TOTAL SMALL WOOD VOLUME (in '000 M^3) BY STRATUM & DIAMETER CLASS (IN CM)

HOLLONG & MAKAI (01)	1.875	1.788	1.090	0.197	0.252	0.142	-	-	-	0.185	5.527
MISCELLANEOUS (02)	2.365	1.354	0.832	0.730	0.371	-	0.885	-	0.301	2.883	9.581
BAMBOO (03)	-	-	0.971	-	1.838	-	-	-	-	-	2.809
TOTAL	4.238	3.142	2.893	0.927	2.461	0.142	0.885	-	0.546	2.683	17.917

Table No. 4.5.5

DIVISION - CHANGLANG. TOTAL FURNITURE WOOD VOLUME (in '000 M^3) BY STRATUM AND DIAMETER CLASS (CM)

ARUNACHAL PRADESH

STRATUM	Diameter Classes (in cm.) 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
HOLLONG & MAKAI	-	-	-	-	-	-	-	-	-	-	-
MISCELLANEOUS	-	-	0.206	0.720	-	-	-	-	-	-	0.926
BAMBOO	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	0.206	0.720	-	-	-	-	-	-	0.926

TOTAL RESIDUAL WOOD VOLUME (IN '000 M^3) BY STRATUM AND DIAMETER CLASS (CM)

HOLLONG & MAKAI	-	-	0.131	-	-	-	-	-	-	-	0.131
MISCELLANEOUS	-	0.720	0.206	0.257	-	-	-	-	-	-	1.183
BAMBOO	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	0.720	0.337	0.257	-	-	-	-	-	-	1.314

TOTAL SMALL WOOD VOLUME (in 000 M^3) BY STRATUM AND DIAMETER CLASS (CM)

HOLLONG & MAKAI	1.242	0.044	-	-	-	-	-	-	-	-	1.286
MISCELLANEOUS	1.028	0.258	0.154	0.154	-	-	-	-	-	-	1.594
BAMBOO	-	-	-	-	-	-	-	-	-	-	-
TOTAL	2.270	0.301	0.154	0.154	-	-	-	-	-	-	2.880

Table No. 4.6.1
DIVISION - KHONSA.

TOTAL PIX WOOD VOLUME (in '000 M^3) BY STRATUM AND DIAMETER CLASS (in cm.)

ARUNACHAL PRADESH

STRATUM	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
HOLLONG & MAKAI (01)	-	-	52.284	144.054	228.329	305.744	268.958	233.977	100.841	219.895	1554.082
TOTAL	-	-	52.284	144.054	228.329	305.744	268.958	233.977	100.841	219.895	1554.082

TOTAL RESIDUAL WOOD VOLUME (in '000 M^3) BY STRATUM AND DIAMETER CLASS (in cm)

HOLLONG & MAKAI (01)	-	86.311	58.913	42.563	27.630	19.614	15.107	12.666	4.983	9.547	277.334
TOTAL	-	86.311	58.913	42.563	27.630	19.614	15.107	12.666	4.983	9.547	277.334

TOTAL SMALL WOOD VOLUME (in '000 M^3) BY STRATUM AND DIAMETER CLASS (in cm)

HOLLONG & MAKAI (01)	90.625	28.885	36.308	31.669	34.909	31.523	18.140	11.921	4.997	9.678	298.755
TOTAL	90.625	28.885	36.308	31.669	34.909	31.523	18.140	11.921	4.997	9.678	298.755

Table No. 4.8.2
DIVISION - MIONSA.

TOTAL CONSTRUCTION WOOD VOLUME (in '000 M^3) BY STRATUM AND DIAMETER CLASS (in cm)

ARUNACHAL PRADESH

STRATUM	DIAMETER CLASS										
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
HOLLONG & MAKAI (01)	-	31.789	99.541	91.063	78.801	37.740	39.444	4.564	-	4.492	387.434
TOTAL	-	31.789	99.541	91.063	78.801	37.740	39.444	4.564	-	4.492	387.434

TOTAL SMALL WOOD VOLUME (in '000 M^3) BY STRATUM AND DIAMETER CLASS (IN CM)

HOLLONG & MAKAI (01)	26.748	39.662	37.768	24.958	17.895	8.026	7.352	0.782	-	0.679	163.871
TOTAL	26.748	39.662	37.768	24.958	17.895	8.026	7.352	0.782	-	0.679	163.871

Table No. 4.6.3

DIVISION - KHONSA

TOTAL OTHER WOOD VOLUME (in '000 M^3) BY STRATUM AND DIAMETER CLASS (IN CM)

ARUNACHAL PRADESH

STRATUM	DIAMETER CLASS (CM)									
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	Total
HOLLONG & MAKAI (01)	-	78.541	91.164	41.769	40.469	23.051	29.290	12.393	7.279	35.616	359.572
TOTAL	-	78.541	91.164	41.769	40.469	23.051	29.290	12.393	7.279	35.616	359.572

TOTAL SMALL WOOD VOLUME (in '000 M^3) BY STRATUM AND DIAMETER CLASS (in cm)

HOLLONG & MAKAI (01)	245.228	130.935	36.339	6.838	3.393	1.355	1.386	0.462	0.188	0.738	426.663
TOTAL	245.228	130.935	36.339	6.838	3.393	1.355	1.386	0.462	0.188	0.738	426.663

Table No. 4.8.4

DIVISION - KHONSA.

TOTAL MATCH WOOD VOLUME (in '000 M^3) BY STRATUM AND DIAMETER CLASS (in cm)

ARUNACHAL PRADESH

STRATUM	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	Total
HOLLONG & MAKAI (01)	-	0.202	1.199	0.823	-	-	2.499	2.961	-	13.576	21.260
TOTAL	-	0.202	1.199	0.823	-	-	2.499	2.961	-	13.576	21.260

TOTAL SMALL WOOD VOLUME (in '000 M^3) BY STRATUM AND DIAMETER CLASS (in cm)

HOLLONG & MAKAI (01)	0.318	0.102	0.323	0.152	-	-	0.188	0.173	-	0.588	1.844
TOTAL	0.318	0.102	0.323	0.152	-	-	0.188	0.173	-	0.588	1.844

Table No. 4.7.1.
DIVISION - LOHIT.

TOTAL VOLUME (in '000' M^3) BY UTILITY CLASS AND STRATUM.

ARUNACHAL PRADESH

STRATUM	PLY WOOD.	CONST. WOOD	OTHER WOOD.	MATCH WOOD.	FURNITURE WOOD.	RESIDUAL WOOD	SMALL WOOD.	TOTAL.
HOLLONG & MAKAI	3366.158	664.200	2283.124	52.778	23.357	647.768	2246.834	9284.219
MISCELLANEOUS	3075.825	507.772	1914.878	135.760	-	438.124	1488.777	7538.936
RIVERAIN	1285.872	107.132	979.547	222.528	-	155.033	695.832	3445.944
TOTAL	7725.855	1279.104	5177.349	411.066	23.357	1240.925	4411.443	20269.099
DIVISION - CHANGLANG.								
HOLLONG & MAKAI	1459.580	188.976	399.689	16.490	-	324.971	749.809	3119.515
MISCELLANEOUS	1921.601	699.008	1434.864	99.474	0.926	471.777	1749.420	6317.070
BAMBOO	104.959	5.739	154.554	21.428	-	25.423	99.874	411.977
TOTAL	3486.140	813.723	1989.107	137.392	0.926	822.171	2599.103	9843.562
DIVISION - KHONSA.								
HOLLONG & MAKAI	1554.082	387.434	359.572	21.260	-	277.334	890.078	3489.761
TOTAL	1554.082	387.434	359.572	21.260	-	277.334	890.078	3489.761

Table No. 5.1.1

PER HEC. AND ESTIMATION OF BAMBOO (in 000 No.) BY STRATUM CLASS

ARUNACHAL PRADESH

DIVISION	STRATUM	BAMBOO PER HEC.	ESTIMATION OF BAMBOO (in 000 No.)
LOHIT	HOLLONG & MAKAI (01)	207.652	11048.085
	MISCELLANEOUS (02)	505.136	29790.320
	RIVERAIN (04)	66.976	3739.095
	TOTAL	265.330	44577.500
CHANGLANG	HOLLONG & MAKAI (01)	87.582	1907.871
	MISCELLANEOUS (02)	42.164	2121.324
	BAMBOO (03)	766.000	7149.078
	TOTAL	135.500	11178.273
KHONSA	HOLLONG & MAKAI (01)	5.247	75.782
	TOTAL	5.247	75.782

Table No. 5.1.2

PER HEC. & TOTAL BAMBOO WEIGHT (in'000' Tonne) BY STRATUM CLASS

ARUNACHAL PRADESH

DIVISION	STRATUM	PER HEC. BAMBOO WEIGHT (in Tonne)	ESTIMATION OF BAMBOO WEIGHT (in'000' Tonne)
LOHIT	HOLLONG & MAKAI (01)	2.775	147.643
	MISCELLANEOUS (02)	5.518	325.454
	RIVERAIN (04)	0.895	49.965
	TOTAL	-	595.747
CHANGLANG	HOLLONG & MAKAI (01)	1.171	25.509
	MISCELLANEOUS (02)	0.551	28.326
	BAMBOO (03)	8.722	81.402
	TOTAL	-	82.552
	HOLLONG & MAKAI (01)	0.070	1.012
	TOTAL	-	1.012

APPENDIX - I

Definitions :

The definition of the terms used are as follows :-

Plywood species - are these species which can be veneered. The classification is based on standard I.S.I. classification and local utilization pattern.

List of Plywood species :

Michelia champaca, Amoora wallichii, Dipterocarpus macrocarpus, Shorea assamica, Terminalia myriocarpa, Gmelina arborea, Chikrassia tabularis, Cinnamomum cecicodaphne, Duabanga sonneratioides, Cedrela toona , Canarium resiniferum, Ailanthus grandis, Mansonia dipikas, Phoebe cooperiana, Sohima wallichii, Betula alnoides, Artocarpus lakoocha, Xydia calycina.

b) Constructional wood species :

The following species are used for constructional purposes :-

Mesua ferrea, Lagerstroemia flosreginae, Castanopsis species, Terminalia citrina, Dillenia indica, Albizzia lucida, Dotergia sissoo sissoo, Terminalia belerica.

c) Furniture wood species : - are those species which are suitable for making of furniture and includes Adina cordifolia and Adina cligocephala.

d) Match wood species - are those species that find use in Match industry. The list is as below :-

Salmalia malabaricum, Trewia nudiflora, Tetrameles nudiflora, Alstonia scholaris, Anthocephalus cadamba.

e) Other usable species - this includes all other suitable species not mentioned above. The list is as follows :-

Morus laevigata, Talauma phellocarpa, Altingia excelsa, Bischofia javanica, Pterospermum acerifolium, Kayea assamica, Pterospermum lanceaefolium, Sterculia chelonioides, Kayea floribunda, Others.

f) Plywood volume - Under bark volume of logs more than 30 cm. d.o.b. of plywood species.

g) Constructional wood volume - Under bark volume of logs 20 cm. d.o.b. and above of all constructional wood species.

h) Furniture wood volume - Under bark volume of logs 30 cm. d.o.b. and above of all furniture wood species.

i) Match wood volume - Under bark volume of logs 20 cm. d.o.b. and above of all Match wood species.

j) Other usable volume - Under bark volume of logs of all suitable species (under category - e) having dimension 20 cm. d.o.b. and above + ply log volume of ply species 30 cm. d.o.b. to 20 cm. d.o.b. of Furniture log volume having dimension 30 cm. d.o.b. to 20 cm. d.o.b.

k) Small wood volume - Under bark volume from 20 cm. d.o.b. to 5 cm. d.o.b. of all species.

A P P E N D I X - II

LIST OF SPECIES ENUMERATED WITH CODE NUMBER

Code No.	Botanical Name	Local Name	Utility
01	Morus laevigata	Bela	Other wood
02	Michelia champaca	Champ	Ply
03	Amoora wallichii	Amari	Ply
04	Dipterocarpus macrocarpus	Hollong	Ply
05	Shorea assamica	Makai	Ply
06	Terminalia myriocarpa	Hollock	Ply
07	Gmelina arborea	Gamari	Ply
08	Chikrassia tabularis	Bogipoma	Ply
09	Cinnamomum cecicodaphne	Gonsoroi	Ply
10	Mesua ferrea	Nahar,Nageswar	Const.
11	Talauma phellocarpa	Kharikasopa	Other wood
12	Adina cordifolia	Haldu, Taracksopa	Fur
13	Lagerstroemia flosreginae	Jarul, Ajhar	Const.
14	Altingia excelsa	Jutuli	Others
15	Castanopsis species	Hingori	Const.
16	Terminalia citrina	Hilika, Haritaki	Const.
17	Duabanga sonneratioides	Khokon, Ramdala	Ply
18	Bischofia javanica	Urium	Other wood
19	Cedrela toona	Jatipoma, Romo	Ply
20	Canarium resiniferum	Dhuna, Gokuldhup	Ply
21	Ailanthus grandis	Borpat	Ply
22	Mansonia dipikae	Badam	Ply
23	Phoebe cooperiana	Nekahi	Ply
24	Pterospermum acerifolium	Hatipola	Other wood
25	Schima wallichii	Makrisal, Nagabhe	Ply
26	Salmalia malabaricum	Gogra	Match
27	Adina cligocephala	Halud chapa	Fur.
28	Betula alnoides	Birch	Ply
29	Trewia nudiflora	Bhelkor, Bhura, Boara.	Match
30	Tetrameles nudiflora	Behelu, Tula	Match
31	Alstonia scholaris	Satiana, Satni	Match
32	Anthocephalus cadamba	Kadam, Roghu	Match
33	Dillenia indica	Chalta, Outenga	Const.
34.	Kayea assamica	Sianahar	Other wood
35	Pterospermum lanceaefolium	Banboguri	Other wood
36	Stereospermum chelonioides	Paruli	Other wood
37	Albizzia lucida	Maj, Sundi	Const.
38	Artocarpus lakoocha	Behat, Dewachali, Dewasam	Ply
39	Kayea floribunda	Karal	Other wood
40	Kydia calycina	Pichola	Ply

Code No.	Botanical Name	Local Name	Utility
	B A M B O O		
41	Dendrocalamus hamiltonii	Kako	
42	Bambusa pallida	Bijli	
43	Melocanna bambusoides	Muli	
44	Teinostachyum dalooa	Dalso, Dalu	
45	Pseudostachyum polymorphum	Bajal	
46	Dendrocalamus strictus	Kata, Bans	
47	Bambusa tulda	Jati, Mritanga	
48	Other bamboos	-	
49	Dalbergia sissoo	-	Other wood
50	Terminalia bellerica	-	Const.
51	Others	-	-

1. Ply stands for Ply wood.
2. Fur stands for Furniture wood.
3. Const. stands for Constructional wood.
4. Others stands for other wood.