

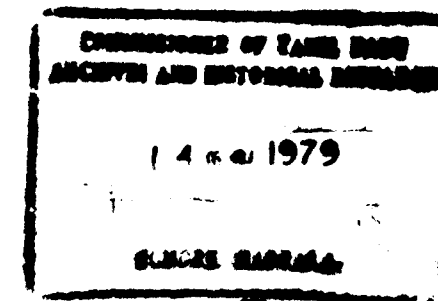
Gazetteer of India
ARUNACHAL PRADESH
Lohit District



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**GAZETTEER OF INDIA
ARUNACHAL PRADESH
LOHIT DISTRICT**

ARUNACHAL PRADESH DISTRICT
GAZETTEERS



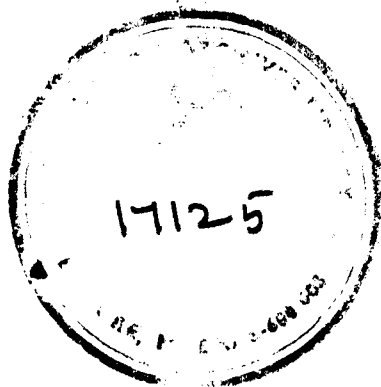
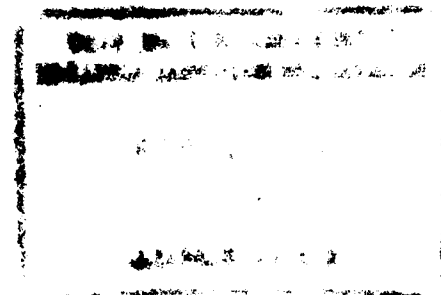
LOHIT DISTRICT

By

. S. DUTTA CHAUDHURY
Editor

GOVERNMENT OF ARUNACHAL PRADESH
1978

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FOREWORD

I have much pleasure in introducing the Lohit District Gazetteer, the first of a series of District Gazetteers proposed to be brought out by the Government of Arunachal Pradesh. A Gazetteer is a repository of carefully collected and systematically collated information on a wide range of subjects pertaining to a particular area. These information are of considerable importance and interest. Since independence, Arunachal Pradesh has been making steady progress in various spheres. This north-east frontier corner of the country has, during these years, witnessed tremendous changes in social, economic, political and cultural spheres.

These changes are reflected in the Gazetteers. I hope that as a reflex of these changes, the Lohit District Gazetteer would prove to be quite useful not only to the administrators but also to research scholars and all those who are keen to know in detail about one of the districts of Arunachal Pradesh.

Raj Niwas
Itanagar-791 111
October 5, 1978

K. A. A. Raja
Lieutenant Governor, Arunachal Pradesh

P R E F A C E

The present volume of the District Gazetteer of Arunachal Pradesh is an account of the Lohit District, and incidentally it is the first of its kind. It may be noted that some of the 1905-06 publications of the Assam District Gazetteers, notably the one of Lakhimpur District edited by B. C. Allen, contain important references to the north-east frontier tract now known as Arunachal Pradesh. The Sadiya and Balipara Frontier Tract Gazetteer brought out in 1928 in continuation of the Lakhimpur District Gazetteer is the only gazetteer published during the British days for this part of the country. Although this old gazetteer conveys some valuable information of the area of the present Lohit District, it was not on our plan for revision, for much of its contents has become outdated by now. Moreover, since its publication the area has undergone great changes through its constitutional and administrative growth.

This publication is the result of a long-drawn and persistent effort of the Gazetteers Department of the Government of Arunachal Pradesh. A draft of Lohit District Gazetteer, submitted to the Advisory Board in 1973, was subsequently examined at various levels of the Government in accordance with the decision of the board. The draft underwent a series of revision, amplification and re-writing, and this process continued for quite a pretty long time until eventually in 1978 the final draft of the gazetteer recommended by the Advisory Board was approved by the Government of Arunachal Pradesh and the Government of India.

Situated in the north-eastern extremity of India and peopled by diverse tribes with distinct tradition and culture of their own, the Lohit District is for the most part a difficult mountainous terrain which does not allow easy access. There are groups of tribal people organised in village communities and settled on agriculture, yet there are others who are still living in a very scattered manner. The socio-economic development of various tribal societies in the district varies widely. But the conditions are changing. Since independence remarkable developments have taken place in the area in various spheres, and they are of far-reaching consequences. Our task to reflect all these important facts on the gazetteer far outweighed our means. Collection of detailed information and verification of facts relating to numerous subject-matters were for us a veritable problem indeed. We, therefore, make no claim that this volume is exhaustive, although no pains were spared to write the gazetteer as comprehensively as the available material enabled us to do so. Deficiencies are likely to occur, and errors may have crept in the volume.

Most of the numerical and statistical data incorporated in the gazetteer pertain up to the year 1975-76.

I should like to take this opportunity of expressing my deep sense of gratitude to Shri K. A. A. Raja, Lt. Governor of Arunachal Pradesh, whose gracious interest in the gazetteers has always been a source of our inspiration and guidance; Shri Sobeng Tayeng, Minister of Agriculture, Rural Development and Co-operation, who spared some of his precious time to read the draft and favour us with his highly encouraging and valuable observations, and Shri I. P. Gupta, Chief Secretary to the Government of Arunachal Pradesh and Chairman of the Advisory Board, who has been the main goading force. I am also grateful to Shri R. Yusuf Ali, formerly Chief Secretary for his advice and appraisal of the draft.

My grateful thanks are also due to Shri B. Hussain, Deputy Secretary (Political) and Shri M. P. Hazarika, Director of Information and Public Relations, who are members of the Advisory Board, for the help and support extended by them to bring out the gazetteer. I am thankful to Shri L. N. Chakravarty, till recently the Director of Research and member of the Advisory Board, for his scrutiny of the draft and useful suggestions.

I will be failing in my duty, if I do not express my thanks to Dr. P. N. Chopra, M.A., Ph.D., Editor (Gazetteers), Government of India, Department of Culture and the staff of the Central Gazetteers Unit, Union Ministry of Education, New Delhi, for their effective role in planning and co-ordinating the work of preparation of the District Gazetteers. The Unit scrutinised the draft of this volume with great care and made several helpful suggestions with a view to improving the standard and quality of the publication. It may also be mentioned here that a portion of the expenditure incurred on the compilation and printing of the District Gazetteers is being met by the Government of India.

Indeed, I am obliged to so many Government officials for being able to prepare the final draft for publication that I feel I can hardly express in full measure my acknowledgement of debts to all of them. I am largely indebted to Shri T. K. M. Baruah, District Research Officer as also to Dr. H. Bareh and Shri S. M. K. Subhani, both of whom were Editor (Gazetteers), Arunachal Pradesh for the periods 1965-66 and 1967-73 respectively. The publication of this gazetteer would not have been possible without the drafts prepared earlier by them.

My grateful acknowledgements are also due to officers of various departments and the district offices of the Government of Arunachal Pradesh for their co-operation and constructive suggestions. Many of them sent us a mass of data and information. I should like to record my thanks to Shri J. N. Chowdhury, till recently the Librarian, Central Library; Shri C. K. Manpoong, formerly Extra Assistant Commissioner, Anini Sub-division and Shri Nirod Baran Mazumder, the then Statistical Inspector, Forest Department. Shri A. M. Chanda, Deputy Director of Economics and Statistics, Shri I. N. Gohain, Shri A. K. Paul, Tabulation Officers and Shri K. J. Pandit, Artist of the Directorate of Census Operations, Arunachal

Pradesh have lent us helping hands for preparation of the maps drawn under the direction of the Survey of India. They have also supplied us important statistical and census data. I would thank all of them gratefully.

At my request Shri B. Kakoti, the then Geologist (Sr.)-in-Charge, Geological Survey of India, Arunachal Pradesh Circle, and Dr. A. K. Ghosh, the then Officer-in-Charge, Eastern Regional Station, Zoological Survey of India sent important reports on geology and fauna respectively. I am grateful to them. I am also greatly indebted to Dr. A. S. Rao, the then Regional Botanist, Botanical Survey of India, Eastern Circle for his valuable floristic account. I owe a special debt to Dr. S. K. Jain, till recently the Deputy Director of the same circle of the Botanical Survey of India, for his keen and active interest in the preparation of botanical reports for the gazetteers.

I have the pleasure of recording my grateful thanks also to Shri R. N. Bagchi, Art-Expert for the cover-design and lay out of the publication; Shri C. Khanikar for the help rendered by him to publish this volume, and Shri S. N. Goswami and Shri Dipak Choudhury for the photographs.

I express my deepest thanks to all my colleagues, the officers and members of staff of the department, who have worked as a team and contributed their mite to bring the compilation of this gazetteer to its completion. Shri C. K. Shyam, Compiler, in particular, has been of immense help in preparing the final draft and press copy for publication. I should specially thank him. Dr. S. D. Tyagi, Compiler collected some very valuable information. Shri Kamalendu Ghosh, Research Assistant, worked hard to collate the text typed out painstakingly by Shri S. C. Deka, Lower Division Clerk and Shri S. S. Marbaniang, Stenographer.

S. DUTTA CHOUDHURY

Shillong

October 18, 1978

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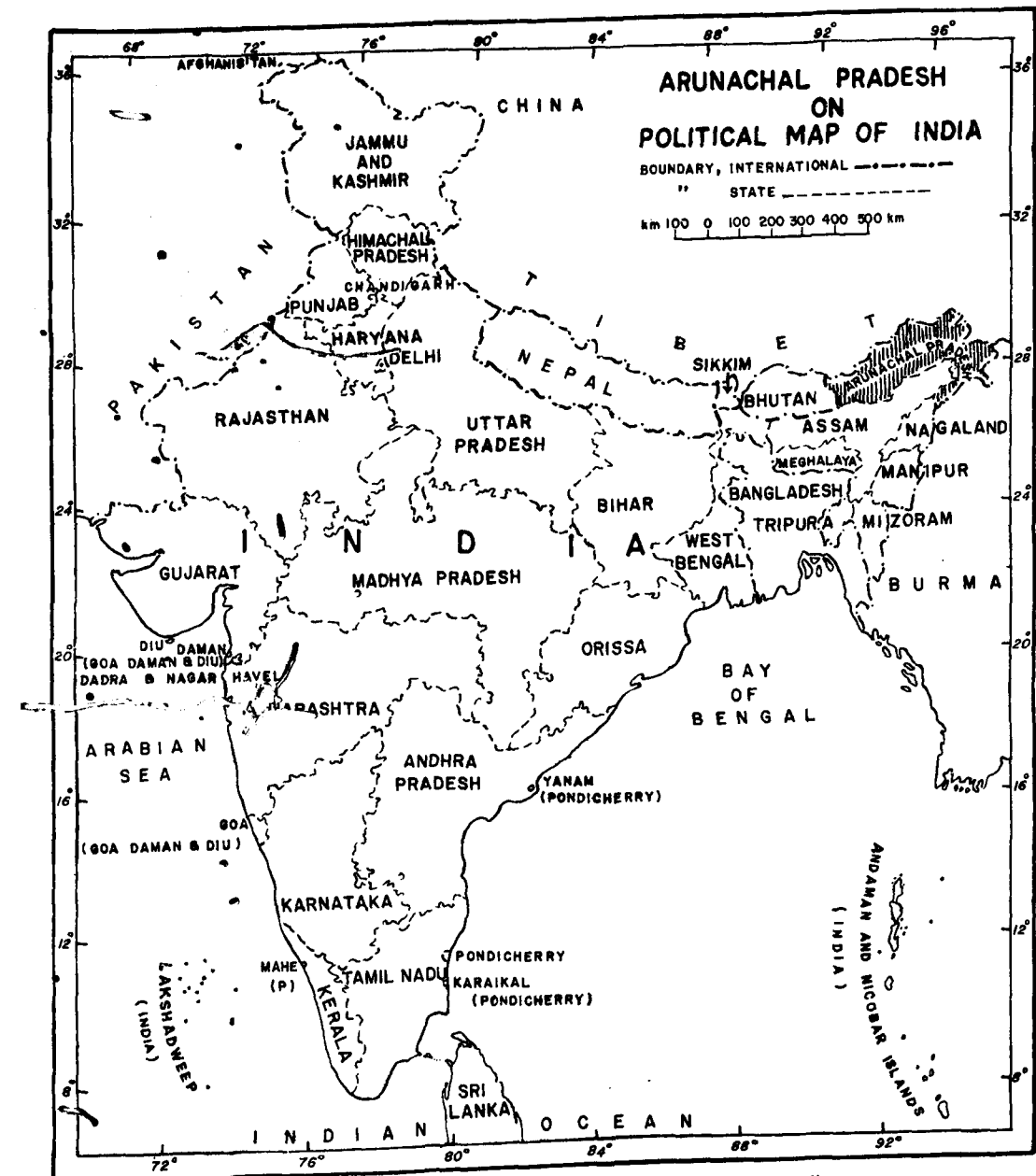
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GUIDE TO SPELLINGS OF PLACE AND OTHER NAMES

NAME	CORRECT VERSION	NAME	CORRECT VERSION
Arunachal	... Arunāchal	Kamlang	... Kāmlāng
Chaglagam	... Chāglogām	Kibithoo	... Kibitho
Chappri	... Chāpari	Lallichapri	... Lāli Chāpari
Charduar	... Charduār	Man Bum	... Mān Bum
Chowkham	... Chowkhām	Mathun	... Māthūn
Dambuk	... Dāmbuk	Mayu	... Māyu
Deopani	... Deopāni	Namsai	... Nāmsāi
Dibang (or Dibong)	... Dībāng	Nizamghat	... Nizamghāt
Digarū	... Digāru	Pasighat	... Pāsighāt
Dihang (or Dihong)	... Dihāng	Patkai	... Pātkai
Dillee	... Dilli	Paya	... Pāya
Dirak	... Dirāk	Santipur	... Sāntipur
Disang	... Disāng	Sitpani	... Sitpāni
Etalin	... Etālin	Talon	... Tālon
Galai	... Galāi	Tengapani	... Tengapāni
Ghalum	... Ghālum	Timai	... Timāi
Glen Hawel	... Glāo Hawel	Twang	... Twāng
Granli	... Grānli	Waket	... Wāket
Hawai	... Hawāi	Wakro	... Wōkro
Hayuliang	... Hayuliāng	Walong	... Wailāng
Kamakhya	... Kāmākhya	Zayul	... Zāyul



Based upon Survey of India map with the permission of the Surveyor General of India.
The territorial waters of India extend into the Sea to a distance of twelve nautical miles measured from the appropriate base line.
The boundary of Meghalaya shown on this map is as interpreted from the North-Eastern Areas (Reorganisation) Act, 1971, but has yet to be verified.
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History of the District as an Administrative Unit

The history of the district as an administrative unit may be traced back to the year 1914 when the North-East Frontier Tract consisting of three administrative units—(1) the Central and Eastern Sections, (2) the Lakhimpur Frontier Tract and (3) the Western Section came into existence. The first and third units with headquarters at Sadiya and Charduar respectively were each placed under the charge of a Political Officer and the second unit under the Deputy Commissioner, Lakhimpur District. In the year 1919, the Central and Eastern Sections was renamed as the Sadiya Frontier Tract and the Western Section as Balipara Frontier Tract. The Lakhimpur Frontier Tract continued to be known as such. In the year 1943, a new administrative charge was created with inclusion of certain area from the Sadiya Frontier Tract and the Lakhimpur Frontier Tract and was named as the Tirap Frontier Tract. In 1948, under the North East Frontier Tracts (Internal Administration) Regulation, 1948 the remaining portion of the Sadiya Frontier Tract was divided into two separate administrative charges, namely the Abor Hills District and the Mishmi Hills District each under the charge of a Political Officer with headquarters at Pasighat and Sadiya respectively. In 1951, the plains portion of the Mishmi Hills District was transferred to the administrative jurisdiction of the Government of Assam. In 1952, the headquarters of the Mishmi Hills District were shifted from Sadiya of Tezu. According to the North-East Frontier Areas (Administration) Regulation, 1954, the North-East Frontier Tract came to be known as North-East Frontier Agency and the Mishmi Hills District was renamed as the Lohit Frontier Division. In 1956, the Dibang Valley was constituted as a separate administrative unit within the division and placed under the charge of an Additional Political Officer with his headquarters at Roing which was subsequently shifted to Anini. In 1965, under the North-East Frontier Agency (Administration) Regulation, 1965, the Lohit Frontier Division came to be known by its present name—the Lohit District, and the Political Officer and Additional Political Officer were redesignated as the Deputy Commissioner and Additional Deputy Commissioner respectively.

Sub-Divisions and Circles

The district is divided into five sub-divisions¹, namely Tezu, Namsai, Hayuliang, Anini and Roing which are further divided into circles. The first named three sub-divisions are situated in the Lohit and Kamlang Valleys administered by the Deputy Commissioner, Lohit District and the last two in the Dibang Valley administered by the Additional Deputy Commissioner, Dibang Valley. A brief description of the sub-divisions is as follows:

Tezu: The Tezu Sub-division with Tezu as the district as well as sub-

¹ Vide the North-East Frontier Agency Administration letter no. GA-40/71 dated May 21, 1971 on administrative jurisdiction and revised set-up delimiting circles and sub-divisions in the districts.

divisional headquarters is in the over-all charge of the Deputy Commissioner, Lohit District. He is assisted at the headquarters by a number of Extra Assistant Commissioners and Circle Officers.

Tezu is the only circle of this sub-division, and it comprises the Tezu township and a number of nearby villages inhabited by the Taron (Digaru) Mishmis.

Namsai: The Namsai Sub-division is divided into three circles, namely Namsai, Wakro and Chowkham, each under a Circle Officer. An Extra Assistant Commissioner with his headquarters at Namsai is the sub-divisional head.

The sub-division comprises the southern part of the district. The Namsai and Chowkham circles are inhabited mostly by the Khampis and the Singphos, and the Wakro circle by the Tarons.

Hayuliang: The Hayuliang Sub-division is in the charge of an Extra Assistant Commissioner with his headquarters at Hayuliang. He is assisted at the headquarters by a Circle Officer.

Situated in the eastern part of the district adjoining both Burma and Tibet, the sub-division is constituted by five circles, namely Hayuliang, Chaglagram, Hawaii, Walong and Kibithoo. Each of these circles is in the charge of a Circle Officer.

The Kaman (Miju) and the Taron Mishmis are the inhabitants of this sub-division. The Zakhings and Meyors live in the Walong-Kibithoo areas in the northern extremity of the sub-division.

Anini: The Anini Sub-division is situated in the remote northern part of the district bordering Tibet. It consists of three circles, namely Anini, Etalin and Adane.¹ The headquarters of the Additional Deputy Commissioner, Dibang Valley is at Anini, where he is assisted by some Extra Assistant Commissioners and Circle Officers. An Extra Assistant Commissioner is the sub-divisional head. The other two circles are each in the charge of a Circle Officer. The sub-division is inhabited mainly by the Idu Mishmis.

Roing: The Roing Sub-division comprises the western part of the district inhabited by the Idu Mishmis and the Padams.

Roing, Dambuk and Desali are its three circles. An Extra Assistant Commissioner with his headquarters at Roing is the sub-divisional head, and he is assisted by two Circle Officers at the headquarters. Dambuk and Desali circles are each under a Circle Officer.

Topography

Mountains are the most imposing features of topography of the Lohit District. Situated in the easternmost stretch of the Himalayas flanked by the Patkai and other associated ranges on the east, the district contains many lofty ranges and towering peaks, some of which rise above 5000 m.

¹ The circle headquarters later shifted to Aneli.

The mountains are precipitously steep with altitudes varying from 610 m to 5182 m. The ranges along the northern border are perpetually covered with snow. On the southern fringe of the district, a strip of land rises gradually northward from the plains to the foot of the hills. The Man Bum (range) spurs out from the Patkai, and descends to this plain belt on the south-eastern part of the district.

Between the craggy hills the dales open out at some places to plateaus with bold undulations intersected by glens and ravines. From the higher elevations of this mountainous tract, spring forth a number of rivers of which the Lohit and Dibang are the main.

The Dibang Valley is a rugged area of steep hills and mountains spreading out to the northern border. The ranges along the border are snow-clad. The valley is most formidable for its difficult terrain marked by sharp contours of pointed hills and precipitous slopes.

The scenic beauties of the Lohit District are splendid. The snowy mountains along the international border, the lower hills decked with dense evergreen forests, and innumerable rivers and rivulets cascading down from the rocky heights and rippling through the green expanse of the valleys constitute a panorama, which is at once magnificent and awe-inspiring.

River System

The principal river of the district is Lohit. The Mishmis call it Tellu. It rises from the mountain range across the north-east border of the district, where it is known as the Zayul Chu. Flowing southward it enters the district through a gorge approximately 6 km north of Kibithoo. The river has a course of about 190 km through precipitous hills and valleys before it reaches the plains at Parasuram Kund, a place of pilgrimage near Tezu. It receives in its course many tributaries of which Dau (Dou), Derai (Delai), Digaru, Ghalum (Kallung), Dichu, Tidding, Kamlang and Noa-Dihing are important. All these rivers are snow-fed perennial water-channels, and before they join the Lohit river they are also fed by many rivulets.

The Dibang is the main river of the western part of the district. It cuts through deep gorges and difficult terrain in its upper course. Originating from the 'southern flank of the great Himalayan range', it flows from north to south through the district, and finally meets the Lohit near Sadiya. The main tributaries of the Dibang are the Dri and the Ithun.

The Dibang is called Talon by the Idus. It changes its course very often in the foothill regions and erodes its bank whenever it is in spate. All the tributaries of Dibang in their turn are fed by small perennial streams. The river Sessiri in the western part of the district flows from north to south along the boundary of the Lohit and Siang Districts at some length. Descending into the plains of Assam the river bifurcates and meets the Dihang and the Dibang.

The plains towards the south of the district is drained by the Kamlang and Noa-Dihing rivers. The main tributaries of the Noa-Dihing in the Lohit

District are Dirak on the left bank and Tengapani on the right. During the monsoon, the rivers overflow their banks causing serious erosions. They change their course very often and cut themselves into innumerable channels. The river Kamlang originates from the Glao lake in the Wakro circle and flows east-west to meet the Lohit river.

The flood waters of these rivers cause considerable damage to the roads and bridges almost every year. In 1951, the Sadiya town was washed away by the flood waters of the Lohit. The road communications in the lower regions of the district are frequently disrupted during the monsoon.

Lakes and Springs

In the Dapha Bum region on the south-eastern fringe of the Lohit District adjacent to the border of Tirap District lies a large natural lake called Glao Hawel at an altitude of about 1,400 metres. A team of geologists visited the lake to ascertain whether its origin lay in pleistocene glaciation, and observed that a dyke of rocks running across a basin of marble and gneiss dams up the water into a lake. It is situated on the upper reaches of one of the tributaries of the Kamlang river. On the high watershed of the Tellu valley on the east and west of the Walong area, there lie many lakes, large and small, within an orbit of about 1,200 sq. km. Most of these lakes are situated above 3,000 metres. Another noticeable hydrographic feature of the lower regions is the large *beels* or shallow lakes formed by the shifting rivers. These *beels* are natural fish ponds.

There are two hot springs in the district, one on the right bank of the river Dichu at a distance of 39 km from the confluence of Lohit-Dichu rivers about 64 km east of Kibithoo, and the other on the right bank of the Lohit river at a distance of 4 km north of Walong on the way to Kibithoo. There are many other springs in the district used as sources of water supply to the village settlements.

Problem of Water-Logging

Water-logging is a problem particularly of the Namsai area. During monsoon, the Noa-Dihing overflows its left bank and the flood-waters enter a number of villages causing considerable damages to the cultivation fields. The villages which suffer badly from the water-logging are Dharampur, Krishnapur, Tekorani, Mohaloni, Lekang Gohaingaon, Raja Beel, Rangali Beel, Dirak etc. The Namsai township is also inundated at times by the flood-waters of the Noa-Dihing sweeping through the swamps and low-lying areas. As a result, an area of about 14 km from the Ningru village to the Namsai township gets water-logged.

GEOLOGY

Introduction

Lohit, the largest among the districts of Arunachal Pradesh, is comparatively less known in the geological literature, probably because of the

difficult terrain conditions and limited accessibility. Nevertheless, the record of geological observations in this district dates as far back as to 1825. Geological interest in the modern sense was, however, taken about four decades ago with particular reference to the eastern syntaial bend in the geotechnical projects and earthquakes. The activities of the Geological Survey are now directed towards the stratigraphic and tectonic problems and investigation of mineral deposits. The ultrabasic rocks in the lower Himalayan region of the district also present an unique geological feature.

Physiography

The terrain may be divided into three main physiographic units as follows :

- (1) The plain-belt of Lohit forming the eastern continuity of the upper Assam plains is drained and often inundated or marooned by the powerful westerly flowing Dibang, Lohit, Kamlang and partly Noa-Dihing rivers. These rivers pour a large volume of waters to the Brahmaputra.
- (2) The lesser Himalayan region rising abruptly from the Lohit plains and comprising a rugged mountainous and forested terrain with conspicuous northwest-southeast ridges with altitudes above 3000 m in its middle reaches.
- (3) The higher Himalayan region, which is normally snow-clad, rises to altitudes around 5200 m. The comparatively low ridges of the lesser Himalayas gradually rise to high snow-covered areas, particularly in the watershed of the Lohit (Tellu) river.

The Lohit and Dibang rivers and their important tributaries emerge from the higher Himalayan region. The Kamlang and Noa-Dihing rivers on the south emerge from the Dapha Bum range of the lesser Himalayas. The Dibang Valley is probably the most awe-inspiring, whereas the Lohit river is the longest antecedent system emerging on the northern side of our frontier.

Tectonics

The general physical succession of rocks as seen from the Lohit plains to parts of the higher Himalayas in the north-east-southwest direction may be represented as below :

NORTH-EAST

Diorite-granodiorite complex

Lohit Thrust

Schistose metasediments (Chlorite-quartz and Mica schists, carbonate rocks, emplacements of basic and ultrabasics.

Thrust (?)

Tidding limestone, quartzites, quartz-sericite schists
(fault and/or unconformity?)

Parametamorphites (high grade schists and paragneisses)

Mishmi Thrust
Upper Tertiaries and/or Quarternary
Lohit alluvial plain

SOUTH-WEST

(i) Diorite-granodiorite Complex

Exposed at about 8 km away from the Tidding bridge on the Tidding-Hayuliang road, the diorite gneisses are thrust (Lohit thrust) against the quartz mica schists. The foliated and amphibole bearing diorite gneisses are further north-eastward, associated with non-foliated granodiorite, foliated biotite gneiss, leucocratic granite, metanorites, pegmatites, marbles, hornblende schists etc. as seen along the Lohit (Tellu) valley up to Walong area. In its north-western strike continuity this zone is identifiable on the Dibang Valley near Endolin. On the south-east of the Lohit (Tellu) Valley, these rocks have been encountered in the Kamlang Valley in the region of Chulam pass on the Dapha Bum range, and further south-eastward they are bound to continue within the zone of the Burmese Axial.

The most characteristic rock type is the foliated grey to greenish coloured diorite gneisses. Bands of amphibole and chlorite schists and marbles have been noted in Minutang Valley and between Minzong and Walong. Masses of non-foliated hornblende granodiorite are seen almost concordantly emplaced in the diorite gneiss. A light coloured somewhat foliated granodiorite rock (leucocratic granodiorite) is also seen emplaced within this complex in the Minutang valley. Metanoritic bodies are seen in the Hayuliang-Tawliang region and on the upstream of the Tellu valley. Most of the gneisses and emplaced rocks show characteristic epidotisation. Some lamprophyric bands have also been described within the dioritic gneiss. It is surmised that granitic bodies akin to the granite bodies of the Putao of Burma may also be occurring further north-east in the higher Himalayan regions.

Although the general foliation is northwest-southeast, the regional changes within this complex indicate folding and strong dislocation movements. The widespread epidotisation observed in the area may be related to the regional shearing movements suffered by these rocks, probably during the Tertiary times. It has been suggested that the appearance of epidote in the Tipam sandstone (Miocene) for the first time in the Assam Tertiary sediments may have some relation with the epidotisation in the Himalayan region of Lohit.

Some surveyors believe that the whole complex belong to the Precambrian age, while others surmise the possibility that this complex might have been affected by successive tectonic and intrusive phases from the pre-early Palaeozoic to Tertiary times.

(ii) Schistose Metasediments

A characteristic group of rock comprising chloritic schists with arena-

ceous bands shows extremely fine banding sometimes accompanied by graded bedding. Upwards in the secession carbonaceous and calcareous bands start appearing while towards the top the schists are mostly arenaceous with chloritic and sercitic constituents. In the Tidding river section, the basal rocks are intimately associated with serpentinites (ultrabasics) showing conspicuous sheared bands. The serpentinites have been recorded as far south-east as the middle reaches of the Kamlang river in the strike continuity. On the north-west the serpentinites have not been reported beyond the Tidding Valley, but the schistose belt is prominent with amphibolitic and occasional carbonate bands in the Dibang Valley as seen south of Endolin. This schistose belt shows regional northwest-southeast trend with moderately high north-easterly foliation/bedding dips. Some surveyors assign it to the Pre-cambrian (Daling) age, and group them with the Tidding limestone, parametamorphites etc. of the frontal range. The other surveyors feel that it could be a flysch facies, probably of the Pre-hercynian geosynclinal belt, which has now been overthrust against the south-western platform rocks represented by the Tidding limestone in the Tidding Valley, and feel that part of these schists might have been granitised into diorite gneisses of the diorite-granodiorite complex.

Tidding limestone, quartzites, quartz schists etc.

Grey crystalline limestone of the Tidding Valley has been traced between the Tidding and Lang rivers, on both sides of the Lohit Valley. From the regional picture it appears that these limestones overlie quartzitic rocks which seem to widen up south-eastwards. Some ill-preserved fossil like casts tempted some to assign the limestone to the early Palaeozoic age. This limestone has not so far been recorded in the Dibang Valley. The limestone is tightly folded and faulted in the Tidding Valley. As the chloritic schists are tentatively considered to be overthrust unit sitting on it, it is possible that this platform facies is tectonically cut off strike-wise.

Parametamorphites

A folded sequence of high grade schists comprising quartz, mica, garnets, graphite, sillimanite schists and para-gneisses (biotite gneiss-augen to banded type) etc. occur on the outermost south-westward ridge of the Lohit Himalaya. These rocks underlie the Tidding limestone, and towards the western base of the ridge finally laminated micaceous quartzitic quartz schists and some marble bands underlie the high grade parametamorphites.

The parametamorphites are found extending as far south-eastwards as the Kamlang Valley east of Wakro. The micaceous quartzites and quartz schists of Demwe-Deningam area physically underlying the high grade metamorphites extend further north-westwards where these are intimately associated with gneisses rocks in the outermost range in the Dibang Valley. In the north-west of the Dibang Valley this unit is represented by fine grained flaggy to schistose quartzites overlying the Mishmi thrust against the narrow

zone of upper Tertiary rocks. It has been suggested that the parametamorphites represent a folded recumbent fold on the Sewak ridge. If so, it is possible that the micaceous quartzites, marbles etc. along the Mishmi thrust are the inverted parts of the fold and possibly these may be smaller thrust slices within this highly tectonised zone. The Mishmi thrust on which the parametamorphites rest has undergone movements at least as late as Pliocene as it overrides the rocks of probably that age, if not the younger ones. In fact, the south-eastern part of the Mishmi thrust shows movements later than that of the Naga thrust which affects the Dihing beds of Man Bum area.

Tertiaries etc.

A narrow zone of sands, minor clays and some pebble beds showing north-easterly trend is seen north-west of the Dibang Valley. In the Nizamghat area similar, Plio-pliocene rocks are seen with a north-westerly trend. These upper Tertiary-Quaternary rocks thus form a knee bend which has been taken as one of the evidences for the syntaxis in this part of the Himalayas. Occurrence of definite Tertiary rocks underlying the Mishmi thrust has not been reported from the south-east so far. But there can be no doubt that the Tertiary-Quaternary rocks immediately underlie the alluvium of the Lohit plains. It is evident from the aeromagnetic surveys indicating nearly 5000 metres of sediments above the basement.

The eastern syntax in the Lohit Himalayas is still a problem to be studied carefully. It is not certain whether the zone of Mishmi thrust (north-west-southeast) in the Lohit District really turns and joins its counter parts with northeast-southwest trend in the Siang District. Moreover, Gondwanas and Miri quartzites of the Siang District are cut off and do not seem to extend in the Lohit Himalayas. An orographic bend may not necessarily mean a similar bend in the constituent formations.

MINERAL OCCURRENCES

Asbestos

Localised occurrences of fibrous amphibole-asbestos are observed at about 1 km upstream of the confluence of Lohit (Tellu) and Tidding rivers on the Tezu-Hayuliang road and in the Tidding Valley. This mineral is usually found to be associated with talc-termolite schist in intimate association with the serpentinites.

Clay

In the Dibang Valley, clay occurs all along the Mishmi thrust in the foothills from Chidu (28°12':95°47') to Koronu (28°03':95°57'). The white brownish clay which is often mixed with crushed quartz occurs in the form of very thin lenses in crushed feldspathic quartzite. These

occurrences are pockety in nature and too small to be considered for economic exploitation.

Copper Ore

Minor stringers of copper ore in the form of chalcopyrite, bornite, covellite, azurite etc. and in association with quartz. Keins have been noticed in hornblende granite boulders in and around the Tellu river, a tributary of the Lohit (Tellu) river near 84.6 km on the Tezu-Hayuliang road.

Graphite

A deposit of low grade graphitic schist occurs at Lalpani ($27^{\circ}56' : 96^{\circ}22'$) at about 50 km from the Tezu-Hayuliang road. The deposit comprises bands of garnetiferous graphite schist in which graphite occurs in the form of fine to medium sized flakes and inclusions. The associated rocks are garnetiferous quartz-mica schist, garnetiferous gneisses, staurolite-kyanite schist, white crystalline limestone and garnetiferous amphibolite. The main graphitic schist body extends for about 1.10 km on the surface with an average width of about 300 m. The total reserves estimated up to a down dip depth of 100 metres are of the order of 71 million tonnes with an average of 5.86% graphitic carbon content.

Limestone

A deposit of good quality (cement grade) crystalline limestone is located at Tidding ($27^{\circ}58' : 96^{\circ}24'$) near the confluence of Tidding and Tellu rivers. The deposit, situated at about 65 km from Tezu can be approached from Tezu by the Tezu-Hayuliang road. Internally folded band of finely-bedded crystalline sometimes massive limestone appears to continue for more than 20 km strikewise. Based on preliminary investigation carried out by the Geological Survey of India, the estimated reserves of the limestone for a length of 1.70 km with an average thickness of 240 m are of the order of 25 million tonnes down to a vertical depth of 50 m.

A detailed surface investigation of the limestone deposit was carried out recently by the Geological Survey of India. The observations are as follows:

(a) *Tezu Area*: Near Tezu ($27^{\circ}54' : 96^{\circ}09'$) there are two occurrences of marble within the metamorphites rising from the Tezu plain. The marble is, in general, white, medium grained and jointed.

(i) *Tezu River Deposit*: A lenticular deposit of crystalline limestone/marble occurring among schists, granulites etc. is located at about 13 km north-west of the Tezu-Denning road. The band has a surface extension of about 1230 m with an average thickness of 92 m. Chemically the marble has shown CaO 24.35 to 31.29%, MgO 0.66 to 12.10%, R_2O_3 0.33 to 1.60% and insolubles—19.64 to 47.4%. The total reserve of marble in this area upto a depth of 50 m is estimated at about 30.3 metric tonnes.

(ii) *Dora River Deposit*: The deposit occurs at about 10 km from Tezu towards the east along the bed of Dora river. There are two major lenses of this calcareous rock within quartz-felspar-sericite schist. The lenses vary from 45 m to 186 m in thickness and from 160 m to 875 m in length. The analytical results show that the marble contains CaO 20.08 to 26.07%; MgO 3.51 to 16.95%, R_2O_3 0.43 to 1.60% and insolubles—28.60 to 48.36%. The probable reserve of this carbonate rock is about 43.3 metric tonnes down to a depth of 50 m.

The physical and chemical properties of the marble occurrences described above indicate that the deposit, in general, are likely to be suitable for lime burning. In somewhat selective manner, the material could also be found useful as building stones and marble chips for mosaic flooring.

(b) *Lohit (Tellu) Valley Deposit*: A 200 metre thick marble band with an intercalating band of hornblende schist (4m) is located west of Bambi ($27^{\circ}58' : 96^{\circ}58'$) village in the Lohit Valley. The marble contains 53.62% CaO , 1.14% MgO , 43% other oxides and 2.53% insolubles.

A number of marble bands are visible along the Tezu-Hayuliang road between 40 km and 70 km stones. They are generally coarse grained and siliceous in nature. However, the banded character and compact nature of these bands may render them useful for lime processes and building purposes.

(c) *Dibang Valley*: Two bands of impure marble of about 40 to 150 m width occur along the Talon river in the Dibang Valley. Another band of about 200 m thickness occurs at about 3 km north of Granli ($28^{\circ}40' : 95^{\circ}56'$) village. A few chemical analyses have indicated presence of high grade calcic bands within the marble. A thin impure marble band is noticeable on the bank of Echi N (Inchinala) near Endolin ($28^{\circ}30' : 95^{\circ}51'$).

Mica

Minor occurrences of biotite and muscovite books in the pegmatite are observed in the Dibang Valley. These are highly crumpled and fractured and about 6 cm to 8 cm in diameter. The muscovite flakes are, however, highly stained rendering them uneconomic.

Pyrite and Pyrrhotite

Minor stringers and patches of pyrite are observed in a 10 m wide band of epidote granulite within hornblende schist west of Orsam village ($28^{\circ}00' : 96^{\circ}58'$) about 16 km downstream of Walong ($28^{\circ}07' : 93^{\circ}01'$) in the Lohit Valley. Strike extension of this zone is not known.

Disseminations and thin stringers of pyrite with rare chalcopyrite are also reported (i) near Arnuli ($28^{\circ}37' : 97^{\circ}01'$) in diorite grains, and (ii) Roing ($28^{\circ}07' : 95^{\circ}50'$) areas about 10 km upstream of the Deopani river in association with chlorite-quartz schist within felspathic quartzite.

These occurrences are of academic interest only.

Talc

Existence of a low grade talcoseschist with pyrite crystals embedded in the schistose matrix is also reported. The talc though of inferior quality could be explored for economic use.

Earthquake

Seismicity is high in this region. In 1897 and 1930 tremors of not very devastating nature were recorded. But, the terrible earthquake of August 15, 1950 with its epicentre close to Rima in Tibet, shook the terrain violently. It was the greatest earthquake recorded in the history of this area and its menacing effects were enormous. It was catastrophic. The earth was shaken and shattered and the tremor continued for a number of days. The earthquake brought down an endless cascade of rocks and boulders into the stricken district. The hills were mutilated from where millions of tons of rocks loosened by the earthquake dislodged themselves and crashed into an appalling explosion. The rock avalanches came thundering down from above the eroded hills and produced a terrifying clatter and an agonising sound which at times turned into a deafening roar. A large cloud of dust raised above enveloped and smothered a vast area.

The devastations in the wooded hills and valleys brought down countless tons of logs and timbers and vegetations over a wide area were absolutely destroyed as though they had never been there. It was a shocking spectacle, for the entire faces of hills were peeled off, leaving not a shred of vegetation. From the top to the bottom, range after range was stripped off, and hardly any tree was visible where there were deep forests. The devastating earthquake of 1950 laid many parts of the land bare and desolate.

A serious consequence of the earthquake was that many rivers were blocked by landslips and choked by debris which fell into them from the rocks. Immeasurable quantity of mud was hurled into torrents turning the sparkling blue water into a thick chocolate brown paste. There were floods in the rivers when the accumulated rubbles broke open causing heavy rush of pent up water. Indeed, profound were the effects of earthquake on the river system of this district, for many cascading torrents were either altogether dried up or ceased to flow except for a trickling thread of water. Some of the rivers changed their courses considerably while some other seasonal channels were swollen into mighty streams.

The damage caused by the great earthquake of 1950 were enormous and many-sided. In some areas, the old tracks were obliterated by a chaotic jumble of granite slabs piled one above the other and many bridges collapsed, or were swept away by the floods. Some villages were buried or extinct. A great part of the flourishing town of Sadiya was destroyed and many neighbouring villages of the area were washed away leaving no trace behind.

FLORA

The hills of Lohit District are covered by very interesting vegetation which has attracted plant explorers from long before. Griffith, a member of the Assam Tea Delegation that travelled in the upper Assam area in search of wild tea discovered many new species. More recently Kingdon-Ward, a professional plant-hunter explored these forests several times in 1926, 1928, 1949 and 1950 and introduced innumerable plants into temperate gardens. The Botanical Survey of India has been studying in detail the vegetation of this district and collecting plants of the area since 1956. A specially organised joint scientific survey team including Geological, Botanical, Zoological, Anthropological and Archaeological Surveys made a two-month study of the area around Dapha Bum in 1969-70.

Conducive climatic and edaphic factors and the geographical location of the Lohit District foster a vegetation luxurious in its density and most varied in its rich species content. Virgin forests are very much restricted to isolated areas where man's destructive hand has not been able to reach as yet. In many areas there are scrub jungles of secondary vegetation that have sprung up on abandoned *jhum* lands. In other areas the vegetation is kept in a sub-climax state by periodic devastation caused by sweeping floods of the numerous mountain streams and rivers that feed the Lohit or red river that gives the district its name. From the plains it is a common sight to see ugly bare soil patches amidst dense forest greenery consequent on huge landslides. The banks and flood plains of several rivulets are choked with gregarious growth of tall grass, chiefly *Neyraudia reyna-udiana* with inter-twining *Equisetum* sp. and dotted with tress of *Bombax ceiba* of various age.

The regions adjacent to the Lohit river and in lower elevations support a deciduous forest with islands of evergreen forests, the vegetation looking very much like that in the adjacent upper Assam plains. The dense vegetation displays a tiered arrangement very much similar to other rain forests. The trees are dense, close together, with tall boles carrying the widespread canopy to the sky. The dominant species are *Dipterocarpus*, *Terminalia myriocarpa*, *Acrocarpus*, *fraxinifolius* and *Chik-macrocarpus*, *Mesua rassia tabularis* with a second line of nearly equally tall trees of *Mesua rassia tabularis*, *Lagerstroemia parviflora*, *Ptersospermum acerifolium*, *Bischofia ferrea*, *Lagerstroemia parviflora*, and *phoebe* sp. Mixed with these are *javanica*, *Cinnamomum* spp, and *Adina cordifolia*, *Schima wallichii*, *Macaranga*, found scattered specimens of *Albizia* sp. and *Bauhinia* spp. *Mallotus* and *Bridelia* sp. *Gmelina arborea*, particularly frequent along stream *Talauma hodgsoni* and *Dillenia indica*, particularly frequent along stream and river margins. These trees are intertwined and enmeshed in a variety of woody climbers or lianes chiefly belonging to the families: *Vitaceae*, *Menispermaceae*, *Cucurbitaceae*, *Acanthaceae*, *Caesalpinjiaceae* and *Mimosaceae*. There is the gymnospermous climber *Gnetum ula* also. Amongst the herbaceous climbers exist members of the family *Piperaceae*, *Araceae*

and *Convolvulaceae*. A particularly nasty climber is the Cane palm or *Calamus* which has sharply reflexed curved prickles all over the plant.

In many open areas and along stream margins gregarious clumps of the screwpine or *Pandanus furcatus* occur with tall grasses of *Arundo donax* and *Sachharum spontaneum*. The small tree and shrub layer is extremely rich, and is composed of members of the family *Verbenaceae*, *Euphorbiaceae*, *Asteraceae* and *Melastomataceae*. There is a profusion of the ferns, mostly belonging to the family *Polypodiaceae*. In many places, the tree-ferns with distinct tall stems and a crown of huge leaves occur gregariously. Some places have a dense growth of the troublesome nettle *Girardinia*.

Herbaceous epiphytic growth occurs on almost every tree. These include chiefly ferns, fern-allies, orchids and members of the family *Gesneriaceae*, *Commelinaceae* and *Zingiberaceae*. The orchid flora is particularly striking when the plants are in bloom. The various genera of orchids present in these forests are *Dendrobium*, *Gymbidium*, *Bulbophyllum*, *Coelogyne*, *Eria*, *Oberonia* and *Pholidota*. Ground orchids like *Goodyera*, *Habenaria*, *Liparis*, *Malaxis* and *Phaius* are also present, particularly in shady, moist humus covered areas of the forest. In similar dark, dingy places, on the roots of trees, may be occasionally seen curious fleshy root parasites like *Balanophora dioica*. It is from the forests of the Mishmi hills that long ago Griffith, one of the very early plant explorers in the area, discovered another very attractive root parasite *Sapria himalayana*. This was again recently collected by the botanists who took part in the Dapha Bum Joint Scientific Surveys Expedition, 1969.

These forests contain several kinds of bamboo, *Bambusa* sp. and *Dendrocalamus* sp. that grow in immense clumps. Another easily recognised group of plants are the palms. These include *Caryota urens*, *Livistona jenkinsiana*, *Didymosperma nana* and *Zalacca secunda*. The notoriously prickly long climber forming thickets within the forest is the cane or *Calamus* which is also a palm. Selected kinds of bamboos and palms are often grown in a semidomesticated way in the vicinity of villages and hamlets to have them handy for various domestic purposes.

Subtropical evergreen forests occur at higher elevations from about 1000 m to 2000 m. These forests are not so dense or impenetrable, which have more modest-sized trees. The components are *Cinnamomum*, *Lindera*, *Magnolia*, *Quercus*, *Castanopsis* and *Pyrus* along with *Talauma*, *Sterculia*, *Mesua*, *Callicarpa*, *Rhus* and *Kydia* of the other smaller tree genera. The undergrowth in these forests is composed of *Oxyspora*, *Melastoma*, *Polygonum*, *Fagopyrum*, *Osbeckia* and *Clerodendrum*. Occasionally there are ground orchids like *phaius* and *calanthe*. In many areas there are gregarious growths of *Hedychium*, *Alpinia* and *Amomum* as also *Forrestia* and *Musa*. Here also the forest floor has a dense growth of varied ferns and fern-allies, *Selaginella* and *Lycopodium* spp. In some areas, particularly in stream beds, the scouring rush or *Equisetum* is also seen. Along the

forest margin may be seen the larger ferns like *Angiopteris evecta* and the tree-ferns *Cyathea gigantea* and *C. spinulosa*.

Above 2000 m the woody vegetation tends to be sparse in the large areas of grassy land. The dominant woody plants are the *Rhododendron*, quite striking when they are ablaze with their gaudy flowers. Others are *Eurya*, *Photinia*, *Pyrus* and *Quercus*. There are scattered clumps of *Vaccinium*, *Gaultheria* and *Berberis* as also of *Rubus* and *Rosa*. In the forest floor, there are numerous herbs of the family *Ranunculaceae*, *Rosaceae*, *Fabaceae*, *Lamiaceae*, *Acanthaceae* and *Asteraceae*.

Above 4000 m the mountain face looks almost bare. The woody vegetation in scattered clumps consists of characteristic coniferous kind including *pinus wallichianae*, *Abies densa* and *Taxus*. There are also *Rhododendron*, quite stunted and scattered.

Further up the mountain tops support an alpine vegetation composed of tussocks of dwarf grass, *Festuca* with scattered herbaceous species of *Rheum*, *Arenaria*, *Sausurea* and *Sedum*, amidst extremely stunted dwarf miniature bushes of *Rhododendron anthopogon* and *Rhododendron nivale*.

Consequent on various developmental activities and increased interference with the balance of nature in these forests, strange weeds have begun to intrude and invade the original vegetation. A striking example of this (which has now become a menace) is the *Asteraceae* climber *Mikania micrantha* which scrambles up trees and shrubs and shrouds them, slowly strangling them to their death. Valuable timber trees are affected by this virulent and noxious climber. Another example is *Eupatorium odoratum* which can outgrow native herbs and thus rob them of their due space for survival.

The local tribal inhabitants thrive on the many tubers, foliage, flowers, fruits and seeds, all harvested from the forest. Their economy is based largely on the forest products. They use the foliage of palms and the screwpines for thatching, bamboo and cane for building and fastening, and for containers for their many domestic needs. The picturesque spiderweb-like suspension bridges slung across numerous streams and rivers, that need a steady head and firm feet to negotiate, are all cleverly constructed of bamboo and enormously long cane strands obtained from the local forests. The people also grow in a semi-cultivated way maize, paddy, *Coix*, *Eleusine*, *Ipomea batatas*, *Amaranthes*, *Shuteria vestita*, *Fagopyrum esculentum* and *Perilla ocimoides*. The highly valued medicinal plant *Coptis teeta* (the dried rhizome is sold as Mishmi teeta) is also grown on a considerable scale as a semi-domesticated plant.

Efforts have been made to beautify the district headquarters at Tezu with introduction of exotic trees like *Jacaranda* and *Eucalyptus*. However, native trees like *Gmelina*, *Adina*, *Albizia* and *Talauma* can also be put in as avenue trees. The gardens in the township contain introduced species of *Musa*, *Tapioca*, *Hibiscus* and *Murraya*.

FAUNA

The fauna of the district is rich and varied. It includes some rare species of wild animals and birds. Zoo-geographically, the district lies in the Indo-Chinese sub-region of the Oriental Zoo-geographical Region, but some elements of Indian sub-region and palaeoarctic region are also represented in this area. The district receives a large number of migratory species of birds that breed in the north of the Sino-Himalayan area. Birds of Indian sub-region are also well represented. The fauna of the district are classified under the following heads.

Birds (Aves)

The alluvial plains at the foot of the hills extending from Sadiya to Tezu is preferred by several species of babblers, chats warblers (Muscicapidae), bulbuls (Pycnonotidae) mynahs (Sturnidae), king-crows (Dicuridae) and quails (Phasianidae), especially the little Bustard quails *Turix sylvatica* (Desfontaines) is quite common in scrubs, grasses and in the neighbourhood of cultivation. In the lowland boggy and marshy area, along the river course, pools and tanks, some game-birds such as the swamp partridge *Francolinus gularis* (Temminck), the cotton teal *Nettapus coromandelianus* (Gmelin), the whistling teal *Dendrocygna javanica* (Horsfield), *D. bicolor* (Vieillot), the spotted duck *Anas poecilorhyncha* (J. R. Forster) and the comb duck, *Sarkidiornis melanotos* (Pennant) are found throughout the year. With the advent of the rainy season, the population of waterfowls increases to a considerable extent. Moreover, during this time visiting waterfowls pour in from the north. Not only the ducks, geese, teals and pochards are seen in the streams, rivers and the stagnant pools etc. but the waders too are found. The lowland jungle on the slopes of the hills is the home of the kaleej pheasant (*Lophura leucomelana lathan*) and the red jungle fowl (*Gallus gallus spadiceus* Bonnatere).

The steep precipitous hill slopes bear lofty dense evergreen jungle comprising enormous forest trees covered with creepers and mosses. Rattan brakes, wild bannanas, tree ferns and bamboo clusters are predominant and goat-weed and spiny creeper loops grow at the forest edge. Here one meets the peacock-pheasant *Polyplectron bicalcaratum* (Linnaeus), the little bush-quail *Turix sylvatica* (Desfontaines), the Scimitar babbler, *Pomatorhinus schisticeps* Hodgson, Wren-babblers, such as *Napothera pnoepyga*, *Spelaeornis*, the slaty-bellied ground warbler, *Tesia elivea* (Mc Clelland), a great variety of flycatchers (Muscipapidae) etc. The high trees in the forest edges and the trees in cleaned space in dense forests serve as perch and nesting place of hornbills, commonly the rufousnecked hornbill, *Aceros nipalensis* (Hodgson), the great pied hornbill (*Buceros bicornis* linn) and the white-throated brown hornbill *Ptilolaemus tickelli* (Blyth). The presence of these birds in the forests can be detected

by the whirring sound they produce during flight. The other groups of birds that are observed are barbets (Capitonidae), woodpeckers (Picidae), trogons (Trogonidae), orioles (Oriolidae), spiderhunters and brilliantly coloured sunbirds (Nectariniidae).

In the montane type of forest the rufousthroated partridge (*Arborophila rufogularis*) (Blyth), the redbreasted hill partridge (*Arborophila mandellii* (Hume), the blood pheasant *Ithaginis cruentus* (Hardwicke), the Blyth's tragopan (*Tragopan blythii*) (Jerdon), the Temminck's tragopan (*Tragopan temminckii*) (J. E. Gray) are commonly found. About 4000 metres and above scalaters menal (*Lophophorus sclateri* Jerdon), eared pheasant (*Crossoptilon crossoptilon*) (Hodgson) are found in suitable places. In the higher altitude over 4500 metres, the Tibetan snow cock *Tetraogallus tibetanus* (Gould), Tibetan partridge *Perdix hodgsoniae* (Hodgson) are observed among alpine scrub and the dwarf rhododendron searching for food among mosses and lichens. Besides the pheasants, some other birds of resplendent plumage that reside in higher altitudes such as the great himalayan barbet *Megalaima virens* (Beddaert), the chestnut-headed ground warbler *Tesia castaneocoronota* (Burton), the striped throated minla, *Minla strigula* (Hodgson) and the tit-babbler *Alcippe cinerea* (Blyth), the ibisbill *Ibidorhyncha struthersii* Vigors are found along torrential stream waterfalls which break the monotony of the dense forest.

During the winter, concentration of bird population increases to a greater extent by the augmentation of the migratory birds from the northern Asia. From the Himalayas and Tibet, the brahminy duck *Tadornua ferruginea* (Pallas) visit the river waters. The common teal (*Anas crecca* Linnaeus), the mallard (*Anas platyrhynchos* Linnaeus), the gadwall (*Anas strepera* Linnaeus), the garganey (*Anas querquedula* Linnaeus), the shovella (*Anas clypeata* Linnaeus) are common holarctic and palaeoarctic waterfowls that visit the watered area. The wintering waders are the red shank *Tringa totanus* Linnaeus, the green sandpiper *Tringa ochropus* Linnaeus, common sandpiper *Actitis hypoleucos* (Linnaeus).

The presence of the white-winged wood-duck (*Cairina scutulata*) (S. Muller) in this area which is a rare bird today may also be mentioned. It was reported to be common in eastern Assam and Arunachal Pradesh some 50 years ago in streams and pools canopied by shaded trees and creepers in the deeper parts of forests. The monal pheasant (*Lophophorus sclateri* Jerdon) and the Temminck's *Tragopan temminckii* (J. E. Gray) are scarcely seen, although half a century ago the picture was altogether different.

Mammals

Of the wild mammals the following are the more important ones.

Among the carnivores, the tiger *Panthera tigris* (Linnaeus) and leopard

Panthera pardus (Linnaeus) are frequently met with. The former inhabits humid evergreen forests while the latter prefers the rocky terrain. They are nocturnal in habit. The jungle cat (*Felis chaus* Guldendaedt) inhabits the drier and more open parts of the country keeping more to grass lands. The golden cat (*Felis temminckii* Vigors & Horsfield) lives in rocks. The larger Indian civet (*Viverra zibetha* Linnaeus) is a solitary creature sheltering in bushes or scrub jungles while the common palm civet *Paradoxurus hormaphroditus* (Hodgson) is more abundant in warmer forests. It is diurnal and feeds on birds and smaller mammals. The Himalayan black bear *Selenarctos thibetanus* (G. Cuvier) is occasionally found. It is an undesirable neighbour as it destroys larger quantities of crop and at times kills cattle.

Different kinds of deer of which the principal varieties are the sambar (*Cervus unicolor* Kerr), the flog deer (*Axis porcinus* Zimmermann) and the barking deer (*Muntiacus muntjak* Zimmermann). They live in the thickly wooded hills. The sambar feeds mainly at night and retires into heavy cover at day break and does not usually come out till dusk. The hog deer favours grass jungles by the bank of rivers. It comes out to feed early in the morning and the evening and shelters in the long grasses during the hot hours of the day. The barking deer is diurnal in habit. The serow *Capricornis sumatensis* (Bechstein) favours the elevation between 2000 and 3000 metres and are solitary creatures. Herds of wild buffaloes (*Bubalus* Linnaeus) are found north of Brahmaputra. The wild boar (*Sus scrofa* Linnaeus) lives in the grassy and bushy jungles of this region.

The Indian elephant (*Elephas maximus* Linnaeus) is fairly common, especially at the foot of the hills.

Among the other common mammals the Assamese macaque (*Macaca assamensis* Maclelland) is abundant in the forests while the langur *Presbytis pileatus* (Blyth) inhabits the southern portion of the district. Both of them are found in small or large troupes and sometimes cause heavy damage to the crops.

The Chinese pangolin (*Manis pentadactyla* Linnaeus) is an interesting mammal. It has protecting scales on the upper part of the head, the back, on the whole tail and the outer sides of the limbs. It lives in burrows made by itself and sleeps with its head between the forelegs and its tail firmly folded over it. It feeds on termites and the ants.

Among smaller mammals the insectivores and the rodents are very common. Rats are responsible for causing heavy damage to cultivation and several kinds of human diseases, such as plague, rat-bite fever etc. The common varieties are long-tailed tree mouse (*Vandeleuria oleracea* Bennett), the common house rat (*Rattus rattus* Linnaeus), the white bellied rat (*Rattus niveiventer* Hodgson), the fawn coloured mouse (*Mus cervicolor* Hodgson) and the bamboo rat [*Canomys badius* (Hodgson)]. Various types of squirrels, namely Pallas's squirrel (*Callosciurus erythraeus* Pallas), the

Irrawaddy squirrel [*Callosciurus pygerythrus* (Geoffroy)], the giant flying squirrel [*Petaurista petaurista* (Pallas)] and the Malayan giant squirrel (*Ratufa bicolor* Sbarmann) are found at different heights. They feed on fruits, leaves, buds etc. The flying squirrel has parachute like membranes on both sides of the body between the fore and the hind limbs and glides through the air smoothly and swiftly downwards.

The shrews are also not less economically important. They are helpful to mankind in eradicating a large varieties of obnoxious insects. But they are equally destructive to plantation as they cut down the roots of plants at the time of burrowing. The common tree shrew (*Tupaia glis* Diard), the eastern mole (*Talpa micrura* Hodgson), the long-tailed shrew [*Soriculus leucops* (Horsfield)], the house shrew [*Suncus murinus* (Linnaeus)] and the burrowing shrew [*Anourosorex squamipes* (Milne-Edwards)] are of common occurrence.

Lagomorph like mouse hare [*Ochotona pusilla* (Pallas)] is also found.

Many kinds of insectivorous bats are found in old premises, caves and forests. The most commonly occurring species are the himalayan horse shoe bat [*Rhinolophus perniger* (Hodgson)], the Indian pipistrelle (*Pipistrellus coromandra* Gray), the Indian pigmy pipistrelle (*Pipistrellus mimus* Wroughton) and the mustachioed bat [*Myotis muricola* (Hodgson)]. Another variety occasionally occurring is the Indian false vampire, (*Megaderma lyra* Geoffroy) which is a blood sucking bat, feeding upon the blood of small pipistrels etc.

Reptilia

Very scanty information of the occurrence and distribution of the reptile fauna of the Lohit District is available. So far only one species of black krait (*Bungarus niger* Wall) of the family Elapidae is recorded. But considering the occurrence of about 42 species of Chelonia, lizard and snakes in the adjoining districts of Siang and Tirap, it may be surmised that these species of reptiles are likely to occur in the Lohit District also.

The following is an account of reptiles found in the Siang and Tirap Districts :

Only one species of Chelonia [*Kachuga kachuga* (Gmelin)] of the family Emydidae is represented in the Siang District.

Fifteen species of lizards found in the Siang District include five Gekkonids of the family Gekkonidae [*Gymnodactylus khasiensis* (Jerdon), *Hemidactylus brooki* Gray, *H. bowringi* (Gray), *H. frenatus* Schlegel and *Platyurus platyurus* (Schneider)]; four agamids of the family Agamidae [*Ptyctolaemus gularis* (Peters), *Acanthosaura minor* (Gray), *Calotes jerdoni* Gunther and *Draco maculatus* (Gray)]; three skinks of the family Scincidae [*Lygosoma indicum* (Gray), *Lygosoma couroyanum* Annandale, and *Mabuya macularia* (Blyth)]; and one lacertid of the family Lacertidae [*Takydromus saxineatus* (Daudin)]; one anguid of the family Anguidae

[*Ophisaurus gracilis* (Gray)] and one varanid of the family Varanidae [*Varanus bengalensis* (Daudin)].

The snakes of the Siang and Tirap Districts are represented by 26 species and out of these only four species, one krait [*Bungarus niger* (Wall)] and one coral snake [*Callophis maccllellandi* (Reinhardt)] of the family Elapidae and other two species of pit vipers [*Trimeresurus monticola* (Gunther)] and [*Trimeresurus gramineus* (Shaw)] of the family Viperidae are highly poisonous.

The harmless snakes are numerous and are represented by 22 species under two different families, i.e. Typhlopidae and Colubridae. The Typhlopidae (blind snakes) family is represented by two species only [*Typhlops diardi* (Schlegel) and *Typhlops jerdoni* (Boulenger)]. The small wormlike snakes of the genus Typhlops are specialised for burrowing. Other harmless snakes belong to the family Colubridae and consist of the following species :

Elaphe porphyracea (Cantor)
Elaphe mandarina (Cantor)
Elaphe taeniura (Cope)
Blythia reticulata (Blyth)
Boiga gokool (Gray)
Dendrelaphis gorei (Wall)
Ahaetulla prasina (Boie)
Natrix piscator (Schneider)
Natrix khasiensis (Boulenger)
Natrix platyceps (Blyth)
Oligodon albocinctus (Cantor)
Oligodon erythrorhachis (Wall)
Ptyas mucosus (Linnaeus)
Ptyas korros (Schlegel)
Pseudoxenodon macrops (Blyth)
Psammodynastes pulverulentus (Boie)
Pareas monticola (Cantor)
Liopeltis frenatus (Gunther)
Sibynophis collaris (Gray)
Trachischium monticola (Cantor)

Protochordata and Amphibia

As no authentic record of amphibians existing in the Lohit District, the amphibians recorded from the Siang District may be mentioned here, for they are likely to occur in the neighbouring region of Lohit too. Different kinds of amphibians have been recorded from the Siang District. Some of these are purely arboreal and the rest are aquatic, semi-aquatic and terrestrial. The arboreal forms are found on the under-side of leaves, inside the holes made on tree-trunks, under barks and bushes. The variety which is found inside bushes is commonly known as bush-frog, the examples

of which are *philautus arqus* and *Philautus tuberculatus*, and those which are living on trees are known as tree-frogs, e.g. *Rhacophorus maculatus himalayensis*, *Rhacophorus maximus*, *Rhacophorus naso*, *Rhacophorus microdiscus*, *Phrynomoderm moloch* and *Megalophrys kempi*.

Rana limnocharis limnocharis (the paddy-field frog), *Rana liebigii* (Himalayan bull frog), *Rana alticola*, *Rana gerbillus*, *Staurois afghana* (Himalayan stream frog) and *Micrixalus borealis* recorded from the area are found either in or near the water or in such a place where sufficient moisture is present to keep the skin of the frog wet.

The purely terrestrial amphibians are toads which need to go to water only during the breeding season. The toads possess numerous glands on the skins, and the secretion of glands keep the skin moist.

The Himalayan Toad (*Bufo himalayanus*) has been recorded from the Siang District.

Mollusca

Phylum	Mollusca
Order	Mesogastropoda
Family	Cyclophorocidae

Alycaeus borahma Godwin-Austen
Alycaeus lohitisensis Godwin-Austen
Diorix urnula Benson
Diorix urnula Var. *globosa* Godwin-Austen
Pterocyclus brahmakundensis Godwin-Austen
Rhaphaulus assamicus Godwin-Austen
Rhaphaulus blanfordi Benson

Order	Stylommatophora
Family	Corillidae

Plectopystis brahma Godwin-Austen

Family	Ariophantidae
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Macrochlamys terminus Godwin-Austen

General Non-Chordata

Phylum	Annelida
Class	Chaetopoda
Order	Oligochaeta

Drawida Kempi Stephenson
Drawida nepalensis Michaelsen
Tonoscolex oneilli (Stephenson)
Desmogaster ferina Gates
Pheretima diffringens (Baird)
Perionyx excavatus Perrier
Perionyx modestus Stephenson

Dichogaster bolau (Michachen)*Dichogaster saliens* (Baddard)

Fresh Water Fish

Order
FamilyCypriniformes
Cyprinidae*Tor putitora* (Ham)*Chagunius chagunio* (Ham)*Labeo dero* (Ham)*Semiplotus semiplotus* (McCill)*Schizothorax plagiostomus* Heckel*Puntius terrarupagus* (McCill)*Rasbora daniconius daniconius* (Ham)

Family

Cobitidae

Noemacheilus manipurensis Chaudhuri

Family

Nandidae

Badis badis (Ham)

Insecta

Order
FamilyDictyoptera
Blattidae*Paranauphoeta* sp.*Homalophilpha ustulata* Sauss*Trichoblatta sericea* Sauss*Pycnoscelus surinamensis* (L.)*Stictolampra plicata* (Navas)*Salganea morio* Brunn*Panesthia stellata* Sauss*P. laevicollis* Sauss*Hebardina concinna* (Haan)*Blattella germanica* (Linn)*Salganea morio* (Burm)

Order

Orthoptera
Grylloidea

Super Family

Velarifictorus lohitis Tandon & Shishodia*Oecanthus indicus* Sauss*Homoeoxipha lycoides* (Walk)*Pteronemobius taprohanensis* (Walk)

Family

Acrididae

Cantantops pinguis innotabilis (Walk)*Stenocatantops splendens* (Thumb)*Xenocatantops humilis humilis* (Serville)*Trilophidia annulata* (Thunberg)*Chondracris rosea* (De-Geer)*Acrida exaltata* (Walker)

Family

Pyrgomorphidae

Atractomorpha crenulata (Fabr)

Acarology

Amblyomma testudinarium Koch*Boophilus microplus* (Canestrini)*Dermacentor auratus* Supino*Haemaphysalis cornigera* Neumann*Haemaphysalis davis* Hoogstraal, Dhanda & Bhat*H. formosensis* Neumann*H. hystricis* Supino*Ixodes ovatus* Neumann

Diptera

Family

Muscidae

Stomoxys calcitrans Linnaeus*Haematoleia (Bdellolarynx) sanguinoleuta* Austen*Lyberosia exigua* de Meijere*Orthellia fletcheri* Emden*Orthellia claripennis* Malloch" *coerulea* Weidemann" *challeyes faceta* Enderlein" *indica* (R.D.)*Atherigona destructor* Malloch" *bituberculata* Malloch*Musca domestica* Linnaeus" *Sorbens* Wiedemann" *ventrosa* Wiedemann" *conducens* Walker" *crassirostris* Stein" *malaisei* Enderlein" *gilesoni* P. & C." *lusaria* Wiedemann

Family

Syrphidae

Paragus rufiventris Brunetti" *indicus* Brunetti*Syrphus transversus* Brunetti" *balteatus* De-Geer" *serarius* Wiedemann

Eristalis tenax Linnaeus
 „ *solitus* Walker
Sphaerophoria nigratarsis Brunetti
Asarcina aegrota Fabricius
 „ *ericetorum* Fabricius
Baccha amphithoe Walker
Chrysotoxum leaphyrus Walker
Melanostoma orientale Wiedemann
 „ *univittatum* Wiedemann
Sphegina tristriata Brunetti
Megaspis zonatus Fabricius

CLIMATE

The climate of the district is largely influenced by the nature of its terrain. There are high hills and snow-capped mountains, deep ravines and wide valleys intersected by innumerable streams and rivers. Except in the south-western corner of the district, the elevation ranges from 2,000 m to 4,000 m with mountain ridges and peaks rising to 4,500 m to 5,000 m (15,000 to 17,000 ft) above the sea level at many places. As a result, the climate is cool and highly humid in the lower elevations and in the valleys, and intensely cold in the higher elevations.

The winter prevails during the months from late November to early March. The period from March to May is the pre-monsoon season and it is one of frequent thunderstorms followed by the south-west monsoon prevailing from the month of June to about the middle of October. The second fortnight of October and the month of November may be termed as the post-monsoon or the transition period. During the months from November to March precipitation, mostly in the form of snowfall, occurs in the northern areas. As a result, cold air may cause considerable drip in temperature everywhere.

Rainfall

The average annual rainfall in the south-western part of the district, where the elevations are comparatively lower than that of the other parts, is 4,500 mm to 5,000 mm (177" to 197"). The rainfall may be much more heavy in the north and eastern regions. The amount of rainfall is likely to be less in the higher mountainous regions due to snowfall. As the rainfall of the area is greatly influenced by the mountain system, sharp variations and contrasts in the amount of rainfall from place to place are possible. The variation in rainfall from year to year is, however, not significantly large. Most of the rainfall is received during the monsoon. The period March to May is marked by heavy showers and thunderstorms.

The district of Lohit as a whole falls in the heavy rainfall area. The rainfall charts are at Tables I and III appended to this chapter.

Temperature

As stated before, the winter sets in towards the end of November and continues till early March. The coldest months are January and February, but the degree of coldness varies from place to place due primarily to altitude. On many days during this season the minimum temperature may fall below the freezing point particularly in areas above 1,500 m (5,000 ft). The temperature rises steadily after February. As in Upper Assam, there is no summer season in the district. The temperature is generally lower in the period March to May than in the south-west monsoon season, and a moderately cool weather prevails in the lower regions. The period July to August is the warmest part of the year. With the disappearance of the south-west monsoon early in October temperature begins to fall rapidly. The Tables II and III at the end of this chapter gives information about temperature.

Humidity

Humidity is high practically throughout the year, decreasing only slightly in the winter months.

Cloudiness

In the post-monsoon season the sky generally remains clear, although at times it becomes lightly clouded. During the winter season the morning sky is covered with fog, which disappears as the day wears on, leaving sometimes a thin layer of cloud in the afternoon. The clouding increases in the afternoon during the period March to May. In the south-west monsoon season, the sky remains overcast with heavy cloud.

Winds

Winds are generally light, increasing slightly in the monsoon months. Strong winds with thunderstorms may blow occasionally during the period March to May.

Special Weather Phenomena

Cyclonic storms, which sometimes move from Bay of Bengal to Assam, seldom affect the weather in this district. Thunderstorms occur frequently in the months from February to June and in the early post-monsoon period. The thunderstorms occurring particularly during March to May are similar to the norwesters of Bengal, and are often violent. Fog appears frequently in the post-monsoon and winter months especially in the valleys.

TABLE I
ANNUAL RAINFALL AT DIFFERENT PLACES OF LOHIT DISTRICT
(in centimetre)

Sl. No.	Rain gauge stations	1969	1970	1971	1972	1973	1974	1975
1	2	3	4	5	6	7	8	9
1.	Tezu	247.03	379.99	272.00	293.42	349.00	270.00	301.00
2.	Chaglagam	235.65	309.29	186.00	219.62	65.00	NA	NA
3.	Wakro	281.81	414.50	324.00	358.35	346.00	145.00	356.00
4.	Sunpura	186.84	278.69	206.00	223.00	230.00	233.00	NA
5.	Walong	96.12	200.20	76.07	103.20	132.68	103.00	88.00
6.	Namsai	204.75	265.70	323.08	218.80	209.27	288.00	165.00
7.	Chowkham	198.59	290.22	249.08	236.00	250.00	297.00	213.00
8.	Kibithoo	72.18	183.81	78.07	112.00	132.00	212.00	145.00
9.	Hawai	122.64	203.05	42.00	192.70	222.00	232.00	200.00
10.	Roing	NA	321.40	395.00	384.00	364.00	391.00	NA
11.	Anini	NA	295.90	163.45	214.30	211.00	274.00	NA
12.	Hayuliang	NA	NA	NA	NA	377.00	469.00	370.00
13.	Desali	NA	NA	222.00	294.00	369.00	386.00	NA
14.	Dambuk	NA	NA	632.00	537.00	659.00	622.00	NA

NA = Not available.

Source : Statistical Hand Books of Arunachal Pradesh, 1973-74 and 1975-76.

TABLE II
MONTHLY MAXIMUM AND MINIMUM TEMPERATURE
(in centigrade)

Month	1972				1976			
	Tezu		Walong		Tezu		Walong	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
1	2	3	4	5	6	7	8	9
January	25.61	4.6	25.3	09.30	27.0	5.0	NA	NA
February	26.9	5.1	25.0	0.5	28.0	9.0	NA	NA
March	32.5	10.1	29.6	4.0	30.0	7.0	26.0	1.0
April	31.3	11.8	28.1	3.6	33.0	12.0	25.0	1.0
May	34.6	13.7	32.0	7.2	34.0	15.0	26.0	5.0
June	36.1	12.7	35.0	10.8	35.0	17.0	31.0	10.0
July	37.3	21.7	35.0	15.0	37.0	22.0	32.0	10.0
August	36.9	20.5	35.0	10.5	35.0	22.0	31.0	10.0
September	35.7	19.3	32.0	10.4	35.0	21.0	35.0	0.0
October	34.7	13.5	34.5	5.0	32.0	14.0	36.0	1.0
November	31.4	8.9	28.1	0.2	34.0	11.0	26.0	1.0
December	29.1	4.7	25.8	0.5	26.0	5.0	21.0	6.0

NA = Not available.

Source : Statistical Hand Books of Arunachal Pradesh, 1973-74 and 1975-76.

TABLE III
TEMPERATURE RAINFALL AND HUMIDITY IN LOHIT DISTRICT
YEAR—1974

	Temperature (Centigrade)		Rainfall (mm)	Humidity (Percentage)
	Maximum - Minimum			
January	25.3	- 5.0	28.8	91%
February	28.3	- 5.7	6.2	88%
March	31.1	- 8.9	68.6	90%
April	33.3	- 11.7	70.6	84%
May	37.1	- 17.3	108.8	73%
June	35.5	- 10.9	117.4	93%
July	35.1	- 19.6	338.4	97%
August	37.7	- 20.5	132.8	93%
September	35.7	- 19.7	32.6	88%
October	35.7	- 16.1	96.8	75%
November	22.1	- 18.7	2.0	90%
December	23.9	- 14.6	28.6	77%

Source : Regional Meteorological Centre, Alipur, Calcutta.

(C. 900 B.C.). The Sabhaparva (Book II) of the Mahabharata gives out that Bhagadatta, the King of Pragjyotisa (Kamarupa or Assam), with his Cina and Kirata hosts took the side of the Kauravas in the battle. The Kiratas may reasonably be identified with the Indo-Mongoloid Bodos of Assam, and the Cinas with the tribes of the adjacent hills.¹

It appears from the references in the Epic, that Assam and its adjacent hills came within the domain of the Mahabharata in the pre-Christian era. The Greek classical literature also bear evidence that the Lohit region was not wholly unknown to the author of the Periplus of the Erythrean Sea (1st-2nd century A.D.) as also to Ptolemy.² The Geography of Ptolemy (C.150 A.D.) refers to a line of north-eastern hills of India of which Casius perhaps refers to the Mishmi Hills.³ It further describes that Serica, which was probably the Greek name of Upper Assam, is bounded on the east and the north by hills and forests where canes are used for bridges. Obviously, there are wonderful cane-bridges in Arunachal Pradesh even today, and they display the superb craftsmanship and engineering skill typical of its people. Although these vague allusions do not convey much about the land and the people, the Kirrhadae mentioned in the Periplus and the Kirrhadia of Ptolemy have an unambiguous reference to the country of the Kiratas extending from the far-off Sadiya region to South-East Bengal.

Bodos

The Bodos, an Indo-Mongoloid people, who held sway over Assam and the neighbouring hills for centuries, came of the Kirata stock.⁴ The main tribes of the Bodos were Koch, Kachari, Mech, Garo, Lalung, Rabha, Tipra, Hajong, Hojai, and Dimasa. The Chutiyas are also identified with the Bodos. The wide range of their settlements and the influence of their language over the whole of the Brahmaputra Valley, parts of North and East Bengal indicate that the Bodos were the most dominant Indo-Mongoloid people in eastern India till the advent of the Ahoms in the thirteenth century A.D. To quote Edward Gait, "The wide extent and long duration of Bodo domination is shown by the frequent occurrence of the prefix *di* or *ti*, the Bodo word for water, in the river names of the Brahmaputra Valley and the adjoining country to the west, e.g. Dibru, Dikhu, Dihing, Dihong, Dibong, Disang, Diphang, Dimla etc. In some cases the old name is disappearing—the Dichu river for instance, is now better known as the Jaldhaka—while in others it has already gone, as in the case of the Brahmaputra, which in the early days of Ahom rule was known as the

¹ S. K. Chatterji, *Kirata-Jana-Krti*, (Calcutta, 1951), p. 20. Hem Barua, *The Red River and the Blue Hill*, (Gauhati, 1962), p. 15.

² P. C. Choudhury, *The History of Civilisation of the People of Assam*, (Gauhati, 1966), p. 35.

³ *Ibid.*, p. 33.

⁴ S. K. Chatterji, (a) *Kirata-Jana-Krti*, (Calcutta, 1951), p. 23. (b) *The Place of Assam in the History and Civilisation of India*, p. 18.

Ti-Lao. The latter word was doubtless the origin of another old name for this river, viz., Lohit or Lau-hitya (red). The Ahoms ruled in Assam for six hundred years, but their word for river (*nam*) occurs only in a few instances in the extreme east, e.g., Namrup, Namtsik and Nam-sang. They called the Dikhu the Namchau, but the earlier Kachari (Bodo) name has survived in spite of them. The Ahoms, of course, were relatively few in number, but they were the dominant race, and the fact that, compared with the Bodo tribes, they have left so few marks on the toponymy of the country may perhaps be taken to show that the period for which the latter were supreme was far longer than that for which the Ahoms are known to have ruled.¹ The river and place-names Dibang, Dihing, Digaru, Dichu, Namsai, Namsang, Nampong etc. in the Lohit and Tirap Districts of Arunachal Pradesh bear to this day the reminiscences of the Bodos and Ahoms.

The toponymy proves beyond all doubt that some of the Bodo tribes penetrated deep into the lower regions of Arunachal Pradesh and in all probability they formed a substratum of its early population. Now there is no strain of the Bodos in Arunachal due, perhaps, to endemic feuds and warfare leading to large-scale migrations. According to Dr. S. K. Chatterji, "The north Assam Tribes of the Adis and Akas, Daflas and Miris and Mishmis appear to have come later and to have established themselves in the mountains to the north of the Brahmaputra plains already in occupation of the Bodos and by some Austric and possibly, also Dravidian tribes which preceded the Indo-Mongoloid Bodos in this tract."²

Account of Hiuen Tsang

The great Chinese traveller Hiuen Tsang, who came to Assam in about 642 A.D. during the reign of Bhaskaravarman, noted that the country of Kamarupa (ancient Assam) was about 10,000 li (nearly 1,700 miles) in circuit. The tribes living in this country were akin to the Mans of Burma in their customs. He observed that the people were simple and honest. The men were of small stature and their complexion a dark yellow. Their language differed a little from that of mid-India. Their nature was very impetuous and wild.³

Hiuen Tsang's definition of the limits of Kamarupa suggests that the country had extended as far to the east as do the modern State of Assam and territory of Arunachal Pradesh taken together. The anthropometric description of the people as having short stature and yellow complexion, their alleged affinities with the Mans and their manners allude to their Mongoloid origin, and more particularly to their Bodo characteristics.

¹ Edward Gait, *A History of Assam*, (Calcutta, 1967), pp. 6-7.

² S. K. Chatterji, *The Place of Assam in the History and Civilisation of India*, p. 10.

³ Edward Gait, *A History of Assam*, (Calcutta, 1967), pp. 28-29.

MEDIEVAL PERIOD

The Chutiyas and the Ahoms*

The Ahoms, a Thai or Shan tribe, appeared on the eastern tip of Assam in 1228 A.D.—the date from which they embarked on a career of invasion of first the eastern Assam and then gradually the whole of Brahmaputra Valley. They came from North Burma through the Patkai Pass and advanced along the course of the Noa-Dihing river. At the outset of their victorious campaigns, the Ahoms had to measure their strength with the Chutiyas and the Kacharis, the two powerful Bodo tribes of north-eastern Assam. The Chutiyas were ruling in the region around Sadiya, in the eastern extremity of Assam and their dominion extended into the foot-hill areas of the Lohit District. They gradually came into the fold of the Tantric school of Brahmanical Hinduism and were considerably Hinduised by the time the Ahom intrusions in their territory were taking place.¹ They put up a stiff resistance to the Ahoms and in a series of battles culminating in 1523 A.D., they were defeated by the Ahom King Suhunmung (1497-1539) also known as Dihingia Raja. The Chutiya territory was annexed to the Ahom Kingdom and put under an Ahom ruler known as "Sadiyakhwa Gohain" or the Viceroy of Sadiya. A contingent of the Ahoms was stationed in Sadiya and on the banks of the Dihing river to ensure complete subjugation of the Chutiyas. The surviving members of the Chutiya royal family and other Chutiya leaders were deported to Pakariguri, while a number of Brahmins, Kayasthas, Kalitas, Daivajnas, bell-metal workers, goldsmiths, blacksmiths and other skilled artisans were removed from Sadiya to the Ahom capital.²

Kingdom of Bhismak

Epigraphy testifies to the existence of an old kingdom on the north-eastern outskirts of Assam. A copper plate inscription ("The Gauhati Grant") of Indrapala, the King of Kamarupa (1040-1065 A.D.) states that his father Purandarapala had matrimonial alliances with the royal family 'reigning over the extensive territory reclaimed by the arms of Parasuram'.³ The territory mentioned in the inscription is probably the same as the kingdom of Bhismak referred to in the old literature. According to the Mahabharata a king named Bhismak was the ruler of Vidarbha. Vidarbha is generally known as modern Berar, but the popular tradition in Assam locates this kingdom near Sadiya where a place called Bhismak-

* The name Chutiya is also spelt as 'Sootiya'.

¹ (a) E. T. Dalton, *Tribal History of Eastern India, (Descriptive Ethnology of Bengal)*, (Delhi, 1973), p. 77.

(b) Edward Gait, *A History of Assam*, (Calcutta, 1967), pp. 42-43.

(c) S. K. Chatterji, *Kirata-Jana-Krti*, (Calcutta, 1951), pp. 56, 66-67.

² Edward Gait, *A History of Assam*, (Calcutta, 1967), p. 89.

³ S. K. Bhuyan, *Atan Buragohain and his times*, (Gauhati, 1957), p. 243.

nagar or the city of King Bhismak existed. The story of Bhismak as given in the Bhagavata, the Mahabharata and the Vishnu Purana and also in the Rukmini-Harana of Sankaradeva narrates how Krishna married Rukmini against the wishes of her father Bhismak, who arranged her marriage with another prince named Sisupala. The episode seems to have had its origin in the expansion of Aryan culture in this part of the country. It is, however, significant that there exist at a place called Bhismaknagar in the Lohit District ruins of an extensive fort which are attributed to Bhismak, the mytho-historical king of Assam. According to the tradition and the Vishnu Purana, his capital was at Kundina on the Kundil river flowing through the Sadiya region. Kundina is said to be near Sadiya,¹ but its exact location is not yet known. The floods might have effaced the trace of it just the same way as a great part of Sadiya was washed away in 1952. It may also be surmised that Kundina was the earlier name of Bhismaknagar.

The Kalitas

Bhismak was probably a king of the Kalita Desa.² This assumption is based on an early Assamese scripture written in prose and purported to be the biography of Sankaradeva (16th century), the great Vaishnava reformer of Assam, in which it is indicated that the Kalita Desa or the land of the Kalitas was situated in the neighbourhood of Sadiya near the territories occupied by the Adis and the Miris. The book contains the genealogy of a disciple of Sankaradeva named Gopala Ata, whose mother came to the Acama land (the country of the Ahoms) on the fifteenth day of her journey from the village of Cek-kham-hat-ji-nai in the Kalita Desa across high hills, big forests and the settlements of the Adis, the Miris and the Carimati-Miris.³

The Kalitas are said to have brought into Assam an Aryan culture. They descended from a priestly order and until recently they were acting as priests and preaching Hinduism to other peoples. The Kalitas of Assam represent an ethnic type of Alpine or early Aryan origin. T. Bloch is of the opinion that "the country east of Sadiya was at former time better known to and in closer touch with the Aryan population of North India than at present."⁴ The genealogy of Gopala Ata shows that the country of the Kalitas was ruled by a king, and the people bore Hindu names like Vasudeva, Harideva, Sankaradasa, Sankarasana, Naradeva, Kamadeva etc. J. B. Neufville noted that "The country to the eastward of Bhot, and the northward of Sadiya, extending on the plain beyond the mountains, is said to be possessed by a powerful nation

¹ P. C. Choudhury, *The History of Civilisation of the people of Assam*, (Gauhati, 1966), p. 106.

² Ibid., p. 120.

³ B. K. Kakati, *The Mother Goddess Kamakhya*, (Gauhati, 1967), pp. 56-57.

⁴ T. Bloch, *Annual Report of the Archaeological Survey of India 1906-07*, p. 25.

called Kolitas, or Kultas, who are described as having attained a high degree of advancement and civilisation, equal to any of the nations of the East. The power, dominion and resources of the Kulta Raja are stated to exceed by far those of Assam, under its most flourishing circumstances, and in former times, a communication appears to have been kept up between the states, now long discontinued. To this nation are attributed the implements of husbandry and domestic life, washed down by the flood of the Dihong. Of their peculiar habits and religion, nothing is known, though they are considered to be Hindus. . . .¹ There is no epigraphic mention of the Kalitas, but the Gauhati Grant of Indrapala, the biography of Sankaradeva as already mentioned and the extant archaeological ruins lying in the vicinity of Sadiya suggest that a wide settlement of a culturally advanced people existed in the lower region of Lohit District in or around the eleventh century. The area was probably occupied by the Kalitas prior to its occupation by the Chutiyas.

Tamreswari

According to the Yogini-Tantra, Saumara-Pitha or the Dikrang valley was bounded by a forest named Saurasila on the east, the Svarna-Sri river on the west, Brahmayupa on the south and the Manasa lake on the north. The Kalika-Purana puts this region under the omnipotence of the goddess Dikkaravasini. "From her epithets Ugratara, Ekajata, she seems to have been of Buddhist origin. But she dominates later history as the dreadful goddess Tamreswari calling for annual human sacrifice."²

The Yogini-Tantra further refers to a small pitha or holy seat called Hayatamra in the lower Lohit Valley. This pitha was one of the nine pithas constituting the ancient Kamarupa as mentioned in the tantric literature, the presiding deity of which came to be known as Tamreswari, a mother goddess resembling Kali. Nothing definite is known about the inception of the mother-cult in this area, but it seems to have had its origin in the religion of the Chutiyas, who came within the Hindu Brahmanical fold through Tantricism.

The Tamreswari temple is also known as the Copper Temple. In 1846, Hamilton Vetch, Political Agent, Upper Assam, visited the temple, and described it as a small square building of granite, the roof of which was formerly sheathed with copper.³ The temple is situated at a place some 13 km north of Paya on the Tezu-Sadiya road and 10 km south of Bhismanagar. The remains of the temple are now covered by thick jungles.

¹ J. B. Neufville, On the Geography and population of Assam, 1828, Reference Verrier Elwin, India's North-East Frontier in the Nineteenth Century, (London, 1962), p. 5.

² B. K. Kakati, The Mother Goddess Kamakhya, (Gauhati, 1967), p. 61.

³ Verrier Elwin, India's North-East Frontier in the Nineteenth Century, (London, 1962), p. 7.

On a visit to the site of the Copper Temple in 1905, T. Bloch, Superintendent of Archaeology, Eastern Circle, noted the following:

"The Copper Temple stands in the south-western section of a rectangular area enclosed by a brick wall, measuring about 218 by 139 feet. The temple itself is a square of a little over 10 feet only. It cannot have been the main building inside the area and the brick wall evidently enclosed some sort of a palace or fort, the other buildings of which have disappeared. The name is explained by a tradition which says that the temple originally was covered with copper, but no traces of this have been left and the clamp holding the stones of the walls together are all of iron. It seems to me more likely that the image put up in the temple was some form of Durga, called Tamreswari, and that the story of the temple being covered with copper originated from a misunderstanding of that name. The place is now called Tamasari which evidently represents the modern pronunciation of Sanskrit word Tamreswari."¹

Bloch also noted that the temple in its existing state was nothing more than a heap of broken stones with only parts of walls still standing. Amongst his finds, there were a lintel and jambs of a door bearing two covered image of Siva, three statues, two of which represented the images of Surya and Kali dancing on Siva, while the other resembled that of Saraswati. The carvings on tiles, 16 of them listed by Bloch, depicting human figures, animals, birds, floral and geometric patterns were specimens of the medieval art of Assam. Some of the relics, as seen by Bloch, showed close affinities with the ruins at Dimapur. The fine bricks of the large enclosure wall were also similar to those used in Dimapur. But in the absence of any inscription, the ruins of the Copper Temple could not be specifically dated.²

The Tamreswari Temple was evidently a centre of Saktism based on the tantras. All accounts agree in stating that human sacrifices were performed at this temple for propitiation of the Mother Goddess Tamreswari, who in this aspect was called Kesai-Khati, or 'the eater of the raw flesh' and Tamar-mai or 'the goddess of the Copper Temple.' The dreadful aspect of Tamreswari was, as the sources indicate, brought into prominence by the Chutiyas living near the temple. The Bara Bhuyans of Assam, a line of Hindu chiefs ruling over the region east of Chutiya kingdom at the time of the Ahom invasion, were also the worshippers of Tamreswari.

But the whole history of this period is not a tale of awful sacrifices and primitive beliefs. The cultural ingenuity of the people found expression in manifold ways. They were fine brick-makers, potters and blacksmiths. The remains of buildings, temples, ramparts, gateways,

¹ T. Bloch, Annual Report of the Archaeological Survey of India, 1904-05.

² (a) Ibid.

(b) Assam District Gazetteers (Vol. XI)—The Sadiya and Balipara Frontier Tract Gazetteer, Part I & II, (Shillong, 1928), pp. 91-95.

tanks and roads are evidences of their architectural and engineering skill. The statuettes, carvings and various sculptural designs bear the marks of their artistic ingenuity. The superiority of their crafts is also borne out by the fact that the Ahoms took away the artisans from Sadiya and patronised them.

Bloch also observed that the temple embodied a synthesis of Aryan and non-Aryan features. Another explorer Major S. F. Hannay surmised that the temple, which showed an ancient architectural style, was rebuilt during the revival of 'Brahmanical Hinduism'.¹ It seems probable that the people of the Sadiya region belonging to different ethnic groups and sects were associated with the Tamreswari temple. The synthesis, as observed by Bloch may be due to such associations, especially that of the Kalitas and the Chutiyas, although we do not know for certain what was their inter-relationship, and whether or not any cultural contact between them took place. The rituals of worshipping a female deity resembling Sakti or Kali, blood sacrifices etc. are, however, suggestive of the non-Aryan practices of the people. The religious performances of the Chutiyas were conducted by their own tribal priests, the Deoris. The Ahom chronicles, however, indicate that there were Brahmin priests as well. Besides the Deoris, the Bara Bhuyans of North Lakhimpur were also associated with the Tamreswari Temple. Their manual called Tamrakshari contains elaborate rituals for the propitiation of the goddess. The Bara Bhuyans were Saktas, and it was probably they who exalted the cult of Kali at the Tamreswari temple.

In 1965, a Sivalinga (phallic stone) and the base of a temple were discovered about 2 km south-west of the Tamreswari Temple. It is very significant that the Tamreswari Temple with a Sivalinga nearby has the same juxtaposition as of the Kamakhya and the Siva temple at Umananda near Gauhati representing the *yonis* and the *linga* symbols respectively. Tantricism appears to be instrumental in bringing the Saiva and Sakta forms of worship together, and thus giving rise to a new cult—the cult of Siva-Sakti as forming the basis of Saktaism. The joint worship of Siva and Sakti probably finds its earliest mention in the inscription of Indrapala mentioned earlier.² In this form of worship, the emphasis is always laid on the mother principle as the procreative power of nature. The Tamreswari Temple became so famous as a centre of worship for all peoples of this frontier that it was truly designated by Buchanan 'the Eastern Kamakhya'.³

Assam was a centre of Saktaism from ancient times even though Saivism had a firm grip on the people.⁴ Hiuen Tsang came across in Kama-

¹ S. F. Hannay, Notes on ancient temples and other remains in the vicinity of Sadiya, Upper Assam, JASB, June, 1848.

² B. K. Kakati, The Mother Goddess Kamakhya, (Gauhati, 1967), p. 59.

³ S. F. Hannay, JASB, June, 1848.

⁴ Hem Barua, The Red River and the Blue Hill, (Gauhati, 1962), p. 192. Edward Gait, A History of Assam, (Calcutta, 1967), pp. 59-60.

rupa many 'deva' temples, but not a single Buddhist sanghrama or monastery. Evidently, the bulk of the people in lower Assam in the seventh century were worshippers of Siva. This is also proved by the fact that the reigning monarch Bhaskaravarman (600-650 A.D.) was himself a Saiva and also a patron of Buddhism. Saivism co-existed with Saktaism, but in course of time it was partially eclipsed by the latter. The mother-cult enshrined in the Tantric pithas of which Kamakhya was the most famous came to prominence. The Sadiya region comprising the lower reaches of what is now known as the Lohit District was obviously such a centre of tantricism—the esoteric doctrine viewed with disfavour by the orthodox Hindus, but it was instrumental in attracting the aboriginal tribes towards Hinduism.

Apart from Saivism and Saktaism, there was a clear inflow of Vaishnavism in the Lohit District in those days. The biography of Vaishnava saint Vamsi Gopaladeva stated that the saint was often supplied with food and drink by the 'Mishmi Brahmanas'. These Brahmanas were no doubt tribal priests, influenced by Vaishnavism. Some of the ancestors of Gopalata bore Vaishnavite names. Buddhism also seems to have played a part. The word *Tathagata* occurring in the aforesaid inscription of Indrapala, and the names Ugratara and Ekajata as epithets of the goddess Tamreswari, are suggestive of the Buddhist influences.¹

The Chutiyas and Bhismaknagar

The country around Sadiya was the stronghold of the Chutiyas till they were finally subdued by the Ahoms in the sixteenth century. Nothing definite is known about the Chutiyas prior to the thirteenth century, that is before the arrival of the Ahoms in Assam. According to their traditional history, a chief called Bir Pal, who claimed descent from the mythical Bhismak, was the founder of the Chutiya kingdom. He was succeeded by a line of ten kings, of whom Ratnadwaj Pal, the son of Bir Pal, was a powerful ruler, who brought under his sway various sections of the Chutiyas, and built a capital at Ratnapur. A great builder of temples including the famous Tamreswari Mandir, he is also said to be the founder of the city of Sadiya. "The Chutiya leader, who assumed the name of Ratnadwaj, excavated tanks, constructed forts etc., and there are today within seven miles of modern Sadiya large tanks with bricked sides which are believed to have been originally excavated by the Chutiyas. The remains of forts at the foot of the hills at Bhismaknagar and at other places are probably traceable to the same time. Ratnadwaj is said to have visited Gaur and on his return left a son there to be educated. The boy died and the body was sent back to the father who received it when he was building a new city. This he called in memory of the event—'Sadiya' (the place where the corpse was given). . . . On the Deopani and Dibong

¹ B. K. Kakati, The Mother Goddess Kamakhya, (Gauhati, 1967), pp. 59-61.

rivers and probably the Kundil also there are many tanks, some as big as six acres perfectly oblong with bricked sides and ghats.¹

A very large pond known as Padum Pukhuri ('padum' in Assamese means lotus) is situated 3 km away from Jia, a village 13.5 km from Roing. A number of ponds called pukhuri exist in this plain region watered by the Lohit and Dibang rivers, but of all the known pukhurs, the Padum Pukhuri is of special interest, for its size and design. It is V shaped, whereas others are square or rectangular. Bricks of Bhismaknagar type were also used in some portions of this pukhuri. In former times, the pukhuri was probably connected with Bhismaknagar by a road, a portion of which could be seen near the Jia village.²

The fort at Bhismaknagar is situated at the foothill, about 40 km north-east of Sadiya as the crow flies and 24 km south-east of Roing by road. Of the many rivers intersecting this foothill region, the nearest to Bhismaknagar are Diphu on the west and Hetya on the east. In 1846, Hamilton Vetch, accompanied by Major S. F. Hannay and Captain E. F. Smith, visited the place. They were the first to report on the existence of a fort at Bhismaknagar. It appears from the accounts of Vetch and Hannay that they saw the traces of a large hill fort with ramparts and walls consisting of six to nine courses of well-knit sandstone blocks, and granite 10 to 8 inches thick, 1 foot breadth and 20 inches long, rudely but evenly chiseled, and overlaid by fine bricks varying in size from 8 to 5 and 6 to 4 inches. The broken wall rose at some places to five feet with loopholes apparently for arrows and spears, and they were in a wonderful state of preservation. The whole masonry was, however, without any binding of cement or fastening of any kind. The type of the stones and the architectural pattern suggested that the relics belonged to the same period as the Copper Temple. Numerous debris of earthen vessels which were found in the bed of the Dikrang river appeared to be more similar to that of the Gangetic India than that of Assam.³

In 1905, T. Bloch trekked along the earthen walls of the fortress and collected some tiles bearing carvings of animals, birds, human figures, floral and geometric designs.

Many more ruins have come to light in course of the recent excavations at Bhismaknagar conducted by Shri L. N. Chakravarty and Dr. Y. A. Raikar, officers of the Research Department, Government of Arunachal

¹ Assam District Gazetteers (Vol. XI)—The Sadiya and Balipara Frontier Tract Gazetteer, Part I & II, (Shillong, 1928), pp. 16, 18.

² Based on the article 'A Note on the Padum Pukhuri near Jia' by Y. A. Raikar published in the Arunachal News (Shillong, December 1972), Vol. I, no. 10, pp. 10-11.

³ (a) S. F. Hannay, Notes on ancient temples and other remains in the vicinity of Sadiya, Upper Assam, JASB, June, 1848.

(b) H. Vetch, A Very Extensive Fortress, Reference—Verrier Elwin's India's North-East Frontier in the Nineteenth Century, (London, 1962), p. 7.

Pradesh. The fort extending over an area of about four square miles on almost a flat land gently sloping down into the plains was protected by an inner wall of unhewn stone and mud, an outer wall with two huge gateways made of brick—one to the east and the other to the west, and finally by a ditch running along the outer wall. There is neither any ditch nor wall to the north, the side which is ramparted by an undulated hill. In the midst of the defensive walls, there exist the ruins of a building covering a plinth area of about 20,000 sq. ft sidelined with several courses of brick. From the palace, the eastern and the western gates are about 1.50 and 5 km respectively.

The other interesting finds are potsherds, implements of polished stones, lumps of pig iron, a terracotta deer plate and other relics. The pottery of the Bhismaknagar type has been found in some other neighbouring places of the district, namely, Roing, Tezu, Chimri, Koronu and Enzon (Injono). There also exist the ruins of another hill fort extending from Chidu to Chimri in the Roing area, and of a mud fort in the Tindong area. All these facts considered in the broad historical perspective suggest that an ancient settlement of an advanced people existed in this district in a more wider area than the Bhismaknagar fort itself, the antiquity of which may even go back to a date far earlier than the recorded history of the Chutiyas to whom the extant remains are generally attributed.

It is certain that the Chutiyas were considerably influenced by the culture and religion of medieval India. Their kings bore typical Hindu names. The architectural pattern of the building and the gates, the type of wheel-turned pottery and specimens of terracotta resembling those of Ambari in Gauhati and the gangetic India respectively, all lend support to the view that a comparatively advanced culture born under the impact of Indian classical traditions flourished in the lower regions of Lohit District in the close proximity of Sadiya. The existence of the famous Tamreswari Temple with the phallic symbol of Siva installed nearby, the Parasuram Kund, Bhismaknagar and other archaeological sites in this region assumes a greater historical significance in the perspective of this culture.

The Ahom Buranjis (the chronicles of the Ahoms) do not testify to the existence of a Kalita land, but they do convey precise information about the Chutiyas. It seems that the Ahom intrusions and endemic tribal feuds compelled the Chutiyas to leave their homeland extending from the southern slopes of the Lohit District to Sadiya for a new abode in Upper Assam. The Chutiyas are now found mostly in the Lakhimpur District and its adjacent parts of the Sibsagar District and scatteredly in other parts of Assam. In the Census of 1891, a good number of the Chutiyas recorded themselves as Ahom-Chutiya, which suggests that they have in recent times intermixed with the Ahoms.

Mud Fort

An old Mud Fort in the Tindolong area, six km from Tezu, was explored in 1972. It falls on the main road from Sadiya to Tezu.

The area of the fort, enclosed by earthen ramparts—365.76 m × 350.52 m, is square in shape. The rampart is eight ft high and equally broad at the top with sloping sides. On both the inner and outer sides of the rampart run two ditches about 6 m wide. There is a prominent mound, circular in shape (diameter 30.48 m approximately) and about 3 m in height, almost at the centre of the enclosure. The mound appears to be a cavalier for lookout purposes.

Some potsherds found at this site are too fragmentary to bear any conclusive evidence. It may, however, be assumed that the Mud Fort linked by the route from Bhismaknagar to Parasuram Kund was probably associated with the early culture that flourished in and around Sadiya and Bhismaknagar. According to the tradition, the Mud Fort may be ascribed to Sisupala of the story of King Bhismak.¹

Rukmini Nagar

In the hills north of Roing lie scatteredly some old brick structures, mainly between the Chidu and Chimri villages situated at an altitude of about 305 m which are traditionally said to be the ruins of the palace of Rukmini, the daughter of King Bhismak. The area, therefore, was named Rukmini Nagar. The local people, the Idus, were desirous of giving an Idu word to the name, and hence it came to be called Rukmini Nati (nati—the Idu word for bricks). An exploration-cum-excavation work, undertaken by the Research Department of the Government of Arunachal Pradesh, to study the ruins, has thrown some light on the antiquities.

In course of the progress of work, which continued from January 1973 to April 1974, excavation of two mounds at Chimri, 11 km from Roing, unearthed two rooms, 10×10 m and 10×12 m respectively built on a slope, at a distance of 14 m from each other. The contents dug out from inside the walls of the rooms were of river-borne materials, a fact which suggests that they were destroyed by floods. The potsherds resembling those of Bhismaknagar in shape, fabric and technique that were unearthed bear ample evidence to the extension to this area of the same culture as of Bhismaknagar.

The other archaeological sites in this area are located (1) near Chidu Inspection Bungalow, (2) at Cheko Nati between Chidu and Chimri and (3) in the hills north of Chimri. No relics, however, could be found at the first two sites, although potsherds at Chidu and brick walls, steps

¹ Based on the articles 'A Mud Fort Near Tezu' and 'The Mud Fort Near Tezu Could Be Sisupalgarh', by Y. A. Raikar, published in the Arunachal News, (Shillong, October, 1972 and March, 1973), Vol. I, No. 8, pp. 10-14 and Vol. 2, No. 1, pp. 7-9 respectively.

etc. at Cheko Nati were reported to have been seen earlier. The third site north of Chimri is situated at a high altitude of about 610 m. Not a single brick found there was in alignment, and everything seemed destroyed.

The situation of all the four sites on a hilly terrain suitable for defence indicate that they are parts of a single complex representing a fort which extended from Chidu to Chimri. It is probable that the main centre of this complex was at Cheko Nati.

Another archaeological site called Duku Limbo is on the left bank of the Dibang at the foot of Elopa hill. The brickbats found at this site suggest that the Bhismaknagar culture had extended upto this point.¹

LATE MEDIEVAL PERIOD

Ahom Ascendancy

The disappearance of the Chutiyas from their homeland seems to have coincided with the advent of the early Mishmi migrants in the Sadiya region. During a tour in the Mishmi Hills in 1889, J. F. Neeldham, on reaching the Emachupaeta hillock in the Miayu Pass, heard a story about a Chutiya king who presented a lama dog to an Idu Mishmi chief. The dog died after reaching the pass on its way to the chief's village. The story would indicate that the later Chutiyas lived together with the Mishmis. The area is now inhabited by the Idu Mishmis, who have a nostalgic attachment to the remnants of Bhismaknagar which they regard as their proud heritage. They have a belief that Bhismak was their own king and Rukmini, the consort of Krishna, was their *Inyi Mas-yelo* or super-mother.

The Idu Mishmis are known to the people of the plains as Chulikata, meaning 'cropped-hair', for they cut their hair round the head. But what is significant in this context is, that the Idus connect their hair-do with the Rukmini legend, for according to their belief, it bears the mark of punishment inflicted on them by Krishna himself as a reprisal for their opposition to his marriage with Rukmini. But eventually this stigma turned out to be a sign of honour to live up to. Be that as it may, the story is suggestive of the fact that the Bhismak tradition has been carried on by the Idus through centuries of their association with Bhismaknagar. It may also be surmised that the Chutiyas and the Idus lived probably neighbourly for a time during which the latter came under the influence of the former.

Although the Chutiyas suffered a serious defeat in 1523 A.D., there are evidences that they revolted against their usurper, the Ahoms. The first revolt in 1527 was abortive, but the Ahom commander Dihingia Gohain lost his life in the skirmish. This was followed by Chutiya uprisings

¹ Based on the article 'Rukmini Nati: The Widening Horizons of Bhismaknagar' by Y. A. Raikar published in the Arunachal News, (Shillong, December, 1974), Vol. 3, No. 7, pp. 2-6.

and raids in the Ahom territory in 1529, 1542 and 1550. Then came in 1563 the Chutिया invasion of Namrup and Tipam, which shook the very foundation of the newly built Ahom kingdom. The Ahom marched to Sadiya and in the battle that ensued they routed the Chutiyas. The losses sustained by the Chutiyas were very heavy, but they rose in revolt in 1572, and were once again defeated by the Ahoms. After a period of one hundred years of truce, the Chutiyas revolted in 1673 for the last time. In the centuries of warfare with the Ahoms to regain independence, the Chutiyas had by then spent all their force, and were compelled to give way to the rising power of the Ahoms.

By the victory over the Chutiyas the Ahoms succeeded in bringing gradually the entire stretch of land from Sadiya to the Subansiri river on the north bank of the Brahmaputra under their control and in doing so they came in direct contact with the Mishmis, Adis, Miris, Nishis and Akas of the present Lohit, Siang, Subansiri and Kameng Districts of Arunachal Pradesh. Some of these hill tribes caused anxiety to the rulers of Assam by their sporadic raids and plunders in the foothills, and the Ahoms were constrained to deal with them.

The Ahoms could realise from the beginning the futility of embarking on a policy of subjugation of the north-eastern hill tribes. They simply wanted to contain them in their own hills sending out punitive expeditions only when there were serious raids. Indeed, the Ahoms did never make any attempt to annex their territory, nor did they interfere with their internal affairs. They, therefore, struck upon a policy of conciliation backed by a show of force, which, in fact, foreshadowed the frontier policy of the British as formulated in the following lines:

'Conciliate them if you can. Be persistent in demanding surrender of murderers, but endeavour so to approach the tribes that a basis may be opened for friendly intercourse.'¹

Ahom-Mishmi Relations

The Ahom Chronicle (*Buranji*) pertaining to the reign of the Ahom king Sutyinpha Naria Raja (1644-48 A.D.) refers to a rampart called 'Mishmi-garh'. The rampart was probably constructed to resist the Mishmi raiders. This information is particularly important in that here the Mishmis were mentioned for the first time in the chronicles of the Ahoms.

In the entire period of the Ahom rule in Assam extending for six hundred years from 1228 A.D. to 1826 A.D., there is only one recorded instance of aggression committed by the Mishmis on the Ahom territory. This took place during the reign of Ahom king Suklampha also known as Ramadhwaj Singha (1673-75 A.D.). The Mishmis raided Sadiya in June

¹ A. Mackenzie, History of the relations of the Government with the Hill Tribes of the North-East Frontier of Bengal, (Calcutta, 1884), p. 369.

1675, and killed four Ahom priests. Compelling the Ahom forces led by the Sadiyakhowa and Hatkhowa Gohains to retreat, they advanced occupying a number of villages that came on their way. The Ahoms, however,² defeated them after having received a strong reinforcement. The Mishmis surrendered the murderers and got a reprieve by paying tributes to the Ahoms.³

An octagonal stone pillar found near Sadiya bears an inscription in the Ahom language. The substance of the inscription is as follows:

"I, the Dihingia Bargohain, do engrave on the stone pillar and the copper plate these writings (with the strength of which) the Mishmis are to dwell on the hills near the Dibong river with their females, children, attendants and followers. They will occupy all the hills. They will give four basketful of poison and other things as tribute and keep watch on the body of the fat Gohain (Sadiyakhowa Gohain). If anybody happens to be in possession of and wishes to remain on all sides (of the hills), he is prohibited from encroachment. . . . I do proclaim wide if anybody sits exalted (i.e., comes in power, i.e., becomes ruler) he should not break (the agreement) and break the stone."⁴

This edict was probably inscribed in about 1687 under the direction of Dihingia Bargohain,⁵ who was obviously the Ahom overlord of this region.⁶ In all probability, the edict was an after-effect of the Mishmi raid of 1675, which prompted the Ahoms to make a settlement with the Mishmis as embodied in what is known as the Sadiya Stone Pillar Inscription.

It is important to note that "unlike the Daffas, Akas, Miris and the Bhutias, the Mishmis did not enjoy any 'posa', that is the right to levy tribute from certain villages in the plains set apart for the purpose by the Ahom Government."⁴ It indicates that the Ahom jurisdiction was firmly established upto the confines of the Mishmi Hills, and that the Mishmis were reconciled by the settlement inscribed on the Sadiya Stone Pillar. The Mishmis were also allowed to carry on their trade with the plains. The grant of trade facilities was probably one of the reasons which dissuaded the Mishmis from making further raids in the Ahom territory. Evidently, the Ahom policy in relation to the Mishmis was conciliatory.

¹ See Lakshmi Devi's Ahom-Tribal Relations, (Gauhati, 1968), pp. 185-86, for details of this incident.

² Assam District Gazetteers (Vol. XI)—The Sadiya and Balipara Frontier Tract Gazetteer, Part I & II, (Shillong, 1928), pp. 18-19.

³ (a) Lakshmi Devi, Ahom-Tribal Relations, (Gauhati, 1968), p. 186.

(b) Edward Gait, A History of Assam, (Calcutta, 1967), p. 90 (foot note).

⁴ Lakshmi Devi, Ahom-Tribal Relations, (Gauhati, 1968), p. 178.

Ahom-Khampti Relations

The Khamptis, a Shan tribe like the Ahoms, were on the move from North Burma towards India probably from the forties of the eighteenth century. They migrated from the country known as Bor-Khampti (or 'Mung-Khampti-Lung' meaning vast. The word 'bor' in Assamese also means great or vast) near the head-water of the Irrawaddy. They are Buddhists. Their racial kinship with the Ahoms induced the latter to permit them to settle on the Tengapani river in 1751 A.D. During the Moamaria rebellion, which broke out in Assam in 1779 A.D. and continued till the beginning of the nineteenth century, the Khamptis saw a chance to grab more land. Taking advantage of the internal dissensions which weakened the Ahom authority on the outlying provinces, the Khamptis advanced towards Sadiya crossing the Brahmaputra. Headed by their two chiefs Burha Raja and Deka Raja, they became the masters of Sadiya. In 1794 A.D., they deposed the Sadiyakhwa Gohain, the Ahom Governor of Sadiya. Emboldened by this success, the Khamptis threw a challenge to the authority of the Ahom king Kamaleswar Singha (1795-1811). In 1799 A.D., the Burha Raja led a large army against the Ahoms. According to some Ahom Buranjis, the other Shan tribes, such as Naras and Phakials, and also the Miris, Mishmis and Adis joined the Khamptis. The Ahoms took position at Sadiya after crossing the Brahmaputra and repulsed the combined force. Burha Raja together with a large number of his soldiers was taken prisoner. The Ahom rule in Sadiya was restored with the appointment of a new Sadiyakhwa Gohain. But the Ahoms failed to retain their hold on Sadiya for long, as it appears that the Khamptis, after a short interval of subjection, regained their grip on this area during the troubled period of the Burmese invasions of Assam (1816-24). When the Treaty of Yandabo (1826) was concluded by which the King of Burma handed Assam over to the British, the entire Sadiya region was found under the domination of the Khamptis.

Ahom-Singpho Relations

Another tribe who played an important role in shaping the history of this frontier is the Singpho. They made their first appearance on the eastern tip of Assam in about 1793 A.D. when the country had fallen into a state of anarchy due to the Moamaria rebellions and the reign of terror let loose by the Ahom king Gaurinath Singha (1780-1795). On their arrival through the Patkai Pass, the Singphos first came across the Khamptis whom they ousted from their settlement in the Tengapani area, east of Sadiya. Gradually, they spread out and occupied the whole level tract of the country watered by the Burhi-Dihing, the Noa-Dihing and the Tengapani rivers.

The Ahoms clashed with the Singphos when the latter joined hands with the Moamaria rebels in 1797 A.D. The Singphos fell back when the Ahoms stormed their fortress. The Ahoms, however, tried to win

them over by a matrimonial alliance. But the Singpho chief Bichanong preferred to side with the Burmese when they invaded Assam and its adjacent eastern regions resulting in vast devastations and distress of the people of whom many were carried off as slaves.

MODERN PERIOD

The successive invasion of Assam by the Burmese and the atrocities committed by them brought about the end of Ahom rule in Assam. The strife-torn country was in the grip of chaos and disorder. The gradual acquisition of Assam by the British lay, therefore, in the 'logic of history'.

It was decided in 1823 that Assam with the exclusions of two tracts in the upper region, namely, Sadiya and Matak,¹ should be provisionally administered as a British province. Accordingly, David Scott was appointed as the Agent to the Governor General for the administration of the whole eastern frontier.

British-Mishmi Relations

The Mishmis were first mentioned by the British in 1825 when Lieutenant Burlton reported that the "Mishmah Hills" were inhabited by tribes, "who were very averse to receive strangers". In 1827, Lt. Wilcox went deep into the Mishmi Hills, but on being refused further passage he had to make a hasty retreat. The next traveller who visited the Mishmi Hills upto the village of Ghalum on the Lohit in 1833 was Dr. Griffith. He found that the Tain (Digaru) Mishmis were very anxious to come to Sadiya for trade. In 1840, Captain Hannay went up the Dibang river in search of the Khampti rebels. In 1845, Lt. Rowlatt made a trip to the Du, and proceeding up that river in a northerly direction he reached the village of Tuppang. These visits and explorations paved the way for making closer contact with the Mishmis.

The Mishmis, who lived in seclusion for centuries, were suspicious of the motive of the foreigners travelling through their territories. Early in 1848, a fakir named Paramananda Acharjya met his death at the hands of the Miju Mishmis on his way from Assam to Tibet through the Mishmi Hills. One of the villages involved in this incident was of the leading Mishmi chief Jingsha, who was very inimical towards strangers. In 1851, M. Krick, a French missionary, reached safely the Tibetan village at Qualong on the Mishmi-Tibet border under the guidance of Choukong Gohain, a Khampti chief of Sadiya. Going further beyond that village, he found extensive cultivation and a settled population along the open valley. In 1854, he again undertook a journey by a different route to Tibet together with his colleague M. Bourri. Escorted by a friendly Mishmi chief, they reached the Tibetan villages which were earlier visit-

¹ Matak lay to the south of Sadiya between the Brahmaputra and the Burhi-Dihing, and was chiefly inhabited by persons of the Moamaria sect.

ed by M. Krick. During the last part of their journey towards the Tibetan border, they were met by an independent Mishmi chief called Kai-ee-sha who assisted them to pass through his territory. But as ill luck would have it, they unknowingly offended the chief by refusing to concede to his demands for awards, and by making a circuit to avoid passing through his territory. As a result, the infuriated chief murdered both the missionaries, plundered all their belongings and carried off their Singpho attendant as a slave with the active help of his kinsmen of whom four were his own sons. The murder took place near Rima in Tibet where the travellers had encamped.

The murder was reported by N. Williamson as follows:

"I also heard last night that the reason for Kai-ee-sha's murdering Messrs. Krick and Bourri was due to some trouble about a mithun. It is said these gentlemen were camped near Sameyling and one night the mithun roamed about their camp and annoyed them a good deal. One of the mithuns which belonged to Kai-ee-sha was shot by the missionaries. Kai-ee-sha considered that he had not received a present sufficient for his services. The small offer combined with the loss of his mithun, angered him so much that he rose in his wrath and following the strangers slew them near the border where they had gone from Sameyling via the Du river route."¹

The British Government took a serious view of the assassination of Reverends Krick and Bourri who were French citizens. It was felt that something in the way of retribution should be attempted. The neighbouring Mishmis who were anxious to continue their trade with the plains offered their help. As ordered by Lord Dalhousie an expedition was sent into the Mishmi Hills to punish the murderers. Accordingly, in February 1855, a small party of twenty picked men of the Assam Light Infantry with a band of carefully selected forty Khamptis and a few hillmen marched from Sadiya under the command of Lieutenant Eden. After a long forced march, the party crossed the Du, Kai-ee-sha was surprised and captured. Three elder sons of Kai-ee-sha were slain in the open fight, the members of his family and many followers were rounded up, and the greater portion of the plundered property was recovered. The Singpho attendant was rescued. Kai-ee-sha was tried and hanged at a jail at Dibrugarh, but not before he had killed two of the prison guards.

Kresha and Loculang were the two Mishmi chiefs who rendered assistance to Lieutenant Eden's expedition. The spectacular results of the expedition did not fail to alert and intimidate the neighbouring hill peoples.

Among the Mishmis, the Idus were the most turbulent. They were divided into a number of clans and there was no love lost between them.

¹ Assam Secretariat, 1886, File No. 1735, Tribal Records, p. 26.

The loyal Taraon Mishmis, who frequently visited the markets at the foothills for trade, suffered badly from the rapacity of the Idus. The traders and travellers were often ambushed by them and taken away as captives. In April, 1855, three servants of Lieutenant Eden were carried off by the Apelong clan of the Idus. To stop their prowling activities, a blockade was imposed to prevent them from coming to the markets. The blockade, was afterwards lifted when the Apelongs were persuaded by other chiefs to comply with the Government demand for return of the captives.

Towards the end of 1855, the Apelong Idus raided a village near Sadiya, killing two persons and kidnapping a number of villagers. With the aid of the friendly Mishmi chiefs who negotiated with the miscreants, the Government secured release of the captives. In January 1857, the Apelongs made another daring raid on a village near Sadiya, and massacred the inhabitants. The raid was probably instigated by the relatives of late Kai-ee-sha. This was followed by two more raids by the Idus in the months of October and November of the same year. The Idus carried on their sporadic raids, and in 1861 and again in 1866 they attacked Chauken Gohain's village and did some damage. The Government made an attempt to induce the Idus to establish friendly relations, but it failed.

Meanwhile, the Khamptis received arms from the Government and proved themselves capable of self-defence. Seriously concerned at the prowling raids of the Idus, the local authorities thought of a plan for extension of Khampti colonies so that a screen could be formed round Sadiya to protect the local settlements from the raids of the Idus. The Khamptis were considered a better force against the Idus than the police. Accordingly, additional supply of arms to the Khamptis was promised, and a monthly payment of one rupee was offered to each Khampti who received arms and obtained a site for cultivation to the north of the Brahmaputra. These measures proved effective and successful, and since then the Idus did not give trouble.

During these years, an annual fair for promoting better relations with the hill tribes was organised at Sadiya. The representatives of all neighbouring tribal communities, namely the Khamptis, Singphos, Mishmis and the Adis were invited at this fair. The fair held on February 18 and 19, 1866 was well attended by the Idus, Taraons and the Kamans, and they exchanged their textiles, *daos*, musks, ornaments, rubber, the medicinal herb called 'Mishmi-tita' etc. for salt.

In 1868, 200 families of the Idu Mishmis were allowed to settle at Habba along the Kundil at the request of an Idu chief named Kalood. Apparently, there was a general improvement of the situation in the Mishmi Hills even though inter-tribal feuds were reported from time to time. In 1876-77, it was reported that the Adis were making attempts to form an alliance with the Mishmis, offensive and defensive, against

the Government. However, the attempt was not successful. It was also reported that a chief named Loomlang who rescued a servant of the missionaries Krick and Bourri in 1854, and assisted Lieutenant Eden in encountering Kai-ee-sha, was murdered. During the winter months of 1878-79, some Bebejiya (a group of the Idus) Mishmis committed two small raids into the plains, killed some persons and took away some others. The captives were subsequently ransomed by their friends. "The reason alleged for the murder of the Assamese was an old feud dating from 1865, when the Mishmis stated that some of their people had been killed by British subjects, and in the other case it was stated that the Khamptis had on some previous occasions killed some of their people; but the Deputy Commissioner thought that plunder was quite as much the object of these outrages. The raiders were promptly pursued by the Frontier Police, with some men from the military guard at Sadiya, as far as Jerindamukh, where the dead bodies of their victims were found, but the murderers were not overtaken."

During 1877-78, R. G. Woodthorpe penetrated into the Dibang Valley via Nizamghat, and a Government survey party was sent into this frontier. With the advance of the outposts to Nizamghat and Bhismanagar,² the British administration was extended at this time directly into the foothills of Arunachal Pradesh. This forward step also marked a change in the Government policy towards the frontier tribes, which was hitherto conciliatory taking recourse to punitive expedition only when tribal raids or assaults were to be dealt with. In 1880, Kaladoi, one of the leading chiefs of the Idus, formally declared his allegiance to the Government.

In 1883, some representatives from various tribal communities including the Mishmis, Singphos, Khamptis and the Nishis were selected for a journey to Calcutta in connection with an exhibition. Unfortunately, the Idu chief named Lakho died on his return journey. The Idus took it to be a foul-play, and, to avenge it, they shot dead a fisherman from the plains on May 12, 1884. They refused to hand over the culprits. The Chief Commissioner of Assam ordered a blockade, which continued for some years. The Idus managed to get their supplies through other tribes. It was indeed difficult to control the Idus living in widely separated hamlets in the high hills of the Dibang Valley, who recognised no common authority. There was little hope for apprehending the murderers without the Idus co-operating themselves. In 1887, the Chief Commissioner in consultation with the local officers decided to raise the blockade subject to the Idus paying a penalty of Rs. 2,000 for their failure to surrender the culprits. The fine was paid and the blockade was lifted.

¹ A. Mackenzie, *History of the North-East Frontier of Bengal*, (Calcutta, 1884) —Reference Verrier Elwin's *India's North-East Frontier in the Nineteenth Century*, (London, 1962), p. 301.

² J. F. Michell, *The North-East Frontier of India*, (Delhi, 1973), pp. 101-02.

After an interlude of friendly relations with the Mishmis lasting for about six years, disturbances started again in 1893 when a Bebejiya group of the Idus from the Aiyu Mimi village collaborated with the Bor-Abor (Adi) rebels. Three British sepoy were killed near Bomjur outpost and their firearms were taken away by them. To quell the disturbances, J. F. Needham, the Assistant Political Officer, Sadiya led a punitive expedition to the Adi villages including Dambuk, Muma and Siluk and inflicted penalties on the villagers. The Idus, who were alleged to have taken side with the Adis, were blockaded. The people made an appeal for lifting of the blockade so that they could get salt and other bare necessities from the plains. They also pleaded that the whole tribe should not be punished for one single village of Aiyu Mimi. Finally, a Mishmi chief recovered the arms taken away from the British sepoy, and returned them to the Government. Little justification was, therefore, left to continue the blockade, and it was withdrawn in 1897.

In 1878, the Adis claimed a slice of land belonging to the Idus on the left bank of Dibang near Nizamghat. They also demanded a commitment from the Idus that they would henceforth purchase livestock from the Adis.¹

Another Mishmi raid, which had important consequences, took place in May 1899 when the Idus attacked a village at Mitaigaon near the Diphu outpost, killed one person, injured two and carried off three children. The raiders also seized three guns. It was at first reported that the raid was committed by the Bebejiya Mishmis in revenge for the death of a person of their tribe at the hands of the Khamptis. Needham recommended that the Bebejiyas, who were not suitably punished for the murder of the three British sepoy in 1893, should this time be brought to terms. The recommendation was accepted and a punitive expedition was ordered by the Chief Commissioner.

The expedition had mainly two objects in view—first, "to recover the captives carried off in May 1899, to arrest, if possible, the actual perpetrators of the outrage, and to punish the tribe to which they belonged, and second, to arrest the headmen of Aiyu Mimi village, who were involved in the murder of the three sepoy in 1893, and for which no retribution was obtained till then. It also aimed at making a topographic survey of the Dibang Valley. The expedition led by Needham through Maiyu Pass, Hunli and along the left bank of the Ithun and of the Dibang resulted in the destruction of Aiyu Mimi village on February 1, 1900, and arrest of its three chiefs, rescue of two children captives and one of the missing guns. But it was not until May 9, 1900 that one Chen Chen, the ring-leader of the Mitaigaon murder was captured. He was sentenced to death.

As regards the topographic survey, the Bebejiya expedition of 1899-1900 was not much successful considering the huge sums of money spent. A

¹ 1894, For. Dept., Extal. A. Progs. October, 1894, No. 96-151.

side-effect of the expedition was that it dispelled from the prejudiced mind of the British some misconceptions about the people. Needham admitted that the Bebejiyas were a gentle and inoffensive tribe, and not as 'bloodthirsty' and 'dangerous' as was previously thought. "Nearly all these early visitors," says Verrier Elwin, "came away with the lowest opinion of the Mishmis. Wilcox wrote that they were 'excessively dirty and as rudelooking as could possibly be imagined.' 'Excessively filthy', echoed Robinson in 1841; their clothing was inferior, their cultivation 'very rude'. 'Disgustingly dirty', adds Rowlatt, varying the adverb for a change. 'A very wild roaming race of people, capable of the most remorseless reprisals and massacres,' declared Butler. The general view, says yet another visitor, is that they are 'deceitful and blood-thirsty devils'. . . . Not one of them had ever bothered to say that the Mishmis were beautiful. And I was entirely unprepared for the wealth and beauty of their weaving designs, for their sense of colour and pattern, for the bright clean faces of the children, the shining white teeth . . . the friendly hospitality of everyone, and the quite wonderful coiffure of the Taraon and Kaman women which would not disgrace a Parsian lady of fashion."¹

There was yet another case of murder in 1905-06 in which three British subjects were killed at the Dikrang Block-House by two Bebejiyas in retaliation for the arrest and confinement of one of them during the last Bebejiya expedition. To punish the culprits, a blockade was again imposed on the Bebejiya and some other groups of the Idus. It was revoked in 1909 as it was abortive. But eventually one of the suspects named Tagi was apprehended and executed in January 1918. This was followed by a retaliatory murder of a rifleman by the villagers of Elapain. It was reported that Pangon, another suspect of the Dikrang murder of 1905-06, had a hand in it. A severe punishment was inflicted on the villagers in 1920. Pangon was shot while manoeuvring to ambush the punitive force, and the Elapain village was destroyed.

The Idus committed their 'last' raid in November 1933 on a village in the British territory near Nizamghat. Four children lost their lives, and several others were injured in the incident. The Political Officer J. H. Crace made a 'promenade' into the Sessiri Valley and succeeded in restoring the normal conditions.

British-Khampti Relations

The Ahoms finally lost Sadiya to the Khamptis during the Burmese incursions. The Khampti chief of Sadiya, who arrogated to himself the Ahom title of Sadiyakhowa Gohain, was now recognised as the lawful ruler of Sadiya subordinate to the British Government. He was exempted from paying any tribute on the condition that he would maintain a force of two hundred men to be armed by the Government. The internal

management was left to him, but a British garrison was stationed at Sadiya to keep the unruly tribes of the adjacent hills in check. The judicial authority of the Khampti chief was restricted to the adjudication of minor cases, while the major criminal offences were dealt with by the British officials.

Although the Treaty of Yandabo (1826) formally ratified the extension of British supremacy to the whole of Assam, it was considered expedient by the British Government to restore a part of the province to Purandar Singha, the exiled king of the Ahoms. Accordingly, he was installed in 1833 as a tributary ruler of Upper Assam excluding Sadiya and Matak, the two regions under tribal chiefs with whom the British Government maintained direct political relations. But Purandar Singha soon lost the confidence of the British and was deposed in 1838 on a charge of maladministration. His territories were placed directly under the British administration.

Meanwhile, the old Sadiyakhowa Gohain died in 1835, and was succeeded by his son. At this time there was a fresh influx of the Khamptis from across the border. The British authorities permitted them to enter in pursuance of a deliberate policy of settling warlike tribes along the border so that they might stand against the Burmese. But, about the same time a dispute arose between the new Sadiyakhowa Gohain and the Bor Senapati, the ruler of Matak over a tract of land called Chukowa on the south of the Brahmaputra. To avert a conflict the British officer at Sadiya attached the land and called upon both the parties to appear before him for arbitration. But the Sadiyakhowa Gohain took forcible possession of the land in clear defiance of this order. Consequently, he was removed from Sadiya and his post was abolished. The Khamptis were, however, allowed to retain their privileges, such as exemption from taxes, and management of their internal affairs under their own chiefs, as earlier conceded to them. But these concessions, from the Khampti viewpoint, were largely taken away by the forfeiture of their right to rule over the area. They also resented the humiliation of their ruler, the Sadiyakhowa Gohain. The release of their slaves by the British roused more bitterness. They saw in all these measures a design to impose tax on them and to lower their status to the level of their subjects. The discontent was so deep that an attempt to appease them by permitting their chief to return from exile as a token of reward for their help in the operations against the Singphos failed to remove it. Eventually, on the night of 19th January, 1839, a band of 500 Khamptis attacked the British garrison at Sadiya, killing Colonel White, the Political Agent, and a large number of sepoy. A punitive force was immediately despatched to Sadiya. The insurgents retreated and sought refuge amongst the Mishmis. Although they were hotly pursued, they could not be reduced to submission till December, 1843.

Sadiya and Matak tracts were brought directly under the British rule

¹ Verrier Elwin, *A Philosophy for NEFA*, (Shillong, 1964), pp. 21-22.

in 1842 by a proclamation.¹ In order to prevent further insurrection, the Khamptis were not allowed to remain together. They were removed in batches to different places. Some were settled above Sadiya, and others on the Tengapani river. It was thought that the dispersion of the Khamptis would eliminate possibilities of combined uprisings and a Khampti settlement above Sadiya town would serve as a screen between the Assamese and the Mishmis. A small force of armed Khampti volunteers was raised to protect the villages near Sadiya and patrol the hill tracks.

The Khamptis reconciled themselves to these measures taken by the British authorities. They showed signs of increasing loyalty to the Government from 1844-45 onward. The section of the Khamptis who were around Sadiya and Saikhowa paid revenue, and those living on the Tengapani obtained from the Government exemption from taxation and an assurance that their internal affairs would not be interfered with.

In 1884, there were four Khampti settlements in Assam, namely Sunpura above Sadiya, Saikhowa to the south of the Brahmaputra, Damadji and in the area to the west of Lakhimpur.²

As Mackenzie observed long ago, the Khamptis occupying the low lands are not strictly a hill tribe. E. T. Dalton wrote of them about a century ago that they were very advanced in knowledge, arts and civilisation.

British-Singpho Relations

In 1825, a host of about 7,500 Singphos made an assault on the Khamptis and the Moamaris. The Sadiyakhwa Gohain was imprisoned within his stockades and the Bor Senapati attacked in his own country. At this stage, the British Government had no firm policy for administration in Assam. The Government was disinclined to undertake the defence of a tract so remote as Sadiya and to interfere with the unknown hillmen of the north-east frontier.³ But when the Sadiyakhwa Gohain and the Bor Senapati appealed for help, it was given strictly for defensive purposes. The alliance proved too formidable for the Singphos to withstand. They approached the British authorities for negotiation. By this time they were in occupation of considerable tracts of land cultivated by slaves. They were anxious to retain their land and their slaves. In course of negotiations, it was made clear to them that no settlement was possible unless they released the captives used as slaves and refrained from plundering the villages of Sadiya. The Government also demanded an assurance that they would protect the border from Burmese incursions. The Singphos were a disunited tribe under different chiefs, of whom Bisa Gam.

¹ (a) Edward Gait, *A History of Assam*, (Calcutta, 1967), p. 362.

(b) Hem Barua, *The Red River and the Blue Hill*, (Gauhati, 1962), p. 18.

² A. Mackenzie, *History of the North-East Frontier of Bengal*, (Calcutta, 1884), pp. 57 ff.—Reference Verrier Elwin's *India's North-East Frontier in the Nineteenth Century*, (London, 1962), p. 360.

³ A. Mackenzie, *History of the North-East Frontier of Bengal*, (Calcutta, 1884), pp. 61 ff.

Duffa Gam, Luttora Gam and Latta Gam were important persons to be reckoned with.¹ It was extremely difficult to deal with them collectively, for each of the chiefs had his own interests to serve. The negotiation revealed that the Singphos themselves were in need of British protection against the Burmese. But the firm stand taken by the Government in regard to the surrender of captives and booty lay in the way of a reconciliation. But, apprehending a Burmese aggression which seemed imminent, the Government took a prompt decision to assure them of the possession of their lands so as to win them over as allies against the Burmese. The Singphos, however, made a common cause with the Burmese when they did actually appear on the Patkai in June, 1825. Captain Neufville led an infantry up the Noa-Dihing, and by a series of operations drove out the Burmese from the Singpho villages of Bisa and Duffa Gams which he destroyed. The Singpho chief including Bisa Gam made their submission and the Burmese were finally expelled. With the assistance of Bor Senapati, the Khamptis and the Miris, Captain Neufville was reported to have released about 6,000 captives in the course of these operations.

Sixteen out of twentyeight Singpho chiefs came to an agreement with the Government in June, 1826 when David Scott, the Governor General's Agent, visited Sadiya. The chiefs agreed to release the captives and promised assistance to the British troops if called for in future. They also pledged to refer their disputes to the British officers for arbitration. Hostages were returned in due fulfilment of these engagements.²

It was also subsequently decided in 1829 that Bisa Gam should have a general control over the section of tribe which had submitted, and that the twelve chiefs, who still held out, should be warned that they would not be allowed to settle in Assam if they did not submit within two months. No revenue was, however, demanded from the Singphos, but according to the terms of the agreement, the Chief of Bisa was to provide, if needed, a contingent of eighty men, and to convey immediate information to the British authorities of any alarming development near the Patkai Pass.

In the early part of 1830, a combined force of the Singphos and the Khamptis was reported to have invaded the plains, crossed the Burhi-Dihing and proceeded towards Sadiya. Rumours were afloat that they were out to expel the British from Sadiya, and the Sadiyakhwa Gohain was in league with them. Captain Neufville succeeded in dispersing and driving them out from the village of Luttora Gam on the Tengapani where they made their headquarters. The Bisa Gam remained loyal throughout these operations.

The Singpho economy was dependant on slave labour and hence they resented the loss of their slaves. In spite of the agreement of 1826, they

¹ The word Gam is the affix indicating the elder branch or member of a family of a Singphos clan.

² A. Mackenzie, *History of the North-East Frontier of Bengal*, (Calcutta, 1884), pp. 61 ff. Reference Verrier Elwin's *India's North-East Frontier in the Nineteenth Century*, (London, 1962), p. 388.

continued to keep slaves. In July 1834, an European officer was posted at Sadiya permanently. The pre-eminence of Bisa as the permanent chief of the tribe was resented by his rival, the Duffa Gam. He committed a number of raids on the villages under the jurisdiction of the Bisa Gam.

By the previous engagements, the British Government were committed to protect Bisa Gam, and safeguard his rights and privileges. The friendly gestures of Bisa Gam, who had been loyal to the Government since the agreement of 1826, were highly valued. The hostile activities of Duffa Gam against Bisa Gam were, therefore, matters of serious concern to the Government.

In 1835, the Duffa Gam made a sudden attack from across the border on Bisa's village, killing some ninety persons including women and children. He drew to his side most of the Gams who were subordinated to the Bisa Gam in 1829, and built stockades inside the Indian territory. But he could not hold out for long and with his expulsion all the chiefs save the Luttora Gam reaffirmed their allegiance to the Government. Luttora Gam, who next to Duffa Gam was the most powerful of the chiefs, submitted in 1837.

But the smouldering discontent among the Singphos, which revealed itself in the following years in their endemic quarrel on the one hand, and their occasional flare against the British on the other showed that it was more deep-rooted than what was previously supposed. An attempt was made at this time to bring all the Singpho settlements under administrative surveillance. In 1841-42, the Singpho area appeared so quiet that its management was transferred from the Political Department to the Revenue and Judicial Departments of the Bengal Government.¹

The apparent quietude was, however, deceptive. In 1843, a sudden attack on the outpost at Ningroo by a large group of the Singphos from Burma sparked off a widespread rebellion, in which all the Singphos of the Assam border and a large number of the Khamptis took part. Bisa Gam was also suspected of having lent a helping hand to it. The uprising was believed to have been fomented by the Tipam Raja, an offshoot of the Ahom royal family, who was appointed Governor of Hukawng in Burma by the Burmese king, with, it was said, instructions to take advantage of any situation that might rise for invading Assam. Prompt measures were taken to quell the revolt. The operations dragged on for months and ended in the surrender of all rebel chiefs and their accomplices, and in the complete submission of the Singphos as a whole. This was the last uprising of the Singphos against the British and since then they appeared to have retired to peaceful pursuits of life.

An enquiry commission appointed by the Government found the following three causes of the rebellion:

1. encroachment on the lands and privileges of the Singphos,
2. the seizure and punishment by local officers of some members of their tribe, and
3. the orders of the Tipam Raja.

"The Governor-General in Council in reviewing the report set aside the last two grounds, as it was certain that the orders of Tippam, if ever given, would have had no effect unless they had fallen on willing ears; and as to the second point it was shown that no Singphos had been punished save under the terms of their engagements, and in accordance with established usage. The real cause Government sought in the first point noticed. Although the Singpho agreements made with Mr. Scott are personal rather than local, yet it was clear that they were meant to apply within certain limits, that is, within the ordinary habitat of the tribe. Unfortunately no such limits were ever regularly defined, and of late the extension of tea cultivation had made this omission of serious consequence."¹

"The Governor General's Agent in a further report maintained that the main cause of the Singpho insurrection was the loss of their slaves. The Government accepted this report, but it was made clear to the Singphos that the slavery would not be revived.

Meyors and Zakhings

In 1906-07, a large number of immigrants came from across the Indo-Tibetan border in order to settle in the Dri Valley. Unfavourable circumstances compelled them to move northward, and in course of the journey many of them perished due to intense cold and the hostilities of the Mishmis, who, it is said, attacked them with bow and arrow, while the immigrants defended themselves with gun. Only about ninety immigrants survived, who somehow managed to reach and settle at Mayu, and those who were captured by the Mishmis were enslaved and sold to the Adis. The immigrants moved further southward and ultimately settled in the Walong area.

These immigrants have come to be known as Meyors and Zakhings. The Meyors of today do not exactly know where they came from. They merely recollect the bare fact of their arrival and settlement in the Walong-Kibithoo areas. According to the Mishmi reminiscences, the Meyors fled from the Zayul District of Tibet to evade taxes imposed on them by the Dzongpon of Rima, and get away from the oppression of the Tibetan authorities.

At the time of migration into the Lohit District, the Meyors faced the bitter opposition from the Mishmis, who were then at war with the

¹ A. Mackenzie, *History of the North-East Frontier of Bengal*, (Calcutta, 1884), pp. 61 ff. Reference Verrier Elwin's *India's North-East Frontier in the Nineteenth Century*, (London, 1962), p. 392.

¹ A. Mackenzie, *History of the North-East Frontier of Bengal*, (Calcutta, 1884), pp. 61 ff. Reference Verrier Elwin's *India's North-East Frontier in the Nineteenth Century*, (London, 1962), p. 393.

people of the Zayul District. The Mishmis raided the settlement of the Walong Meyors repeatedly, and forced most of them to retreat from the Walong area to Rima. A few Mayu villages, now known as Walong, Dong, Tinai, Mishmi, Champrang and Kahao, withstood the Mishmi raids. Eventually, the Mishmis and the Meyors came to an agreement by which the Mishmis bound themselves to allow the Meyors to settle in the Walong area and to give them protection, and the Meyors, in return, agreed to pay annual tributes to the Mishmis. It was decided that the Imu river should form the boundary between the two people, and demarcating stones were erected. According to the terms of the agreement, the new settlers were also required to serve as herdsmen of the Mishmis.

Khambas

The immigration of the Meyors and Zakhrings was followed by or probably coincided with the intrusion of about 1,000 Khambas in the Mathun Valley some five to seven years before the survey operations of 1912-13. The reason why they came from Tibet is not clear. It was stated that they came in quest of the promised land known as Pemako, but they entered by a wrong way and settled in Nyigong (Young-sang-chu) Valley in the Siang District.

On their way to Mathun a large number of the Khambas perished in the inhospitable mountains and snow-storms. The rest returned to Tibet leaving at Mipi a small group of about one hundred old and infirm fellow-travellers. They struggled for existence at Mipi for about four or five years before they were wiped out by the Idus.

The Idus did not like that the aliens should settle in their territory. They attacked the Khambas whenever they found an opportunity. In 1907-08, the Idus of the Enra and Mathun Valleys killed some Khambas. In retaliation, the enraged Khambas burnt all the Mishmi villages in the Dri and Mathun Valleys and took away all their domestic animals and foodstuff. The Idus fled southward and settled on the tributaries of Dibang. According to a report, a fierce encounter took place between the Khambas and the Idus in which both the parties suffered heavy loss of lives, 170 Idus against 400 Khambas. Another report stated that 23 villages in the Dri Valley, and 12 villages in the Mathun Valley were devastated by the Khambas. Some of these villages remained deserted since then. In 1912-13, the surveyors fixed the Imu river as the boundary between the Idus and the Khambas. About five years later, the Khambas descended upon one Idu village, set it on fire and killed three Idus. The outrage was allegedly an act of retaliation against continued Idu depredations. The Idus, in revenge, raided the Khamba stronghold at Mipi, killing some Khamba villagers, and forcing the rest of them to go back to Tibet. And this was the end of the Khambas in the Mathun Valley.

British Administrative Policy

The British policy pursued upto the first decade of the present cen-

tury was no more than exercising a loose political control over the hill people of this north-east frontier through the officers stationed at Sadiya and a few outposts in the lower regions. Conciliation and minimum interference as its line of approach, the British Government took care to avoid friction with the hill tribes as best as it could save on the occasions of serious tribal raids and feuds calling for punitive expeditions and imposition of blockades. The entire policy was intended to 'leave the tribesmen alone', to isolate them, and to see, while leaving them to themselves, that nothing was done which might tend to infuse a sense of freedom in their minds.

But a policy of 'isolation', if possible in earlier times, was bound to fail in the modern age. The policy was not compatible with the developments taking place in the political, economic and administrative spheres, and also with the Government relations with the hill tribes of this frontier. A revision of the policy was, therefore, necessary in order to take such realistic steps as would ensure effective control over the frontier regions, a closer contact with the people and a gradual extension of the administrative jurisdictions to the outlying areas. It was increasingly felt by the British administrators that the tribal people, who were far from being savages, should be befriended. True, the tribes were suspicious of strangers who, they thought, would encroach upon their rights and privileges, their age-old institutions. They, therefore, tried to resist the 'intruders'. It is also true that there took place a series of raids and feuds, murders and kidnaps, but it would be extremely incorrect to say that feuds and sanguinary warfares were the whole of history of the tribal people of this district. There was a long tradition of cultural intercourse, trade relations and friendliness between the hill and the plains people. The Taraons, in particular, were keen traders, bartering with the plains. From the sixties of the last century, a number of fairs were held at Sadiya, Udalguri and other places. In 1876, about 3,600 tribesmen attended the Udalguri fair and 3,000 Miris, Mishmis, Khamptis and Singphos were present at the Sadiya fair. These fairs proved amply clearly the hollowness of the short-sighted policy of isolation.

The Sadiya and the Matak tracts were incorporated in the Lakhimpur District of Assam with headquarters at Dibrugarh as far back as 1842. Since then, the Principal Assistant to the Governor General's Agent, later redesignated as the Deputy Commissioner, Lakhimpur District, had also been acting as the Political Agent for Sadiya. In 1882, an Assistant Political Officer with headquarters at Sadiya was appointed to assist the Political Agent. He was J. F. Needham, who continued there till 1905. This appointment was the first important step towards setting up of an administration for the territory now known as Arunachal Pradesh.¹

¹ (a) Edward Gait, *A History of Assam*, (Calcutta, 1967), p. 362.

(b) Verrier Elwin, *A Philosophy for NEFA*, (Shillong, 1964), p. 2.

In 1910, a mission visited the Dibang and Lohit Valleys to secure allegiance of the Mishmis to the Government, to win their friendship and to induce them to put a stop to the raids and their intertribal feuds. In 1912, the mission headed by Captain Bailey visited the villages to the north-west of the Sessiri and Ithun rivers and went as far as Ichigu on the right bank of the Ithun.

At about the same time, the Mishmi Mission Survey was undertaken in response to a Mishmi deputation to the administration at Sadiya late in 1911, when the Chinese in Tibet were trying to exercise their authority over the Mishmis. The Chinese were reported to have summoned the Mishmis to make their submission before the Chinese officers at Rima, and ordered them to build a track through the Mishmi Hills to the plains of Assam. The Mishmis refused to obey the Chinese and appealed to the Sadiya administration for help. This was a serious matter and it involved questions of policy concerning the tribal people inhabiting near the borders. The incident engaged the attention of the Government of India, and it was decided to send a mission to the Mishmi Hills. The mission was led by the Political Officer, Sadiya together with Major Bliss. It included a survey party under Captain Guater. The main party toured in the Upper Lohit Valley close upto the international border, while others went deep into the Derai (Delai) and Dav Valleys. An attempt was made in 1912-13 to construct a track from the plains of the Lohit Valley to Walong. At about the same time, the Assistant Political Officer led 'the Walong Promenade' right upto the border and visited Rima at the invitation of the Tibetans.

Meanwhile, the government endeavours for better relations with the hill people received a rude shock in 1911 when N. Williamson, who after J. F. Needham held office from 1905, and Dr. H. Gregorson were murdered during their visit to Pangti in the present Siang District. This incident coupled with political developments along the international border led to important administrative changes. In 1912, topographical survey of the outlying regions was undertaken and the survey teams penetrated deep into the interior. One such team for the Dibang Valley led by Captain G. A. Nevill visited Sessiri, Mathun, Emra, Upper Tangon and Ahui Valleys. Attempts were also made to bring under political control as many villages as possible. These explorations paved the way for gradual extension of administration.

The history of administration of the territory now known as Arunachal Pradesh may be taken as beginning from the Government of India, Foreign and Political Department, Notification of 1914, which promulgated that the Assam Frontier Tracts Regulation, 1880 would extend to the hills inhabited or frequented by the Adis, Miris, Mishmis, Singphos, Nagas, Khamphtis, Bhutias, Akas and Nishis. These hill areas were separated from the then Darrang and Lakhimpur Districts of Assam. As a result,

the North-East Frontier Tract was constituted. The present Lohit District formed a part of the said tract.¹

Post-Independence Administrative Developments

The attainment of India's independence on August 15, 1947 ushered a new era of progress in this area. Since then, important administrative developments have taken place. Measures taken by the National Government for welfare of the Scheduled Tribes received an enthusiastic response from the local tribal people, who were freed from neglect and long isolation they suffered during the pre-independence period. With the passage of time, all parts of the district were brought under a regular and effective civil administration. Administrative centres came into existence at Hayuliang, Hawai and Walong as early as 1944. The district headquarters were established at Tezu in 1952. In the fifties, the civil administration further extended to the remote areas of the district. During this period, administrative centres were opened at Roing and Kibithoo in 1951. Nam-sai in 1953, Dambuk in 1954, Anini in 1957, Chowkham, Etalin, Desali and Angolin in 1959. The extension of civil administration continued in the sixties, and administrative centres were established at some more places, namely Chaglagam and Anelih in 1962, Adane in 1964 and Wakro in 1965. With the opening of these centres throughout the area, the civil administration was extended and consolidated over the whole of the Lohit District.

It may also be noted that from the year 1947 onwards, people's participation in the Government endeavours for development of the area has assumed more and more importance.

¹ See Chapter I for details under the heading 'History of the District as an Administrative Unit'.

CHAPTER III PEOPLE

Population

According to the Census¹ of 1971, the Lohit District has a total population of 62,865 persons. Lohit is the most sparsely populated district of Arunachal Pradesh, the number of persons living in one square kilometre is only 3. The population is almost entirely rural, inhabiting some 620 villages.

The decadal variation in the district population is shown below:

Total Population

Census Year	Male	Female	Total Persons
1961	19,042	17,008	36,050
1971	35,461	27,404	62,865
Increase of population from 1961 to 1971 = 26,815			

Scheduled Tribes Population

Census Year	Male	Female	Total Persons
1961	13,175	13,975	27,150
1971	18,140	18,471	36,611
Increase of population from 1961 to 1971 = 9,461			

During the period 1961 to 1971 the percentage of decadal increase in the total population is 74.38 and in the Scheduled Tribe population is 34.85.

The indigenous population is tribal belonging to different communities, and barring the Tibetan and Chakma refugees who have been resettled, the other sections of the population are constituted by various groups of people living in the district in connection with Government service, construction works, business etc. The Scheduled Castes population of the district is 319 (males 165, females 154) out of the total Scheduled Castes population of Arunachal Pradesh numbering 339 persons.

The population of different Scheduled Tribes of Lohit District as enumerated in the 1971 Census is as follows:

¹ Census of India 1971, Arunachal Pradesh, Part II-A, pp. xi, 11, 19, 37.

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Name of Scheduled Tribe	Population		
	Persons	Males	Females
1	2	3	4
All Scheduled Tribes	36,611	18,140	18,471
<i>Local Scheduled Tribes of Lohit District</i>	36,383	18,001	18,382
Kaman/Miju Mishmi	8,226	4,039	4,187
Idu/Chulikata			
Mishmi	7,720	3,745	3,975
Digaru/Taraon			
Mishmi	5,384	2,607	2,777
Khampti	3,953	2,017	1,936
Padam	3,611	1,717	1,894
Deori	2,668	1,425	1,243
Mishing/Miri	1,909	1,000	909
Adi	777	370	407
Mishmi	756	409	347
Khamba	404	202	202
Siagpho	398	195	203
Kongbo	375	170	205
Meyor	98	49	49
Abor	81	49	32
Zakhring	23	7	16
<i>Other Scheduled Tribes of Arunachal Pradesh</i>	228	139	89
Morang Tangsa	73	44	29
Gallong	66	36	30
Khamiyang	27	18	9
Tangsa	12	9	3
Nocte	10	7	3
Daffa	10	5	5
Millang	5	2	3
Bori	3	2	1
Millang Abor	3	2	1
Minyong	3	2	1
Pangi	3	1	2
Sherdukpen	2	1	1
Muktum	2	2	—
Wancho	1	1	—
Adi Pasi	1	1	—
Apatani	1	1	—
Komkar	1	1	—
Mikir	1	1	—
Nishang	1	1	—
Tikhak Tangsa	1		

In the table below is shown the distribution of the total population of the district according to the sub-divisions and circles:

Sub-division	Circle	Population (1971 Census)
1. Tezu Sub-division	Tezu	9,996
2. Namsai Sub-division	(1) Namsai	16,517
	(2) Wakro	1,640
	(3) Chowkham	5,907
3. Hayuliang Sub-division	(1) Hayuliang	7,238
	(2) Chaglagam	2,353
	(3) Hawaii	2,750
	(4) Walong	806
	(5) Kibithoo	426
4. Anini Sub-division	(1) Anini	2,129
	(2) Etalin	787
	(3) Adane	973
5. Roing Sub-division	(1) Roing	5,743
	(2) Dambuk	2,202
	(3) Desali	3,398
Total : "		62,865

Indigenous Tribes and Other Peoples

The major tribes inhabiting this district are the Mishmis, Khamptis, and a section of the Padams and of the Singphos. The Mishmis are divided into three main groups, namely the Idus or Chulikatas, the Taraons or Digarus and the Kamans or Mijus. The Padams are a group of the Adis of Siang.*

The Idus live in the Dibang Valley in the northern and western parts of the district. The area inhabited by the Idus is a vast and formidable mountainous terrain extending from the Indo-Tibetan Border on the north to near the confluence of the Lohit and Dibang rivers on the south. "They are divided into eight sections, each section named after the river along which they are settled. Thus—

The Mihi Section lives on the Ahi (Sessiri) Valley,
The Milhu Section lives on the Ilhu Valley,
The Miemra Section lives on the Emra,
The Midri Section lives on the Dri,
The Mihui Section lives on the Ahui,
The Mitanong Section lives on the Tanong (Dibang),

* The Padams live in far greater number in the Siang District than in the Lohit District. The Siang District Gazetteer is to give a fuller account of them.

The Matun Section lives on the Atun,
The Mithun Section lives on the Ithun.¹

The Taraons inhabit the area stretching from the boothills in the south to Hayuliang along both the banks of the Lohit river roughly bounded by the river Dau (Dou) and Derai (Delai) in the north-east, Kherem in the south, and Digaru in the west.

The Kamans live in the eastern part of the district extending upto the international border. They occupy the valleys of Dau (Dou), upper Lohit, Kamlang and Lati rivers as well as the tract between Hayuliang and Walong.

The Khamptis and Singphos are settled in the lower regions drained by the Tengapani and Noa-Dihing. The area lies to the south of the Lohit river contiguous to the Tirap District of Arunachal Pradesh and Lakhimpur District of Assam. The Khamptis call themselves Tai or Tai Khamptis denoting that they belong to the Tai race. The Tai word Khampti can be translated into English as 'a land of gold'—'kham' for gold and 'ti' for place. The name of the people has been derived from the place inhabited by them. The Khamptis have attained to a high degree of civilisation and culture with remarkable achievements in the fields of art and literature.

The Padams occupy the Roing and Dambuk areas in the foothills on the south-western corner of the Dibang Valley. A small area in the Walong circle near the Indo-Tibetan border is occupied by the Meyors and Zakh-rings. A good number of the Tibetan and Chakma refugees have been resettled at Tindolong (near Tezu) and Chowkham respectively.

Some groups of the Miris, Deoris and Kacharis also live this district. The Deoris inhabit the Namsai area in the southern part of the district adjoining Assam, and the Miris are settled along the foothill areas.

Language

The major languages spoken by the people of this district are Idu, Kaman, Taraon, Khampti, Singpho and Padam. The Idu and Taraon languages have affinities with each other inspite of dialectal variations. Kaman, like Idu and Taraon, is a Mishmi language. Padam is a dialect of the Adi language to which Idu is also related. According to Dr. Grierson's linguistic classifications, Mishmi and Adi languages belong to what may be described as the North Assam group of the Tibeto-Burman speech family.

The language of the Khamptis belongs to the Tai speech family and that of the Singphos to the Kachin-Lolo group of the Tibeto-Burman languages. Zakh-ring and Meyor dialects are affiliated to the Bodic speech family. Tibetan is spoken by the Tibetan refugees.

¹ A Phrase Book in Idu by the Research Department, Government of Arunachal Pradesh, (Shillong, 1962), p. (i).

A hybrid form of Assamese spoken in the district serves as the medium of language between the different groups of people. A form of broken Hindi is also used for this purpose. Major Indian languages, such as Hindi, Bengali, Assamese etc., are also spoken, but they are confined to the Government employees, labourers and the people connected with trade and commerce. English is the official language.

The Khamptis have their own script derived from the Shan. The Singphos have also adopted this script. The Chakma dialect is written in an alphabet which resembles the Khmer character. The Tibetan refugees use the Tibetan script. The other tribal languages and dialects have no script of their own. They are now written in Roman and Devanagiri.

A tribal speech may vary in colloquial forms, but the Mishmi languages of the Idus, Taraons and Kamans have very slight dialectal variations. These languages have retained more or less their linguistic solidity without any script. Although the Idus are scattered over a wide mountainous area, they have retained their linguistic homogeneity, and very little dialectal variation is found in the language except in case of their Mithun Section, also known as the Bebejiya Idus. The dialectal variations whatsoever are more discernible in pronunciations.

Religious Beliefs and Practices

Mishmi

The conception of a high impersonal god among the Mishmis, whom they regard as the supreme creator embodying the highest ethical principle of justice, is based upon beliefs in the spiritual qualities of natural phenomena and of all things, animate and inanimate. They explain a phenomenon, good or evil, as caused by an agent who in their mind is a spirit. They believe in numerous such spirits having great powers to rule over human beings. According to these beliefs, there are mainly two kinds of spirits, one brings happiness and prosperity and the other distress and misery. The Mishmis have, therefore, evolved a system of magico-religious rites and practices to dispel the evil spirits by appeasement. The relation of the spirits with the high god is not well defined, but they are thought to be subservient to him. Propitiation of the spirits who dominate the world of man is the most significant aspect of the Mishmi religion.

It may appear that by an extension of the religious beliefs in the spirits, the Mishmis have conceptualised a supreme god, the creator of the world, who is infinitely more powerful than the spirits and mortals.

The different groups of the Mishmis have different names for the supreme god. The Idus call him Inni, and the Taraons and Kamans address him as Jab Malu and Matai respectively. They believe that the supreme god is beyond all human propitiations, and, therefore, no sacri-

fices or offerings are made to him. But his name is invariably invoked on all sacrificial and ritualistic occasions.

The Mishmis have other gods also who control the sun, the moon and the stars, the rain, fire and the wind etc. These gods are worshipped and appeased so that they may evade their wrath, which manifests itself in the natural calamities, such as earthquake, fire, epidemics, storms, crop failure etc. The extension of their religious belief is expressed in the form of nature worship as well.

Spirits and Deities

The spirits and deities of the Mishmis are specified, and they have their own domain of influence in relation to human beings. Some of the spirits are believed to reside in trees, water, air etc., while the others dwell in the skies. Sacrifices and offerings are made to a spirit when there is any conceivable reason to believe that he is annoyed or ill disposed towards men. Mithuns, cows, pigs and fowls are generally sacrificed and the number of animals or birds to be sacrificed depends on the circumstances in which a particular spirit is propitiated. The performance of the sacrifice is conducted by a priest. The spirits and deities of the Taraons and Kamans are almost identical even though they have different names. Some of the important spirits and deities are as follows:

Breing or Broingye (Taraon)—He is the sun god who watches over the doings of man. Benevolent and kind he gives fortune, wealth and prosperity to human beings.

Wata (Kaman)—A god who is believed to be the creator of the earth and all mankind. He shows men the way to build houses and to do agriculture for better crops.

Buru (Kaman): Bruiya (Taraon)—A deity who protects man from accident. It is believed that he comes for rescue of men who invoke him in danger. He also prevents the evil spirits from doing harm to men. But he destroys human property and livestock when neglected.

Cuta (Kaman and Taraon)—A deity of the forest to whom offerings are made for successful huntings.

Bruhutang (Kaman): Dappa (Taraon)—A deity who controls birth. If neglected, he may cause a miscarriage or do harm to the new-born child.

Cupe (Taraon and Kaman)—It is an evil spirit of gigantic stature like a palm tree. When he clutches a man in a lonely place, he may either carry him to the jungle to make him insane or kill him.

Cupa (Kaman): Kapa Barn (Taraon)—A spirit who lives in big trees. If anybody cuts a tree where he lives, he would get leprosy for offending the spirit.

Slong (Kaman): Achua (Taraon)—A spirit who is responsible for causing stomach trouble to the children.

Kachel (Kaman): Maiei (Taraon)—An evil spirit who brings dysentery and other epidemic diseases to a village.

Along (Kaman): Nya Along (Taraon)—A spirit who causes continuous fever. He is offered a live fish for a cure.

Kung Gau (Kaman): Kuk Kau (Taraon)—A spirit who is held to be responsible for serious illness of human beings.

Hambram (Kaman): Bra (Taraon)—A spirit who also causes serious illness. A man loses his hair due to the evil intentions of this spirit.

"The Idu word for spirit is *khinyu*. Most of the *khinyus* have permanent homes; some live in the underworld, some on the earth, some in the air, and others in human dwellings. They get easily offended with human behaviour of omission and commission, and are always on the look-out to do them harm. The following are some of the Idu spirits:

Abruli. The Idu word for lightning is *Abruli*. *Abruli* is a female spirit who does no harm to man.

Ali. A spirit who guards the household and bestows wealth. His departure from the house is believed to cause poverty.

Andra. A spirit who is not as harmful as other spirits. But when he is offended by some one, he hands him over to the evil spirits.

Arru-sudu. He is known as the controller of wind. He is a great friend of *Arrasu*, the spirit of fire, and with his assistance sets fire to human dwellings.

Arruya. A very wicked spirit who breeds contention among men and prompts them to quarrel, fight and murder.

Asa. An evil spirit who lives under the earth. When he is offended with a man, he visits him with dysentery, high fever and other sicknesses.

Asila-amide. A spirit who gives people children. He looks after the children, and protects them from the attacks of other evil spirits.

Asu. A good spirit who gives wealth to men. He is worshipped with sacrifice of animal blood.

Athu. A very wicked spirit who gives pain to women during delivery. He kills small children.

Beika. A snake spirit, who lives in water. When he gets an opportunity, he takes away men and women into the river and drown them.

Brerru. The Idu name for thunder is *Brerru*. *Brerru* is considered as a spirit who hurls thunderbolts when he gets angry.

Errasur. An evil spirit who lives in the sky. He is the owner of fire, and is peevish in temperament. He sets fire to human dwellings when he gets angry.

Ithri. He causes tuberculosis; and makes people vomit blood. He is very much dreaded by the Idus.¹

In the Mishmi pantheon, there are quite a large number of gods, less important and less powerful, who are responsible for minor ailments of the human beings. It is also believed that in case of an accidental or unnatural death, the soul becomes a mischievous spirit. Such spirits are called *kuman* by the Kamans and *tagra* by the Taraons.

Khampti

The Khamptis are Buddhists of the Theravada School. They believe that attainment of *Nirvana* or salvation of human soul can be achieved by following the Noble Eightfold Path—Right Views, Right Thought, Right Speech, Right Action, Right Livelihood, Right Effort, Right Mindfulness and Right Meditation as taught by the Buddha, the Enlightened. The religious life of the Khamptis is deeply influenced by the Buddhist ethics and morality. To them, Lord Buddha is a great moral preceptor, and an embodiment of love and pity, truth and righteousness, and in their daily prayers to him, which they call *paiphra*, they seek his blessings for the welfare of the family and of the society as a whole. The man who is devoted to the service for propagation of the teachings of Lord Buddha is called by them *Phra-taka* or disciple of god.

The 'Pancha Shila', or the Five Principles known as *Sin-Ha* in the Tai Khampti language is an important aspect of the Buddhist religion of the Khamptis. In every religious prayer the Pancha Shila is pronounced by the devotees in Pali as follows:

- (1) 'Panati Pata Veramani Sikha Padam Samadiyami,' or I vow to follow the lesson that I should abstain from killing the living creatures;
- (2) 'Adinnadana Veramani Sikha Padam Samadiyami,' or I vow to follow the lesson that I should abstain from receiving unwilling donations;
- (3) 'Kamesumechachera Veramani Sikha Padam Samadiyami,' or I vow to follow the lesson that I should abstain from indulging in sexual pleasures and falsehood;
- (4) 'Musawada Veramani Sikha Padam Samadiyami,' or I vow to follow the lesson that I should abstain from telling lies; and
- (5) 'Surameraya Majjapamadatthana Veramani Sikha Padam Samadiyami,' or I vow to follow the lesson that I should abstain from taking intoxicating things and wine.

Besides the 'Pancha Shila', there are 'Ashta Shila' and 'Dasa Shila' known as *Sin-Pa* and *Sin-Sip* respectively in the Tai Khampti language. The 'Ashta Shila' is generally followed by the aged people since it is

¹ T. K. M. Barua, *The Idu Mishmis*, (Shillong, 1960), pp. 77-78.

more stringent than the 'Pancha Shila'. In the 'Ashta Shila,' three principles are included in addition to the 'Pancha Sila' as follows:

- (6) 'Vikala Bhojana Veramani Sikha Padam Samadiyami,' or I vow to follow the lesson that I should abstain from taking food untimely, i.e., after 12 noon;
- (7) 'Nicca Geeta Vadita Visukadassana Malagandha Vilepana Dharana Mandana Vibhusanattana Veramani Sikha Padam Samadiyami,' or I vow to follow the lesson that I should abstain from dance and musical amusements, from festivities and from using luxuries and adornments; and
- (8) 'Ucca Sayana Mahasayana Veramani Sikha Padam Samadiyami,' or I vow to follow the lesson that I should abstain from sleeping on comfortable and luxurious bed.

In the 'Dasa Shila,' the seventh principle is pronounced in two parts, and the following principle is added:

'Jata Rupa Rajata Patigahana Veramani Sikha Padam Samadiyami,' or I vow to follow the lesson that I should abstain from receiving money and wealth from others.

"We have to reckon here with a very interesting fact of history. The Mahayana School of Buddhism, which came to be collectively known as the Northern Buddhism, entered Tibet possibly from Kashmir in the 7th century, and again found its way back to India among the Monpas and the Sherdukpens of the Kameng district of Arunachal Pradesh probably via Bhutan. On the other hand, the Hinayana School, later called the Southern Buddhism, which had originally migrated to Burma from Ceylon, was carried back to India by the Khamptis and the Singphos."

The Khamptis believe that the Gautama Buddha occupies the fourth position in the line of the Buddhas, the great religious preachers in this world, and after five thousand years of his death he will be succeeded by Ari Mitia, the fifth Buddha.

The Khamptis do also conceive of a supreme creator, whom they call *Chau-khun-shang*, and believe that a god named *Chau-ci-giya*, who is subordinate to the supreme god of creation, looks after the welfare of human beings. There are other gods in the Khampti pantheon, who are invoked in a prayer known as *wai-akyu*.

Singpho

The Singphos are Buddhists by religion. A monk named Dingla Chrato was the first to introduce Buddhism among the Singphos about a century ago. The monk who is said to have come from Hukawng Valley of Burma visited Buddhagaya and built the Buddhist monastery at

Phakial village near Margherita. The Singphos call this temple Samuk-sing where they go on pilgrimage. The Singphos have, however, not given up their old shamanistic beliefs even though they are Buddhists. They believe in a host of spirits called *nats*, who are malevolent and responsible for causing miseries to human beings. There are nearly eighteen such *nats*, who are worshipped on a number of occasions and regularly propitiated with sacrifices of bulls, cows and chickens.

"The spirits control their daily activities. Some of them are beneficent, others maleficent. They have their abodes in the house, trees, water, forests, bill etc.

"The beneficent spirits are:—

- rukju-nat —Abode in big trees
- kha-na? —Abode in water
- bum-nat —Abode in the hills
- inlung-nat —Abode in the hills
- smathi —Abode in the house

"The evil spirits are philu, phinin and lummumnat. Phinin may be of any sex, is hard of hearing and small in size. Its haunt is everywhere and it is always on the move, and so one may come upon it anywhere and if it so happens an accident is sure to occur. That part of the body which touches the spirit is affected with pain or disease. A good spirit may also cause disease. If one goes astray and does not observe the code or taboo the *smathi* (house spirit) gets angry. *Lummumnat* causes sudden illness and high fever. Under the spell of *Lummumnat* the patient gets blood shot eyes and is in hysteria. The medicine-man (*dum-sa-wa*) is called to cure and he invokes the spirit and performs rituals. He knows which spirit to invoke with the help of *shiba-lap* (a leaf) or small pieces of split bamboos. The leaves and split bamboo are held over a fire and by examining the crumbling of the edges *dum-sawa* tells which spirit has to be appeased.

Hepatoscopy: Foretelling future is also practised by examining the liver. A perfect liver indicates good omen while spots on it indicate otherwise. Cock or hen are skinned and examined for prognostication.

"While cutting big trees such as the rubber tree (*kun phun*) they beg leave of the spirit residing in it and request him to leave the tree and dwell in some other tree. When they kill a tiger or an elephant they propitiate the *puun guzu* (spirit of the forest).

"Dream also has significance in their life. Some of these are given below:

1. To see a big uprooted tree in a dream indicates that an old member of the family may die.
2. Extracting of a front tooth indicates the death of a child, while that of a molar tooth, the death of an old man.

¹ J. N. Chowdhury, Arunachal Panorama, (Shillong, 1973), p. 205.

3. A red cloth signifies bleeding.
4. White fish stands for gain in money.
5. A dead man carrying load signifies that one will have a good bag in hunting.
6. To dream an elephant being chased is to incur the anger of the house spirit.
7. To climb up a hill or a tree indicates that a desire will be fulfilled.
8. To dream over-eating indicates stomach pain.¹

"Buddhism," says Verrier Elwin, "retains its hold on the Khamptis, but the religion of the Singphos has been considerably modified by a belief in witchcraft and sorcery and by the importation of local gods into its pantheon."²

The Idea of the Soul

"The ideas of the Idus of the underworlds are very interesting. When the *megra* or soul leaves the body at death, it becomes incorporeal like the air. It wanders on the earth for a few days, and as soon the burial of the body is over, goes to live in the underworld.

"The Idus speak of five different places to which the soul goes after its departure from the human body. They are classified in different grades, according to the amount of comfort they offer to the soul, and are called *megra-mra*, *aru-mra* or *makui-mra*, *jahi-u*, *iffinga* or *etentá*, and *etadi-epappa*.

"The road to all these places start from the same point. It is called Adde, and is guarded by a spirit named Jahirru. Here the soul goes first of all, and the spirit Jahirru asks for an account of his past deeds. If the soul belongs to an honest and virtuous man, Jahirru directs him along the path leading to *megra-mra*. Those who die of drowning go to *jahi-u*, which is situated on the bank of a river. The soul of a person who dies of accident is sent to *iffinga*. Cohabitation with a female slave is considered a sinful act. The soul of such a person goes to *etadi-epappa*. The souls of the wicked people are sent to *aru-mra*.

"The *megra-mra* is similar to this world, where the sun rises, nights fall, and there is a pleasant climate, neither too hot nor too cold. It is the abode of the ancestors who led virtuous lives while on earth. There is always enough food, and the land is very fertile. The ancestors enjoy peaceful family lives; they never quarrel nor fight each other. The *aru-mra*, on the other hand, is very hot; it is devoid of vegetation and the land is full of sandy soil which produces poor crops. It is situated among

¹ K. Das Gupta, *The Singphos, North-Eastern Affairs (Shillong)*, Vol. 2, No. 1, p. 95.

² Verrier Elwin, *A Philosophy for NEFA*, (Shillong, 1964), p. 24.

hills from where one can see many things of the earth. The ancestors live here in acute distress, as they do not get sufficient food to eat. Very often, they live on leaves and wild roots. At *jahi-u* the soul does not get anything to eat. Driven by hunger, sometimes it attempts to cook food in the shells of eggs. But the chill wind which constantly blows through the place always puts out the fire. So, the soul has to subsist on arums and the roots of wild trees.

"The Idu conception of the other world suggests that the tribe has developed some sort of rudimentary theory of *karma*. Admittedly, it has never attained the metaphysical heights, which the theory of *karma* attained in the Buddhist and Hindu systems of philosophy. Nevertheless, it will perhaps be wrong to deny an ethical basis to it. The Idus do have a very strong ethical bias which is adequately reflected in their idea of moral retribution awaiting the soul after death.

"But the Idus have never passed beyond an anthropomorphic view of life and nature. The Idu gods are inflated versions of human beings, only infinitely more powerful. They are conceived in man's own image, credited with the same human emotions and passions. Similarly, their conception of the other world is no more than a picture in reverse of the same life as it is lived on earth.

"To the Idus, therefore, death means merely a transition to a new life; a passing hence to be born on a new plane of existence, not very different from the life we know."

The Khamptis, as already stated, are Buddhists of the Hinayana School. They subscribe to the Buddhist theories of *Karma* and transmigration of soul. Their belief in the existence of soul and rebirth is like that of the Hindus.

The Singphos believe that the soul exists for ever as an imperishable substance. But they conceive the soul as of two kinds, good and evil. The good souls are destined to go to heaven and the evil souls to hell. Further, the evil souls may turn into evil spirits, who roam about on the earth without any shelter and do harms to human beings.

Priesthood

Mishmi

The religious rites and sacrifices of the Mishmis are conducted by the priests, who are called *goak* by the Taroons and *kambreng* by the Kamans. It is customary for the priests to get a large share of the sacrificial offerings as their dues. The Idus recognise two classes of priests, who have different functions. There are senior experienced priests, who officiate at various ceremonies. The others are medicine-men concerned with the cure and cure of diseases. They can become senior priests by their association with other experienced priests acquiring thereby suffi-

¹ T. K. M. Baruah, *The Idu Mishmi*, (Shillong, 1960), pp. 93-95.

cient knowledge to prove themselves capable of dealing with the powerful and malicious spirits.

Among the Idus "the priesthood is not hereditary and a son of a priest cannot become a priest simply by virtue of his birth. In fact, it is more common for the priestly office to descend to someone who is not related to a priest in any way. . . . Every priest has a tutelary spirit, called *drawn*, who guides him in the performance of rituals and in the diagnosis of diseases. During trance, the priest invokes his *drawn* who comes in response to his prayer, and guides him along the right course." Every one cannot be a priest. It is believed that the priestly qualities are in-born, and these qualities manifest themselves through certain signs like umbilical chord around the neck of a man at birth. A child may in his dreams get inspiration for priesthood. It is also believed that certain signs or symbols may appear to a mother through her dreams to signify that her child would be a priest.

Khampti

The monkhood amongst the Khamptis is different from the priesthood. The role of a monk is not actually that of a priest. The monks are men of great importance, and they are well-versed with the religious texts. In fact, they are very influential persons commanding high respect in the society. The monastery, where the monks live, is known as *chong* or *kyong*, which is generally headed by a monk. The principal monk of the monastery is responsible for the overall managements of the institution. He is assisted by other monks as well as the common people in all monastic matters. In fact, the monastery is an important institution in the Khampti society, its role is manifold. It is still the centre of religion, culture and learning, although it has lost much of its political influence which it held in the olden days.

There are the Buddhist priests as well, and they are selected by the villagers to perform the religious rites. The priest is known as *Chere*, whose office is not hereditary. He receives gifts from the people for his priestly services.

The office of the monk is also not hereditary. Anybody can be a monk if he prefers to lead a life of celibacy and austerity in accordance with the rules of the Tripitaka. But one is required to undergo a long course of training to become a monk. Maintenance of the monks and supply of provisions to them are the responsibilities of the society. E. T. Dalton wrote of the Khampti monks in 1872 that "Every morning the priests move quickly through the villages preceded by a boy with a little bell, each holding a lacquered box ('Tathagata's bowl') in which he receives the offerings of the people, generally presented by the women who stand

¹ T. K. M. Baruah, *The Idus Mishmis*, (Shillong, 1960), p. 71.

waiting at the door with a portion of their ready cooked food."¹ The monks, as noted by Dalton, have shaven heads, wear amber-coloured garments and rosaries.

Singpho

It was observed by Dalton that there was no regular priesthood amongst the Singphos, but they paid great respect to the Buddhist monks or *Pungyes* (Phunggis) as they are called. The Singphos have, however, their village priests who are called *dumsawa*.

Divination

A characteristic feature of the religious practices of the tribal people is divination whereby an omen is explained or attempt is made to know the future. Various means are adopted by the diviner to look into the nature of hidden things. Divination is sometimes performed by sacrificing a cock or breaking an egg or putting a bamboo on fire. Definite conclusions are drawn from the result obtained from these performances. Causes of disease and death are also detected by divination, and the evil spirits responsible for them are appeased with appropriate sacrifices. It is usually the priests who perform divinations.

Ceremonies and Festivals

The social and cultural life of the tribal people of this district finds an illuminating expression through the ceremonies and festivals they observe on different occasions. Some important religious ceremonies and festivals of different tribes are as follows:

Mishmi

Any day of the year is, to the Mishmis, auspicious for a ceremony if provisions exist and animals and birds are available for sacrifice. The religious ceremonies of the Taraons and Kamans are in many cases identical, differing in names only. The priest of one community conducting the ceremonies of another community is a common practice with them.

Di-Batai: "*Di-batai* is the main festival of the Taraon people (Digaru Mishmi) of the Lohit District. This festival continues for six or seven days.

"About two or three months before this festival each house-holder arranges the food and then sends for the priests. The priest fixes the date of the festival by tying knots on strings and those strings are sent to relatives and friends in other villages as invitation to the festival.

¹ E. T. Dalton, *Tribal History of Eastern India, (Descriptive Ethnology of Bengal)*, (Delhi, 1973), p. 7.

Only the people of the villages are invited a few days before the festival starts.

"Before the priest comes, persons related as sons-in-law bring roasted pork, chicken, dried fish and other food-stuff. All the people of the village also assemble there. After the visitors are entertained with drinks, young men and women spend the night singing and dancing. It is observed as a day of fast when people cannot take any cooked food.

"On the second day of the festival the priest enters the house for worship. In the evening, visitors from outside and villagers assemble there. Then the feast starts and everybody enjoys to his heart's content. Next singing and dancing start.

"On the third day mithuns are slaughtered in the morning and all young men and women are required to carve the meat. All male-folk are entertained with the sacrificial meat; but for women all meat is taboo.

"Feasting continues on the fourth and fifth days. On the sixth day, the festival comes to an end and all visitors bid farewell with presents of meat, dried fish etc. The sons-in-law receive presents in cash and the priest also has to be given his fees.

"On the sixth day of this festival a fire is lit outside every house with offerings of food for the spirits of the dead, because it is believed that the departed souls also come for this festival, enjoy themselves and bless the village and other visitors to be prosperous in wealth, children and crops."

Duiva of the Taraons and *Thung* of the Kamans are also important ceremonies. They are performed once or twice by an individual during his life time. This is a very expensive ceremony intended for the welfare of the family. A large number of animals are sacrificed on this occasion, and prayers are made to the gods to secure their blessings for good fortune and health. The ceremony continues for five days or more, and is conducted by a priest.

Another ceremony called *Tamla* by the Taraons and *Takka* by the Kamans is performed to please the protector spirit of the village. It is believed that every village is guarded by a spirit, who protects it from epidemics and ravages of the wild animals. The ceremony is held every year with all the villagers participating in it. On this occasion, a treetop is planted at the entrance of the village, and the blood of a sacrificed fowl is sprinkled over its branches. A small basket with the dead fowl in it is kept hanging from a branch of the tree. The ceremony is followed by amusements held at the village entrance. On the next day, the villagers do not go out of their doors nor do they allow any outsider to enter the village.

The Idus perform a ceremony relating to agriculture. Before the seeds are sown, they sacrifice a fowl so that its blood smears the field.

This, they believe, would bring in good crops. The ceremony is held in honour of the god Malo, who is believed to be the giver of good crops. He is addressed by the sacrificer as follows:

"Let the god Malo be pleased with this fowl. From today onwards, may the field produce rich crops. The bird Ipri brought the seed from *Apeisa*, and gave them to men. I have planted those seeds. I have offered the blood to the earth-spirit to quench his thirst. Let the earth be fertile and produce more crops."

Reh: "*Reh* is the most important festival of the Idus. It is so expensive that only a few people come forward to celebrate it. As a matter of fact all arrangements and preparations are to be made four or five years before celebrating the festival.

"So the person desirous of celebrating the festival *Reh* must take recourse to the system called '*A-dagi*' according to which mithuns, pigs etc. have to be loaned to other persons, who may be performing similar festivals long before. When '*A-da*' has been completed, a tentative year is fixed for the celebration. During this year large-scale agriculture is undertaken for supply of sufficient food-stuff for the celebration, and for exchange of the crops with mithuns, pigs and dried fish. Similarly, plenty of '*Yo*' (rice-beer) has to be prepared and stored about three or four months before the *Reh*. The estimated stock of food-stuff is counted by knots on string and each knot is cut off after a certain quantity of foodstuff has been consumed. The villagers supply fire-wood and vegetables.

"The first day '*Adropo*' is observed by offering prayers that the festival may pass off without any ill-feeling. The mithuns are brought and are tied near the houses. With dusk people sing light songs.

"*E-yali* is the second day, when all the animals to be slaughtered are fed and then slaughtered. The priest chants about the souls of creatures. The guests are entertained with tiffins. *Yo* (beer) is also offered frequently in the house. Rice, mithun's meat, pork, vegetables are cooked; because without at least one mithun or at least ten pigs the dinner as soon as the caller calls three times aloud, and the great dinner starts.

"On the third day called *E-Yill*, community dinner finishes to enable the guests to depart early. Presents of food and drink are sent to persons of the neighbouring villages, who could not attend *Reh*, and relatives going to their respective villages are given rice, dried fish etc.

"The fourth day is called *Eli-rumuni*. On this day there is not much of feasting. On this day the goddess of fortune is worshipped by chanting the mythical songs of coming of crops to earth. Divinations

are held by pouring *Yo* (beer) into the ears of a pig bound and laid on the ground. If the pig does not fidget it is considered evil such as bad crops, epidemic etc., otherwise it is good. After this prayer, some of the villages perform *A-yogi* by singing humorous parodies.

"The fifth day is called '*Aro-go*'. This is a day of rest and the ceremony practically comes to an end.

"On the sixth day or the concluding day of the *Reh* festival beer is offered in the fields and fowls are slaughtered in each house for the goddess of the household. The meat offering is, however, cooked with rice and eaten by the members of each house.

"This expensive festival of the *Idus* signifies that the well-to-do persons should sacrifice their wealth for the good of their people and in this way the bond of the brotherhood and social feeling is kept alive and strong."

Khampti and Singpho

Sangken: *Sangken*, an important Buddhist religious festival of the Khamptis and Singphos, is observed at the juncture of Chaitra and Baisakh corresponding to March-April. The pronunciation of the word *Sangken* varies and the word is written also as *Samkyen* and *Sanken*. On this occasion, the image of Lord Buddha is brought out and washed ceremoniously with great devotion. The festival is hallowed by constant recitations from the sacred texts.

"A small house is made in the open by voluntary work of the villagers and is decorated with leaves, flowers and buntings. The images are ceremonially brought out to this house and are kept for three days, during which monks and villagers pour water on the images. To celebrate this festival, men, women and children sprinkle water on each other out of fun. Cakes, sweets are prepared for this festival and guests are entertained with these delicacies.

"On the third day when all the images are restored to the altars of the Vihars, juniors prostrate before their elders and monks, and receive blessings, for in the *Sangken* (festival of cleanliness and prayers) the body and mind are to be purified.

"As this festival is held during the advent of spring people also feel gay by wearing new dresses, singing, dancing and merry-making."

A description of the *Sangken* festival as observed by the Khamptis is given by Dr. Maheswar Neog as follows:

"The *samkyen* (probably *samkranti*) festival is another great occasion for the Khamptis. It comes at the juncture of the months of Chaitra and Vaisakha. The village youths make preparations for the festival from some fifteen days ahead of it by rehearsing the songs of the festival

¹ M. N. Bardoloi, *Our Festivals*, (Shillong, 1968), pp. 48-50.

² *Ibid.*, p. 14.

lik-samkyen) and setting up a temporary temple for the images (*kyang-phra*) with an indigenous mechanism for spraying water around from a boat (*hang-lin*). The Buddhas of the *vihara* (*chang*) are taken out by boat (*hang-lin*). The Buddhas of the *vihara* (*chang*) are taken out by boat (*hang-lin*). The Buddhas of the *vihara* (*chang*) are taken out by boat (*hang-lin*). There in the first morning of the festival the priest recite the *Mangalasutta*, and young men and women of the village sing the *liks*. The priests are given a wash, and the pouring of water on the Buddhas in the *kyang-phra* goes on as the boys and girls throw water and colour and mud at each other. In the evening the villagers come to the *chang* and they light innumerable lamps. On the following day the washing of the Buddhas (*san-phra*) goes on, and there is much *anna-dana*, *puspa-dana*. At the end of all this the priests give the last wash to the images and put them back in the *vihara*. There are much decoration, feasting and prayers, all people singing the *pancasila* and *tisarana* formulae in unison."

Apart from the *Sangken*, the Khamptis and Singphos observe seven different Buddhist festivals as described below:

(1) "*Nawasang* (or *Naw-wa*) *Sitang*:"—In the beginning of the rainy season on a full-moon day, this festival is celebrated. The monks pray before the Buddha and cannot go out of the village. On the festival day the villagers visit the *Vihara* (shrine) with offerings of fruits, candle, flowers and food and pray. The monks recite from scriptures and remind the people of the right path shown by Lord Buddha. The people take oath to observe '*Panchashila*' for three months. Throughout the month all people especially old men and women visit the *Vihara* to say their prayers.

(2) "*Sare Sitang*:"—This festival falls on a full-moon day of September-October or *Ashvina*. On this day villagers give alms of food, fruits to monks. The significance of this festival is to feed the people who have no food, and it is believed that people feeding the hungry will be happy in this life and hereafter.

(3) "*Mebi Sitang*:"—On a moonless day of *Ashvina* (September-October) all people clean their houses and compounds and take bath. Then they go to the *Vihara* to listen to the recitations from the holy scriptures.

(4) "*Wa-ok Sitang*:"—This festival is celebrated on a full-moon day of *Kartika* (October-November) when all people offer worship in the *Vihara* and are given latitude to do things of the world such as taking of drinks etc. This festival is observed to remember that Lord Buddha's disciples did meditation for three months during the rains. Artificial desire-giving trees (*Kalpa-taru*) are made out of long bamboos with coloured branches and leaves and packets of food-stuff hanging from the branches. These 'trees' are given as gifts to the monks in recognition of

¹ Lila Gogoi, *The Tai Khamtis*, (Chowkham, 1971), pp. xxiv-xxv.

their sacrifice and piety. This ceremony called 'Nawa-ok Poi' is to get a count of the number of years of mendicancy of a monk.

(5) "Chowmoon Kanda Poi:—During this festival, held in Agrahayana (November-December), monks and villagers go to the Chief Monk and hold a prayer-meeting in honour of the 'Sangh'.

(6) "Kathin Poi:—On the fullmoon day of November-December (Agrahayana) robes for the images of Lord Buddha and the monks have to be woven, dyed and offered by the women-folk. This work of wearing and dyeing of the robes has to be finished within the night. Hence, this festival is known as *Kothin Poi*.

(7) "Wan Lu Poi:—This festival is similar to Magh Bihu in Assam. On this day villagers make stacks of wood and light bonfire. Pandals are erected near the bonfire, where young men and women feast, sing and dance. Food is offered also to the monks. Before conclusion all people pay respects to the monks."

Maiku-sum phai:—The festival is known among the Khamptis as Maiku-sum phai which in Khampti means putting of wooden stacks into fire. The ceremony falls on the 'Falguna Purnima' day according to the Assamese calendar.

From a month ahead of the ceremony the young boys of the villages start collecting woods from the jungle. There is a particular tree known as 'maiku' or mai mai which they select for the purpose. The tree is cut into pieces of equal length, and the pieces are stacked with the support of long bamboo posts for construction of a structure of the maiku, which is generally square in size and projected upwards. The structure is decorated with flowers.

On the auspicious day, the people invite the monk and offer with prayers the maiku to Gautama Buddha. In the early morning of the next day, the maiku is set to fire, which is followed by a feast.

As regards the festival Kathin Poi, it is also observed that "The Khamptis, the Phakials and other branches of the Buddhist Shans had in a similar way to prepare yellow robes, called Chankan, for presentation to their Chaumans (Buddhist priests) at the Kathing festival, as such a preparation is believed to bring great merit. It is a very difficult process. Hence the festival is called 'Kathing' which is said to have come from the Pali word 'Kathin' meaning 'difficult'. But nowadays the people import the robe from Burma where it is called 'Chibar'. The weaving of the cloth of every kind," says Hannay, 'as well as the process of dyeing is carried on exclusively by the females, and all are engaged from the Gohain's family to the poorest in the village."

The period of the Sitang festivals is called by the Buddhists as *barshabrata*, which is known amongst the Khamptis and the Singphos as

nan-wa. According to the religious belief, the *barshabrata* dates back to the time of Lord Buddha, who, it is said instructed his disciples to go on meditation for three months in a year. Indeed, the *brata* continues for a period of three months during the summer season.

Pai-leng: *Pai-leng* (*pai*=festival, *leng*=chariot) is an important religious festival among the Buddhist people. In fact, this is a festival for observance of the mortuary rites of the monks. The festival is believed to have originated from the death of Gautama Buddha.

When a monk dies the news of his death is conveyed to the Buddhists living far and near. The death is an occasion for a festival and the date of the festival is generally fixed according to the convenience of the Buddhist people of distant places who are to come to pay their homage to the memory of the monk. The dead body is preserved for a long time until the festival is over. The local villagers announce the date of the festival a month ahead and invite all the Buddhist villagers who have a moral obligation to participate in it. It is believed that if one can participate in seven such *Pai-leng*, one is supposed to attain *Nirvana*.

To observe the festival a chariot is made with four or six pair of big wheels and a platform by the selected wood-carvers. The chariot is decorated profusely and the coffin is placed in the middle of it. To each corner of the chariot a long strong rope is tied in order to pull it from both sides. On the day of the festival, a general prayer to Gautama Buddha is held, and then the monks inaugurate the festival by pulling the chariot themselves. Thereafter, each and every one start pulling the chariot from both sides like a tug-of-war. A number of sheds are constructed near the monastery by the local villagers for the accommodation of the people coming from outside to participate in the function, and a continuous feast goes on till the festival is over. The festival usually continues for three days and at the end the chariot is burnt along with the coffin. The funeral ceremony is conducted and concluded by a senior monk.

Vaisakhi Purnima falling on the full-moon day of Vaisakha corresponding to April-May is also observed by the people with solemnity in commemoration of the birth and death of Lord Buddha.

Social Organisation

The tribal societies in the district are organised on the basis of clan or village, and the social relations are determined by kinship and locality. Despite social and cultural differences, there are some factors common to all the tribes. As a matter of rule, each of the tribes is endogamous, and is divided into a number of clans which are exogamous, that is to say, marriage is legitimate within the tribe, but not within the clan. In fact, clan is a very important element in the organisation of tribal society, and a breach of the clan rule is a serious offence. It also plays a very important role in regulating marriage. Marriage within a clan or sub-clan is strictly

¹ M. N. Bardoloi, *Our Festivals*, (Shillong, 1968), pp. 28-29.

² Lila Gogoi, *The Tai Khamtis*, (Chowkham, 1971), p. 99.

prohibited, and anybody violating this rule is never allowed to go without punishment. Society is patrilineal, monogamy is the general rule, but polygamy is recognised.

There is no caste system in any tribal society in the district, nor is the society of all the tribes stratified into classes, although some form of social distinction exists due to status, which is, however, not strictly determined by birth or occupation.

Mishmi

The Mishmi society is divided into a number of exogamous clans and the larger clans are again divided into sub-clans. The members of a clan trace their descent from one single ancestor. The society has, however, no clear-cut class distinction, nor it is headed by chiefs. The social life of the Mishmis is considerably influenced by the clan-division. Mills observed that the 'clans are almost invariably named after places', but some clans appear to have derived their names from rivers along which they are settled. Generally, the pattern of village settlement is based on the distribution of the clans, but the tradition of one-clan to one-village system is not always operative. The Idus, for instance, are migratory in their habits. With the growth of population, a section of people may migrate to a region where cultivable land is available. Persons from other clans may also join them, and thus form a new village of different clans. Moreover, the exogamous character of the clans has also helped this conglomeration.

Khampti

The Khampti society is divided into classes having distinct social status. The highest position is occupied by the chiefs. The priests who are second to the chiefs in rank and position are very influential. Below them, there is the class of free men who form the bulk of the population. The slaves of the past were at the bottom of the social structure.

Over a century ago T. T. Cooper noted that "the Khamptis were divided into innumerable clans, each clan having its own village and Chief or Gohain. . . ." At present, the chieftainship in its old form does not exist, and the people consider themselves equal and free citizens irrespective of classes. They believe that position of a man in the society is not determined by his birth but by his action and spiritual attainment.

Singpho

The class-division in the Singpho society is not apparently as complex as in some other tribal societies. The Singphos are divided into a number of classes or groups, each under a chief. Their clan organisation is based

¹ Verrietr Elwin, *India's North-East Frontier in the Nineteenth Century*, (London, 1962), p. 372.

on lineage or sub-lineage groups. All these groups are exogamous and patrilineal in character. Chieftainship is an important feature of the Singpho society. The chief has several privileges, but his authority is not absolute. He is in theory the lord of all lands in the territory under his jurisdiction, but in practice individual rights in land are also recognized. The distinction between the chief and his people is in some measure bridged by the elders who command great position and influence in the society and can exercise separate jurisdictions in the event of the chief's failure.

The whole of the areas inhabited by the Singphos may be divided into several clan areas. It is commonly found that most of the areas are named after some clans to whom they belong. The entire area falling within the south bank of Noa-Dihing river upto the Patkai ranges comprising the Mar Bum hills may be divided into four different areas, each claimed to be owned by the clans—Waket, Bisa, Ningru and Lutha respectively. Each of the above areas comprises a group of villages which are controlled in judicial and social matters by a chief belonging to the clan living in that particular area.

Padam

The society of the Padams consists of a number of clans which in their turn are formed by a number of sub-clans. A sub-clan is a group of families constituting the smallest unit of the society. Every family feels it its duty to support its fellow members in all their affairs. They align themselves on the basis of sub-clans or clans when a dispute arises. "The clans continue for a period of seven generations or more till perhaps, due to migration or over population, they split up into more collateral lines. This gives rise to sub-clans. These divisions of clans and sub-clans occur only when there are special occasions for splitting for reasons stated above." The different ancestors of the clans are believed to have descended from one common ancestry.

Family, Property and Inheritance

Among all the tribes of the district, the father is the head of the family and descent is patrilineal. The smallest unit of the society is family consisting of father, mother and children. Normally, right of inheritance to property devolves through male members of the family.

"The Idus practice polygamy and each wife has a separate apartment within the same homestead. Sometimes two or more lineally related kinsmen, their wives and children occupy a single homestead, and are jointly subject to the same authority. A domestic group may also include other persons related to the family, such as widows, orphans and infirm persons. The attitude towards the father, the father's brothers, and

² Sachin Roy, *Aspects of Padam Minority Culture*, (Shillong, 1966), p. 208.

the grandfather is one of respect, and usually the father is considered to be the authoritative head, who has an effective say in all matters that concern the family. The mother's brother is treated with a degree of intimacy and affection which would not be shown to the father or his brothers.

"Kinship, social and economic ties hold together the members of the homestead. In ordinary activities such as fishing, collection of food, clearing of the jungle and cultivation, they act as a single unit. Properties such as land, livestock, foodstuff, house and forest trees are held jointly by the family. But personal effects such as ornaments, clothing, cash, household and occupational equipments may belong to the individual separately."

Among the Mishmis, the sons inherit the father's property. If a man dies without any son, his property usually passes on to his brothers. If there is no brother, the property usually goes to the nearest agnate. If a man dies leaving minor sons, his brothers take care of the property till the minors grow up. The wife of the deceased cannot inherit, nor can the daughters. The daughters are, however, entitled to receive from the family ornaments, clothes and presents at the time of marriage. Among the Idu Mishmis, the inheritance of property by a rightful heir is conditional upon his performing the rites connected with the death of the father.

Among the Khamptis, polygyny is socially recognised, and in case of a polygynous marriage, the first wife always exercises authority over other wives in the family.

The Singpho family system is patriarchal. Normally, the Singphos live in a joint family, but if there is any misunderstanding among the members, the family breaks up and the married sons establish separate households. In case of such separation the youngest son remains with the parents, although any son who is trusted and liked by the parents can also stay with them. The property of the family is divided amongst the sons at the time of their separation. All of them get equal share of the family property, but the one who stays with the parents gets more in addition to his own share. Even in normal conditions while living in the joint family, if any member of the family is not co-operative, he is separated from the joint family. When a family property is required to be divided, the old and responsible members of the village are invited for a settlement.

Chieftainship is hereditary among the Singphos. The youngest son "is entitled to two shares of the movable property which consisted formerly of cattle and slaves. Other brothers receive one share each. The parental home falls to the share of the youngest son and he may also rightfully claim his father's wives (excepting of course his own mother)

in the absence of his father's brothers. The elder brothers are not obliged to leave the parental homestead but it is usual for them to set up their own household separately. The same law of inheritance is also said to hold good for the commoners."

The father is the head of the Singpho family. Age commands respect. It is obligatory for the sons to take care of their mother and step-mothers. All the members of a joint family work together to make their living and have equal responsibilities towards the family. In a joint family, meal is prepared in one hearth by the eldest female member. There are small compartments in the house for each individual family.

The family property, both movable and immovable, such as cultivable lands, utensils, clothings, livestock etc. is held in common. The Singpho society is patrilineal and the property is inherited by the sons. The head of the family, the father or a son, as the case may be, is the guardian of the property. A female member has no right to the family property, but she can use it freely. The widow has, however, a share in the property left behind by her husband. Earnings of an individual member are his own, but when he lives in the joint family he has to give half of his income to the head of the family, and he can keep the rest for himself.

With the growth of a family, the joint family system in the tribal societies tends to split into separate units. During the life time of the father the joint property holds the units together in an economic bond. But, sometimes, the married sons build separate homes. At the end only the eldest or the youngest son, as the case may be, stays in his father's house to look after the aged parents. The youngest son is also recognised by the Khamptis and the Singphos as the rightful heir to the ancestral property.

Marriage and Morals

The clans are exogamous, that is to say, members of a clan normally marry outside it. The clan exogamy is the fundamental rule of marriage in the tribal societies of this district. Marriage within the same clan is considered as a serious offence. Monogamy is the common form of marriage, and the people by and large follow it. Although polygyny is also sanctioned by the society, only the rich can afford a plurality of wives. As a matter of rule, the tribes are endogamous, but inter-tribal marriages may take place only exceptionally. Polyandry is not in vogue in any tribal society in this district. Cross-cousin marriage is prevalent among the Singphos and the Khamptis.

The marriage system of different tribes and the questions of morals connected with it are briefly described as follows:

¹ T. K. M. Baruah, *The Idu Mishmis*, (Shillong, 1960), p. 41.

² J. N. Chowdhury, *Arunachal Panorama*, (Shillong, 1973), p. 216.

Mishmi

Monogamy is the norm of marriage. It is, however, permissible for a man to marry more than one woman if he can afford it.

The procedure of marriage negotiations appears to be common to all Mishmi groups. "The Idu method of courting is similar to that of the Taraon and Kaman Mishmis. . . . Usually, when a boy falls in love with a girl, he first obtains a mediator to find out whether a proposal of marriage has any chance of finding favour with her parents. The parents of the girl then consult their relations and the other villagers and at the same time sound the girl about her own reactions. With the consent of the girl they then proceed to fix the marriage price through the mediator. As soon as the price is definitely fixed, the match is finally arranged.

"The bride-price is called *yaku-bri*, and its amount varies according to circumstances. Generally, well-to-do families may claim up to five mithuns, while poorer families often actually pay only one or two.

"The date for taking away the bride is fixed after the marriage-price has been paid to the bride's parents. When this is done, on the appointed day, the bridegroom, along with the mediator and some of his co-villagers proceed to the bride's village. The parents of the bridegroom generally do not accompany the party. Presents such as pigs, rice-beer, and three or four loads of dried fish, are taken along with the party for the bride's relations. The bridegroom's party is feasted on their arrival by the bride's people, and there follows a great deal of fun and merry-making.

"The bride is usually escorted to the bridegroom's village by some of her kinsmen, but not by her parents. As a rule, the bride's party is supposed to stay and be entertained in the bridegroom's house at least for two days.

"When an Idu girl marries, she is given a large dowry by the parents, and usually takes it all to her husband's house.

"The Idus greatly value chastity, and a girl who is known to have gone astray usually finds it difficult to find a husband. Adultery is punished very severely. There have been instances where women have had their fingers chopped off as punishment for infidelity.

"When a man takes a second wife, she means an additional helpful hand for him. On the death of the husband, a son may inherit any widow who is not his actual mother. In case there is no son, she goes to the brother of the deceased.

"A man cannot marry a girl of his own clan, that is, when his father and the girl's father happen to be descendants from a common ancestor in the male line. A man also cannot marry a girl, if she is within the 13th degree in the descent from the maternal grand-father in the male line. Such a marriage is considered incestuous, and also thought to have an evil effect on the clans to which the parties belong. Amongst

the Idus, cross-cousin or parallel cousin marriage is considered immoral and unnatural. It is just as bad as marrying one's own sister. Boys usually marry between the ages of 16 and 22, and girls between 12 and 19, though sometimes one or both of them may be minors when the marriage is arranged by the parents."

It is customary for the Mishmis to return the bride-price if the wife dies without any issue. The bride-price for a wife is generally paid in mithuns (an animal of the bovine species). The father-in-law returns the bride-price not in the shape of mithuns but articles equal in value, such as silver ornaments, brass gongs, bear skin bags, utensils and other such things. The return of wealth, as it is called, is paid not at one time but in instalments. Originally, this exaction was rather an act of courtesy on the part of the father-in-law towards his son-in-law than an obligation as it now appears to be. When the return of wealth is complete, the son-in-law may present some mithuns to his father-in-law, who again pay off their value in the same manner. This mutual giving and returning of things between two families bound by a marriage leads to a close relationship with each other.

It should be noted that normally a Mishmi girl is not married against her will. A marriage is settled with the consent of parents. Although love marriage is recognised by the society, parents' consent is obligatory, for the bride-price has to be fixed through negotiations between the boy or his father on the one hand and the girl's father on the other. If the bride-price is too heavy for the boy to pay, it may lead to elopement, and the couple run away to another village. But when they return to the village, the boy will have to pay double the amount of the bride-price as penalty. The girl is not allowed to enter her father's house until her husband has paid the bride-price. If it so happens that in course of elopement, the girl dies, the boy or his family will be responsible for payment of four times as much.

On the day of marriage, the bridegroom and his party go to the bride's house with presents, where a feast is held. The bridegroom party stays for four or five days at the bride's house before they return home with the bride and her party. Adorned with ornaments the bride brings with her the presents she received and clothes she had woven for the relatives of the bridegroom. She also carries with her articles of food for a feast in the groom's house. On her arrival, she is received in a room specially arranged for her. Since then she stays with her husband.

If a wife dies soon after marriage without any issue, the widower is allowed to marry her younger sister. If she has no such sister, one of her cousin sisters is given in marriage to him, for which he is required to pay a nominal bride-price. On the other hand, if the husband dies, his

younger brother may inherit the widow as his wife. Besides the sororate and levirate forms of marriages, there may be other forms of marriage practised by the people, for instance, in the event of father's death, a son may inherit a childless step-mother.

Khampti.

Amongst the Khamptis, polygyny is an accepted form of marriage with social sanction behind it. Over a century ago Dalton observed that they were not restricted to one wife. But only the few rich can afford to have many wives. In fact, monogamy is the common form of marriage amongst the Khamptis.

A Khampti marriage is generally settled through negotiations between parents of both parties. There is, however, always a go-between who plays the role of mediator for fixation of bride-price consisting of a couple of buffaloes and a sum of cash money. Amongst the rich, the bride-price may go up to include many more things, such as bead necklaces, *daos*, spears, metal bells, pieces of silk cloth, silk coats besides a number of cattle. It is important to note that a marriage is settled by the parents with the consent of the girl. There is enough freedom for free association of boys and girls, which often results in love marriage.

The Khamptis believe in the influence of stars on the destiny of men. A horoscope is prepared when a child is born, and this is consulted before a marriage negotiation is finalised.

On the wedding day, the mediator together with a party of groom's relatives and friends goes to the bride's house in a procession to bring the bride. The bridegroom and his parents do not usually go with the party. The processionists ring a bell all the way to herald the arrival of the groom's party. The bride's father receives them cordially and invites them to a feast. The groom's party offers baskets of dried fish and rice-beer to the bride's parents. When the entertainment is over, the mediator makes an address to the bride's father in the following manner, "A year has twelve months or three hundred and sixty days, and according to the Buddhist almanac, this day is the most auspicious. If a girl is given in marriage today, by virtue of the day, she will have a very good fortune." Thereupon the bride's father hands over his daughter to the groom's party. The bride then bows before her parents, offers them flowers and bids them farewell. The parents in turn bless her.

On their way back with the bride and some of her relatives and friends, the bridegroom party is stopped by the boys and girls of the village demanding a price for the marriage. After a lot of jest and bargain, the price is paid and the party is allowed to proceed.

Some members of the groom's house wait for the party at the entrance of their village and receive the gifts brought from the bride's house. A string is tied across the way where the bride halts and a priest or an elderly man reads out to her some passages from a sacred

text on the duties of the newly married husband and wife. Thereafter, the bride unties the string and is received by the groom's mother or any elderly woman of the groom's family. Stepping forward she places her left foot on a stone and right foot on a piece of iron. This signifies the enduring tie that binds her with her husband. She is then led to an apartment arranged for her, and here the gifts brought from the bride's house are distributed. A feast is held next day to which the relatives and friends of the bride who accompanied her are specially invited.

Singpho

In the Singpho society the rule of clan exogamy which governs the marriage system is fundamental. The bride-price is very high, and the possibility of marriage is determined by the amount of bride-price which a man can pay.

Although monogamy is common, yet there is no restriction for a man to have more than one wife provided he can pay the high bride-price. Polygyny prevails, but only the chiefs can afford to have many wives. Cross-cousin marriage has a social preference. If a man marries his mother's brother's daughter, his wife gets a preference over other girls. But marriage with mother's sister's daughter is prohibited as such marriage falls within the forbidden degree of consanguinity. The Singphos also follow the system of senior levirate (i.e., the younger brother can marry the widow of the elder brother but the elder brother cannot marry the widow of the younger brother) and sororate marriages. Widow remarriage is not only permitted but it is very common. A peculiar custom of marriage with the step-mother after the death of the father is in vogue among the Singphos. Conversely, if a son dies after marriage without any issue, the widow may be taken as wife by the deceased son's father on payment of nominal bride-price in addition to those which he had already paid for his son. It is also striking that the offsprings of this union are regarded as grandsons or grand-daughters.

Amongst the Singphos negotiated marriages are more common than other forms of marriage. The negotiated marriage is called *mutung-ti-ft-dai*, and it is conducted by a go-between called *khumbang*. Like other tribal marriages, the Singpho marriage is also preceded by a series of customary rites and rituals. It begins with the acceptance of marriage proposal when the father of the girl receives some amount of money and a costume as presents from the boy's father, which is followed by a ceremony called *khumbangohum*. On this occasion, a bundle of reed is collected from the jungle and planted near the house where a pig and a chicken are sacrificed. The settlement of the marriage is then celebrated with a feast. On the date of marriage, three girls of the bridegroom's village and a few elderly persons go to the bride's house with some presents including the amount of bride-price. Accepting the pre-

sents the girl's father performs divination to find out the auspicious day for the girl to go to the bridegroom's house while the bridegroom party stays on. On the fixed date, the bride moves on to the bridegroom's village where she is received at the village boundary and the party accompanying her is entertained with food and rice-beer. They are taken to a house near the residence of the bridegroom, where they stay until the bride is taken along with her relatives and friends to her husband's house on an auspicious day.

A number of ceremonies follow thereafter. The first is the sprinkling of water from bamboo tubes by the priest on the bride. A pig sacrificed on this occasion is offered to the father of the bride in respect. It is customary for him to return the pig after taking only a piece of meat. The next ceremony begins with the cooking of rice by the bride for all the members of the family. In another ceremony called *chaken*, the conducting priest formally presents to the brother of the bridegroom two swords in sheaths on behalf of the bride's father. The bride lifts one of the swords over the shoulder of her husband and utters "from today you are my husband." The rice ceremonially cooked for this occasion by the mother of the bridegroom is taken by the couple and then by the relatives. The *indobe*—a ceremony for the handing over of costly presents to the bride's parents and their relatives is performed the next day. After a month the bride's parents come to meet the couple, and subsequently the couple also pay a short visit to the bride's paternal house.

In case of marriages with the step-mother and the daughter-in-law a nominal bride-price including a buffalo is paid to the father of the bride. No elaborate marriage rituals are performed except in negotiated form of marriage. The bride-price is in fact the determinant factor of marriages. A boy and a girl are socially recognised as the husband and wife only after the payment of the bride-price.

Death and Funeral

The concepts of the people in regard to death and funeral are based on the belief that a separation takes place between the body and the soul at death and the spirit or disembodied soul of a dead man hovers on restlessly until funeral rites are properly performed for him.

Mishmi

The Taraons and the Kamans normally cremate their dead, but in the case of a child the dead body is buried. It was, however, observed by Mills that the poor was buried and the rich cremated. Cremations are always done outside the village perimeter. The dead body is not immediately cremated. It is kept inside the house for the relatives to come and pay their homage and bid farewell to the deceased. On the second day after death a structure is made in front of the house and

the belongings of the deceased are kept in it. The funeral takes place on the third day. According to the customary rites, the father-in-law, the son-in-law, the mother's brother and sister's son of the deceased are not allowed to set fire to the funeral pyre. An accidental death is ominous and the cause is ascribed to an evil spirit. The person died of an accident is buried. The funeral is followed by a ceremonial feast continuing for several days. Generally, on the sixth day after death, the members of the bereaved family arrange a communal feast in honour of the dead and offer food to the spirit.

Conducted by the priests, the obsequies are performed by beating of drums and gongs and mournful chants. The priest relates the transitory nature of the world and the ultimate fate of all living beings and other objects of the world which are subject to death and decay. Thereafter he falls into a trance to determine the real nature of the death. If it is found that a malign spirit is responsible for the death, the priest performs certain rites to dispel the evil influence of that spirit. The spirit of the deceased is also urged to leave the surroundings of the house and the village, where as the people believe, the spirit hovers round the dead, and to go to the underworld where other spirits reside. The obsequies are concluded finally by a ritual called *tapang* in which the sacrificial offerings are made to various gods. After this is over, the members of the bereaved family abstain from going out of the village and the outsiders are also not allowed to enter the village for three days.

The concepts of death and funeral amongst the Idus are narrated in the following passages quoted from the book 'The Idu Mishmis':

"Their attitude towards death may be judged from one of their sayings.

'Let the body of the deceased be kept inside the house. If the body decomposes, the skeleton will remain in our sight. If the bones decay, they will turn into dust. But once the body is buried, nothing of it will remain for us to see.'

"An Idu legend describes the reason why a corpse should be buried: 'Formerly, men did not die. When they grew old, their bodies decayed and began to smell. There was a priest, Ci-anneru by name, whose mother was very very old. Her age had made her a cripple, and no one liked her for she had worms in her mouth. So one day her daughter-in-law pushed her into a ditch, and, placing a boulder upon it, said, 'You will not come out of this ditch till the boulder melts, and gives way to you.'

"But as boulders never melt, the dead never came out of the graves.

"The Idus bury and do not burn their dead. When someone dies, the relations are informed as soon as possible, and the body is usually

T. K. M. Mishmi, *The Idu Mishmis*, (Shillong, 1960), pp. 91-93.

kept in the house for two to three days, till all the relatives living at a distance have arrived to join the mourning.

"A priest is summoned immediately to ascertain the cause of the death. On his arrival, he falls into a trance, and tries to discover whether, for example, the death was premature or unnatural, and if so what spirit was responsible.

"Usually, the relatives bring some gifts to be offered in the name of the deceased.

"The burial takes place in the afternoon. The priest first touches the body, and then asks the relations to take it out of the house. The grave is dug by the villagers and relations of the deceased, outside the village perimeter. There is no ceremony for the actual burial. But there is plenty to be done later.

"The Idu call the soul *megra* or *arra*, and have ideas about its function and location. The soul is the vital principle which sustains the life of the body, and has its seat beneath the breast-bone. When a woman is with child, it is the soul which enters the womb and kindle the foetus into life. The soul is invisible and can, therefore, never be perceived or felt. When the soul withdraws, the body falls dead.

"The Idu concept of the transmigration of the soul is not very clear. It is believed that when a child dies, its soul lingers on the earth for a certain period, roaming aimlessly, and feeding on the sap of little trees and bushes, for it is still subject to hunger and thirst. After a time, it dissolves into the air.

"Like the human body, the soul can be hurt and injured. Diseases are believed to be caused by the influence of evil spirits. When an individual is under the spell of an evil spirit, his *megra* also suffers with the body till the spirit is driven away by the magical power of a priest. In case the magic fails to subdue the spirit, the *megra* leaves the body, and the individual dies.

"The dead comes back. The souls of those who die an unnatural death do not get sufficient food in the underworld, and sometimes manage to return to earth in the shape of a bird called *pui jiko* to demand food from their relatives. Very often too they visit them in dreams. It is considered very dangerous to disregard a hungry soul coming from the underworld for food.

"When, therefore, any one dreams of a soul asking for food, the household prepares for a ceremony called Braffi within the next two or three days. Pigs and fowls are offered and the soul is invited to the feast. Being offered food, drink, and new clothes, it is finally begged to go back to its place in the underworld forever. After the ceremony, the sacrificial offerings are buried."

Khampti

The Khamptis bury their dead. Generally, the dead body is kept

for three days before burial. But if a man dies in an accident or epidemic he is immediately buried. Immediate burial is also prescribed in the case of death of a child below one year of age. If death occurs on the new moon or during the Sangken festival, simple burial takes place. In the event of a death, the relatives of the deceased consult an old text entitled Laga-Samuktiya. A dead body may be cremated if there is textual instruction for it, otherwise burial is the normal method of disposal of the dead.

The dead body is washed and wrapped in a clean sheet of cloth. It is customary for the people, who come to console the bereaved family, to make some offering to the dead for performance of the mortuary rites. The body is kept inside the house till the arrival of a Buddhist monk.

The burial ground lies outside the village. On the funeral day, an elderly woman weaves a fishing trap over the dead body before it is taken to the burial ground, signifying that the deceased should not take away the soul of any other living being along with him. The dead body is placed in a coffin called *sung* with some belongings of the deceased which are kept outside. The last funerary rite is held on the seventh day after death. A feast is held followed by a charity to the poor. Until the dead body is disposed of the members of the bereaved family do not go to the field.

Singpho

The Singphos both bury and cremate depending on the nature of death. If a man dies due to old age or meets a natural death, the body is cremated, but in case of a premature or accidental death, the body is buried. If a new born baby dies, the dead body is kept in a bamboo container and left under a tree outside the village.

The dead body, when buried, is placed in a coffin, and in case of cremation, it is laid on a specially constructed funeral pyre. Dalton observed, "If deceased met his death by violence, they sacrifice a buffalo, the head of which is fastened as a memorial in the centre of a cross of the wood of the St. Andrew's form. This ceremony is omitted if the deceased dies a natural death. The gods took him at their own good time and do not need propitiation. When finally committed to the earth a mound is raised to mark the spot, sometimes of considerable dimensions. This custom they appear to have taken from their neighbours the Khamptis."

The funeral is conducted by the priest, who sits by the dead body and chants 'your father and forefathers have been cremated there, you also join them'. Nowadays, the funeral is performed in accordance with the Buddhist rites.

No grave-goods are offered to the dead by the Singphos except clothes which are buried inside a pit near the cremation or burial ground where a piece of white cloth is hoisted on a bamboo pole. The Singphos do not observe any uncleanness period after the death of a person.

The Singphos also follow the practice of feeding the bones and on the seventh day after death a feast is arranged. It is believed that the soul returns to his old house on this day to accept the food offered to it. Feeding of the dead on the seventh day is observed in case of both natural and unnatural deaths. To appease the soul of the dead, the Buddhist monk comes to the house of the deceased and conducts an elaborate course of ritual. He also takes away the personal possessions of the deceased, such as utensils, clothing, umbrella etc. to the local Buddhist monastery.

In the event of a chief's death, a special ceremony called *monglap* is sometimes observed for disposal of the dead. On this occasion food is offered to the deceased everyday, pigs and buffaloes are sacrificed and the people dance and sing near the dead body. A community feast is held in which the relatives, family friends and villagers participate. This celebration sometimes continues even for a month. On the last day of the ceremony, the dead body is cremated.

VILLAGE AND HOME LIFE

Village and House

According to the 1971 Census, there are altogether 620 inhabited villages in the Lohit District. The total rural population is 58,683 persons of whom 32,688 are males and 25,995 females.

Generally, the villages are scattered over wide areas, and this is more so in the Dibang Valley where the hamlets of the Idus are situated at remote distances from each other. The number of occupied residential houses in a village of this district is on average fifteen according to the 1971 Census. But, a village may even consist of a solitary house or a very few houses. A village is usually named after a river flowing nearby, and each village has its own territorial boundary often demarcated by a stream or a hill or by any other natural barrier.

Mishmi

It has been observed that instable social relations and constant movements for trade prevents the Mishmis from being coalesced into a village community settled on agriculture, shifting or sedentary. As a result, a Mishmi village may shift from one place to another. "J. P. Mills also noted the lack of strong social cohesion among the Mishmis, arising mainly from the 'unimportance of the village'. By striking contrast with Naga and other tribes, a Mishmi village was merely 'a scattered collection of houses'. A village of more than a dozen houses was seldom to

be seen and some consisted of only one or two. The true social unit was actually a typical long house."¹

The Idus usually consult omens before shifting a village to a new site. An elderly man of the village digs a hole in the site selected and puts a folded bow-string into it. If the string is found lying intact on the sixth day, the omen is thought to be good. But if any part of the string appears on the surface, it is a bad omen, and another site has to be found.

The Mishmi villages consist of few houses, sometimes only one, but each house is capable of holding all the members of a family and numerous inmates. The houses are generally built on a slant of the hill, or in the forest. The profusely wooded forests are the inexhaustible sources of materials required for construction of dwelling houses of the people. Leaves, thatching grass, bamboo, timber etc. are used for house-building. The house is built on piles, either bamboo or wooden, of varying length according to the fall of the slope so as to obtain the level for the floor. The floor is made of split bamboos. The roof is thatched with leaves fastened to strips of bamboo matting. It is high with long eaves, the framework is secured and strengthened with cane strings. The houses are often very long, and in case of rich man's house, it may extend to 30 m by 5 m. With a passage running from end to end on one side in the interior and a number of compartments opening off it, the Mishmi house looks like a corridor train. 'Anything from ten to sixty people may live there'. Each room has a hearth square in shape and made of clay. It is a constantly burning fireplace fed with logs. On one side of the passage are hung the skulls of animals in a row of shelves. On the other side are kept domestic articles including agricultural and weaving implements and brass utensils. At each end of the house, there is a verandah. The front verandah has a semicircular roof, and adjacent to it there is a common room which is used as guest room as well. A notched timber or a ladder is fixed with the front verandah for entrance.

The house of a Mishmi family generally contains parents, sons, unmarried daughters and brothers. Separate rooms are allotted to each married couple. The head of the family generally occupies the room next to the one meant for guests.

Khampti

The Khampti houses are strong timber structures with raised floors and thatched roofs. Built on piles the floor of the house made of bamboo stand 1.20 m or 1.50 m above the ground. Dalton observed long ago that a house may be as large as 24 m to 30 m in length and 5 m to 6 m in breadth including the roof. "The interior is divided into chambers, private and for reception, and the whole terminates in a railed open

¹ J. N. Chowdhury, Arunachal Panorama, (Shillong, 1973), p. 196.

balcony, a prolongation of the raised floor beyond the eaves affording a convenient airy space for the family to sit and work or lounge in. The roof of the houses comes down so low that externally there is no appearance of wall. The people of the common order have similar houses, but single instead of double. The temple and priests' quarters are also of timber and thatched, but the temples are elaborately carved, and great neatness and taste are evinced in the arrangement of the internal fittings.¹

Generally, the area of a Khampti house with three or four rooms is 15.24 m × 7.62 m. A portico is attached to every house, which is climbed by a staircase.

Villages are laid out without any systematic plan, but houses are constructed according to a specific pattern. Each village as well as each house is demarcated by a boundary. Villages have fairly good roads. A drainage system exists in most of the villages to carry off rain water. There is a Buddhist monastery (*bapuchang*) in almost all the Khampti villages.

The public granary is a remarkable feature of the Khampti village. It is the store house of foodgrain for a whole village community, and, therefore, it is usually constructed near water sources for fear of accidental fire.

Singpho

The Singpho houses are sometimes 30 metres in length with an extensive porch in front for pigs, fowls, household and agricultural implements, where women may generally be seen pounding rice. The floor of the dwelling part is raised on piles about one metre from the ground. The roof is thatched with grass or bamboo leaves, and the wall is made of split bamboo. The house is divided into a number of compartments for single families. In the rear of the house there is an open platform or portico. Houses are constructed by the people on communal basis.

The houses of the Singpho chiefs are solid structures of big timber. In the olden days, huge houses were built by the powerful chiefs. J. Butler writing in 1847 observed that "the timber of these buildings being of such enormous size and length as to render it a matter of surprise that they could have been erected by mere manual labour. At the burning of the Ningrang Chief's house, when the village was surprised by our troops in 1843, the officers remarked that the posts were of prodigious diameter and length; and it was regretted that war rendered it necessary to destroy such a magnificent residence. The mansion was entered by

¹ E. T. Dalton, *Tribal History of Eastern India (Descriptive Ethnology of Bengal)*, (Delhi, 1973), p. 6.

a flight of several steps leading up to the floor, and was divided into numerous rooms by partitions of split bamboo.²

It may also be worthwhile to quote here what Dalton wrote of the Singpho houses about a century ago:

"The Singphos on the frontiers of Assam occupy large villages often in somewhat unassailable positions, consisting of sixty or more large houses, each from eighty to a hundred feet long and about twenty in breadth, with raised floors throughout and open balcony at one end, where the ladies of the family sit and spin, weave and embroider. The house is divided into different apartments on both sides of a long passage open from end to end. There are generally several hearths round which the family sleep, and over the fireplace are large bamboo racks hanging from the roof, on which are placed meat or fish requiring to be smoked."³

According to the 1971 Census, the total population of Lohit District with rural and urban break up is as follows:

Total	62,865
Rural	58,683
Urban	4,182

The percentage of rural population in relation to the total population in the district is 93.34. Tezu, the district headquarters, is the only town in Lohit, which has a population of 4,182 with 2,773 males and 1,409 females. Of the total number of inhabited villages, the most are diminutive and very small villages. The number of villages in the district classified by population in the 1971 Census is as below:

Total number of inhabited villages	...	620
(1) Number of villages with population less than 200	563	
(2) Number of villages with population 200-499	...	40
(3) Number of villages with population 500-999	...	11
(4) Number of villages with population 1000-1999	...	5
(5) Number of villages with population 2000-4999	...	1
Total	...	620

According to the 1971 Census, the percentage of rural population living in villages of various population ranges in the district in 1971 is as follows:

² Verrier Elwin, *India's North-East Frontier in the Nineteenth Century*, (London, 1962), p. 402.

³ E. T. Dalton, *Tribal History of Eastern India (Descriptive Ethnology of Bengal)*, (Delhi, 1973), p. 10.

Categories of Villages with population	Percentage of Rural Population	Percentage of villages
Less than 200 (Diminutive Villages)	49.45	90.81
200 - 499 (Very small villages)	23.11	6.45
500 - 999 (Small villages)	11.78	1.77
1000 - 1999 (Medium villages)	10.61	0.81
2000 - 4999 (Large villages)	5.05	0.16

Village Dormitories

An important institution of some of the tribal societies is the village dormitory. As a meeting-place of the young people, it has a vital role to play in the society. The role of this institution is, however, not so prominent today in the Khampti and Singpho villages as it is amongst the Adis.

In 1873, T. T. Cooper wrote about the dormitories of the Khamptis as follows:

"At either end of the village there is a large house set apart for a singular purpose. At the age of puberty all the girls are sent from the house of their parents to one of these buildings called the 'House of the Virgins,' and reserved entirely for the dwelling place of unmarried women. From the time that the young girl enters this place she never sleeps anywhere else until married. Rising at daylight in the morning, she repairs to the house of her parents, spends the day there assisting in the household duties, and returns to her sleeping-place with other unmarried females at sun-down. As with the girls so with the boys. They occupy the house at the opposite end of the village, and every youth, though he spends in the house of his father, at night must return to the bachelors' sleeping place. The 'Virgins' House' is sacred, and no man is supposed to enter there; indeed, the vigilance of the old maids who have outlived the age of romance prevents any proceeding which might be termed scandalous, and the morality of a Khamtee village is a pleasing contemplation."¹

It should, however, be noted that the dormitory as described by Cooper over a century ago does not reportedly exist now in the Khampti society.

The Singphos had their girls' dormitories called pinlan-ta. The existence of girls' house in the Singpho villages was also mentioned by Dalton. Seemingly, this old institution does not exist today. There are, however, girls' dormitories within the traditional Singpho houses where the girls are usually allowed to sleep after they attain puberty.

¹ Verrier Elwin, *India's North-East Frontier in the Nineteenth Century*, (London, 1962), p. 371.

Domestic Articles and Furniture

The domestic articles of a house usually consist of agricultural tools, a loom, brass or aluminium utensils, enamel cups, gourd-vessels, bamboo containers, baskets, tin suit-cases etc.

The furniture common to a house are a few mats and tools made of cane and bamboo.

"Whatever valuable articles an Idu has, he carries on his person. The skulls of animals sacrificed in the past, agricultural and weaving implements, few brass utensils and one or two tin suit-cases bought from the plains, are the usual household articles found in an Idu house. He also possesses bead ornaments and hunting weapons and of the latter a gun is considered the most treasured possession.

"The Idus, like other hill peoples, are skilful in making different kinds of mats, baskets, and utensils with bamboo and cane for domestic use. The bamboo pieces are cut into strips, and sometimes the strips are seasoned by keeping for a period either in the sunshine or over the fire inside the house. The baskets may broadly be classified into the following groups: baskets for daily use, carrying baskets, heversacks, and baskets for storing food. Mats made with bamboo are used for drying paddy. Gourd vessels are usually used for storing salt and rice-beer. For cooking purposes, iron pans and brass pots are usually used. The Idus have no knowledge of pottery. For keeping articles such as ornaments, cash and clothes, they use a box called *agu* made of cane and bamboo. The most common utensil used as a plate is the *aruku*, which is made of bamboo."¹

Dress and Ornaments

The dress and ornaments of each of the tribes are unique in themselves, and they distinguish them from one another.

Mishmi

The Mishmi dress is remarkable for 'the wealth and beauty of its weaving designs. . . . They make most of it themselves, partly from wood, partly from cotton and sometimes of nettle fibre.' The male dress of the Kamans and Taraons consists of a sleeveless coat of black or maroon colour with ornamental borders and a strip of waist cloth with a embroidered flap in the front. The head-dress is 'a carefully woven cane hat'. The women wear black skirts, sometimes with coloured stripes, reaching above the ankle, a beautifully embroidered bodice and a shawl. A colourful piece of cloth over the skirt is also worn by the women. The Mishmi women are skilled weavers. Their sense of colour and design is admirable.

The Taraon and Kaman women are extremely fond of ornaments

¹ T. K. M. Baruah, *The Idu Mishmis*, (Shillong, 1960), p. 23.

which are well designed and made of silver. Their beautiful coiffure is secured with a bodkin on the crown of the head. They also tie a thin band of silver round the forehead for decoration. The lobe of the ear is stretched to admit the silver earring through it. Necklace made of silver coins and beads is commonly used.

The dress of the Idus is 'colourful and picturesque'. "They have a special attraction for black, red, yellow and dark green colours which they utilize for bags and women's skirts. Usually they prefer to weave in black, with patterns done in red, white and yellow colours. . . .

"The men wear a sleeveless black coat with embroidered borders, and a piece of cloth which is passed between the legs. A portion of the cloth hangs in front, and serves as a sort of covering. It is retained in its position by a cotton girdle, two inches in breadth. The men wear thick coats, black with white pattern made of nettle fibre and human hair, which serves as a defensive covering against the thrust of a hostile arrow. E. T. Dalton said of the Idus in 1872 that:

"They were probably the first people on this side of the Himalayas to discover the valuable properties of the *Rhea nivea*, and many others of the nettle tribe; with the fibre of one of these nettles they weave a cloth so strong and stiff, that made into jackets, it is used by themselves and by the Abors as a sort of armour."

"A woollen coat imported from Tibet, with stripes of different colours and cross marks on it, is often worn by both sexes. In all weather the men wear hats called *ap tala* which are woven in cane, and are so strongly made as to be sword-proof.

"The dress of the women consists of a loose-fitting bodice, and a striped or coloured cloth fastened round the waist, which extends to the knees.

"The ornaments of the Idus are few and simple. The men and women wear necklaces of various kinds of beads. The commonest necklace is the *arulya* which consists of forty to sixty white beads strung together. Another kind of necklace is the *lekapon* made of small white beads, twenty strands of which make up the necklace. This is sometimes worth two mithuns, and is obtained from Tibet.

"Usually both men and women wear a cylindrical piece of bamboo in the extended lobe of the ear: some wear silver rings adorned with either silver coins or beads of red and blue. *Akakhre* are earrings made of thin silver-plate, which are worn by the women, and usually bought from the plains."

A distinguishing trait about the Mishmis is 'the way they do their hair'. The Taraons and Kamans, both men and women, wear their hair

¹ T. K. M. Baruah, *The Idu Mishmis*, (Shillong, 1960), pp. 24-29.

long, but, the Idus called by the plain people Chulikata, meaning 'cropped hair' cut their hair round the head just above the ears.

Khampti

The traditional dress of the Khamptis, as described by Dalton, remains virtually unchanged to this day. The dress of both Khampti men and women is simple and neat. The men commonly wear a tight fitting cotton jacket (*chyu*), a *lungi* (*fa-noi*) of cotton or silk of chequered pattern with green, red, violet and black coloured yarn combination and a white turban. A man of higher status also wears Burmese *patso*, a piece of multicoloured silk. The turban is put on in such a way as to leave their long hair somewhat exposed over the forehead.

The dress of the Khampti women is similar to that of the men. They wear a black skirt (*sein*), a long-sleeve jacket (*khenyao*), an embroidered waist cloth (*lang-wat*) and a white turban. The Khampti women are expert weavers and most of the garments are woven in their own looms. "They wear their hair drawn up from the back and sides in one massive roll, which rises four or five inches, so much in front as to form a continuation of the frontal bone. This gives an appearance of height to figures that require an artificial addition. The roll is encircled by an embroidered band, the fringed and tasseled ends of which hang down behind; the lower garment, generally of dark-coloured cotton cloth, is folded over the breasts under the arms, and reaches to the feet . . . the Khampti women wear in addition a colored silk scarf round the waist, and a long sleeved jacket. The chief ornaments are cylindrically shaped pieces of bright amber inserted in the lobes of the ears, and coral and other bead necklaces."

Singpho

Dalton's description of the dress and ornaments of the Singphos is worth quoting. He wrote, "The men tie the hair in a large knot on the crown of the head, and wear a jacket of colored cotton and chequered under-garment of the same material or of silk, or the Burmese 'patso'. The respectable chiefs assume the Shan or Burmese style of dress, and occasionally short smart jackets of China velvet, with gilt or amber buttons. They also wrap themselves in plaids of thick cotton much in the fashion of Scotch Highlanders. . . . The women's dress consists of one piece of colored cotton cloth, often in large broad horizontal bands of red and blue fastened round the waist, a jacket and a scarf. The married women wear their hair, which is abundant, in a large broad knot on the crown of the head, fastened with silver bodkins with chains and tassels. Maidens wear their hair gathered in a roll resting on the back of the neck

¹ E. T. Dalton, *Tribal History of Eastern India (Descriptive Ethnology of Bengal)*, (Delhi, 1973), p. 9.

and similarly secured. They are fond of a particular enamelled bead called deo-mani, and all wear as ornaments bright pieces of amber inserted in the holes in the lobe of the ear."

Now-a-days the men wear a *lungi* woven in different patterns and colours, a jacket and a white turban. The women wear a skirt ornamented with designs on the lower border, a black jacket, a beautifully embroidered scarf and a waist band. They also put on a turban, but does not cover the knot as the men do. The dress of a chief is different. He wears an under-garment of muga, a long coat and carries a bag decorated with designs of snake, tiger and lion.

The Singphos are expert weavers and they make their dress themselves. Even now, almost all the Singphos use hand-spun and home-made dresses.

The only ornament for men is an ear-ring made of brass, but this is no longer in vogue. Women use many kinds of lavish ornaments. A fine long silver chain fastened with a hair pin of silver colour is used to adorn the hair-knot. The necklaces are made of valuable beads of different colours. The bangles are of silver. Silver rings are commonly used by the Singpho women.

The Singpho men tattoo their limbs slightly, and the married women are tattooed on both legs from the ankle to the knee in broad parallel bands.

Food and Drink

The basic diet consisting mainly of cereals, millets, vegetables and meat is much the same throughout the district. In places under wet-rice cultivation, especially in the Khampti-Singpho areas, rice is a staple food. Job's tear millet and maize are more commonly taken, and they are supplemented by sweet potatoes, arum or *kachu*. A large variety of wild leafy vegetables, roots, tubers and fruits as well as pumpkins, brinjals, ginger, onions, mustard leaves, chillies, the flowers of plantain, mushrooms and bamboo shoots are also included in the diet. Fish is a delicious item of food, and different kinds of meat are relished. The Khamptis and Singphos, though Buddhists, do not abstain from meat. Most food is boiled, though meat is sometimes roasted. Rice or millet is boiled with vegetables and flavoured with chillies and salt. Spices are also used.

"The Mishmis, men and women, are devoted to tobacco and you will seldom see them without a long silver or brass pipe between their lips. The Kamans and Taraons have always been addicted to opium, but the Idus of the Dibang Valley, a hardier and more warlike people, have never taken to it."

¹ E. T. Dalton, Tribal History of Eastern India (Descriptive Ethnology of Bengal), (Delhi, 1973), pp. 10-11.

² Verrier Elwin, A Philosophy for NEFA, (Shillong, 1964), p. 23.

"The staple cereal food of the Idus is rice and millet. A meal usually consists of boiled cereal, either rice or millet and some boiled green leaves seasoned with chillies and salt. After cooking the grain, the water, in which it is boiled, is not thrown away and the cover of the pot is kept tightly closed with a leaf. Leaves of many wild trees and vegetables are taken by the Idus in large quantities. A favourite relish is young bamboo shoots called *apachu* which is pounded first, and then stored for eight to ten days in bamboo tubes till fermentation sets in. The *apachu* is sometimes prepared dry. In that case, the shoots are cut into small pieces, kept in large baskets covered on all sides and then allowed to dry in the sunshine for three to four months.

"In seasons of scarcity or famine, the Idus usually depend on the roots of palm trees, maize, different kinds of arums, and sweet potatoes. Tobacco is grown in all the areas of the Dibang Valley. When it is required for smoking, the piled up leaves are kept for sometime till they ferment; then they are cut into pieces and dried in the sunshine. After a month or so, they are considered to be ready for use.

"For their meat supply, the Idus rear pigs, mithuns, and chickens which are sacrificed on social and religious occasions. The Idus eat almost every kind of animal except the *hullu* (a species of black monkey) and tiger. They regard themselves as having lineal relation with the tiger and *hullu*, and therefore to eat their flesh is taboo. All kinds of meat are absolutely forbidden to the women, because it is believed that it renders them barren. A woman can, however, eat small birds, fish and wild rats with impunity. Meat is sometimes preserved for a long period by smoking it over the fire.

"Yu or rice-beer is the national drink of the Idus. It is prepared either from rice or millet. In the interior where tea is unknown, it is taken by the people at all hours, sometimes even as a substitute for water. Usually, rice or millet is boiled for nearly half an hour, and then a substance composed of wild roots and leaves, is powdered and sprinkled over it. It is then allowed to ferment for two to four days, after which more water is added and the beer is then considered to be ready for drinking."

The Khamptis are good agriculturists. They grow plenty of finer quality of rice, and are self-sufficient in food. Their diet also includes a variety of vegetables and potato.

Rice is the staple food of the Singphos. "They are fond of fish and meat and also preserve food by smoking and drying (*pnau*). There are other process of preservation of food. After removing the skin and the offal they wash the carcass and leave it for two or three days. It is then kept on the trays over the hearth (*grab*) for smoking and drying. When ready it is taken with vegetables as a delicacy. They also eat fresh fish

¹ T. K. M. Baruah, The Idu Mishmis, (Shillong, 1960), pp. 36-37.

³ Ibid., p. 52.

pending on the nature of music befitting particular occasions. But, in any case the number of *pai seng* is always less than that of the *yam mong*. In fact, an orchestra forms a part of the musical functions held during festivals and ceremonies. It also accompanies dramatic performances. It may be mentioned here that although almost all the festivals and ceremonies of the Khamptis are of a religious nature relating to the life of Gautama Buddha, they are not devoid of social significance. The orchestral music played during the religious festivals and processions is a rhythmic monotone slowly rising and falling in harmony with the booming of the *kong pat* at regular intervals.

Description of the instruments:

Kong Pat—It is a convex drum made of one piece of hollowed out wood and covered with dressed cow-hide on both sides. It is about a metre in length and its diameter is about two and a half metres and slightly bigger in the middle. The *kong pat* with its thundering boom is the centre piece of the Khampti orchestra.

Yam Mong (gong)—It is believed to have been created by the Tais from their knowledge of ancient lithophones. It produces a rumbling sound and it can be played in an orchestra as well as in solo. *Yam Mong* is still a prized treasure among the Khamptis and they are proud to present one to their daughters at marriage.

There is yet another kind of orchestra performed to the accompaniment of two or three *kong tai* (a kind of Tom Tom) and a number of cup-shaped cymbals. To the rhythmic jingling of the orchestra, the young men perform folk dances on festive occasions. It is also played in the dramatic performances. It is a musical accompaniment of the popular *ka-tou-kai* or the cock fight dance as well.

Apart from these instruments, there are other instruments used in the folk music by the Khamptis, such as *ting trow*, a kind of two stringed fiddle, *pi tok*, a kind of *aboe* made of small bamboo tube and *pi-son-sau*, a kind of wind instrument.

Songs are sometimes sung even without the accompaniment of any instrument. The folk songs have generally a romantic theme expressing an episode of love in a narrative manner. There are also stage songs which are composed and sung in plays.

Besides these, the Khamptis have their own devotional songs.

The Singphos do not have a variety of dances. They perform a ritual dance after the death of a village chief in order to pay their last homage to his memory, and to pacify the soul of the departed so that it goes to its eternal resting place and does not come back to haunt the inmates of the household or bring sufferings and diseases to the family.

"Dramatic performances seem to be a very old tradition in NEFA. When Dalton visited the Mishmi hills just over a hundred years ago he was entertained by what he calls 'a very characteristic dramatical entertainment'. The first scene represented a peaceful villager with his children hoeing the ground, singing and conversing with them as if utterly unconscious of danger. A villainous-looking crop-head glides in like a snake scarce seen in the long grass, takes note of the group, and glides away again. Presently armed savages are seen in the distance. They come gradually and stealthily on, till within a convenient distance they stop and watch their prey like so many cats, then there is a rush in, the man is supposed to be killed, and the children carried screeching away'.

"The same author describes plays performed by the Khamptis about 1855 to celebrate the birth and the death of the Lord Buddha. 'At these ceremonies boys dressed up as girls go through posture dances, for which, I believe, Burmese women are celebrated, and at the anniversary of the saint's death the postures are supposed to be expressive of frantic grief; but as a more distinct commemoration of the birth, a lively representation of an accouchement is acted. One of the boy-girls is put to bed and waited on by the others. Presently something like infantile cries are heard, and from beneath the dress of the invalid a young puppy dog is produced squeaking, and carried away and bathed, and treated as a newborn babe'. And in 1876 the Singphos are reported as arranging entertainments 'in which character dances formed a prominent feature.'"

Games

The tribal games played in the Lohit District are simple as well as vigorous, and they afford enjoyment and recreation to the people. A description of some of these games gleaned from the 'Games of NEFA' is appended below:

The Snake Game—The Idus call the 'Snake Game' *tabu*. It is interesting for its novelty. The players do their best to resemble a snake and silently squirm their way out from some mysterious corner, wriggle around the open field, and just as silently disappear again. In order to simulate the physical appearance of a snake, about 10 to 12 players bend down from the waist, lightly hold on to each other and cover themselves completely, as a unit, with blankets. The leader cleverly wriggles, wiggles, and quivers, and since the entire 'body' of the snake is covered, a quiver by the leader causes a ripple down the whole 'body', which is most effective and causes much amusement among the onlookers.

The Mock Quarrel—The 'Mock Quarrel', or *Anganga*, is an imitation of Idu adult behaviour in a situation of hostility between two or more hostile clans. Traditionally when two or more individuals of hostile clans

¹ Verrier Elwin, A Philosophy for NEFA, (Shillong, 1964), pp. 273-274.

² Marion D. Pugh, Games of NEFA, (Shillong, 1958), pp. 4, 6, 34-38.

met, they fought, usually to the death, after which encounter the friends of the defeated would carry him off the battle field. The children who play at Mock Quarrel dress in traditional clothes to infuse the fight spirit to the game.

The two individuals from the 'hostile clans' approach one another and a very good semblance of a real fight ensues. The player who falls down is the vanquished. As in a real fight, the children too have friends who come and carry away the defeated one.

The Game of Lines—The Game of Lines', called *To Sai khong* by the Khamptis who play it is a vigorous game suitable for twelve or more players. The game requires a large and level open space approximately the size of a football field.

The field is divided into equal halves. Each half is again divided into correspondingly equal number of rectangles, and the two rectangles at the top of the field are further divided by diagonal lines.

The players, who form two teams of an equal number of players that we shall here call team 'A' and 'B' respectively, toss to see which team shall begin. Assuming that team A wins the toss, its players man the field, each player guarding one vertical line of the rectangles. The players placed at the diagonals guard these plus the horizontal lines. On the word, 'Go', team B invades team A's territory by crossing the lines and running back to base without being touched. If members of team A succeed in touching members of team B during the attack by them, team B members thus touched are 'out'.

Should team B succeed in entering the territory of team A and returning to base without losing any players, it wins, and the game proceeds with team A as defenders again. If team B loses, however, the teams change over and team B takes the field to become the defenders.

Pulling Over—'Pulling Over', called *To Himmaeng* in Khampti, is another vigorous Khampti game which requires at least eight players, four on each side, but the more the merrier.

Two large circles, five feet apart, are joined by a line running through the centres of the two circles. Each team occupies a separate circle, hence the circles should be large enough to hold the entire lot from one team. The object in this game is for one team to drag all the members of the other team over to its circle. The side that begins, say team 'A', sends one player to the other circle. The player runs along the straight line which joins the two circles, grabs a player from the team B circle, and runs back to his own circle, dragging along the player from team B. The player from team B in turn, tries to hold back the player from team A and to block him from returning to his base. The game continues until one circle is entirely bereft of players.

The Regional Supremacy—The literal translation of the Khampti *Tu Mung Phai* is 'Regional Supremacy', and the game is a contest between

two hostile parties which try to occupy each other's territories. The game requires a minimum of eight players, though a larger number inspires more enthusiasm and fun. A rubber ball or any ball with a resilient quality is required, and the game is best played in a spacious field.

The players divide off into two teams, and the teams stand at opposite extremities of the field. A player from team 'A' throws the ball to team 'B', one of whose members must catch the ball before it touches the ground. If the ball is successfully caught by a member of team B, the thrower from team A stands in the centre of the field, while the catcher from team B tries to hit him with the ball. If he is hit, he joins team B, and team A thereby loses a player. Now that he stands with team B, team B tries to prevent him from ever catching the ball, for should he do so he returns to team A. The two teams alternate in throwing the ball, first one team and then the other. The side which ends up with the largest number of players wins the game.

The Seed Play—The 'Seed Play', called *To Mulim* by the Khamptis, is known to the Assamese too. It is a game which engenders much fun and is excellent practice at accurate aiming. The players consist of two teams: the first team 'owns' the seeds, and the second team 'shoots' them. *Ghila* seeds are used as the striker and as targets, and are placed in a horizontal line at a distance of five to six feet apart. Each of the seeds has a guardian who replaces his seed in line each time it is struck out of position. The marksmen stand 20 feet away from the seeds, and, taking turns one at a time, each tries to displace all the seeds, one after another, from their position on the horizontal line.

The Pole-Climbing—'Pole-Climbing' requires great skill born of much practice. The object is to ascend as high as possible up a tall bamboo pole, without touching feet to the pole. The player who climbs highest wins the contest.

Over the Bamboo—*Tu Mai*, a Khampti game which may be translated as 'Over the Bamboo', is best played in an open field by 12 to 20 boys. A long thin pole is laid on the ground. One player volunteers or is selected to be 'It', while the other players range themselves one behind the other, each straddling the bamboo pole.

The player who is 'It' must try to touch the other players without crossing over the pole. The rest of the players, however, can dodge 'It' by crossing over the pole out of his reach. The trick is to get just tantalisingly out of his reach, and yet not so far as not to be able to cross over and into safety again. 'It' can touch the players by reaching across the pole, but should be actually cross over the pole, then he is out of the game and another player becomes 'It'. Generally anyone willing to be 'It' becomes the new 'It'. If 'It' touches a player, then that player becomes 'It' and the former 'It' joins the ranks of the others. The game continues until interest flags.

The Dragon's Tail—The Dragon's Tail known in Lohit as *Nioko Bendo We* is a popular game. It is thoroughly enjoyed by most children because it is a simple and an invigorating game that gives plenty of scope to expend a great deal of energy in movement.

A long row is formed by any number of players, usually boys. The tallest player heads the row, and the others fall in behind and tightly grasp each other at the waist. At the word, 'Go', the one who heads the line, and is 'It', tries to catch the player at the end of the line by quick manoeuvres. The others all try to dodge out of reach and thus help to prevent the last one from being caught. If caught, however, he must drop out of the game. The game continues until every one has been caught and all are out. Usually, however, the players weary of the game long before this.

Appendix I)

THE DEORIS

According to the 1971 Census, 2,668 Deoris are living in the Lohit District. In the 1961 Census, the Deoris were not mentioned separately amongst the tribes of Arunachal Pradesh. In fact, they have emerged with their distinct tribal identity in the Census of 1971, and numerically they are today quite a prominent section of the tribal population of the district.

The Deoris are settled scatteredly over a wide area comprising the Sibsagar and Lakhimpur Districts of Upper Assam as well as the plains belt of Lohit District. In the Lohit District they are mainly concentrated in the Mahadevpur area of the Namsai Sub-division.

The Deoris appear on early records as the priestly class of the Chutiyas, a semi-Hinduised tribe. They have also been referred to as Deori Chutiya. The Chutiyas are said to have been divided into four sections, namely the Hindu, Ahom, Deori and Borahi.¹ The Chutiyas ruled over the lower region of Lohit District including Sadiya till they were defeated by the Ahoms in the sixteenth century, and they came under the influence of Hinduism before the Ahom invasion.² In the centuries following, they seemed to have largely intermarried with the Ahoms and as a result, a section of them came to be known as Ahom-Chutiya. Their language, which is still preserved by the Deoris, belongs to the Bodo speech family of the Tibeto-Burman, suggesting that they are a cognate tribe of the great Bodo race with which are related the Kacharis, the Koches, the Rabhas and various other plains tribes of Assam as well as the Chakmas of Bangladesh. The physical appearance of the Chutiyas also suggests an Indo-Mongoloid origin.³ It has been pointed out that the people are generally called Deori and their language is more properly known as Chutiya.

An account of the Deoris and various aspects of their social and religious life gleaned from the early sources is appended below:

The Assam Census Report of 1881 states about the Deoris as follows:

"Original Seat: It will have been observed that the original seat of the Deoris was in the region beyond Sadiya. It is only about a century ago that they removed thence to their present settlements; and some of them still occasionally visit Sadiya for religious purpose.

"The account which the Deoris give about their history, when stripped of legend, appears to be reasonable, and to agree with what is otherwise known about them. It is that theirs was the established religion

¹ Assam District Gazetteers (Vol. XI), The Sadiya and Balipara Frontier Tract Gazetteer, Part I & II, (Shillong, 1928), p. 17.

² See Chapter II for details of the history of the Chutiyas of Lohit District.

³ (a) B. C. Allen, Assam District Gazetteers (Vol. VIII), Sibsagar (Shillong, 1905), pp. 82-83.

(b) The Journal of the Asiatic Society of Bengal, Part III-1900, p. 42.

in the time of the Chutiya Kingdom, although Hinduism may have made some way. The Ahom invasion was followed by inter-marriages between the Ahoms and Chutiyas; and at this period the distinction between Ahom Chutiya and Hindu Chutiya arose. Finally, the Ahoms and both classes of Chutiyas became converted to Hinduism. The Deoris, however, maintained all along, locally at least, one of the established religions of the State, until their removal from the Sadiya District. Since that event, they have lost much of their former importance.

"A Deori Chutiya village consists of some thirty houses, built on bamboo platforms raised about five feet from the ground. A single house will often contain a family of forty persons, living in one great room without any compartments (but with separate fireplaces), with a verandah in front, where visitors are entertained. The Deori Chutiyas are tall, large, well-nourished men, with features bearing a strong resemblance to the Kachari. They drink strong liquor, and eat all kinds of flesh except beef.

"They have permanent cultivation, and use the plough. They are not averse to education, several of them being employed as Muharrirs.

"*Religion*: The Deoris attach much importance and mystery to their religion; but the knowledge thereof seems to be confined to the older men, and particularly to the *Pujaris* or priests, of whom there are four attached to each *Khel*, viz., the Bor Deori (Deori Dema) and the Saru Deori (Deori Surba), the Bor Bharali and Saru Bharali. It is the duty of two Bharalis to collect the dues of the temple, and to provide animals for sacrifice; they are also privileged to hold the head of the victim, which is generally a goat. The two Deoris perform the sacrifice, they alone enter the temple, and sing hymns, which are scarcely understood by the common people. At a casual view, these temples appear to be perfectly empty.

"The chief gods are three, viz., (1) Girasi-gira (Assamese Bura-buri) ('the old ones') always spoken of as a wedded pair; worshipped by the *Dibongia Khel*. The original temple was on the Kundil river.

(2) Pishadema ('the elder son'), called in Assamese Boliya-hemata, worshipped by the *Tengapania Khel*. Temple on the *Tengapani* river.

(3) Pishasi ('the daughter'), known as Tameshari Mai ('the mother of the copper temple') and Kecha khati ('the eater of raw flesh'), to whom human sacrifices were offered. Her temple was somewhere about *Chumpura* on the *Brahmaputra*. She is worshipped by the *Borgaya Khel*.

"Besides these three *Khels*, there was a fourth, *Patargoya*, which was considered inferior, and has (consequently) become extinct.

"In addition to the three greater gods, there are a number of household gods, who are worshipped in the family.

"All rivers are worshipped, particularly the *Brahmaputra*, which is called *Jichima Jima* ('the mother of water').

"For purposes of inter-marriage, the Deoris are divided into a number of exogamous groups.

"*Festivals*: There are four great festivals in the year, two of which correspond to the Assamese Magh Bihu and Baisak Bihu, but are celebrated on different dates from the Assamese festivals."

The Census Report of 1901 contains the following description of the Deoris:

"Their original home was on the bank of the Kundil river east of Sadiya, but when the Ahom power began to decline, they are harried by the hill tribes in the neighbourhood, and at the beginning of the century they migrated to North Lakhimpur, and from thence moved to the Majuli, the Dikrang river, Sissi Mukh, and the Baligao mauza in Jorhat. The Mongolian type is much more strongly marked in them than in the ordinary Chutiya, and they might easily be mistaken for Miris. They keep pigs and fowls, but their most distinguishing characteristic is the enormous size of the house in which they dwell. These houses are built on *changs*, and are enlarged from time to time to make room for the increasing size of the family. There are frequently as many as sixty persons living in one long barrack, and the Chutiyas themselves say that there are sometimes double this number living under one roof. . . .

"Their temples are copies of wood and thatch of the famous copper temple at Sadiya, which was at one time a centre of worship for all the hill tribes on the north-east frontier, but has long fallen in ruins. These models are small buildings about eight feet square, raised on high bamboos, and not unlike pigeon houses in appearance standing in enclosures, into which no one but the temple officials are allowed to enter. In the principal village on the Majuli, copper roof is being placed on the model to render the resemblance more complete. Mr. Brown, who was at one time Assistant Commissioner in North Lakhimpur, reports that the Deoris attach great importance to their own religion, but that a knowledge of its mysteries is apparently confined to the priests and the older men."

W. B. Brown, formerly Assistant Commissioner, North Lakhimpur, wrote of the Deoris that "As the name implies, they are the representative of the priestly or levite class among the Chutiyas, who are one of the most numerous castes in these districts; numbering 87,691 at the Census of 1891; and whom we know from history to have been the ruling race in upper Assam before the Ahom invasion in the fifteenth century. The other two divisions of the race, the Hindu Chutiyas and Ahom Chutiyas, have long since lost all trace of their language and origin, and have become merged in the general mass of semi-Hinduised Assamese; but their original connection with Deoris has never been disputed, and is freely acknowledged by themselves. The interest attached to the Deoris is that they have preserved the language, religion, and customs which, we may presume, have descended to them with comparatively little change from a period anterior to the Ahom invasion."

¹ W. B. Brown, An Outline Grammar on the Deori Chutiya Language (Shillong, 1895).

Appendix II

THE MIRIS

The Miris or Mishings are a motley tribe living very scatteredly in the lower recesses of Lohit District and along the foothill areas of the Siang District. The Census Reports indicate a marked increase of the Miri population of Lohit, from only 571 in 1961 to 1,909 in 1971.

The following is an account of the Miris compiled from early records:

The old Assam District Gazetteer of Sibsagar¹ states that "The Miris, or as they style themselves, Mishings, were originally settled in the hills to the north of the Lakhimpur District, between the Dafla and the Abor territory. They are thought to be members of the Tibeto-Burman family, and, if this is so, are akin to the Bodo or Kacharis, Garos, Rabhas, Meches and other cognate tribes. Their countenances are of a distinctly Mongolian type, but their appearance is by no means unpleasing. They are strongly built, with finely developed limbs, and their complexions often have distinctly ruddy hue. They are cleaner in their persons than many of the Tibeto-Burman tribes, and fully appreciate the advantage of the bath.

"The Miris are divided into two main endogamous septs, the Barogams and the Dohgams, which are again sub-divided into a large number of minor groups.

"In the plains they always live near running water. Their dwellings are built on piles, and are sometimes as much as 40 yards in length and contain from twenty to thirty inmates. Pigs and fowls scratch about beneath the houses, which are usually built in two long rows, and differ from those of the Assamese in having no fruit trees or gardens round them.

"The Miris support themselves by agriculture, and raise crops of summer rice, mustard, millet, pulse and sweet potatoes.

"Their marriage are somewhat costly affairs, and entail considerable expenditure upon food, which is borne by the families of both contracting parties. Sexual intercourse before marriage is not regarded with much disfavour, and traces of polyandry are to be found in the fact that adultery with a member of the husband's family is considered less heinous than if the offence is committed outside the clan.

"The dead are usually buried, and the funeral ceremonies include a substantial feast.

"The Miri religion is of the ordinary animistic type. Its principal feature is the propitiation of malignant spirits likely to do harm. The tribe believe in the immortality of the soul, but do not attempt to dogmatize on the subject and are somewhat impressed by the fact that the dead never return to this world."

The Sadiya Frontier Tract Gazetteer further gives out that "The Miris living in the plains are a riverain people dwelling on the Brahma-

¹ B. C. Allen, Assam District Gazetteers (Vol. VII), Sibsagar, (Shillong, 1905), pp. 91-92.

putra and its tributaries, and call themselves Mishings, 'Miri' being the Assamese word for 'go between, or interpreter'. The Miris who live downstream from Dibrugarh in Lakhimpur, and on or near the Majuli in Sibsagar, are known as Chutiya Miris, possibly indicating a claim for connection with the one time rulers of Upper Assam. They seem a much more settled prosperous, virile, Hinduised type than their upstream brethren, living east and north-east of Dibrugarh and mostly in the Sadiya Frontier Tract, who have traditions of arrival in Assam, *via* the Subansiri and Dihong Valleys. The Dihong is the Siang of the Abors and the Tsangpo of Tibet. These Miris call themselves 'Siangiya' as opposed to 'Chutiya' and were driven southwards by the more virile Abors from the north, who had been forced over the main Himalayan divide by various Tibetan tribes of whom the Pemakoibas now occupy the Dihong Valley north of the Abors, in the vicinity of the place where the Tsangpo makes its great turn from east to south to flow towards Assam. . . .

"In the Sadiya Frontier Tract the Miris live in small communities, inhabiting *chang* houses, and practising *jhum* cultivation under primitive conditions. Their women folk are industrious. Their communities are enlarged by the arrival of runaways usually of the slave class from Abor villages. The language of the Miris and Abors is identical, pointing to a possibility of their being originally a servile section of the Abors, and many of them speak Assamese. Until our intimate administration of the North-East Frontier was undertaken, they had been always used by the former Assamese Government and ourselves as the channel of communication with the Abors, and to them may be traced not a few of our former misunderstandings with the hill men. They are good boatmen, somewhat addicted to opium and are gradually becoming more Hinduised. The total number of Miris in Assam is 68,725, of whom the majority live in Sibsagar, Lakhimpur and the Sadiya Frontier Tract."

L. A. Waddle in his article on "The Tribes of the Brahmaputra Valley" gave interesting information about the Miris as quoted below:

"The Miris are in a transition stage from the maternal to the paternal. They retain survivals of the maternal stage, but appear only recently to have adopted the paternal. As if to emphasise the change and to show that the father has a direct relation to his child; the father is represented as a second mother and goes through the fiction of a mock child birth, as a second mother and goes through the fiction of a mock child birth, the so-called *cowade*. He lies in bed for forty days, after the birth of his child; and during this period he is fed as an invalid. . . .

"As they live in huts raised on piles, with access by a notched log as ladder, they refer to families as ladders, thus a family of 4 ladders, but they are gradually merging into Hinduised habits so far as to live in mud huts built on the ground in the neighbourhood of the Assamese."

¹ Assam District Gazetteers (Vol. XI), The Sadiya and Balipara Frontier Tract Gazetteer, Part I & II, (Shillong, 1928), pp. 23-24.

² The Journal of the Asiatic Society of Bengal, Part III, 1900.

Appendix III

THE KHAMJANGS

The Khamjangs, or Khamiyangs as they have been mentioned in the 1971 Census, are a small tribal group having close racial and cultural affinities with the Khamptis. Their original language is 'Tai as of the Khamptis, and their script is Shan. Their settlements are adjacent to the Khampti villages in the plains belt. They have been in close contact with the Assamese speaking people for a long period of time, and in the process of cultural intercourse they have today taken up Assamese as their language.

The Khamjangs are Buddhists of the Theravada School. Their religious beliefs, practices and ceremonies are virtually the same as those of the other Buddhist tribes of the district, namely the Khamptis and the Singphos.

"The Khamjangs are said to have had the charge of the pass over the Patkai, and to have been divided into two sections of Mon Nam (Pani or lowland Nora) and Mon Noe (Bam or highland Nora). They are called Khamjangs, as they settled at the place of that name after they had left Mungkong. This place was one of the stage on the route followed by the Ahoms in entering Asom; and was here from which Sukapha, having committed a series of raids on some Naga villages, brought them under subjection, and put Khanjangmung (according to some Buranjis, Kang-Khrang-mung) Gohain in charge. At the Census of 1891 only 35 persons were recorded as Khamjangs; but Hannay says that as they are commonly known by the name of Nora or Pani Nora it is possible that some of the persons so returned are really Khamjangs. It may also be that many of them have lost their tribal identity, as even in 1841 it was reported that they had much mixed up with the Assamese, and could speak that language, although at that time they still retained their own language, custom and religion (Buddhism)".

"The Khamjangs left their settlement on the Patkai about the beginning of the 18th century owing to the oppression of the Singphos and driven to take refuge in Asom where along with the Aitongs or Aitonias and Phakials they were known as the Nora of Buchanan's time vide his manuscript records collected in 1807-1814. 'The greater portion,' says Hannay, 'of this branch of the Shans are to this day settled in the vicinity of Jorhath, but a village of some size also existed at Suddyah, previous to the outbreak of the Khamptis in 1839.' The Khamjangs' village in Sadiya was said to have been in a very flourishing condition, and was prettily situated near the banks of the Dehong. They had established a friendly intercourse with the Abors and the Mishmis of the frontier."

* Lila Gogoi, *The Tai Khamtis*, (Chowkham, 1971), p. 70.

Appendix IV

REHABILITATION OF PEOPLES

A number of the Tibetans and the Chakmas have been rehabilitated in the district of Lohit. The Tibetans, about 1,550 in number, are settled at Tindolong, a place 10 km from Tezu. The Chakmas numbering above 1,400 are rehabilitated in Chowkham.

THE TIBETANS

The Tibetans living in the district are all refugees emigrated from their home-land in Tibet. When His Holiness the Dalai Lama fled and took asylum in India in 1960, a large number of his followers migrated to India during the period 1960 to 1965. Extensive stretches of land were allotted by the Government to rehabilitate many of them in this district.

The Tibetans are good farmers. They cultivate by slash and burn method. Their technique of shifting agriculture is remarkably fruitful. They have improved types of agricultural implements. Their farming system is so developed that the fertility of the soil remains unaffected for a long time. The Tibetans are an enterprising people. Small markets have grown in the areas where they have settled.

Religion and Beliefs

Buddhism was taken to Tibet from India, but it developed there on its own line without being deviated from the main teachings of Lord Buddha. The Tibetan Buddhists do not make a sharp distinction between the teachings of Hinayana and Mahayana forms of Buddhism, they have a general faith in both of them. For moral guidance, they follow the Vinaya rules, while for esoteric practices they adopt the methods of the Mahayana and Tantrayana or Vajrayana (also called Mantrayana) schools. Hinayana and Mahayana represent two schools of thought concerning the true path for attaining the Nirvana, but this doctrinal paths must be followed as preparatory to the practice of Tantrayana.

The Tibetans believe that they are under the ecclesiastical rule of Dhyani Bodhisattva Avalokiteshvara or Chenrezig as called in Tibetan (a form of Dhyani Buddha Amitava) of whom the Dalai Lama is regarded as an incarnation.

The spiritual guides of the Tibetans are the Lamas, to whom they look for help in all matters. The Lama hold a very influential position in the Tibetan society. A Tibetan would consult a Lama before marriage, birth of a child or a long journey. Belief in magic, oracle, evil

stars and spirits etc. shows that Tibetan Buddhism has many shamanistic elements in it.

Domestic and Social Life

The Tibetans are a good-natured, peace-loving, simple folk with a very strong religious belief. The Tibetan family is a joint system, patriarchal in form. The father is the head of the family and the eldest son takes family responsibilities when the father becomes old. The Tibetans have the institution of polyandry amongst them, in which a wife belongs to more than one husband, who are generally brothers. There is no segregation of women, both the sexes can mix freely. Men and women dance together on ceremonial occasions.

The woman is a great asset in the Tibetan society. She occupies an important position in the domestic, economic and social life. She is a good weaver and also helper in farming. She participates in religious functions and goes to the monastery to offer prayers. It is, however, a disgrace for a married woman to remain childless, and often such woman seeks refuge in a nunnery.

As already stated, the Tibetans have great confidence in their Lamas to whom they take all of their problems for solution. The Lamas together with the village elders help the village chief to maintain law and order and settle disputes which are not beyond his powers. The representative of the Dalai Lama acts as a liaison between the Tibetans and the local administration.

Birth

The Tibetans, like others, have their own rules and restrictions concerning birth, according to which a pregnant woman is to take certain precautions in her movements. She should avoid looking into the face of a barren woman lest it is unlucky. Offerings are sent to the Buddhist monastery, and the bhikshus (Lamas) are given a feast for blessings for the safe delivery and well-being of the child to be born, and also for protecting the mother from the influence of evil spirits.

It is the privilege of a very close relative or friend to look first into the face of the new-born child. The Lama is called in immediately to record the date and time of birth for ascertaining the position of different stars so that the baby could be taken to the monastery at an auspicious moment and a name is given him. The horoscope of the baby prepared on that very day is the most important document for all future references. Prayers are held and sacrifice of cows and chickens made to dispel the influence of evil spirits on the child.

Inheritance of Property

In a Tibetan family, the sons normally inherit the land and property. But the daughter also can be the heir if there is no son or if the son goes

away from his parental home to live with his wife. The institution of polyandry helps in some way to prevent the family from being broken up.

Marriage

The existence of polyandry in the Tibetan society is an important factor of the marriage system. Normally, the marriageable age is 22 to 25 years for the boys and 20 years for the girls. According to the polyandrous marriage, the younger brothers of a married man, who is generally the eldest son in a family, may also be regarded as the husbands of their eldest brother's wife. The idea behind this custom may have originated from attempts to prevent fragmentation of the family land and property. Complications may, however, arise when a woman takes a husband outside the family of her first husband which she has the liberty to do. The girl cannot marry all the brothers of her husband. There is no compulsion that she must marry all the brothers of her husband.

A marriage proposal may come from the parents of either side. When it is initiated from the girl's side, the marriage ceremony takes place at the bridegroom's house and vice versa. Negotiations begin when a formal proposal for marriage is made. The auspicious date and time of the marriage ceremony are invariably fixed by a Lama. Divinations and calculations are done on the basis of the horoscopes to see if the boy and girl would match each other. On the marriage day the bride or the groom, as the case may be, rides on a horse and goes to the wedding place in a procession. There the couple take their seat on a dias to receive presents from relatives and guests. The Lamas make prayers and perform divination for the God's blessings on the newly married couple. The ceremony is concluded with a feast for all those present.

Payment of the bride-price is not insisted upon in a Tibetan marriage, but a sort of bargain is done where a brother marries the sister of his brother-in-law in exchange for his sister.

The Tibetan society does not generally permit marriage between those who are having close blood relationship. Cross-cousin marriage, paternal or maternal, separate by a gap of seven generations, may, however, take place. Widow marriage is common, but a childless widow is looked down upon and no man would like to marry her. Theoretically, there is no question of a widowhood in a polyandrous system, but normally, a wife does not remarry during the life-time of her husband. It should also be noted that cases of divorce are very few.

Although inter-tribal marriage is not much discountenanced in the Tibetan society, each tribe prefers to marry within its own. Love marriages are often inter-tribal, and for the aristocrats exogamy is not a taboo.

Death Rites

According to their traditional custom, the Tibetans dispose the dead body by exposing it to the vultures. This practice is banned in the Tibe-

tan villages of Arunachal where they throw the remains into a river or just leave the dead body on a hill-top.

Soon after the death of a person, the Lamas arrive and perform some rites to satisfy the spirit of the dead. The auspicious date and time for the final disposal of the corpse within seven days from death are calculated from the horoscope of the deceased as well as of the family.

House

A Tibetan house, generally situated on flat land, is entirely of wood. It is built on wooden posts supporting a wooden floor made of planks. The floor stands at a height of 1.20 m or 1.50 m above the ground. The house, generally divided into compartments, has one entrance door and some apertures in the walls serving as windows. Entrance to the house is provided by a staircase attached to one side of the building.

The Tibetan houses are generally furnished with wooden stools, benches etc. There is a balcony at the entrance partly covered by the projecting roof, which serves as a resting place.

Dress

The Tibetans, both men and women, wear *chuba* cloak made of thick cloth. It reaches the legs for men and down to the ankles for women. The women sometimes wear a sleeveless cloak over a long blouse with sleeves. The cloak is a loose garment with a sash at the waist. The men wear rings in their fingers, ear-ring called *along* and a small box called *khon* which is tied to the neck and contains the image of Lord Buddha. The girls dress themselves with a beautifully designed apron. They are fond of ornaments made of gold and silver and use precious stones.

Amusements

The Tibetans are a jolly, merry-making people. They have a keen sense of humour and wit. Their recreational activities are participated and enjoyed by persons of all age-groups. In almost every alternate month they hold a cultural function. Their popular classical drama is called *Achi-Lamo*, which is staged in the open air. Losar, the Tibetan new year festival, falls in February-March, and is continued for about 20 days.

Musical Instruments

The Tibetans have a variety of musical instruments which produce solemn as well as strange and quaint notes. Their instruments are mostly played on in the functions held at Buddhist monasteries. Small drums and rattles are commonly used. A three stringed long-necked guitar is played by the wandering musicians who sing the old ballads.

THE CHAKMAS

The Chakmas of Bangladesh were expatriated from their original abode in the hill tracts of Chittagong. Migrating to India in the months of June and July, 1964, they came to Silchar in Assam through the Mizo Hills. A section of them has been resettled in the Chowkham area of Lohit. The Chakmas are expert agriculturists. Plots of land have been allotted to them for cultivation.

Race and Language

The Chakmas are an Indo-Mongoloid race, probably of Arakanese origin. The name Chakma is sometimes spelt as Tsakma, Tsak or Thek in Burmese. The tribe is divided into forty clans, and each clan had a hereditary *dewan* or chief. In place of old dewanship, the leaders of each village are now concerned with the welfare of their own village.

"In the central portion of the Chittagong Hill Tracts, in the Chakma Chief's Circle, situated in the country round the Karnaphuli River, a broken dialect of Bengali, peculiar to the locality, and of a very curious character, is spoken. It is called Chakma, and is based on South-Eastern Bengali, but has undergone so much transformation that it is almost worthy of the dignity of being classed as a separate language. It is written in an alphabet which, allowing for its cursive form, is almost identical with the Khmer character, which was formerly in use in Cambodia, Laos, Annam, Siam, and, at least, the southern parts of Burma. This Khmer alphabet is, in its turn, the same as that which was current in the south of India in the sixth and seventh centuries. The Burmese character is derived from it, but is much more corrupted than the Chakma."¹

Religion and Beliefs

The Chakmas are mostly Buddhists with a regular Buddhist priestly order. But due to their long association with the Bengali Hindus of the Chittagong plains, certain Hindu rites and cults have been mingled with their Buddhist religious tenets. They have also preserved some age-old tribal religious practices. The Chakmas have their own version of Buddhism, which is strongly permeated with both Hindu and animistic rites. They worship Kali—the Hindu goddess. Magic and sorcery are also practised. Apparently, the Chakma religion is a blend of Buddhism, Hinduism and tribal animism.

The main religious festivals of the Chakmas are *Vaisakhi Purnima*, *Kartika Purnima*, *Maghi Purnima*, *Phul Bihu* and *Bara Bihu*. The Chakmas believe in the existence of the other world, according to which the good souls go to heaven, while the evil ones are sent to hell. They have also a belief in ghosts and spirits, for whose propitiation sacrifices are offered.

¹ G. A. Grierson, *Linguistic Survey of India*, Vol. V, Part I, (Delhi, 1968), p. 321.

The mystic rites performed by the Chakma *Vaidyas* (medicine-men) are believed to have had its origin in the Buddhist tantricism. The *Vaidyas* prescribe wearing of powerful magic thread, which they prepare themselves after performing some rites for protection against the evil spirits. The help of a *Vaidya* is sought for dispelling an evil spirit, welfare of the community and of family, for good harvests and matters like that.

Birth

During pregnancy a Chakma woman observes certain restrictions in her movements. She wears a magic thread prepared by the Chakma *Vaidya* for protection of the child to be born from all evil influences. According to the code of restrictions the pregnant woman must not answer a call at night even if she knows the voice of the person calling her. She should not go near certain trees nor visit the house of a widow and so on. At the time of delivery, a midwife together with some elderly women of the village helps her. After delivery she is considered unclean. Nobody visits her till the purification ceremony, which is done by the midwife, is held, on the seventh day after the child's birth. Gold, *Kojoi* (a jungle root) and a feather of hen are used in purifying the mother. The midwife gets a big hen, a bottle of liquor and some cash money when the ceremony is over.

Marriage and Morals

Marriage among the Chakmas is arranged through negotiation, although love marriages are frequent. Free mixing of boys and girls are allowed in the Chakma society and the young people get ample scope to make their choice, but consent of the parents on both sides is essential for a marriage. Caste system does not exist in the Chakma society, inter-marriage among the sects is allowed. But cross-cousin marriage and marriage between nephew and aunt are forbidden. If sexual relationship exists between the cross-cousins, they are punished by the village elders. A fine of one or two pigs, some bottles of rice-beer and cash money is imposed on the culprits. If it happens to be a case between the aunt and her nephew, the woman is held mainly responsible for the relationship. She is put to shame publicly. Her hair is cleanly shaved, a hen-cage is tied to her neck and she is taken round the village in a procession, herself uttering the sin she has committed. A fine is also imposed on her. Polygamy is not unknown among the Chakmas. But only those who have plenty of wealth and property can afford to have more than one wife. Widow marriage is common but elaborate ceremony is avoided in such a case. In case of a widow who is the mother of one child, the intended husband is required to promise before the village elders to look after her child as his own. Divorce is allowed, and the reason in most cases is adultery. If the husband is found guilty for the

divorce; he is required to marry the divorced wife, and feed the community as a punishment.

Naming of the Child

Naming of the child is usually done by the elderly members of the family. The Chakmas like to give their children mythological names. But peculiar names, such as Aijal Devi (born in Aijal), NEFA Chandra, Indira Gandhi etc. are also found among the children, which are suggestive of the environmental changes they are undergoing.

Death Rites

The Chakmas dispose of dead bodies by cremation. The corpse-followers walk around the dead body seven times before it is given to the fire. The head of the male corpse is placed eastward while that of the female westward. The pyre is arranged in five and seven layers respectively for male and female dead body.

No cremation is held on Sundays and Wednesdays. A Sunday cremation, according to the Chakma belief, has evil effects on the family of the deceased, while that on Wednesday brings evil to the village.

When a distinguished man of a village dies, his body is taken to the cremation ground in a big and ceremonious procession, in a well-decorated chariot, on the top of which is placed a wooden crow and a wooden monkey.

Dress and Ornaments

The dress of the Chakma men is an adoption from that of the Bengali Hindus. They wear dhoti and shirt. But the female dress is typically tribal resembling that of the Burmese. The Chakma women wear Burmese *lungi* stretching from the waist to the ankles, and a long narrow piece of cloth on the breast. The skirt (*lungi*) and breast-cover are woven by the women themselves. Their ornaments are made of beads and silver.

Medicines and Cures

The Chakmas have their own school of medicine. They consult their *Vaidyas* to get rid of diseases and evil spirits causing illness. Various jungle roots are prescribed by the *Vaidyas* as cures. It is stated that their treatment of leprosy and snake-bite are very effective.

Folk Songs and Singers

The Chakmas have a rich treasure of folk-songs and folk tales. The roving folk-singers, who are called *ganguili*, are very popular. The *ganguilis* tell the tales of heroes and battles of the past in their songs. They are devotional singers as well. They would make offerings to their deities before a ballad is sung. The Chakmas have great regards for the *ganguilis*, and they believe that prophecy of the *ganguilis* always comes true.

CHAPTER IV AGRICULTURE

Mode of Agriculture

Agriculture is the mainstay of the people of Lohit, on which the economy of the district depends almost entirely. Out of the total district population of 62,865 persons, the number of cultivators is 22,350. The traditional method of shifting cultivation called jhum is followed by most of the people. Jhum is practised by 'slash and burn' method. It is an old indigenous mode of agriculture done with simple tools, such as *dao* and hoe or pointed wooden or bamboo stick. The fertility of jhum land tends to decrease rapidly, and the output is low. Moreover, a plot of land under jhum is used only periodically and then left to allow the natural recuperation of soil fertility so as to use it again after a lapse of years. The intervening period for which a jhum field is abandoned is known as the jhum cycle, which varies according to population density in different areas and other local factors. The jhum implies slashing of shrubs and trees and burning of them. Seeds are dibbled after the jungle is completely burnt down to ashes. The clearing is generally done in the winter. Jhum is a subsistence cultivation practised on the hill slopes. It leaves no surface soil after the land is abandoned, and as a result the jhum land is exposed to erosion. The Mishmis by and large depend on this shifting method of cultivation. Permanent wet-rice cultivation is also practised, but it is limited to the Khamptis, Singphos, Miris and other farmers of the plains belt along the foothills. The Zakhings and Meyors of the Upper Lohit Valley practise terrace cultivation. The Chakmas and the Tibetans, who have settled in the district, are also comparatively advanced cultivators. They have taken to improved methods of agriculture. In the areas where the sedentary cultivation, wet-rice or terrace-rice, is practised, the yield of agricultural produces are comparatively higher than that of the areas where jhum is the prevalent method of agriculture.

With the introduction of improved methods and techniques in agriculture, development of land under permanent cultivation, use of fertilisers, supply of agricultural implements and machines to progressive farmers on Government subsidy and opening of various farms, a change towards a more productive system of agriculture is now taking place in the district. ●

Land Reclamation and Utilisation

Land utilisation in the district can be broadly divided into three categories;

- (i) the more level areas of the district adjacent to the plains of Assam where sedentary agriculture is practised,
- (ii) the Upper Lohit Valley where cultivation is done in terraces, and
- (iii) the steep slopes of the Mishmi Hills where cultivation is carried out by the tribal method of 'slash and burn' which is generally known as jhum.

Culturable waste land is usually situated in the low-lying areas along the river valleys. In the recent years, patches of hill slopes and valleys have been developed under permanent cultivation. For this purpose, clearing of jungles and recovery of swamps are in progress.

The area of land brought annually under permanent cultivation in the district, in so far as has been recorded, is indicated below¹:

1973-74	:	51.00 hectares
1974-75	:	998.42 "
1975-76	:	463.00 "

The Khamptis, Miris, and the Chakmas of the Namsai Sub-division and the people living in the plains along the foothills have taken to permanent wet-rice cultivation. Their agricultural fields are irrigated by means of channels dug from the nearby streams, and a good harvest is reaped every year.

The Zakhings and Meyors living in the Walong circle of Hayuliang Sub-division in the Upper Lohit Valley and practising terrace cultivation are self-sufficient in food.

The Mishmis comprising the Kamans, Idus and Taraons constitute the single major section of the population. They live in the rugged mountainous areas of the Lohit and Dibang Valleys, and in the lower hills covered with forests and thick undergrowth of the jungles. Their agricultural method based on jhum is primitive. The productivity of their jhum land is very low, and food shortage is acute.

The area under different land uses by size distribution of holdings in Lohit is shown at Appendix I to this Chapter.

Irrigation

There is no major irrigation work in the district. A number of minor irrigation channels have, however, been constructed. Water from streams or streamlets is channelised to the fields by gravitation, and pumping sets. Water is brought for irrigation from perennial as well as seasonal sources. The Dalon Irrigation Project at Elopa is one of the notable projects al-

¹ Source : Statistical Hand Books of Arunachal Pradesh, 1973-74, 1974-75 and 1975-76.

ready implemented. A channel, about 4,572 metres in length, has been constructed which irrigates about 122 hectares of land in the Bolung area.

Up to the month of March 1974 nineteen minor irrigation projects with a command area of 1,277 hectares were implemented in the district. The progress made in this sector in the next two years is indicated below¹:

Year	Number of Minor Irrigation Projects		Command area (in hectare)
	Implemented	Work in progress	
1974-75	5	12	80
1975-76	13	10	633

The source-wise area irrigated according to size and distribution of holdings is shown at Appendix II to this Chapter.

Soil

Generally, the fertile soil on the surface is only a few centimetres thick over the embedded rocks. It is not compact or static, but loose in texture and friable. Being in most parts sandy and progressively clayey in nature, the soil is well aerated and porous, but the easy percolation is somewhat controlled due to humus, for which it can absorb and retain water. The soil is acidic in character particularly in lower Lohit Valley. In the hilly regions, the soil generally contains high humus and nitrogen due to extensive cover of the forests. The newly cleared forest lands exhibit a thick layer of leaves, rich in organic matter, but the top soil is quickly washed off due to rains. The nature and properties of soil vary according to regional variations. Soil along the foothill areas is alluvial, loamy or sandy loam mixed with canker brought down by rain waters from higher altitudes. The soil in the valley is clay alluvium and rich in organic content. The main characteristic of the soil is acidity which increases with rainfall and heaviness of soil.

The alluvial formations of the lower hills may be divided into (a) Plains Alluvial Tract upto 305 metres and (b) Hills Alluvial Tract above 305 metres. The Plains Alluvial Tract consists of the following types:

(I) *Older alluvium type*: It represents the formation of higher level terraces in the foothills areas, consisting mainly of coarse and organic matter. It conforms to a plain belt, 12.5 kilometres wide, covering parts of Man Bum and Namsai forests on the east, Lohitpur and Timai in the middle and Roing to Santipur area on the west situated on the original banks of the rivers. The Man Bum tract consists mainly of tertiary rocks occurring in the Patkai ranges, while the other tracts are composed mainly of the eastern Himalayan volcanic rocks with a narrow fringe of the

¹ Source: Statistical Hand Books of Arunachal Pradesh, 1973-74, 1974-75 and 1975-76.

Gondwana and tertiary type of rocks? Sand beds are frequently mixed up with quartzite, gneiss and schists. The soil is generally loamy.

(II) *Silt Type*: It comprises the area next below the terraced type. The high silt content of this area is confined to the present flood plains on the banks of the big rivers and their tributaries; it also abounds in deserted river channels filled up by deposits during floods. The silt type consists of comparatively recent alluvial deposits characterized by shallow surface layer of silt with a sub-soil of coarse sand sometimes mixed with pebbles and boulders. The soil is sandy and comparatively poorer.

(III) *Low Level Type*: It includes depressions and swamps which remains submerged under water for some time during the rainy season. The surface soil is generally rich in clay.

The Hills Alluvial Tract on the other hand comprises the hill slopes composed mainly of conglomerates with a thin layer of coarse sand and humus.

Along the river banks in upper Lohit, the soil is generally sedentary in nature. On the higher altitude, it varies from sandy soil to rocky hills. In the old river beds along the foothills, there is more accumulation of sandy loam, while black cotton soil prevails towards Roing and Dambuk areas. All these types of soil on the hills and slopes have a coarse texture possessing the constituents of coarse sand gravels, and a low percentage of clay, loam, organic matters etc., and they are assigned to the residual group of sedentary type of soil. In the Hawaii area, marshy patches exhibit a very good type of soil, fertile and congenial, particularly for the purpose of wet-rice cultivation. The best category of sedentary soil is sometimes available in the marshes.

The soil in the Dau (Dou) and Derai (Delai) Valleys as also in the lower Lohit Valley is suitable for cultivation of maize, millet, sweet potatoes, wheat, local pulses, soyabeans etc. Ahu paddy is grown in the lower Dau (Dou) and Derai (Delai) Valleys by 'slash and burn' method.

In the upper Lohit Valley, the soil is best suited to the growth of paddy (ahu and sali), wheat, barley, maize, millet, jowar and a few variety of vegetables. In the lower Lohit, the soil is fit for the cultivation of maize, millets, paddy, buck-wheat, sweet potatoes, yams and vegetables.

In areas where rainfall is heavy, the erosion of soil is partly prevented by vegetation which is wild and luxuriant. The soil erosion in the jhum fields is also checked by means of log-bunding, construction of terraces and sowing of *kochu* in the bunds.

Crops, Main Crop Seasons and Inter-Cultural Operations

Crops may broadly be classified into two groups, namely kharif season crops and rabi season crops. The kharif season crops include paddy (ahu, sali), maize and millet, and rabi season crops include wheat, mustard, potato, barley and cole crops. The major and subsidiary crops are shown in the following table:

(POSITION AS ON AUGUST 1, 1975)

MAJOR CROPS				SUBSIDIARY CROPS			
Crop	Season sowing time	Area in hectare	Yield	Crop	Season sowing time	Area in hectare	Average yield in hectare
1	2	3	4	5	6	7	8
Paddy	Middle of March to last week of July	6122	Average 2,000 kg. per hectare	Soyabean Barley Moong	March—April October—November March—May	13 5 50	10 qtls
Maize	March—September	2260	Average 1,500 kg. per hectare	Sesamum	May—July	350	5 qtls
Wheat	October—December	25	Average 20,000 kg. per hectare	Arhar Ginger	April—May February—March	10 31	15 qtls 50 qtls
Mustard	October—December	1385	Average 10,000 kg.	Matikalai Chilli	April—June October—November	50 30	5 qtls
Potato	September—October	200	60 qtls	Sweet Potato	April—May	300	70 qtls
Millet	April—June	1000	5 qtls	Turneric Vegetables all types	March—April Summer and Winter	22 120	7 qtls 60 qtls

Source : District Agriculture Officer, Lohit District, Tezu.

The Mishmis practise 'sequence of crops' in their fields depending on the fertility of soil. Opium poppy, millet, maize, yam, soyabean and *ahu* paddy are grown in the first year, and maize, finger millet and paddy in the following year. In the third year, maize, millet or paddy, sweet potato and aroid are cultivated. The seeds of the main crops are sown broadcast. Usually, cultivation of the main crops is done during the first year, replaced by cultivation of supplementary crops in the subsequent years.

The Padams of the Dibang Valley grow cotton after the harvest of paddy. Mustard is grown after cotton.

In the Lohit Valley, the Taraons and the Kamans grow millet immediately after the harvest of buck-wheat, and this again is followed by cultivation of upland paddy.

The Zakhings and Meyors of Walong and Kibithoo area grow either peas or wheat during the first year followed by paddy, maize and other minor crops in the next year.

The Mishmis, on the whole, are lagging behind in the art of cultivation. A Mishmi family cultivated, on average, four or five acres of land and the annual outturn of crops, which is considerably low, barely covers their annual requirements. As a result, they face food scarcity in the lean months of June and July almost every year.

The Khamptis, Zakhings and the Meyors are, however, progressive cultivators and they grow cereals on a larger scale than what is done by other tribes in the district. The Tibetans who have just been rehabilitated in the Tindolong village near Tezu are good farmers. The Singphos and the Khamptis have been able to produce surplus rice. Except a little surplus of arum, sweet potato, ginger and capsicum in some parts of the district, there is no surplus production of other foods. Ginger is the commercial crop of the Padams and some of whom are now trying to produce potato for trading purposes.

The crops grown by the Mishmis in the Lohit and Dibang Valleys are mainly as follows:

- (1) Millet:
 - (a) Finger millet,
 - (b) Fox-tail millet,
- (2) Maize,
- (3) Rice,
- (4) Sweet Potato,
- (5) Yams,
- (6) Aroids, and
- (7) Buck wheat.

They also grow other crops, such as wheat, barley, jobs tear, mustard, soyabeans, pulses, tobacco and opium poppy. Vegetables, such as

gourds, potatoes, brinjals, peas etc. are also cultivated in the jhum fields. Ginger, sugarcane, fruits are grown in the Dibang Valley and some parts of the Lohit Valley. Paddy is the major crop where permanent cultivation is practised. In the upper Lohit Valley, paddy, maize and millet are generally grown in the permanent terraced cultivation fields. The following is a brief description of the important crops grown in the district:

(1) *Finger Millet*: Finger millet is one of the major cereal crops which is generally grown in the jhum fields. The sowing season is from the months of February to May, which sometimes extends to June. The seed is sown by broadcasting in slightly scraped soil. Mixed cropping of finger millet, maize or soyabean is practised. Inter-cultural operation is carried out when the plants reach the following stage. No pulverisation of soil is necessary during the inter-cultural operation. In about four to five months the crops ripen. During the harvest, the ears are cut at the stalks with small knives and collected in baskets called *drowapok* or *dulabri*, and each of them can hold ten to fifteen kg. of grain.

(2) *Fox-tail Millet*: Cultivation of this crop is done by mixed cropping with other crops. The method of cultivation of this crop as practised by the Mishmis is similar to that of the finger millet. Seeds are broadcast very thinly in the field where other crops have already been sown in the jhums. This crop takes three to four months to mature. When the grains ripen, they are harvested and stored in the granaries.

(3) *Maize*: Next to finger millet, maize is the most important crop grown by the Mishmis. It is cultivated along with finger millet and other crops.

The method of cultivation and the inter-cultural operations of maize are similar to that of the finger millet. It is usually sown during the months from February to May. Seeds are sown by dibbling, two or three seeds are put inside one hole, one metre apart from one hole to another. This crop takes three to four months to ripen, when they are stocked in one place. Usually, it is the women's duty to remove the coverings from the cobs. The cobs, when gathered, are allowed to dry for some time on a raised platform made of bamboo, and then the ears are separated from the cobs by beatings with a wooden stick.

(4) *Sweet Potato*: This is also an important crop planted during the summer season at suitable plots in the fields. Sweet potato does not allow mixed cropping.

(5) *Yam*: It is cultivated in the jhum fields from January to June, when the plants grow to a certain height, they are supported against poles planted on their sides. Yam is grown along with other crops. After the crop is harvested the tops of the tubers are cut and preserved for replantation in the next season, the lower part is cooked and eaten.

(6) *Aroid (Kochu)*: The *kochu* is called *gal* by the Kamans and *assam* by the Taraons. Generally, this crop is grown in beds. The month of April or May is the season for plantation of the *kochu*, and it requires nearly five months to mature. After sowing of the seeds, the field is weeded once or twice, but no earthing is necessary during the growing stage of the crop. The harvesting of *kochu* is done when the leaves of the crop dry out altogether.

(7) *Buck Wheat*: There are two varieties of buck, namely *chikka gangon* (in Kaman) or *takka* (in Taraon) and *chikka ganjai* (in Kaman) or *habra* (in Taraon). The *chikka ganjai* is bitter in taste and is not cultivated extensively. Normally, the season for sowing the *chikka gangon* or *takka* variety starts in June, while that for *chikka ganjai* or *habra* in January or February. Both the varieties are harvested simultaneously in July. Mixed cropping with buck wheat is not practised and no pulverisation of soil is done before the sowing of seeds. A little weeding in the field is necessary. When the plants grow sufficiently *chikka ganjai* or *habra* is grown on higher altitudes.

The buck wheat is harvested either by uprooting the plant or cutting at the stem. This crop takes little time to mature and it is extensively cultivated. It thrives in various types of soil and can grow, throughout the year.

(8) *Rice*: The Mishmi method of paddy cultivation is quite different from that of others. The seeds are dibbled with a stick. Three or four seeds are sown in each hole. Weeding is done twice during the growing period of the crop. The paddy is harvested when the grains ripen. The plants are cut at the stalk and bound into small sheaves leaving them to dry for some days before they are taken to the granary. There the paddy is stored in stalks without being thrashed.

The Zakhrings and the Meyors do the paddy cultivation in permanent fields in the ledges or in the gently sloping terraces. They plough their fields with bulls and use better implements than those of the Mishmis. The field is ploughed and cross ploughed three or four times until the soil is well pulverised for sowing. Bunds are made to retain water in the fields, and when the plants grow up a little, the field is irrigated. Seeds are broadcast in the months of March and April and no transplantation is done.

The Khamptis and the Singphos are advanced cultivators. They live in the plains belt of the Namsai Sub-division of the district and practise sedentary cultivation with a remarkable system of irrigation which they have developed by erecting bunds to retain water in the fields and by constructing channels. They plough their paddy fields with the use mainly of buffaloes before the seeds are sown. They follow the method of transplantation of paddy. The food production is high in this area, and the good quality rice which is produced is famously known as 'Khampti rice'. High yielding varieties of rice, such as

'taichung' and IR-8 are also grown in the Khampti-Singpho area.

The Idu Mishmis and the Padams of the lower regions of the Dibang Valley have recently attempted at wet-rice cultivation. Except the nearly level areas in the foothills region, there is not much flat land or gentle slopes fit for wet-rice or terrace-rice cultivation. The wet-rice cultivation is, therefore, limited to some areas in the Dibang Valley. In these areas, the farmers dig the soil with hoes and after the soil is pulverised the seeds are broadcast. Boulders are placed in line around the field, covered with earth, to form bunds. The field is irrigated when the plants rise above the ground.

Weeding and harvesting are generally done by the women. Husking of rice is the job of women and the Mishmis pound their rice in a mortar with a pestle.

(9) *Wheat*: Wheat is cultivated on a limited scale by the Zakhriings and the Meyors and the Mishmis of the upper Lohit Valley. The soil for cultivation of wheat is prepared as done in the case of *ahu* paddy, and the seeds are broadcast in the months from September to December. No irrigation of cultivation field is needed. Weeding is generally done by women. Wheat is harvested by cutting with a sickle at the stem in the months of April and May. It is thrashed by trampling. Husking by pounding is done by women in a mortar with a pestle. The grain is ground into powder on a grinding-stone.

(10) *Peas*: Peas are cultivated in the Lohit Valley in the jhum fields. Sowing by dibbling is done in the months of October and November. It is harvested in pods in May and June and thrashed by trampling.

(11) *Opium Poppy (Papaver somniferum)*: Opium is cultivated by the Mishmis in new jhums which are cleared in October and November. The soil is well pulverised before sowing the seeds. Seeds are broadcast during the months of late October and November. Proper inter-cultural operation is not done during the growing stage of this crop and it grows profusely without much care being needed. Capsules are formed and they are ready for extraction of opium in the months of late March and April. Opium is collected by slightly scratching the surface of green fruits with a *dao* or sharp bamboo blades and rubbing over the exuded milky substance with a piece of nettle fibre cloth. The opium stained piece of cloth is dried in the sun and then soaked in water, and opium juice is squeezed out in a pan, or spoon. The squeezed juice is then warmed over the fire to get a thick and sticky substance before it is mixed with a finely cut and dried young banana leaf. The paste thus obtained is smoked through a hubble-bubble made of bamboo internodes. The Mishmis also take opium by mixing it with tea. Opium cultivation is now restricted. It is discouraged by the Government.

(12) *Tobacco (Nicotiana rustica)*: Tobacco is grown in the jhum

fields simultaneously with other crops. The seeds are broadcast during the months of March and April. No tapping or suckering is done to increase the strength of tobacco. The plants are allowed to grow freely till the leaves turn yellow and are ready for plucking. Harvesting is done either by cutting the plant or by plucking the matured leaves only. Plucked leaves are kept in baskets for two to three days before they are rolled by hand. Thereafter the leaves are dried in the sun for several days till they are ready for smoking.

(13) *Tea*: Tea bushes were reported to have been discovered for the first time in India in the present Lohit District by a Singpho chief near Ningru village in the Khampti-Singpho area. In 1835, when the British Government for the first time experimented tea plantation in Assam, they selected tea bushes from this area and planted them at Kundil-Mukh near Sadiya, but the attempt was not successful as the alluvial soil was unsuitable for tea plantation. The Singphos are very fond of tea.

(14) *Vegetables and Other Crops*: The vegetables and other crops cultivated by the Mishmis in their jhum fields are mustard, chilli, onion, garlic, local beans, french beans, soyabeans, cow peas etc. Tomato of inferior quality is also grown in the jhum land in August and September. The vegetables grown by the Zakhriings and Meyors are chilli, cabbage, gourd, melon etc.

A table showing the area in the district under principal crops indicated by the size and distribution of holdings is given at Appendix III to this chapter.

Progress of Scientific Agriculture

As already stated, agriculture, predominantly of a shifting type pursued through the ages, still continues to be the basic factor of tribal economy. Life of the people in this area is a struggle with the extremities of nature, and it is hard, depending on agriculture as the mainstay and other occupations as supplementaries to it. The old methods of agricultural production, aided by antiquated tools, are most elementary, which kept the economy changelessly backward and stagnant. As a result, the standard and pattern of living of the people remained at the poverty level. The jhum cultivation by which almost the entire population subsisted falls short of the present growing needs for more food production in a developing society. It is the methods of production which determine the stage of economic development. A change for a better and effective productive system is, therefore, imperative. The programmes taken up by the Government for improvement of agriculture envisage, among other things, the following:

- (1) Development of land under permanent cultivation;
- (2) Distribution of improved agricultural implements and machines amongst progressive farmers;

- (3) Irrigation by channels and construction of Minor Irrigation Projects;
- (4) Implementation of 'Rural Water Supply' schemes; and
- (5) Supply of fertilizers and improved seeds.

Persistent efforts are being made to introduce improved methods in agriculture, widen the area of permanent cultivation through development of lands for wet-rice and terrace-rice cultivations as suitable to local conditions, and introduce methods of double-cropping and sowing of high-yielding varieties of seeds. These efforts have brought an area of 1,512 hectares of land under permanent cultivation during a period of three years from 1973-74 to 1975-76. An area of about 1,990 hectares was irrigated as a result of the implementation of Minor Irrigation Projects till 1975-76. The land area developed in the Community Development sector till February 1976 for wet-rice and terrace-rice cultivations is 929 hectares. In fact, a great step has been taken towards self-sufficiency in food. The extension of urban market facilities has led to an expansion of the commercial sector of crop production.

Agricultural Tools and Implements

The agricultural tools and implements commonly used in the district are as under:

- | | | |
|-------------------|-------------------|-------------------|
| (1) <i>dao</i> | (5) pick-axe | (9) sickle |
| (2) <i>kudali</i> | (6) shovel | (10) plough share |
| (3) <i>khurpi</i> | (7) jumper | (11) felling axe |
| (4) <i>yak</i> | (8) <i>crofar</i> | (12) field rake. |

The agricultural implements used by the Mishmis consist mainly of a *dao* and a hoe. A tool called *chunglai* or *towa* or *khait* sharpened at one edge is used for tilling. It is light and easily handled. Another tool called *khit* made of bamboo strip, one end of which is coiled and the other end used as a handle, is used for scratching the soil for sowing of seeds. The *khuroi*, made of iron, is used for inter-cultural operation. The *thaksut* or *earou*, a bamboo strip, is used for dibbling the seeds. The *thanglang* or *tatu* is also used for the same purpose, but it is made of a solid piece of wood, one to about two metres, one end of which is pointed.

The ploughs used by the Khamptis and Singphos are the same as used in the plains. The plough of the Zakhings and Meyors is made of a hard wood consisting of three parts—the handle and the body which are in one piece, the pole which joins the plough at the junction of the handle and the body, and yoke, a piece of wood fastened by a rope at right angle to the pole with pegs affixed to prevent it from sliding from the necks of the bullock. The front part of the body is sharpened to a point which is affixed to a share made of pine wood.

A kind of shovel is also used, particularly for jungle clearance. A three-forked wooden implement is used by the Khamptis for weeding. Sickle is used for the harvesting of crops.

In the Government endeavours to introduce improved and scientific methods of cultivation for more productivity, agricultural tools and implements are supplied to the progressive farmers at subsidised rates. Besides this, agricultural demonstrations are held to show the use of better and sophisticated implements. Today, a large number of the cultivators have learnt the use of pick-axe, spade, garden rake, jumper, fork hoe etc. The distribution of improved agricultural implements and machineries in the district is shown below (the position as standing in March, 1975):

Type of Implements/Machines		Number
1. International Tractor	— 35 HP	5
2. Ford Tractor		1
3. Kubota Power Tiller	— 7.5 HP	3
4. Jaykaysato Power Tiller	— 7.5 HP	1
5. Pumping Set	— 5 HP	48
6. Khapsack Power Sprayer-cum-Duster	— 1.2 HP	16
Total:		74

An inventory of agricultural machinery and implements owned by the people of this district in 1971 is at Appendix IV to this Chapter.

Seeds and Manures

Cultivation of improved and high-yielding varieties of seeds and use of manures are some of the important aspects of the developmental schemes being implemented in the field of agriculture. Cultivation of seeds is as follows:

(a) Under food crops:

- (1) rice
- (2) maize
- (3) millet
- (4) wheat
- (5) barley

(b) Under cash crops:

- (1) potato

- (2) mustard
- (3) chilli
- (4) ginger
- (5) matikalai
- (6) turmeric
- (c) Others:
 - (1) sweet potato
 - (2) jowar
 - (3) fruits
 - (4) soyabean
 - (5) vegetables

Improved seeds of paddy (both *ahu* and *sali*), maize, millet, vegetables etc. are distributed annually to the cultivators. The cultivation area brought annually under improved seeds and high-yielding varieties of seeds in the Lohit Valley is shown below¹:

Year	Area brought under improved seeds (in hectare)	Area brought under high-yielding varieties of seeds (in hectare)
1973-74	215	159
1974-75	1125	250
1975-76	2434	794

It is customary for the tribal people to preserve seeds for the next crop season. Good quality seeds are selected for this purpose. Bunches of millet and paddy are kept hanging upside down from the ceiling of the granary for preservation of the seeds. Maize crops are kept above the fireplace to keep them dry and also to protect the ears of seeds from being destroyed by insects or rats. Sweet potatoes are planted with stem cuttings. Seeds of chillies, beans, peas, mustard, fruits etc. are dried and kept in bamboo pipes or dried gourds or simply wrapped in dry leaves and carefully preserved somewhere either on the side-wall of the house or on the rack above the fire-place. Spice-seeds of coriander are also similarly preserved.

Manure is used in the fields to increase the fertility of the soil. The people have their indigenous methods of manuring. The Mishmis, who practise jhum cultivation, rely mainly on ash as a fertilising agent. They also use house refuges and wastes as manure. Fallen leaves of trees in the jhum fields serve as green manure.

¹ Source: Statistical Hand Books of Arunachal Pradesh, 1973-74, 1974-75 and 1975-76.

The Zakhings and Meyors of the Walong area use cowdung, house-waste and leaves of trees as manure. They plough their fields three or four times before the manure is used. After manuring the field is ploughed once again. Decayed pine leaves are also used as manure. The Khampis and Singpho cultivators use ammonium sulphate, oil cake and bone meal as fertilisers.

Besides the farm yard manure, the chemical fertilisers generally used are urea, ammonium sulphate, superphosphate etc. The proper use of cowdung and chemical fertilisers are demonstrated to the farmers by the Agricultural Inspectors.

The area brought under fertilisers is as follows¹:

1973-74	:	12.00 hectares
1974-75	:	58.60 "
1975-76	:	20.80 "

Agricultural Crop Diseases and Pests

The common agricultural crop diseases and the remedial measures taken are shown below:

Sl. No.	Crop	Disease	Remedies Applied
1.	Paddy	Paddy Blast	Agro-mercurial compound @ 1.400 by weight with 10% active material.
		Bacterial Blight	Seed treatment with streptomycin @ 0.5 gms per 10 kg seeds.
		Root Rot	Seed treatment with 1% active material 1.400 by weight of any organic mercurial compound before sowing.
2.	Potato	Early/Late Blight	Copper fungicide, Blitox 52.
3.	Wheat	Smut	Copper fungicide, Blitox 52.
4.	Citrus crop	Canket	Streptomycin.
5.	Seedlings in Nursery	Damping off	Nursery spray.

The pests commonly found on crops and remedies applied are indicated as follow:

¹ Source: Statistical Hand Books of Arunachal Pradesh, 1973-74, 1974-75 and 1975-76.

Sl. No.	Crop	Pests	Remedies Applied
1.	Paddy	Grass-hopper Rice Hispa Mealy bugs Stemborer Paddy case-worm Gandhi bug or Rice bug	BHC or 2% Folidol. Dust 5% BHC. Spray folidol or Malathion. Folidol E 605. Spraying of folidol E 605. Dust 5% BHC or 2% Folidol.
2.	Mustard	Saw fly and Aphid	BHC dust.
3.	Cucur biticious crop and bitter-gourd Bhindi	Epilachna battle, ant-worm	DDT 50% Endrine EC 20
4.	Maize	Caterpillar	BHC 10%
5.	Beans	Hairy caterpillar	DDT

The main insect pests that attack the crops are grass-hoppers which swarm the fields and destroy the finger millet during the grain formation stage, rice-bugs which eat up flowering paddy plants, and stemborer which is very commonly seen in the Lohit Valley as an agent of destruction of the maize fields. The citrus-canker is found in large numbers in the Khampti-Singpho areas. The pests generally appear during the months of June, July and August when the plants are in the growing stage. Rats are a constant menace to the plants in the fields particularly in the Dibang Valley.

The Mishmis use indigenous pesticides in the fields to protect the crops from insect pillage and from plant diseases. The bark of a tree called *tamal* by the Kamans is ground into powder and it is applied to the affected crops or to the entire field. This method is quite effective in countering the pest attack on the plants. Usual traditional rites are observed, and sacrifices are offered to the spirits to safeguard the crops. Prayers are also made to the wind deity to divert the insects from biting the plants.

Today, chemical insecticides and fungicides are distributed by the Department of Agriculture and Community Development to the cultivators for use against plant diseases and pests. Plant Protection Units have also been formed by this department at various centres in the district. These units keep ready stock of insecticides and other equipments to deal with the crop diseases and pests. No survey in this field has, however, been conducted.

The area brought under plant production in the district, in so far as has been recorded, is shown below¹:

1973-74	:	584 hectares
1974-75	:	3,880 "
1975-76	:	3,103 "

Under the Community Development Programme, 185 quintals of plant protection chemicals were utilised till the month of February 1976.

Agricultural Farms and Horticultural Nurseries

The Government Agricultural Farm at Tezu occupies about 41 acres of land out of which 23 acres was under cultivation of different crops, 14 acres under horticulture and 4 acres under buildings, roads etc. Potato, maize and winter vegetables are grown every year. Plantation of pine-apples, guava, different varieties of banana, Assam lemon, litchi and orange in the farm yields good fruits. A statement of expenditure and out-turn of the farm is given at Appendix V to this chapter.

Another agricultural farm was established at Bolung in the Roing Sub-division. It produced and supplied good quantity of paddy seeds.

Pine-apple cultivation has been taken up in many villages on a large scale. The progressive farmers at Khopa in the Lohit Valley opened a model horticultural garden on a plot of 2 acres of land. The apple orchard at Walong with 255 grape-vine cuttings and 130 apple grafts planted on experiment was reorganised in 1963. In the Hayuliang area, fruit seedlings comprising pears, apples etc. were distributed through the Community Development Blocks. Grafts of apple and pear were also distributed among the people in the Anini Sub-division. The variety of fruits grown earlier on experimental basis in the horticultural nursery at Namsai are pine-apples, oranges, lemons etc. The number of horticultural nurseries and people's horticultural gardens existed in the district upto the month of March 1975 is 3 and 20 respectively. The horticultural nurseries are situated at Tezu, Hayuliang and Anini.

Animal Husbandry

The domestic animals of the tribal people consist mainly of mithuns, cows and pigs. Besides this, the Khamptis and the Singphos tame elephants and a section of the Zakhrings and Meyors keep yaks. The animals are domesticated for food and various other purposes. In the Mishmi and Padam areas, pigs and fowls are sacrificed on religious occasions. The Mishmis pay the bride-price in terms of mithuns. They also slaughter the animal on important social and communal occasions. A Mishmi man

¹ Source : Statistical Hand Books of Arunachal Pradesh, 1973-74, 1974-75 and 1975-76.

gains prestige and power by the number of mithuns he possesses and also the number that had passed through his hand. The heads of the dead or killed mithuns are preserved in his house as trophies. Usually, the mithuns are allowed to graze freely in the nearby forest. Sometimes the mithuns and cows are let loose in a fenced pasture or in a secluded area. They are moved to another grazing ground when the fodder is exhausted. At night, the cattle lie down under some tree near the house. The pigs are kept within a fence under the floor of the house.

The Zakhrings and Meyors take special care of their domestic animals. They make sheds for sheltering the animals. The cattle are reared by them as well as the Khamptis and Singphos for ploughing the fields and for manure.

The traditional indigenous method of cattle rearing is far from being adequate to meet the present-day needs. For instance, the art of milking the cows was hitherto very uncommon. Today, the development of animal husbandry is sponsored by the Government, and it is getting increasing emphasis. Under the development programme, a number of dairy farms and upgrading centres were opened in the district. The scope for animal husbandry in the district is bright as there is enough grass-land for cattle grazing. The area under fodder crops in Lohit is more than two hectares. The main objects of the animal husbandry schemes are upgrading of the local inferior cattle, production and supply of milk and supply of better progeny of animals to the people on subsidy.

The cattle farm at Tezu has two sections, one section is for the cows and bulls and the other is for the buffaloes. The cow and bull section was started with fifteen cows and one Red Sindhi bull in 1961. In 1963-64, the cattle farm at Tezu was having the following stock:

(1) Red Sindhi bull	...	1
(2) Young Sindhi bulls	...	3
(3) Young cows	...	9
(4) Heifers	...	4
(5) Calves (males)	...	10
(6) Calves (females)	...	19
(7) Dry cows	...	12

The farm supplies milk to the public. The buffalo section was started with seven buffaloes. Production of milk in the farm has increased considerably since its inception.

An inventory of livestock and poultry owned in the district as on March 31, 1975 is as follows:

¹ Source: Statistical Hand Book of Arunachal Pradesh, 1975-76.

Cattle (in number)							
Males over 3 years			Females over 3 years			Young stock	Grand Total
Working	Others	Total	In milk	Others	Total		
6900	550	7450	4100	1600	5700	4800	17950

Buffaloes (in number)							
Males over 3 years			Females over 3 years			Young stock	Grand Total
Working	Others	Total	In milk	Others	Total		
1500	200	1700	650	550	1200	1750	4650

Other Livestock and Poultry (in number)							
Sheep		Goat		Pigs			
Under 1 year	1 year & above	Under 1 year	1 year & above	Horses & ponies	Mules	Donkeys	Poultry
—	—	2700	1850	—	—	—	86300

Animal Diseases and Veterinary

Diseases common to the domestic animals in the district are as follows:

- (1) foot and mouth disease breaks out occasionally in epidemic form among cattle, pigs and goats;
- (2) anthrax and black quarter diseases:
 - (a) round-worm of different types and fluke-worms occur among cattle, elephants and buffaloes,
 - (b) ring-worm and mange:
 - ring-worm infests cattle and mange dogs,
 - (c) cib or tape-worm infestation among the poultry birds are ranikhet diseases which break out frequently, and fowl pox which occurs occasionally;
- (3) goccidiosis is prevalent and
- (4) fowl cholera and fowl pox, break out occasionally.

Nine veterinary dispensaries and nine veterinary aid centres have been opened at various places of the district. The number of animals and birds treated in the district from 1971-72 to 1975-76 is shown below:

Year	Number of veterinary dispensary	General case	Innoculation/ Vaccination	Castration
1971-72	9	8,240	11,050	440
1972-73	9	9,650	11,020	300
1973-74	11	10,460	3,430	490
1974-75	9	12,500	10,700	1,900
1975-76	9	16,805	1,321	10,043

The veterinary dispensaries are situated at the following places: Tezu, Hawai, Hayuliang, Namsai, Chowkham, Wakro, Roing, Desali and Anini.

Fishery

The programme sponsored by the Government for the development of fisheries in the district is carried out through the Fishery Wing of the Directorate of Agriculture and Community Development. There are two people's fish farms in the district. Besides these, about 182 village ponds have been constructed. The area brought under pisciculture in the district upto the month of March 1974 is seven hectares.

No Government fish farm and paddy-cum-pisciculture have yet been introduced in the district. The sources of fish production consist mainly of the people's fish farms and village or domestic fish ponds. During the year 1974-75 about 899 tonnes of fish were produced at an estimated value of Rs. 4,11,520.00 (@ Rs. 5/- per kg.).

FORESTRY

Forest Area

The total forest area in the district is 15,140 sq. km.*

Reserve Forest and Forest Divisions

(a) Reserved Forests

In 1952, six Reserved Forests comprising a total area of 44,956.79 hectares was taken over from the Government of Assam. Subsequently, four more forests were reserved—two in 1964 and one each in 1971 and 1973.

¹ Source: Statistical Hand Books of Arunachal Pradesh, 1971-72, 1972-73, 1973-74, 1974-75 and 1975-76.

* The area figure is provisional.

At the end of 1974-75 there were ten Reserved Forests with an area of 1,54,481.95 hectares in the district as under:

Name of Reserved Forest	Area (in hectares)
1. Deopani	18,881.68
2. Namsai	2,375.58
3. Man* Bum	13,605.60
4. Paya	6,599.03
5. Noa-Dihing	1,116.90
6. Kerim	2,378.00
7. Gurung	16,395.20
8. Tengapani	44,393.96
9. Digaru	18,400.00
10. Dibang	30,336.00
Total:	1,54,481.95

(b) Territorial and Functional Forest Divisions

The Lohit Forest Division is the only territorial forest division in the district. There exists no functional forest division.

Importance of Forestry in the Economy of the District

The forest is the only appreciable source of revenue in Arunachal Pradesh. Next to Tirap, Lohit is the second highest forest revenue earning district in the territory, and the forest revenue derived from this district is substantially high. Obviously, therefore, the forest plays an important role in the economy of the district. There are four forest based industries including a major plywood industry in the district. The development of the area in the industrial sector and the improvement of the general economic conditions depend very much on the forest.

Forest Produce and its Value

The forest produces are classified under two categories—major and minor. The major forest produce includes timber and allied items like firewood, posts, poles etc. Substantial revenue is earned from major forest produces, which in 1974-75, amounted to Rs. 44,05,900 approximately. The minor forest produce comprises cane, bamboo, Mishmi teeta, leaves, boulder, shingle, gravel, sand, soil, *dhuna*, thatch, elephant, fish etc. During the year 1974-75, a revenue of Rs. 1,20,219 was derived from the Mishmi teeta, and Rs. 1,28,180 from cane. Out of the total revenue of Rs. 48,59,260 in 1974-75, an amount of nearly Rs. 4,53,360 was realised from the minor forest produce.

Forest Revenue

The total forest revenue collected during a period of five years from 1971-72 to 1975-76 amounted to Rs. 2,33,91,100.

Measures to Secure Scientific Exploitation and Development of Forests

In order to secure scientific exploitation, the Working Plan Survey of Forests has been introduced in the district since 1951-52. The district would also be brought under coverage of Resource Survey and Silvicultural Study in future so as to derive the benefits of scientific management of forests. The forests are felled according to the Working Plan Survey, and the silvicultural systems followed are as below:

(a) Selection felling was generally followed in the miscellaneous semi-evergreen forests;

(b) "Clear-felling followed by Artificial Regeneration" was followed in the poorly stocked forests; and

(c) The hollock bearing areas in the district are worked mainly on selection system or irregular shelter wood system.

In order to develop the forests various measures such as raising of artificial plantation and afforestation, aiding of natural regenerations, construction and improvements of forest roads and buildings and other developmental measures are taken every year.

Floods and Natural Calamities

During the rains, the major rivers of the district, Lohit and Dibang, and their tributaries rise in spate. Erosions and inundations of rivers cause damage to communications and crops. The floods, which came in the wake of the great earthquake of 1950, spared nothing that fell before it. In some areas the standing crops and village settlements were washed away, and the paddy fields were rendered unfit for cultivation. Some of the rivers are reported to have changed their courses. The floods occurred during the period from 1965 to 1968 affected the plain areas inhabited by the Singphos and the Khamptis adversely. Three fish ponds at Namsai were destroyed and the cultivation was damaged.

The whole of Lohit District bore the brunt of the great earthquake which took place on the night of the 15th August, 1950. The level of the earth sank about ten feet in some areas, and the river beds rose almost up to the earth level at certain places. As a result, floods occur successively during the heavy monsoon.

Appendix I

Total holdings												
Sl. No.	Size distribution (Hectares)	Nos	Area	Net area sown	Current Fallow	Net Cultivated area	Other cultivated land excluding fallow lands	Fallow land other than current fallow	Culturable waste lands	Net available for cultivation		
1	2	3	4	5	6	7	8	9	10	11		
1.	Below - 0.5	240	70.64	59.64	—	—	—	—	4.80	6.20		
2.	0.5 - 1.0	420	319.00	261.48	42.72	304.20	2.00	—	—	12.80		
3.	1.0 - 2.0	1190	1833.05	1431.74	192.31	1624.05	22.64	142.75	8.00	35.61		
4.	2.0 - 3.0	1080	2625.86	1880.53	352.44	2232.97	110.49	149.07	81.16	54.17		
5.	3.0 - 4.0	590	2049.86	1331.12	206.95	1538.07	42.30	244.74	195.54	29.21		
6.	4.0 - 5.0	810	3581.53	1680.48	303.49	1983.97	117.51	684.88	755.98	39.19		
7.	5.0 - 10.0	2130	14540.54	5005.98	1390.64	6396.62	198.15	3266.13	4391.46	288.18		
8.	10.0 - 20.0	530	6882.50	2122.27	1182.51	3304.78	509.06	1446.55	1098.95	523.16		
9.	20.0 - 30.0	50	1227.96	3334.36	311.52	645.92	33.00	355.04	100.00	94.00		
10.	30.0 - 40.0	20	708.40	251.40	24.00	275.40	193.00	100.00	120.00	20.00		
11.	40.0 - 50.0	10	440.00	64.00	92.00	156.00	72.00	68.00	68.00	76.00		
12.	50.0 - and above											

Note: The value of upper limit of each size class belongs to the next higher size class. For example 1.0 hectare which is the upper limit of second size class is included in the third size class viz., 1.0 - 2.0 hectares.

Source: Agricultural Census, 1970-71, Arunachal Pradesh by the Directorate of Agriculture and Community Development, Arunachal Pradesh, p. 133.

Appendix II

Sl. No.	Size Class (Hectares)	Total holdings		Area Irrigated by							Total Irrigated area
		No.	Area	Canals	Tanks	Wells	Tubewells	Others			
1	2	3	4	5	6	7	8	9	10		
1. Below	0.5	240	70.64	—	—	—	—	10.28	10.28		
2. 0.5	1.0	420	319.00	—	—	—	—	150.68	150.68		
3. 1.0	2.0	1190	1833.05	—	—	—	—	696.18	696.18		
4. 2.0	3.0	1080	2625.86	—	—	—	—	677.44	677.44		
5. 3.0	4.0	590	2049.86	4.05	—	—	—	685.41	685.41		
6. 4.0	5.0	810	3581.53	—	—	—	—	700.09	700.09		
7. 5.0	10.0	2130	14540.54	36.42	—	—	—	1620.88	1620.88		
8. 10.0	20.0	530	6882.50	—	—	—	—	619.93	619.93		
9. 20.0	30.0	50	1227.96	—	—	—	—	90.44	90.44		
10. 30.0	40.0	20	708.40	—	—	—	—	95.76	95.76		
11. 40.0	50.0	10	440.00	—	—	—	—	—	—		
12. 50.0	and above	—	—	—	—	—	—	—	—		

NOTE : 1. The value of upper limit of each size class belongs to the next higher size class. For example : 1.0 hectare which is the upper limit of second size class is included in the third size class viz., 1.0 — 2.0 hectares.

2. Area in columns 5 to 10 refers to 'Net irrigated area'.

Source : Agricultural Census, 1970-71, Arunachal Pradesh by the Directorate of Agriculture and Community Development, Arunachal Pradesh, p. 138.

Appendix III

Sl. No.	Size Class	Total holdings		Total gross cropped area		AREA UNDER							
		No.	Area (hectares)	Irrigated	Unirrigated	Rice		Millet		Buckwheat		Maize	
						Irrigated	Unirrigated	Irrigated	Unirrigated	Irrigated	Unirrigated	Irrigated	Unirrigated
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1.	Below 0.5	240	70.64	10.20	70.72	10.28	25.56	—	—	—	—	—	8.00
2.	0.5 — 1.0	420	319.00	150.68	229.16	150.68	69.96	—	25.80	—	—	—	60.04
3.	1.0 — 2.0	1190	1833.05	696.18	1019.23	692.18	293.57	—	146.08	—	—	4.00	229.99
4.	2.0 — 3.0	1080	2625.86	686.40	1560.87	686.40	488.75	—	209.53	—	—	—	394.98
5.	3.0 — 4.0	590	2049.86	688.46	892.13	688.46	258.87	—	78.35	—	2.00	—	211.60
6.	4.0 — 5.0	810	3581.53	700.09	1216.60	700.09	387.48	—	190.86	—	—	—	269.43
7.	5.0 — 10.0	2130	14540.54	1656.88	4140.04	1656.88	1292.74	—	716.68	—	21.00	—	977.05
8.	10.0 — 20.0	530	6882.50	619.93	1668.59	619.93	569.48	—	273.92	—	16.00	—	409.89
9.	20.0 — 30.0	50	1227.96	90.44	245.24	90.44	159.60	—	—	—	—	—	45.32
10.	30.0 — 40.0	20	708.40	95.76	158.28	95.76	4.00	—	4.00	—	—	—	4.00
11.	40.0 — 50.0	10	440.00	—	64.00	—	12.00	—	12.00	—	—	—	16.00
12.	50.0 — and above	—	—	—	—	—	—	—	—	—	—	—	—

AREA UNDER

Sl. No.	Size Class	Wheat			Barley			Other Kharif pulses			Rabi pulses			Other food grains			Total food grains	
		Irrigated	Unirrigated	Irrigated	Irrigated	Unirrigated	Irrigated	Unirrigated	Irrigated	Unirrigated	Irrigated	Unirrigated	Irrigated	Unirrigated	Irrigated	Unirrigated	Irrigated	Unirrigated
1.	2.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.					
1.	Below—	—	—	—	—	—	—	—	—	—	10.28	34.36	—					
2.	0.5 — 1.0	—	—	—	—	—	—	—	—	—	—	150.68	155.80					
3.	1.0 — 2.0	—	5.06	—	—	—	—	—	—	—	—	696.18	674.70					
4.	2.0 — 3.0	—	—	—	—	—	3.00	—	—	—	—	696.40	1096.26					
5.	3.0 — 4.0	—	3.03	—	—	—	2.00	—	—	—	—	688.46	555.85					
6.	4.0 — 5.0	—	12.93	—	—	—	—	—	—	—	4.00	700.09	864.72					
7.	5.0 — 10.0	—	210.63	—	—	—	3.00	—	—	—	20.00	1656.83	3241.10					
8.	10.0 — 20.0	—	52.83	—	—	—	1.00	—	—	—	—	619.93	1323.12					
9.	20.0 — 30.0	—	—	—	—	—	—	—	—	—	—	90.44	204.92					
10.	30.0 — 40.0	—	—	—	—	—	—	—	—	—	—	95.76	12.00					
11.	40.0 — 50.0	—	—	—	—	—	—	—	—	—	—	—	40.00					
12.	50.0 — and above	—	—	—	—	—	—	—	—	—	—	—	—					

AREA UNDER

[illegible]

Appendix III (Contd.)

AREA UNDER												
Sl. No.	Size Class (hectare)	Sugarcane		Vegetable		Fruits		Other Crops		Total non-food Crops		
		Irrigated	Unirrigated	Irrigated	Unirrigated	Irrigated	Unirrigated	Irrigated	Unirrigated	Irrigated	Unirrigated	Unirrigated
1.	2.	39.	40.	41.	42.	43.	44.	45.	46.	47.	48.	
1.	Below— 0.5	—	—	—	22.00	—	—	—	6.40	—	—	36.36
2.	0.5 — 1.0	—	—	—	9.30	—	28.66	—	—	—	—	73.36
3.	1.0 — 2.0	—	—	—	108.88	—	—	—	125.20	—	—	344.53
4.	2.0 — 3.0	—	—	—	104.08	—	—	—	259.52	—	—	464.61
5.	3.0 — 4.0	—	—	—	100.24	—	—	—	127.56	—	—	336.28
6.	4.0 — 5.0	—	—	—	172.03	—	—	—	62.32	—	—	351.88
7.	5.0 — 10.0	—	—	—	316.10	—	—	—	230.60	—	—	898.94
8.	10.0 — 20.0	—	—	—	221.88	—	—	—	72.00	—	—	345.47
9.	20.0 — 30.0	—	—	—	5.32	—	—	—	55.00	—	—	40.32
10.	30.0 — 40.0	—	—	—	10.20	—	—	—	136.00	—	—	146.28
11.	40.0 — 50.0	—	—	—	—	—	—	—	—	—	—	—
12.	50.0 — and above	—	—	—	—	—	—	—	—	—	—	—

SOURCE: Agricultural Census, 1970-71, Arunachal Pradesh by the Directorate of Agriculture and Community Development, Arunachal Pradesh, pp. 152-153(A).

Appendix IV

Sl. No.	Size Class (hectare)	Total No. of holdings	Wood		Iron		Harrows and Hose		Pumps		
			A	B	A	B	A	B	A	B	Others
1	2	3	4	5	6	7	8	9	10	11	
1.	Below — 0.5	300	50	50	—	—	200	450	300	600	
2.	0.5 — 1.0	450	300	300	—	—	250	550	250	450	
3.	1.0 — 2.0	900	500	600	—	—	600	1700	850	2050	
4.	2.0 — 3.0	1200	650	1050	—	—	200	450	750	3050	
5.	3.0 — 4.0	350	100	100	—	—	200	450	350	1250	
6.	4.0 — 5.0	1050	450	850	—	—	750	2300	950	4550	
7.	5.0 — 10.0	2800	550	1150	—	—	2450	6600	2550	22900	
8.	10.0 — 20.0	650	150	100	—	—	350	1350	450	3000	
9.	20.0 — 30.0	100	100	250	50	100	50	600	—	—	
10.	30.0 — 40.0	100	50	400	—	—	50	150	—	—	
11.	40.0 — 50.0	—	—	—	—	—	—	—	—	—	
12.	50.0 — and above	—	—	—	—	—	—	—	—	—	

A. Number of holdings reporting.

B. Number of machinery and implements.

SOURCE: Agricultural Census, 1970-71, Arunachal Pradesh by the Directorate of Agriculture and Community Development, Arunachal Pradesh, p. 203.

Appendix V
A STATEMENT OF EXPENDITURE AND OUTTURN OF THE AGRICULTURAL FARM AT TEZU RELATING TO THE YEARS FROM 1963-64 TO 1976-77

Sl. No.	Year	Area cultivated (in acres)	Expenditure (in Rs.)		Outturn (in Rs.)	(+/-) Gross income (-) Gross loss (in Rs.)
			Recurring	Non-recurring		
1.	1963-64	27.50	11150.00	300.00	8966.00	- 2484.00
2.	1964-65	33.00	12263.80	163.97	13992.20	+ 1564.43
3.	1965-66	50.00	15371.65	695.80	16067.45	- 5773.45
4.	1966-67	37.00	12190.67	-	13163.29	+ 972.62
5.	1967-68	37.00	13736.58	-	15495.51	+ 1758.93
6.	1968-69	30.00	15981.72	-	25136.37	+ 9154.65
7.	1969-70	37.00	17549.37	960.00	31859.80	+ 13350.43
8.	1970-71	22.00	17749.37	-	24364.38	+ 6615.01
9.	1971-72	36.95	17439.47	-	29127.56	+ 11688.09
10.	1972-73	36.95	18568.64	-	31710.95	+ 13142.31
11.	1973-74	37.78	19726.06	737.40	30407.17	+ 9943.71
12.	1974-75	40.00	2040.00	27483.74	47470.42	+ 17946.68
13.	1975-76	57.83	34032.00	11701.96	53956.17	+ 11222.21
14.	1976-77	55.00	47982.47	-	59094.60	+ 11112.13

Source: Office of the District Agriculture Officer, Lohit District, Tezu.

CHAPTER V

INDUSTRIES

Lohit is for the most part a mountainous terrain, and almost the entire population living in this district is attached to land and village. Agriculture of a subsistence nature is the mainstay of the people.

No large-scale industry exists in the district. There is, however, an important wood-based industrial enterprise known as the Assam Saw Mills and Timber Co. at Namsai, which is a plywood factory producing veneers and tea chests.

The district was in economic isolation from the rest of the country in the old days. Moreover, the difficult and inaccessible terrain and the ecological conditions retarded the development of trade and commerce. Under the force of circumstances, the people, however, endeavoured to be self-reliant in regard to their basic needs, and they devised their own methods of industry, arts and crafts. Therefore, the industrial activities of the people are centred round small-scale cottage industries, such as weaving, cane and bamboo work, smithery etc. According to the 1971 Census, there are twentytwo household industries, sixteen workshops and one factory in the district as described below:

	Registered Factories	Unregistered Workshops	Household Industries
Government or Quasi-Government	—	8	—
Private	1	8	22

COTTAGE INDUSTRIES

A brief description of the cottage industries and other manufacturing activities is given below:

Weaving

Weaving is an exclusive household craft of women amongst all the tribes. Their looms are simple and portable. "The women nearly all use the single-heddle tension or loin-loom of a pattern common in Indonesia, which has a warp of some six yards by eighteen inches. There is no reed; a wooden sword is used to beat up the weft; and the actual weaving is done with a bamboo-tube throw-shuttle. The Khamphtis have a slightly larger loom, though of the same general pattern, and a few Assamese looms are now used in the administrative centres."¹

¹ Verrier Elwin, The Art of the North-East Frontier of India, (Shillong, 1959), p. 35.

Weaving is a part of the day's work of a woman. The girls in the house are trained up in weaving from their teens. Soon they learn the art and sit at the loom. The traditional art is handed down from generation to generation.

The Mishmis are renowned 'for the wealth and beauty of their weaving designs, for their sense of colour and pattern'. Indeed, the Mishmi textiles are of remarkable artistic and cultural value, and they display workmanship of a high order. Verrier Elwin observed, "The designs of the Kaman and Taraon Mishmis are of extraordinary variety; in a tour of the Khamlang Valley where every one of the five hundred inhabitants was clothed from head to foot in hand-woven cloth, I hardly ever saw a pattern exactly duplicated. Many of the people have now forgotten the meanings of the designs, but a few of the older men and women still had them in mind, though their interpretations sometimes varied from village to village."¹

Cotton is grown on a small scale in the neighbourhood of Roing, but the bulk of cotton yarn now used is brought from the neighbouring markets of Assam. Previously, wool came from Tibet, but now wool also is purchased from the nearby markets in the plains.

Natural dyes are used by the people for colouring their home-made clothes. The Taraons and the Kamans prefer a coloured cloth especially of maroon. They are also fond of mixed colours—yellow, red and green. The Idus, however, have a preference for black coloured clothes with patterns in white or yellow. The Khamptis and the Singphos use varieties of colours and patterns in their textiles which is illustrated in their elaborately designed bags and bands. Jackets and *lungis* are also dyed in mixed colours.

The textiles manufactured by the tribal people are loin and waist-cloths, jackets, aprons, sleeveless coats, skirts, scarves, embroidered bodices, shawls, sashes, bands, belts, bags etc.

"Mishmi art is entirely confined to weaving and work in cane and bamboo. The weaving, however, is exceptionally fine; the best shawls made by the Taraon and Kaman women are of exquisite quality and they also make bags, coats, belts and loin-cloths. The Idus too are excellent weavers and one of their best products is the black war-coat ornamented with a white pattern. This is woven with a mixture of cotton, bark-fibre and human hair and is said to be strong enough to turn aside a hostile arrow. The ordinary black coats, with an amazing variety of designs, find a ready market among the Adis of Siang, especially in the north-eastern valleys, to which large quantities are exported. The Idus also make attractive bags. The dress of the women is less colourful, as they prefer black blouses and skirts, except when they purchase gaudy pieces of cloth from the bazaar. Though the Idu men have retained their own

¹ Verrier Elwin, The Art of the North-East Frontier of India, (Shillong, 1959), p. 47.

home-woven dress, the majority of the women, even those in the remote Dibang Valley have adopted the black markin which casts so dark a shadow on the looms of the north-east frontier."¹

The long association of the Khamptis with the plains has brought about some modification in their dress. Products of textile mills are now worn by the women, but the green sash of married women are woven by themselves, and men's clothes are still home-made. The Khampti loom, which is larger than that of the other tribes in the district, is suitable for weaving the *lungi*. The jacket is also a home-woven material. "Khampti women have retained their skill in weaving and embroidery. They still make elaborately worked bags, as well as embroidered bands for the hair, finely woven belts and the plaid cloth of an almost tartan design commonly worn by men."²

The Singpho women weave well and their waist-cloth is often woven in large broad horizontal bands of red and blue. The colourful border designs in their textiles are artistic and of many varieties.

In pursuance of the Government policy to encourage growth of industries and to promote indigenous arts and crafts, weaving has been introduced in the Government craft centres as one of the courses of training and also for production of handloom clothes.

Cane and Bamboo Work

Cane and bamboo work is another important household industry. The work in bamboo and cane through the process of cutting, splitting and thinning is known over wide areas. Baskets, big and small, with bamboo pipe receptacles are made for the purposes of agriculture, fishing, hunting and domestic use. Metal utensils and containers are still not much in use in the tribal houses of the district. Cane and bamboo baskets are of various shape and size, each is made to suit a definite purpose. The common basket is hexagonal in shape, round at the mouth and nearly rectangular at the bottom. The women carry it on their back with a cane head-belt when they go to work in the field or forest for collection of their needs. Another finely woven basket of twilled pattern serve as food-grain container. Winnowing fans for husking rice and baskets for storing grains are strongly made with bamboo splits. Baskets for fermenting rice or millet are conically shaped at one end to bag the contents. Small flexible beer strainers are made of very thin fresh bamboo splits. Cane-hats are intricately coiled and very durable. The Mishmi and the Padam helmets made of cane and bamboo are too hard to break. Apart from the household utensils, the other bamboo handicrafts are baskets with lids, mats, smoking pipes, bows and arrows, weaving equipments,

¹ Verrier Elwin, The Art of the North-East Frontier of India, (Shillong, 1959), p. 124.

² Verrier Elwin, The Art of the North-East Frontier of India, (Shillong, 1959), p. 84.

fishing and hunting traps, women's head-bands, fine cane-belts etc. Cane and bamboo work has been taken up as one of items of training and production in the Government craft centres.

Silver and Iron Smithery

Although the Mishmis possess a considerable quantity of silver, they depend upon other tribes and also smiths of nearby plains areas for their silver ornaments and articles. Their silver tobacco-pipes are made by the Gallongs and their ear-rings are procured from nearby markets in Assam. The silver charm-box, an appendage hung from their necklace, was obtained from the Tibetans earlier and now they are made by silver-smiths of the plains. But they have their own blacksmiths, who forge a great number of *daos* and knives annually. They also make arrow-heads, fire-stands, pot-stand etc. Their equipments for smithery consist of crude tools and an anvil made of stone.

At one time the Khamptis were renowned for extraction of minerals and smelting of iron. Dalton wrote of the Khamptis that "It is customary for the chiefs also to employ themselves in useful and ornamental arts. They work in gold, silver, and iron, forge their own weapons and make their wives' jewels. They also manufacture embossed shields of buffalo or rhinoceros hide, gilding and lacquering them with skill and taste."

Both silver and iron smithings are parts of the programme of craft centres. The trainees in blacksmithy in the craft centres produce, among other things, agricultural tools and implements. The trainees in silver-smithy are taught to make designed ornaments. The products are put on sale in the emporium, and supplied to the local people according to their requirements.

Incidentally, it may be mentioned that the Mishmis are expert in making a type of gun called *ghanjuwa* or *khanduwa* and its gun powder. This practice has been discouraged by the Government after independence.

Wood-carving

Wood-carving is confined to the Khamptis. The Singphos today also do some wood-carving. The priests are the leading craftsmen. Dalton describes how "The priests in their hours of relaxation amuse themselves by carving in wood, bone or ivory, at which they are very expert. In making ivory handles of weapons they evince great skill, taste, and fecundity of invention, carving in high relief twisted snakes, dragons, and other monsters with a creditable unity and gracefulness of design."

¹ E. T. Dalton, Tribal History of Eastern India (Descriptive Ethnology of Bengal), (Delhi, 1973), p. 7.

² Ibid, p. 7.

"Wood-carving and ivory-work have persisted to this day but deserve more active encouragement. The Khamptis still make embossed shields and are fond of masks, mainly of the horror type, of coloured cloth stretched on bamboo frames, for use in ceremonial dances, which illustrate the Temptation of the Lord Buddha and other themes. Their finest work, however, is in their carvings of images of the Lord Buddha. Some of these, hidden in small temples in out of the way villages, are of singular grace and beauty."

Power

The micro-hydel source of power supply in the district has an installed capacity of 400 kw. The water power potentiality in this area is immense, and it will be adequate, when fully harnessed, to meet the needs of industrial units and electrification of rural areas.

Eleven places in the district, namely Tezu, Roing, Anini, Dambuk, Walong, Namsai, Chowkham, Hayuliang, Lohitpur, Chaglongam and Taflagam, have been electrified till the month of March 1976. The total installed capacity of the generating units is 930.10 kw.²

Craft Centres

To promote the tribal arts and crafts, two craft centres have been functioning in the district at Tezu and Anini. The craft centres consist of two units—training and production, for different crafts, such as weaving, carpentry, blacksmithy, silversmithy, carpet-making, wood-carving, cane and bamboo work, tailoring, sawing etc. Training in improved methods is imparted to the local boys and girls in various crafts so as to encourage the growth of industries among them. The main objects of the production unit are to manufacture articles to meet the requirements of local Government departments as well as the people, and to provide adequate working facilities to the passed out trainees. Necessary tools and implements at 50% subsidised cost are supplied to the passed out trainees.

The number of trainees in the craft centres is as follows:

Craft centres	1971-72	1972-73	1973-74	1974-75	1975-76
1. Tezu	18	18	18	18	21
2. Anini	16	16	13	12	10

Besides the craft centres at Tezu and Anini, there was one mobile weaving unit functioning at Walong. Recently a new craft centre has

¹ Verrier Elwin, The Art of the North-East Frontier of India, (Shillong, 1959), pp. 84-85.

² Source: Statistical Hand Book of Arunachal Pradesh, 1975-76.

been opened at Hawai. There are also two weaving training units, one each at Nonkhong and Yatong.

The craft-wise distribution of trainees trained in the craft centres during 1974-75 is shown below:

Crafts	Number of trainees
(1) Weaving	11
(2) Carpentry	5
(3) Blacksmithy	1
(4) Silversmithy	2
(5) Carpet-making	5
(6) Wood-carving	2
Total	26

The various articles produced at the craft centres are kept in the emporiums at Tezu and Anini for sale and export to other centres and outside Arunachal Pradesh. Yarn is also available at the emporiums and a large quantity is distributed among the local people for weaving. The local cotton is utilised in making rugs and blankets which have much demand in the area.

The annual out-turn of the craft centres and sale proceeds of the emporium and show-room-cum-sales counter during the period 1971-72 to 1974-75 are shown below¹:

(in '000 Rs.)

Craft Centres	Outturn				Sale Proceeds			
	1971-72	1972-73	1973-74	1974-75	1971-72	1972-73	1973-74	1974-75
1. Tezu	34.13	76.96	99.88	68.96	36.00	67.20	56.58	88.27
2. Anini	17.04	14.66	14.50	16.69	—	16.80	16.88	18.94

DEVELOPMENT OF INDUSTRIES

Industrial Training Institute

The Industrial Training Institute at Roing was established in 1971 with a view to creating facilities for training of educated youths in a number of trades so that they may become skilled workers and technicians. The institution, headed by a Principal, is affiliated to the National Council for Training in Vocational Trades, and is run under the technical guid-

¹ Source: Statistical Hand Books of Arunachal Pradesh, 1971-72, 1972-73, 1973-74 and 1974-75.

ance and direction of the Director General of Employment and Training, Government of India. At present, it provides training in five trades as follows:

Two-year course—

- (1) Motor Mechanics
- (2) Electrician
- (3) Wireman

One-year course—

- (1) Carpentry
- (2) Plumber

Besides these, courses of training in some other trades, such as weaving, tractor mechanics, preservation and caning of fruits and vegetables etc., are also likely to be introduced in the near future. The institution has a library and a reading circle too.

Distribution of trainees trained in the institute in different trades is shown in the following table:

Trades	Number of Trainees				
	1971-72	1972-73	1973-74	1974-75	1975-76
Motor Mechanics	10	8	6	4	4
Plumber	5	5	2	3	3
Carpentry	5	5	5	1	2
Electricity	—	4	4	3	3
Wireman	—	—	—	2	2
Total	20	22	17	13	14

Saw Mills and Plywood Factory

The district is rich in forest resources. There are four saw mills as follows:

Name	Location
(1) The Lohit Saw Mills	Sunpura
(2) The Namsom Saw Mills	Gohaingaon, Tezu
(3) The Kebasang Piniya Ltd. Co-operative Saw Mills	Tezu
(4) The Assam Saw Mills & Timber Company Ltd.	Namsai

Sawn timbers are supplied by these saw mills to the Government as well as private persons. The saw mill at Sunpura, a private enterprise, was started in 1948. It is owned and run by a Khampti entrepreneur. The Co-operative Saw Mill at Tezu was registered in 1966 with 346 members, and share capital of Rs. 15,000 and working capital of Rs. 1,40,000. The Assam Saw Mills and Timber Company is operating a plywood factory at Namsai. This is the only medium-scale industry in the district producing some 3,50,000 tea chests annually. Originally, the factory was established at Murkong-Selek in the Pasighat Sub-division in 1918 under the managing agency of the Bird Company Private Ltd. The earthquake of 1950 caused serious damages to the installation, and the flood of 1951 swept away a part of the Company's establishments. As a result, the factory was shifted to Namsai in 1952. In 1959, it became a director-controlled company under Messrs Jalan Industries Private Ltd. Besides tea-chests, plywood panels and sawn timber, the company also manufactures commercial and decorative ply-board, black-board, railway sleepers etc.

One of the important factors in the development of the timber industry in this district is the transportation and other facilities provided by the elephants. Elephants are found in considerable numbers in the foothill areas and they are very useful for pulling of logs and heavy timber and loading the logs in the trolleys and trucks.

The details of the registered small-scale and medium-scale industries in the district are shown below:

Sl. No.	Name of Unit	Location	Type of Industry
1.	The Assam Saw-Mills and Timber Company Ltd.	Namsai	Saw Mill and Plywood Factory
2.	The Lohit Saw Mills	Sunpura	Saw Mill extended to (i) Paddy husking and (ii) Oil extraction
3.	The Namsom Saw Mills	Gohaingaon, Tezu	Saw Mill
4.	The Kebasang Piniya Ltd. Co-operative Saw Mills	Tezu 32 mile	(i) Rice milling (ii) Oil expelling (iii) Atta grinding (iv) Sawing timber
5.	The Lama Rice, Atta and Oil Mills	Tibetan Refugee Village No. 5, Tezu	(i) Paddy husking (ii) Atta and (iii) Oil Mills
6.	The Sangal Flour and Rice Mills	Tibetan Refugee Village No. 3, Tezu	(i) Flour Mill (ii) Paddy husking
7.	The Gohain Candle Works	Gohaingaon 28th mile Tezu	Candle-manufacturing

Sl. No.	Name of Unit	Location	Type of Industry
8.	Rice Huller	Nonkhong, Mahadevpur, Namsai	Paddy-husking
9.	M/s. L. Lingi Rice Mill	Roing	Paddy-husking
10.	The Kumudeshwar Boruah Rice Mill	Eraloni, Mahadevpur, Namsai	Paddy-husking
11.	M/s. Surajmall Kanaiyalal, Sunpura	Sunpura	Rice Mill
12.	M/s. Chowmakhe Main Rice Mill	Chowkham	Paddy-husking
13.	M/s. Chowsipow Gohain	Chowkham (Block)	Paddy-husking
14.	M/s. Chatta Namchom	Chowkham	Paddy-husking
15.	M/s. Chowkaliy Namsom	Chowkham	Oil expelling
16.	M/s. Chowsuni Gohain	Chowkham	Rice Mill
17.	M/s. Chowlo Gohain Rice Mill	Chowkham, Tezu	Rice Mill
18.	M/s. Chowla Gohain Rice Mill	Sitpani, Namsai	Rice Mill
19.	M/s. Chow Singta Loongkha Rice Mill	Chowkham	Paddy-husking
20.	M/s. Apel Yirang Rice Mill	Vill-Sunpura Tezu	Paddy-husking
21.	Sawing and Planner M/s. Swaran Singh	Tezu	Sawing and planning of timber
22.	The Chowlick Brick Factory M/s. Chowlick Manpoong	Namsai	Brick manufacturing

Sericulture

TWO SERICULTURE FARMS, ONE AT NONKHONG IN THE NAMSAL AREA AND THE OTHER AT ROING, ARE FUNCTIONING. THE SERICULTURAL ACTIVITIES IN THE DISTRICT ARE SHOWN BELOW :

Year	Number of lys distributed			Production (in kg.)			Output of yarn (in kg.)		
	Pat seeds	Eri seeds	Total	Pat cocoon	Eri cocoon	Total	Pat yarn	Eri yarn	Total
1970-71	2000	5510	7510	55	584	639	65	153	218
1971-72	—	8890	8890	—	953	953	—	273	273
1972-73	2900	8185	11085	47	802	849	—	364	364
1973-74	3712	8385	12097	2	659	661	50	389	439
1974-75	1000	15605	16605	—	1274	1274	60	379	439

DURING 1974-75 THE NUMBER OF REARERS IN THE FARMS AND THE ERI CLOTH MADE AS UNDER :

Farm	Number of rearers		Eri cloth made (in number)
	Pat	Eri	
1. Sericulture Farm, Nonkhong	115	270	223
2. Sericulture Farm, Roing	—	121	54

CHAPTER VI

BANKING, TRADE AND COMMERCE

Banking

No indigenous banking system exists in the district. Handling of money by the tribal people in business transactions was negligible. Popularisation of money as currency started only after 1947. The people have now been earning considerable amount of money as a result of the developmental and welfare activities being carried on in the district. Facilities are being extended to them for savings and investment. They are persuaded to deposit money in the post offices having savings account facilities and also to invest their savings in the co-operative sector. The State Bank of India has opened a branch at Tezu. The Lohit Thrift and Credit Co-operative Society, Tezu and the Government Employees Co-operative Bank Ltd., Hayuliang also offer banking facilities.

The working of the State Bank of India in the district is as follows¹:

	(in thousand of rupees)	
	1974-75	1975-76
• Deposit •	2,143	3,756
Advance Loans granted	175	505

Early Trade Relations

From time immemorial there had been trade relations between the people of the district and the people of Assam, Tibet and Burma. The course of trade has considerably changed in recent times, and now trade and commerce are mainly carried on with the plains of Assam. Before the interior parts of the district were opened up by road communications, there were some trade centres along the foothills, traders from the hills and plains met and exchanged their goods. In the absence of money as the medium of exchange, the trade relations were based mainly on barter and the commodities were exchanged according to the bare needs of individuals, families or villages.

Trade with the Plains of Assam

The Mishmis are keen traders. Every man among them is in a way a petty trader. They were aptly described as 'great travellers about their own country'. They were regular visitors to the nearby market-

¹ Source: Statistical Hand Book of Arunachal Pradesh, 1975-76.

centres in the plains of Assam and bartered musk pods, musk-deer skins, honey, the medicinal herb known as Mishmi 'teeta' (*coptis teeta*, which contains valuable alkaloid berberin), a kind of poison much in demand for its pleasant smell cane and clothes, yarn, salt, tools, utensils, cigarette, bidi glass-beads of which they were very fond. Prior to 1952, the Mishmis of even the remote areas used to undertake journeys in the winter every year to the markets at Sadiya and Sail:howa.

The Khamptis are inveterate traders, and to their industry the people of neighbouring areas of Assam and Arunachal Pradesh are much indebted for good quality rice and vegetables, especially potatoes which were supplied by them. The Khamptis traded with the people of Assam and other neighbouring tribes. The Khampti women made elaborately worked bags for sale. The Khampti chiefs were fond of making various articles of metal and wood. Articles of ivory were brought down by the Singphos to Sadiya. Their *daos* were highly valued all over the frontier for their temper and durability. The Longlai basin was a great rubber collecting centre of the Singphos. The demand for opium in the Singpho area was also an incentive to the growth of barter trade in this region.

Trade with Tibet

The Taraons inhabited the hills from near the Brahma Kund to as far as the eastern regions of the district bordering Tibet. The Digaru river was considered to be the boundary between them and the Idus. They traded with the bordering areas of Tibet. The goods they carried were musk pods, aconite (poison), hides, skins, furs, Mishmi coats and loin-cloths, various kinds of barks and roots for dyes or drugs such as *getheon* (an odoriferous root), *manjeet* (madder) and Mishmi teeta. They brought from Tibet cattle, brass-pipes, gongs, woollen goods, copper vessels and beads for ornaments.

The Kamans inhabiting the upper belt of Lohit Valley were enterprising traders carrying on trade with the Zayul District of Tibet. Their merchandise was the same as that of the Taraons. The Kamans and the Taraons went across the Indo-Tibetan border in groups from time to time.

The Idus like the other sections of the Mishmis, Taraons and Kamans, are also a trading people. Large groups of the Idus were reported to have regularly visited Tibet for trade. They even sent their wives if they could not go themselves. On the eve of their journey to Tibet, they moved from village to village in their area collecting from the villagers skin, hides, Mishmi teeta, musk and roots for dyes and drugs on promise of repayments by barter. From Tibet they would bring home woollen goods, raw wool, brass gongs, bead ornaments etc. Money was also used as medium of exchange. Coins from Tibet were brought and used for further trade or ornaments.

Before the borders were sealed and the bilateral trade between India and Tibet was stopped, the Tibetans also regularly visited the villages of

this district for purchasing, selling and bartering articles with the Mishmis, Zakhrings and Meyors. The Zakhrings and Meyors who inhabit the remote parts of the Lohit Valley near the international border were regular buyers of yaks, salt and butter from the Tibetans. An account of the Indo-Tibetan trade conducted through the Kibithoo-Rima trade route is appended below¹:

	1958	1959	1960
1. Number of Indian traders who crossed the border	184	319	259
2. Number of Tibetan traders who crossed the border	243	414	217
3. Value of merchandise taken out of India by the Indian traders	Rs. 2,144	Rs. 9,030	Rs. 6,763
4. Value of merchandise taken into Indian side by the Tibetan traders	Rs. 3,754	Rs. 11,034	Rs. 7,523

With the opening of administrative centres, border shops and markets, development of communications and introduction of a monetised economy, the whole system of internal and external trade has now changed. The transborder trade has come to a stop after the sealing of the international border.

Trade with Burma

Although there is no regular trade and commercial intercourse between the people of Burma and those of this district, an early trade relation existed between the two. The Kachins of Upper Burma and the Khamptis and Singphos of Lohit traded in ivory, elephants and opium. The Kamans also carried on a trade with the people of Hkamti-long in Burma and visited the place through the old routes.

Inter-Tribal Trade

The inter-tribal trade in the district is conducted on a small scale. It is domestic in character. The Mishmis exchange their goods with the Singphos and the Khamptis. They also trade with the Adis of Siang District to whom they supply their textile fabrics of various kinds. The Padams supply the Mishmis with *mithuns* in exchange for the Mishmi coats, helmets, hand-bags etc. The Padams dispose of their wares at Roing and Sadiya. They sell their surplus paddy, vegetables, potatoes etc. to the neighbouring Idus and the shopkeepers at Dambuk and Roing. Transaction of *mithuns* is a common feature of the internal trade in the

¹ Source: The Office of the Deputy Commissioner, Lohit District, Tezu.

Dibang Valley. The dealers collect *mithuns* from Dambuk and Damroh areas and sell them to the buyers. The Idus purchase the animals from Ahui Emra Valley and sell them in the Dri Valley. The price of a *mithun* varied from Rs. 500 to Rs. 1,000. In 1958, seventy *mithuns* were purchased in the Emra Valley at an estimated cost of Rs. 56,000. Similarly, 500 musk pods were transacted in the same year involving an amount of Rs. 35,000. The bartered items of the Mishmis include Mishmi *teeta*, musk, deer-skin, bee-wax, chickens etc. in exchange for which they procure their daily necessities.

The Khamptis are by far the most enterprising of all the tribes in the district. They have saw-mills of their own, they trade in timber. They catch and sell elephants, the venture which yields them a good income, for an elephant costs thousands of rupees. They have also paddy husking and pounding mills. Both the Singphos and the Khamptis produce surplus foodgrain which is distributed in the neighbouring places. The trade and business are flourishing in their areas. The expansion of transport communication facilities have contributed much to the development of their trade with the plains.

Formerly, as already said, the inter-tribal trade and commerce was carried on by barter. The people developed an elaborate system of barter in which animal-heads such as *mithun*, bull, buffalo, deer, takin (wild goat) etc. were a kind of currency with the Mishmis. The Khamptis also made use of buffaloes and oxen as means of barter with the Mishmis.

Trade Centres

Sadiya and Saikhowa were two great trade centres of the tribesmen of this district. E. T. Dalton wrote in 1872 about the Saikhowa market that "It was very interesting to watch the barter that took place there between these suspicious, excitable (Idus) and the cool, wily traders of the plains. The former took salt chiefly in exchange for the commodities they brought down. . . ." The need for salt was so great in the hills that the Dibang Valley route along which the people travelled to the markets came to be known as the salt route.

"The Sadiya bazar during the cold weather months teems with hillmen who come down to sell their produce, or in the case of the Digaru and Miju Mishmis to work at jungle clearing, cane cutting, etc. With the development of Upper Burma and the Hkamtilong and the opening up of the Hukawng Valley from the southern end, the Khamptis and Kachins of the area south of the Dapha range are not often seen in Sadiya nowadays.

"The chief imports are cloths, yarn, salt, utensils and agricultural implements. The exports in addition to the hill produce of 'teeta', musk

and wax are gur and potatoes and Abor rugs (gadus). The sale-totals of the past eight years show that the tribesmen's imports of hill produce average well over Rs. 50,000 a year of which probably not more than twenty per cent is spent in local purchases, the balance being expended on the purchase of domesticated mythan for festive occasions or else re-invested for further trade in hill produce, since the actual vendor is more often than not a middleman and not the actual collector. Hill produce is sold in public auction over which the Political Officer presides and payments are personally made by him to the vendors to secure them a fair price. Ten per cent of all prices realised is paid by the vendors and credited to the Sadiya Local Fund.

"The Sadiya Local Fund is in a prosperous financial condition owning its own markets and bazars at Sadiya, Saikhoa and Pasighat. The threat of erosion to Sadiya town and headquarters is however an ever-present anxiety and the actual site of Sadiya market is seriously threatened. Sadiya is a daily market, while those at Saikhoaghat and Pasighat are held twice weekly. . . . Musk pods, wax and Mishmi 'teeta' are brought in by the tribesmen, to the total value of some Rs. 70,000 yearly, between the months of November and February inclusive and are sold by the Political Officer and his Assistants in open auction; all finds its way to the Calcutta market. Mishmi teeta (teeta Coptes) is of two qualities, the thick variety being the superior and having just double the value of the thin. It is found wild and is cultivated in the Mishmi hills by the tribesmen. The Dibong Valley supply being found and cultivated at high altitudes is all first class, the Lohit and its subsidiary valleys supplying the second quality. The first class fetches nowadays Rs. 500 to Rs. 600 per maund and is brought for export to China, via Calcutta. It is a small stemless herb with perennial root stock met with in the temperate regions of the Mishmi hills of Assam. The plants are said to grow on the ground among the moss around the stems of trees. Its uses, etc., are described at the length in 'the Commercial Products of India' (Watt). The supplies available yearly in the Sadiya market are some 100 maunds of first class teeta, 40 maunds of second class, 70 to 80 maunds of wax and 400 tolas of musk".¹ Although after the flood of 1952 Sadiya lost much of its importance as a trade centre, it is still a market-place for the hills as well as plains people.

Early Business Fairs

An annual fair was held in Sadiya towards the end of January or the beginning of February every year in the later part of the last century. The Sadiya fairs catered to the needs of the Miris, Mishmis, Khamptis and Singphos. About 3,000 to 4,000 hillmen attended the fairs every

¹ E. T. Dalton, Tribal History of Eastern India (Descriptive Ethnology of Bengal), (Delhi, 1973), p. 20.

¹ Assam District Gazetteers (Vol. XI), The Sadiya and Balipara Frontier Tract Gazetteer, Part I & II, (Shillong, 1928), pp. 33-35.

year. The exports were chiefly rubber, madder, bee-wax, musk, mats, Khampti *duo* etc. The Khamptis and Sigphos sold elephant tusks as well. The imports were clothes, salt, sugar, tea, brass, iron and bell-metal utensils, silver ear-rings and ornaments, beads, brassware etc. In 1874, the hillmen brought Rs. 25,000 worth of articles and took home Rs. 17,630. And in 1876 the turn-over was much greater. About 3,000 Miris, Mishmis, Khamptis and Singphos were present at Sadiya in that year. The goods worth Rs. 49,000 and Rs. 44,475 were respectively sold and bought by them. But in the subsequent year the merchandise fell off considerably. The articles the Singphos took home were mainly tea, sugar and oil, while the Khamptis bought English yarn and pottery, and the Mishmis indulged in buying more finery beads.

The annual fairs were great occasions of business and cultural exchanges. A ceremonial procession of the tribal chiefs of the Miris, Mishmis, Adis, Singphos and the Khamptis marked the inauguration of the fairs. They came in their ceremonial dress and some of them rode on elephants. The girls dressed in finery danced alongside as they advanced to render the whole scene picturesque. An atmosphere of gaiety prevailed all around.

Melas and Exhibitions

Under the auspices of the Government *melas* and exhibitions are held occasionally at various centres. The object is to associate the people with various developmental activities being carried on in the district. Selected agricultural products, textiles, livestock and handicrafts are displayed in these fairs and exhibitions. Prizes are awarded to the best producers to encourage them and to rouse enthusiasm among the people.

Development of Trade: Co-operation

Since 1947, new developments have taken place and they have brought about remarkable changes and mobility in the sphere of trade and commerce. The extension of administration to the remote localities, improvement of transport facilities, construction of roads, bridges and buildings, spread of literacy and emergence of an educated class of people have all contributed to the growth of trade and commerce in the district. New markets have been built up and blocks have been rented to the local traders. These and various other steps taken by the Government have helped and encouraged the tribal people to undertake business ventures. Tezu, the headquarters of the district, has now grown into a trade centre. The people from different places in the district, far and near, come to this centre for business transactions. Small marts and private shops have also sprung up in the sub-divisional and circle headquarters. Grocery, tailoring, bakery, stationery shops have also been opened at the people's initiative. In the co-operative sector there are fair prices shops at Tezu, Hayuliang, Gohaingaon, Namsai, Sitpani, Chow-

kham, Wakro and Roing. Fair price shops have also been established at Anini, Etalin, Kronli, Dambuk, Adane, Desali, Walong, Kibithoo and Chaglagam.

It is also important to note that as a result of the changes brought about through monetised economy, the tribal people are now becoming more and more acquainted with monetary transactions. They had previously no clear idea of prices of commodities when they were in monetary ratings. The absence of fixed rates of the indigenous articles created marketing difficulties. The monetisation of the internal economy of the district has now done away with these difficulties and facilitated marketing and trades.

During the pre-independence days, the local manufacturers produced articles on a small scale for domestic use. Now they have the opportunities of marketing their agricultural and other products for commercial purposes.

Co-operation is playing an important role in the field of economic activities in the district. Limited to consumer co-operatives at the initial stage, the co-operative movement has now spread out to cover various other sectors of economy, such as transport, processing and marketing of agricultural produce, agriculture and dairy farming, industries, thrift and credit etc. It has successfully secured people's participation in the Government endeavours to promote economy through development of trade and commerce. It has also given the tribal people necessary incentive to savings and investment of money to boost the economy. The accumulated money in the hands of the people can now be channelised through the co-operatives for productive purposes.

The social organisation of the tribes, which is democratic in nature and aims at economic co-operation is conducive to the growth of various co-operative societies in the district. Mutual help in primary needs, which is largely eliminated in urban life, is a commendable characteristic of the tribal people. The spirit of co-operation for the benefit of the society as a whole is traditionally ingrained in them. In keeping with the general trends of social and economic development of the tribal people, 26 co-operative societies have been established in the district by the year 1975. They cater to various needs of the people as well as Government employees. The Lohit Co-operative General Stores Ltd. at Tezu, established in January 1958, is a pioneer co-operative society in the district. The co-operative societies operating in different fields of economic activities and their achievements are shown at Appendices I and II to this chapter.

In 1974-75, the total turn-over of the 25 co-operative societies existing at that time in the district was Rs. 66,63,000 and the cumulative net profit earned by them upto that year was Rs. 7,77,204. The total number of members, 3,757 in 1975, and the business of the societies are growing.

The different types of co-operative societies functioning in the district in 1977 are as follows:

Type of Society	Number
(1) Consumer Co-operative	9
(2) Transport Co-operative	24
(3) Farming Co-operative	2
(4) Agricultural Marketing and Processing Co-operative ...	3
(5) Industrial Co-operative	2
(6) Thrift and Credit Co-operative	2
(7) Multipurpose Co-operative	3
(8) School Co-operative	2
(9) Weaver Co-operative	1
Total	26

The Government endeavours and the people's initiative for development of trade and commerce are also indicated in the census categories of 'establishment'.¹ "An 'Establishment' was defined as a place where goods were produced or manufactured not solely for domestic consumption, or where servicing and/or repairing was done as a factory, workshop or household industry, or a place where retail or wholesale business was carried on or commercial services were rendered, or an office, public or private, or a place of entertainment or where educational, religious, social or entertainment services were rendered. It was necessary that in all these places one or more persons were actually working. Thus, an establishment would cover manufacturing, trade and other establishments where people worked. . . . A 'Household Industry' was defined as an industry conducted by the head of the household himself or herself and/or mainly by the members of the household, at home or within the village in rural areas and only within the premises of the house where the household lived in the urban areas. The household industry was not to be run on the scale of a registered factory."² According to the 1971 Census, the number of establishments in the Lohit District in different sectors and their percentage are as under:

	Number	Percentage
Government or quasi-Government ...	361	55.8
Private	272	42.0
Co-operative	14	2.2
Total	647	

¹ Census of India, 1971, Arunachal Pradesh, Part III A & B—Establishments Report and Tables, pp. 3, 11, 12 and 52.

² Ibid., p. 3.

The broad types of the establishments and their numbers based on the 1971 Census figures are indicated below:

	Manufacturing, Processing or Servicing Establishments	Trade or business Establishments	Other Establishments	Total
Government or quasi-Government	8	33	320	361
Private	31	115	126	272
Cooperative	—	14	—	14
Total	39	162	446	647

The first category of establishments numbering 39 include 22 household industries in the private sector.

Weights and Measures

Old time practice: As already stated, early trade relations in the district were based on barter or exchange of commodities according to the needs of the people. The condition remained unchanged until the establishment of a regular administration in the district. With the passage of time and gradual development, the people trading in the plains of Assam adopted the systems of weights and measures as were in vogue in the neighbouring areas of Assam. Generally, the areas adjacent to Assam followed the weights and measures system of Assam. In the interior of the district, there was no standard system of weights and measures. In some parts, the barter system was in vogue until very recently, while in other parts some crude methods of weights and measures were followed.

In order to implement the metric system of weights and measures introduced throughout the country under the Standard of Weights and Measures Act, 1956, a Government organisation of weights and measures has been functioning in Arunachal Pradesh since 1964. The introduction of one uniform metric system in the district in place of the old diverse and bewildering system of weights and measures has been successful to a great extent towards simplifying the business transactions.

* An Inspector of Weights and Measures assisted by a small staff is functioning in the district.

Appendix I
CO-OPERATIVE SOCIETIES IN LOHIT DISTRICT
(As on 30-6-77)

Sl. No.	Name of the Societies	Date of Registration	Mem- bers	Paid up Share Capital		Working Capital	Annual Turnover	Profit current	Loss current	Position as per Audit Report
				Rs.	Rs.					
1	2	3	4	5	6	7	8	9	10	11
1.	Lohit Cooperative General Stores Ltd., Tezu	21.1.58	480	46,150.00	40,000.00	10,13,000.00	29,68,143.04	25,143.40	—	1975-76
2.	Chowkham Cooperative General Stores Ltd., Chowkham	16.2.59	80	17,250.00	8,000.00	26,714.00	3,41,228.67	9,357.51	—	-do-
3.	Namsai Cooperative General Stores Ltd., Namsai	26.6.59	159	4,360.00	15,000.00	1,02,049.04	10,97,564.28	35,217.91	—	-do-
4.	Talukong Cooperative General Stores Ltd., Hayuliang	18.1.54	237	3,240.00	10,000.00	28,031.73	7,78,993.99	10,101.19	—	-do-
5.	Walong Cooperative General Stores Ltd., Walong	25.6.73	85	3,330.00	—	39,088.34	68,422.77	5,100.85	—	1976-77
6.	Tibetan Multipurpose Cooperative, Tindolong	28.8.70	719	7,190.00	—	5,190.00	31,536.62	—	2,959.05	1975-76
7.	Gramudyog Cooperative Stores Ltd., Sigan	5.3.64	54	3,930.00	25,500.00	—	1,99,708.67	—	14,239.19	-do-
8.	Khampti Timber Cooperative Stores Ltd., Mohong	10.7.65	54	11,825.00	7,520.00	11,561.77	—	—	577.25	-do-
9.	Manabhum Marketing & Processing Cooperative Ltd., Chowkham	12.12.65	15	13,910.00	15,000.00	1,38,880.77	1,79,599.39	—	5,587.99	-do-
10.	Kebasang Piniya Cooperative Saw Mill Ltd., Tezu	27.7.66	233	16,060.00	50,000.00	66,600.00	2,66,018.26	18,453.76	—	-do-
11.	Lohit Transport Cooperative, Tezu	23.11.64	537	14,490.00	60,000.00	3,44,015.00	3,74,141.55	44,352.75	—	-do-

1	2	3	4	5	6	7	8	9	10	11
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
12.	School Kebang Koret, Tezu	1.10.59	264	267.75	—	2,808.92	101.58	34.53	—	1975-76
13.	Government Employee Cooperative Bank Ltd., Hayuliang	19.1.64	42	470.00	336.50	3,143.58	127.30	184.47	—	-do-
14.	Lohit Thrift & Credit Cooperative Ltd., Tezu	26.3.68	92	1,040.00	—	5,669.91	442.00	325.43	—	1976-77
15.	Tezu Nepali Cooperative Dairy Farming, Tezu	1.10.59	30	980.00	—	—	—	—	24.93	1975-76
16.	Sunpura Multipurpose Cooperative Ltd., Sunpura	1.3.75	47	2,780.00	20,000.00	25,800.00	25,213.89	—	—	-do-
17.	Lathao Cooperative Farming Society Ltd., Namsai	1.8.66	11	6,500.00	6,000.00	22,423.00	9,000.00	1,057.43	—	-do-
18.	Gramudyog Weaver's Cooperative, Mahadevpur	19.3.65	77	7,200.00	27,000.00	—	—	—	1,544.41	-do-
19.	Kamlang Valley Cooperative Ltd., Wakro	29.7.73	54	2,080.00	10,000.00	22,080.00	52,434.37	2,394.42	—	-do-
20.	Kebang Dukan Cooperative, Roing	21.1.58	74	4,110.00	11,000.00	26,290.60	7,12,204.93	6,658.79	—	-do-
21.	Kebang Dukan Cooperative, Dambuk	14.2.60	58	4,450.00	—	1,761.00	26,370.06	713.00	—	-do-
22.	Kronli Cooperative Ltd., Kronli	2.7.60	90	2,230.00	—	18,300.00	25,459.93	2,940.25	—	1970-71
23.	Anini Cooperative General Stores Ltd., Anini	9.12.60	254	3,920.00	5,000.00	39,600.00	2,20,422.09	10,439.99	—	1976-77
24.	Idu-Padam Marketing & Processing Cooperative, Roing	23.2.66	88	3,125.00	14,000.00	—	95,663.17	—	59,068.06	1975-76
25.	Midi Padam Gari Koret Transport Cooperative Ltd., Roing	26.11.58	92	8,890.00	1,000.00	3,42,759.93	2,97,207.10	68,494.92	—	-do-
26.	School Kebang Koret Ltd., Roing	24.4.62	83	220.00	1,000.00	1,918.08	1,592.11	114.81	—	-do-

SOURCE : The Co-operative Department, Government of Arunachal Pradesh.

Appendix II
CATEGORY-WISE CO-OPERATIVE SOCIETIES AND THEIR POSITIONS DURING THE YEAR 1973-74
(In thousand of rupees)

Sl. No.	Type of Society	Number of Society	Number of members	Investment					Total Investment (Columns 5 to 9)	Turn-over	Profit - Loss
				Share capital from individuals	Share capital from Govt.	Loan from Govt.	Subsidy from Govt.	Grant in aid from Govt.			
1	2	3	4	5	6	7	8	9	10	11	12
1.	Transport Society	2	590	21.50	65.00	145.76	70.00	5.00	307.26	341.30	+ 123.48
2.	Consumers Stores	10	1321	38.17	90.00	175.30	116.00	35.00	454.47	2,677.69	+ 109.92
3	Marketing and Processing	3	148	21.18	54.50	111.60	166.00	—	353.28	439.30	+ 47.50
4.	Agriculture Farming Society	1	11	6.50	6.00	24.00	Nil	Nil	36.50	not audited not audited	
5.	Weaving Society	1	77	7.20	27.00	6.00	10.00	NA	50.20	NA	NA
6	Saw Mills Society	2	292	30.88	57.61	75.00	Nil	Nil	163.49	42.73	- 5.17
7.	Dairy Farming Society	1	30	0.98	Nil	2.50	Nil	5.00	8.48	NA	- 0.30
8.	Credit Society	2	88	1.00	0.33	3.99	Nil	Nil	5.32	2.57	+ 0.68
9.	Multipurpose Society	1	719	7.19	Nil	Nil	Nil	Nil	7.19	29.70	- 18.60
Total		23	3276	134.60	300.44	544.15	362.00	45.00	1,386.19	3,533.29	+ 257.51

NA = not available.

SOURCE : Office of the Assistant Registrar of Co-operative Societies, Lohit District, Tezu.

CHAPTER VII

COMMUNICATIONS

Old Time Trade Routes

An old route connecting Assam with Tibet is believed to have existed along the Lohit river in early times. There is recorded mention of two main routes into Tibet from the Mishmi Hills. One familiar trade route frequented by the Mishmi traders as well as the Tibetans runs through the Derai (Delai) Valley and connects Galai village in Zayul in Tibet near the border between India and Tibet. In the recent past the Idu Mishmis used this path for going to Galai village through the Tiding Valley along the courses of Katze and Phuphu. Another route from the Dau (Dou) Vaelly to the upper Lohit Valley following the river Tho Chu right from its origin runs upto the neighbourhood of Kibithoo near the international border. This route leads to Lamai village. E. A. Rowlatt in his 'Report of an Expedition into the Mishmee Hills to the north-east of Sudyah' relating to the year 1844 wrote, "By the route of the Dillee river the road leads out at the village of Glee, and by the Doo at that of Lamai in whose vicinity are also many other villages of the Lama people. . . . The view from this village (Tuppang) is very grand, as the distance from the snowy range, which was immediately opposite, was only two days' journey to the summit, and from this point (Tuppang), I was told by the Mishmees that they were able to reach the village of Lamai in the Lama country in three days."

J. Butler writing in 1847 about the old routes of the Mishmi Hills observed, "An immense, desolate, almost impassable tract, intervenes, so as to render ingress or egress from Assam to Thibet impracticable, excepting at certain seasons of the year. Traversing such a country, when the route follows the course of rivers, must naturally be difficult in the extreme. The hills are invariably characterized by excessive steepness, and as the greater portion of the route winds round them at some height above their bases, marching is excessively fatiguing, difficult, and dangerous. In many places a false step would be attended with fatal consequences: precipices must be crossed at a height of a hundred feet above the foaming bed of a river, the only support of the traveller being derived from the roots and stumps of trees and shrubs, and the angular character of the face of the rock. The paths are of the very worst description; always excessively narrow and overgrown by jungle in all directions. In

¹ Verrier Elwin, India's North-East Frontier in the Nineteenth Century, (London, 1962), pp. 322-23.

very steep places the descent is often assisted by hanging canes, which afford good support, but no attempt is ever made to clear the paths of any obstruction: in fact, the natives seem to think the more difficult they are, the greater is their security against foreign invasions.

"Notwithstanding these impediments to a free intercourse, some little trade, it is supposed, is carried on between the Mishmees and Lamas; the Mishmees exchanging their *bih* (poison), *gatheuan* (an odoriferous root), *manjeet* (madder), and *teethah* (a bitter root, greatly esteemed for its medicinal qualities) for Lama cattle, brass pipes, gongs, and copper vessels; and if a friendly feeling of confidence could be established between the people of the plains of Assam and the Lamas, it is impossible to calculate to what extent the commerce between the two nations might attain."¹

It may be noted that it is not only the Mishmis who ventured to carry on trade with Tibet by hazardous routes, but the Tibetans also were as adventurous in coming down into the Mishmi country in quest of *teeta*, musks etc. for bartering with their goods. This fact is supported by E. A. Rowlett's report stating that "On arriving at the village of Tupang, I and my party put up at the house of the Gam, and as the Lama people were staying at a house not far distant, during the afternoon I had an interview with them. It appeared they had come across the snowy range for the sake of trading with the Mishmees for *teeta*; but from the snow having fallen unexpectedly, had not been able to return to their own country."²

Reports on the routes in the district used during the British period are given at Appendix I to this chapter.

A number of trade routes from the present Lohit District to Burma also existed. A route leading from Kibithoo ran along the river Dichu in the upper Lohit Valley to the Irrawady basin in North Burma. Another route along Ghalum led to the Putao District of North Burma. A path along the Lati river led to Burma through the Lohit Valley. This was used by the Khamptis. There was yet another route from the Kamlang Valley and Khampti area to Changkhari Dakhru, wherefrom the route followed the courses of Lam and Twang rivers. Formerly, the traders from the Lohit and Dibang Valleys could travel through the present Tirap District by the Chaukang route to reach some market places on their way to Burma. But this route was not safe as 'the Singphos were also always ready to levy blackmail on traders and others who passed through their villages or to rob them. This was the greatest complaint in connection with the Chaukang route.'

¹ Verrier Elwin, *India's North-East Frontier in the Nineteenth Century*, (London, 1962), pp. 328-29.

² Ibid, p. 322.

Towards the south-west there are a number of passages descending from the Mishmi Hills to the open plains of Assam. Although it is difficult to make a journey to Assam during the rains, for the streams and rivers become turbulent and impassable, it is easy for the hill people to come down to the plains in the winter. From early times the Mishmis, Khamptis and the Singphos have trade relations with Assam. The markets at Sadiya and Saikhowa were visited regularly during the winter by the tribesmen inhabiting the Mishmi Hills. Some of them took a month or more to reach the markets in the plains traversing dense forests and rugged hills. The Khamptis have been trading with Assam ever since their early settlement in India. The old time trade routes descending from the hills into the plains of Assam passed through dense forests, passes and rivers. The Khamptis crossed the rivers by boats. They formed caravans and journeyed in the direction of Assam markets following one of these routes.

Development of Road Communications

Porter tracks and mule paths were the main road communications that existed in the district during the pre-independence days and in the early fifties. Distances were traversed on foot. Airdropping was the only means of food supplies to the Government servants in the deep interior areas. Journeys and supplies of essential articles depended also on the availability of porters and animal transport. The only road, which was motorable from Sadiya to Denning, was the Lohit Valley Road constructed in 1912 at a heavy cost. The great earthquake of 1950 obliterated a portion of it. The other roads along the foothills were (1) the Sadiya-Nizamghat Road, (2) the Brahmakund Road, and (3) the Dihang-Patrol Path.

Construction of roads and bridges in the Lohit District is a challenge to the engineering skill and resources. The wild tangle of precipitous hills, particularly in the Dibang Valley, sharp ridges and ravines, dense forests and turbulent or shifting rivers are great obstacles on the way of road communications in this area. It was described as 'an immense, desolate, almost impassable tract'. During the monsoon, it becomes extremely difficult to maintain roads and bridges due to frequent landslides, floods in the lower regions and turbulence of the streams and swelling rivers. In some places, roads are submerged under water or blocked by landslides, and bridges are washed away causing serious disruption of communications. Mention may be made of a tragic incident of landslide at Arripani in 1958, which buried alive an Assistant Engineer and about forty-two workers of the Border Road Organisation. Tezu the district headquarters, remains cut off in the rainy season. During the rains it becomes difficult to cross the Sadiya-Tezu road. But the earlier dependence on airdropping, animal transport and porters falls far

short of the growing needs for development through road communications. Development of the means of communications were given increasingly greater emphasis in the Five-Year Plans. Indeed, the highest priority has been laid on the construction of roads under the Plans. As a result of the efforts made since 1947, a large interior area of the district has been opened up by a network of roads. There is, however, no railway in the district.

The length of roads (surfaced and unsurfaced) constructed in the district upto the month of March 1975 is shown below:

(1) Roads (CPWD)	... 326 km.
(2) Forest Roads	... 156 km.
	<u>482 km.</u>

The type-wise length of roads maintained by the Central Public Works Department is as under:

(in km.)			
<i>Type of road</i>			
<i>Black top</i>	<i>Water-bound macadam</i>	<i>Unsurfaced</i>	<i>Total</i>
43.40	40.60	241.80	325.80

The Sadiya-Tezu Road has been improved and extended to Hayuliang. The district headquarters and all the sub-divisional headquarters except Anini are now connected by good roads.

Moreover, under the Community Development Blocks there is a total length of 788 km of unsurfaced roads in the district upto the month of March 1975, of which 80 km is motorable.

The following is a table in respect of transport under the co-operative societies in the district:

OPERATIONAL STATISTICS PERTAINING TO TRANSPORT CO-OPERATIVE SYSTEM—LOHIT DISTRICT : YEAR 1974-75

Sl. No.	Sub-Division	No. of Transport Co-operative Societies working	No. of route under operation	Average daily distance covered (in km)	No. of operating buses	Average No. of passengers travelled per day	Average earning per passenger	Average fuel consumption per day (in litre)
1	2	3	4	5	6	7	8	9
1.	Tezu	1	4	370	4	376	Rs. 2.38	110
2.	Roing	1	1	80	3	180	Rs. 3.00	91
	Total	2	5	450	7	556	Rs. 5.38	201

SOURCE : (1) Office of the Assistant Registrar of Co-operative Societies, Lohit District, Tezu.

(2) Idu Adi Transport Co-operative Society Ltd., Roing.

Waterways and Ferries

Lohit is a mountainous tract with intervening dales and valleys through which innumerable rivers and rivulets descend on to the plains. Some of these rivers are navigable in their courses in the plains, and crossable by ferries. Ferries are available over the Lohit river from Saikhowa to Sadiya on the way to Tezu, at Digaru Ghat and also near Parasuram Kund. The Noa-Dihing river is crossable by ferry. Ferry boats are also available for transport between Bamjur and Patku.

Air Transport

Although a number of places have been connected by motorable roads, some places in the district still depend on supplies from the air for food and other essential requirements. Journey to Anini, the remote sub-divisional headquarters in the Dibang Valley, is usually performed by air by Government servants.

Travel Facilities

Under the Inner-Line Regulation enforced in 1873, travelling in the district is restricted. Tourism has not been introduced in this area. However, the travel facilities have now increased considerably. Besides a good number of roads connecting the district and sub-divisional headquarters, except Anini, the archaeological site at Bhismaknagar and the pilgrim centre at Parasuram Kund, there are Inspection Bungalows at Tezu, Namsai, Hayuliang, Roing, Anini and Dambuk for the convenience of visitors. There is also a Circuit House at Tezu. Moreover, the Forest Department has two Inspection Bungalows in the district. In addition to the Government vehicles, the co-operative societies run regular bus services between Sadiya and Tezu, Sadiya and Roing and Chowkham and Doom Dooma in Assam via Namsai. During the mela at Parasuram Kund, the Government provides extensive travel facilities to the pilgrims and tourists.

Posts, Telegraphs and Telephones

Thirty-two post offices including four with telegraph facilities have been opened in the district till the month of March 1977. Tezu, the district headquarters, has a telephone exchange.

A list of post offices has been given at Appendix II to this chapter.

*Appendix I**ROUTES USED DURING THE BRITISH PERIOD**Part I*

"From Sadiya to the Lama Country.—Lieutenant Rowlatt left the mouth of the Kundil river on the 22nd November 1844 and encamped some distance beyond the mouth of the Tengapani that night: 'The Brahmaputra pretty tranquil, the banks are almost entirely composed of stones washed down by the river, and water clear and transparent'. 23rd November—Passed the village of the Kaptan Gohain at Choonpora and encamped near the mouth of the Dhollee river. 24th November—Halted. 25th November—Passed the mouths of the Karam and Digaru rivers, and encamped at the mouth of the Sidroo. On this day the river was much broken by rapids, and the boatmen had to be constantly in the water to pass the boats. 26th November—The hills approached close to the Brahmaputra, and the river became a succession of rapids, and the current so great that the mouth of the Dura river was reached with much difficulty, the boats were left here, and Lieutenant Rowlatt then ascended to a Khampti village, a short distance inland. By the 3rd December arrangements had been made for the further march, and Lieutenant Rowlatt again descended to where he left his boats and continued his march up the Brahmaputra. The marching was difficult, and the party only reached the mouth of the Damai river towards evening. They ascended that river and encamped by the path that leads up to the first range of mountains. 4th December—The march continued up and down the small hills that line the banks of the Damai, and after an hour or two the foot of the large range that bounds the view from the plains was reached. The ascent was abrupt, but by 4 p.m. the summit was reached, and a descent of two hours brought them to the banks of a small mountain stream, where they encamped for the night. 5th December—The descent was continued on the side of the mountain which they had ascended yesterday, and the scattered cultivation of Saloomgoom was reached about 12, and some Mishmi villagers welcomed the party to their village. 6th December—After passing cultivation the road led down by a steep descent to the banks of the Tiding river, on which a large number of Mishmis were located. The party crossed the river by the fishing weirs. On leaving the river the road leads over the spurs of the mountains, which continue down to the banks of the Brahmaputra. The river was reached and the road continued along its banks over huge boulders. They stayed for the night at a Mishmi house. 7th December—Halted. 8th December—The road lay through low jungle with signs of former extensive cultivation; passed the Looleah rivulet. The road skirted the banks of the Brahmaputra and occasionally descended to it, and in all but one place was tolerably good. During the

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day an elevated lake of small extent was passed, and by evening the house of Rumling, head chief of the Digaru clan of Mishmis, was reached. Near this a pass leads to the south of the Brahmaputra, where the Meju Mishmi country commences, with whom the Digaru clan were then at war. 9th and 10th December—Halted. 11th December—Continued the march, passing the Dilli, a stream of considerable size, having its rise in the snowy range bordering the Lama country, and along its banks a road leads to the Lamas. Reached the mouth of the Du river (smaller river than the Dilli). There is a road leading to the Lama country along its banks, which is much used for trade purposes. Both these roads to the Lama country lead to places on the Brahmaputra river, called Glee and Lamai, inhabited by Lamas. 12th December—Proceeded up the bed of the Du river over large boulders of granite and serpentine; the march was exceedingly difficult. 13th December—Ascended the Dagoon range of mountains from the bed of the Du. The ascent was very steep, and after a difficult march the party arrived at the village of Tup-pang, where Lieutenant Rowlatt met traders from the Lama country. From Tup-pang to Lamai in the Lama country was a three day's journey. The snowy range was only two days' journey off to the summit, but no further habitations were to be met with on this side; Lieutenant Rowlatt therefore returned to Saikwah. This is the least difficult route to the Lama valley".¹

Part II

"In February 1879, Major G. W. Beresford, with a small escort of the 43rd Assam Light Infantry, with elephants, was deputed to select and fix upon sites for stockades at the three points,—Bishenagar and Nizamghat, at the foot of the Mishmi Hills, and at the head of the Lallichapri on the Dihong, in the Abor country, when it was under contemplation to push forward the present frontier line and outposts and to delineate, if possible, the best line of route to those places from Sadiya. The route this party followed was entirely by land and as follows:

"First march about 12 miles from Sadiya, crossing the Kundil in a north-east direction up to the Diphu outpost by patrol-path, to the village of Sensap (Khamti) on the Diphu beyond the guard. Second march 10 miles. The path follows the bed of the Diphu for 2 miles, after which it turns north through forest and jungle, when the Diphu is again reached and followed up to a spot known as Jerindamukh, on the Diphu; 8 miles, lying up the stony bed of the most eastern channel of the Diphu, are very hard marching, especially for elephants, and no water is obtainable. The ruins of Bishenagar are situated about 2 miles east of where the Diphu issues from the hills, and where camp was formed. Total distance from Sadiya about 32 miles, three easy or two hard marches.

¹ John F. Michell, *The North-East Frontier of India*, (Delhi, 1973) pp. 104-05.

"From here to Nizamghat is a journey of about 30 miles west, which it took the party five days to accomplish, owing to the extremely difficult nature of the country traversed. The route lies across the lower ranges of hills and crosses the numerous spurs of the higher ones, and the heads of the Diphu, Kundil, and Dikrang rivers. The route was very difficult for men on foot, and next to impracticable for laden elephants. Every inch of the way almost had to be cut through the dense bamboo and cane jungles and forests that clothe these lower ranges of hills, hence the shortness of the stages and length of time occupied, though the actual distance could not be more than that from Sadiya to Bishenagar, and if a good path were constructed lower down at the foot of the hills, it ought not to take more than three easy or two long marches. Water was obtainable at short intervals throughout the journey.

"From Nizamghat to Sadiya occupied three marches, or about 30 miles, almost entirely *via* the Mishmi route, the dry channel of the Dikrang. The last 6 miles is by patrol-path. Except the latter all is as difficult marching as that up the Diphu. Water is obtainable in pools that have not dried up in the channel of the Dikrang. If the old Assamese road said to exist were discovered and utilised, or a good path were cut along the banks of the river, instead of in its bed, the journey ought not to occupy more than two marches.

"From Sadiya to Nizamghat—Last year (1881) a path was cut by the left bank of the Dibong, and in the cold weather the journey can be made in two days. The distance is about 35 miles. There are no difficulties to be encountered on the road, and water is plentiful.

"Major Beresford thus describes the old route which it is possible we may again have to use:—

"The route from Sadiya to Nizamghat, the trade route of the Chalikatta Mishmis, is as follows: To the Dikrang outpost 6 miles by good patrol-path (the remains of an old Assamese road), crossing the Gumura 3 miles north of Sadiya by a temporary bridge, the river being also fordable; from the guard 2 miles east, where the Gumura is again crossed at a Khamti (Duania) village, Ingsanlah; then north through dense forest till a stream, the Jaipani, is reached; then down the bed of this stream to its junction with the Deopani or Dikrang; from here due north up the dry channel of the Dikrang till a path is struck to the east (leading up to Lako's village, the first and the best known of the Mishmis) at the foot of the hills; from here it is about 3 miles north-west to Nizamghat.

"The chief difficulty in travelling such routes as the above, mainly by the dried-up beds of rivers, is owing to the multiplicity of their channels and other streams, great and small, joining or crossing them in all directions. The country on the banks being a huge mass, so to speak, of forest and jungle, shuts out everything around and renders it impossible for bearings to be taken or to discover your position. The path for the most part being over stones, boulders, and sand leaves no trace,

and without good guides it would be almost impossible to make your way the shortest distance in any required direction without being lost. Elephants as carriage for such routes are a cause of great delay and trouble. The hard skin on the soles of their feet gets worn away by the stones, causing raws and sore feet; ascending and descending the numerous hills and villages with nearly perpendicular slopes causes their loads to slip about and creates sore backs.

"The best carriage for travelling in such a country would be hill coolies, or men accustomed to carrying loads on their backs, leaving their hands and arms free. No regular stages or length of marches can be fixed for such journeys. They are entirely dependent on the nature of the carriage for the baggage and the speed it can travel, and also to the nature and amount of impediments to be got over, which naturally changes every year. The usual plan is to travel as far as the baggage can go, and a suitable halting-place can be found near water.

"The above party, after leaving the Diphu guard and Khamti village close by the first march, did not meet with a single human being or traces of an inhabitant until Lako's village was reached, near Nizamghat, and the same was the case from there up to the Dikrang outpost and Khamti village near, and it is said that the whole of the country comprised within the rough triangle traversed is quite uninhabited. It contains a large number of wild elephants.

"*From Sadiya to head of Lalli, about 31 miles.*—The party, under Major Beresford, 43rd A.L.I., proceeded to the Sessiri outpost by the patrol-path, 15 miles, crossed the Dihong in boats, the elephants being unloaded and swum across, and thence up the Chappri, about 13 miles, the point where the Dihong was crossed being about 2 miles west of Sessiri, and the width of the river about 1 mile. The march of the Chappri was along the right bank of the Dihong, the same as followed by the expedition of 1859; that of 1858 followed the opposite or left bank. The Miri villages of Pachim and Rukong, the former at the lower and the latter at the upper end of the Chappri, both on the banks of the Dihong, were passed. The Chappri, or so-called island, formed by the bifurcation of the Lalli and Dihong, after passing through the dense belt of jungle at its lower end, is a fine open plain covered with short grass, and studded here and there with clumps of forest. The grass is burnt annually by the Abors, and the tract is used by them as a hunting ground, as it abounds in game. A short distance from where the Lalli separates from the Dihong, and across it, is Pasighat, a path leading from the banks of the Dihong to the nearest Pasi-Mayong Abor village, Rumkangaon, about 10 miles west of Pasighat, on a hill called Bapi, 500 or 600 feet elevation, and this ghat or path is that used by the Pasi-Mayong Abors to the Dihong. Opposite Pasighat is Sikughat, on the left bank, which is the route of the Abors to the Dihong. The party did the journey in two marches going up, camping at Rukong, and in

one returning to Sessiri. By boat it would take two to three days from Sessiri up stream and five or six hours only returning. The current of the Dihong is very rapid, and the rapids are very numerous higher up stream.

"*From Sadiya to Dilling and the Brahmaputra.*—This journey is best made by boat up the Karam river to Chala, and the first march from there is to the bed of the Lait rivulet over a most difficult and precipitous road. The second march passes the Brahmakund and the road runs over an almost perpendicular ridge of hills; although this march is only a few miles, it took Wilcox the whole day and he had to camp on the hill side. The third march crossed a similar ridge and the camp was formed on the top of it. From this ridge Wilcox said there was a narrow glimpse of Assam; to the west and to the north the Brahmaputra was seen deep in its narrow chasm and white with foam, and the majestic peak Thathutheya closed the view. On the east the great mountain Thanatheya was only separated from them by the deep ravine of the Disu rivulet. The fourth march took them down this deep ravine, and the base Thanatheya being traversed by a very rugged path the Brahmaputra was reached from a northerly direction, the river foaming along at the foot of a precipice and rocks of immense size in its bed and about 50 yards wide. This route was travelled by Wilcox in the middle of October.

"*From Sadiya to Brahmakund.*—Griffith left Sadiya in October the 15th and reached Karammookh about noon on the 17th, and reached Palampanghat on the 18th, and a march of three hours along the bed of the karam brought him to the Mishmi village of Jingsha. He halted there the 19th and 20th, and on 21st marched up the Laee river and halted in the dry bed of the river, 22nd October. A couple of hours' marching in a north-east direction brought Griffith to the Brahmakund.

"*From Nizamghat to the Chalikatta villages up the Sessiri gorge.*—Cross the Dibong and skirt the hills to opposite the Abor village of Siluk, then follow the banks of the Sessiri up the gorge, the nearest villages are about 15 miles distant from Nizamghat."¹

¹ John F. Michell, *The North-East Frontier of India* (Delhi, 1973), pp. 115-118.

Appendix II

POST OFFICES IN LOHIT DISTRICT

(Position on March 31, 1977)

Type of Post Office

Sub-Post Office

Location

1. Tezu
2. Namsai
3. Anini
4. Roing
5. Nampong
6. Hayuliang

Branch Post Office

1. Gohaingaon
2. Tindolong
3. Kherem
4. Lathao
5. Mahadevpur
6. Nanam
7. Nonkhong
8. Payeng
9. Wakro
10. Manmao
11. Kamlangnagar
12. Sunpura
13. Lohitpur
14. Chowkham
15. Kronli
16. Dambuk
17. Santipur
18. Bolung
19. Desali
20. Anelih
21. Koronu
22. Etalin
23. Chaglagam
24. Howai
25. Walong
26. Kibithoo

Source—The Directorate of Economics and Statistics, Government of Arunachal Pradesh.

CHAPTER VIII

MISCELLANEOUS OCCUPATIONS AND ECONOMIC TRENDS

Livelihood Pattern

The tribal societies in the district are at present undergoing a process of transformation from their erstwhile seclusion and backward economy towards many-sided developments in social, cultural, political and economic spheres. The transformation is rapid, but it is not a sudden break away from the past. The people are moving forward in harmony with the fast-changing socio-economic conditions. The old geographical barriers have disappeared, and the needs of life, ever-growing under the impact of developments, have impelled the people to cross the limits of their hills. The outlook and the sphere of occupational activities of the people are far more wider today than ever before.

One significant aspect of these changes is the emergence of a new younger generation—educated and job-seeking. Although the percentage of highly educated persons in the district is still very low, the literacy percentage being 17.39 in the total population and 7.51 among the Scheduled Tribes according to the 1971 Census, the number of tribal youths going for Government service and various other professions is in the increase. In execution of the accepted policy of the Government directed towards 'building up a team of their own people to do the work of administration and development' employments are now being provided to the trained and educated tribal youths in all cadres of the administrative and technical services. They are now to be found working as interpreters, village level workers, road labourers, medical assistants, nurse, agricultural demonstrators, veterinary field assistants, foresters or forest guards, office assistants and in various other higher categories of Government service. In the private and co-operative sectors there are a number of enterprising tribal businessmen and industrial entrepreneurs besides shopkeepers, retail traders, contractors etc. The tribal boys and girls are also engaged in training and production in various crafts, such as weaving, carpentry, blacksmithy, silversmithy, carpet-making, wood-carving etc. in the craft centres, and as trainees in motor mechanics, electricity etc. in the Industrial Training Institute at Roing. Learned professions like medical, engineering, legal, educational etc. are yet to assume numerical significance.

The tribal societies in the district are not, however, divided into exclusive occupational groups. Almost the whole of the population is dependent on agriculture, shifting or sedentary. A low level of technical development and economic specialisation is the general characteristic of

the local tribal societies organised on the basis of small social groupings, such as clan, tribe or village. These societies do not normally admit of any rigid occupational or craft exclusiveness. The occupations of the tribal people of the district, who are attached to land and village, are not diverse, and since agriculture is the mainstay, the other occupations are supplementary to agriculture. Some of these supplementary occupations are weaving, cane and bamboo work, smithery, wood-carving, sericulture, retail trade etc. It may be noted that there are no such professional groups as barber, washerman, cobbler, tailor, etc.

Almost the entire population of the district numbering 62,865 persons and living in 12,260 households is rural. Tezu with a population of 4,182 persons is the only town in the district according to the 1971 Census. Most of the people make their living by shifting or jhum cultivation, and they are still at a very low level of economic development. Some groups of people living in the extreme northern and eastern parts of the district depend on food gathering for their livelihood. During the lean months when food scarcity becomes acute, they set out to gather edible roots, wild fruits etc. from jungles. There are a number of small-scale industrial units, mostly rice and saw mills. The Assam Saw Mills and Timber Company Ltd. at Namsai runs a plywood factory, and it is the only medium-scale industry in the district.

Employment in Different Occupations

According to the 1971 Census, the worker categories and their numbers in the Lohit District are as below:

	<i>Persons</i>	<i>Males</i>	<i>Females</i>
<i>Total Population</i>	62,865	35,461	27,404
<i>Workers</i>	33,945	22,724	11,221
<i>Non-workers</i>	28,920	12,737	16,183
<i>Category of Workers</i>			
1. Cultivators	22,350	11,864	10,486
2. Agricultural Labourers	1,331	932	399
3. Livestock, Forestry, Fishing, Hunting, Plantations and Orchards and allied activities	2	2	—
4. Household Industry	388	379	9
5. Other than Household Industry	1	1	—
6. Constructions	23	23	—

	<i>Persons</i>	<i>Males</i>	<i>Females</i>
7. Trade and Commerce	198	198	—
8. Transport, Storage and Communications	3	3	—
9. Other Services	9,649	9,322	327
Total	33,945	22,724	11,221

<i>Total Scheduled Tribe Population</i>	36,611	18,140	18,471
<i>Workers</i>	19,628	10,437	9,191
<i>Non-workers</i>	16,983	7,703	9,280

Category of Workers among Scheduled Tribes

1. Cultivators	18,706	9,612	9,094
2. Agricultural Labourer	191	140	51
3. Household Industry	23	16	7
4. Other Services	708	669	39
Total	19,628	10,437	9,191

In the 1971 Census, persons have been categorised as 'workers' and 'non-workers' according to their main activity or occupation. A person's main activity was ascertained with reference to certain types of work, such as cultivation, household industry etc. A person who is mainly engaged in any economically productive work by his physical or mental activity has been termed as 'worker', and a person who is not so engaged has been categorised as 'non-worker'. The 1971 Census defines that "A man or woman who was engaged in household duties, such as cooking for own household or performing one's own household duties or a boy or a girl who was primarily a student attending institution, even if such a person helped in the family economic activity but not as a full-time worker, was not treated as a worker. On the other hand, if a person was primarily engaged in some economic activity but also attended to some household chores or attended a night school etc. he or she was treated basically as a worker."¹

Occupations

Agriculture is evidently the main occupation of the people. The eco-

¹ Census of India 1971, Arunachal Pradesh, Part II-A, p. 66.

nomic classification of the population as enumerated in the 1971 Census shows that about 66% of the 'workers' are cultivators in the total population and about 95% among the Scheduled Tribes. Of the 22,350 cultivators (11,864 males and 10,486 females) in the district, 18,706 persons (9,612 males and 9,094 females) belong to the Scheduled Tribes. The total number of agricultural labourers is 1,331 (932 males and 399 females), and among them only 191 persons (140 males and 51 females) are from the indigenous people. Next to cultivators the category under 'other services' constitutes the highest percentage of workers in both the total population and among the Scheduled Tribes. The other categories of workers except under 'household industry' and 'trade and commerce' in respect of the total population are numerically insignificant.

An important fact about the local tribal people is that women work side by side with men in the fields and in cottage industries. Indeed, it is the women who do most of the cultivation in some areas and the whole of weaving. It should also be noted that even children over six or seven years do help their parents at work, and they are considered as working hands in the family.

The crafts and trades of the people have been described in detail in the foregoing chapters IV, V & VI. It may, however, be noted in this context that weaving and work in cane and bamboo are the most important handicrafts of the people, and in these two economically productive occupations are engaged many tribesmen and women of Lohit. The genius of the Mishmis has found the most illuminating expression in weaving. Their woven clothes are excellent in artistic conception and design, sense of proportion, colour and beauty, and in delicate geometric patterns. They are also skilled at making various articles of cane and bamboo. The Idus, in particular, are expert makers of cane and bamboo mats, baskets and utensils. They also forge at their smithys many kinds of tools and implements required for agriculture and carpentry, *dao* or machete, pots etc.

The Khamptis make different kinds of wood-carving which are of remarkable artistic value. They are not only of domestic use, but also used as furniture and for decoration.

Domestication of animals is an important economic activity of the people. The Mishmis like many other tribes in Arunachal Pradesh value the mithuns immensely. It is domesticated not only for its meat, hide or horn but also for paying the bride-price. The number of mithuns in possession determines one's wealth, because it is a medium of barter or exchange and its commercial importance is high. The Khamptis, Singphos and the Tibetans utilise their cattle for ploughing, and this method of cultivation is being gradually followed by the Mishmis for sedentary cultivation in their areas. Besides mithuns, domesticated pigs are another asset of the people. The Khamptis are expert elephant tamers, and they traded in elephants.

Other minor and seasonal occupations are the following:

Hunting and Fishing: Hunting and fishing expeditions are parts of the tribal life in this district as in other areas of Arunachal Pradesh. The time and place of such expeditions are usually fixed by the village councils, since they are the concern of the tribal community as a whole and not merely of individuals. The tribal community hunting is a remnant of the past. It recalls the old days of a tribe when their ancestors came to their present abode through wild mountainous tracts and subdued the hostile circumstances in order to settle. Hunting is, therefore, supported by tradition and social sanction.

But hunting is not merely customary, it has great utilitarian value as well. It satisfies the needs of the people for meat, skin, horn, feather, etc. The expedition is generally undertaken in the winter when bands of people are found roaming about in the jungles in search of their beasts.

Fishing in the stream and rivers is not only a pastime with the people, but it also makes up their dietary deficiencies. Pisciculture is now sponsored and encouraged by the Government, and there are two fish farms and 182 village fish ponds in the district.

Besides these occupations, a section of the people are employed as industrial workers, labourers and porters.

ECONOMIC TRENDS

For many centuries, the tribal people of Arunachal Pradesh lived in the nooks and corners of their hills in utter isolation, which was imposed and conditioned by factors—geographic as well as political and economic. The mountainous terrain of this territory was not easy of access, and very little ventures were made earlier to cross the geographical barriers. Cultural and commercial intercourses between the hills and the plains were limited to some specified places and market-centres sprang up in the lower recesses along the foothills. The isolative policy of the foreign rulers, who remained content with exercising a loose political control over the area, had nothing to do with development and welfare. In fact, the territory was left extremely neglected, and the alienation of its people continued throughout the British rule in India.

No society, much less a backward economy, can promote itself in complete isolation and cultural detachments. And, therefore, as elsewhere in Arunachal Pradesh so also in the district of Lohit, the life of the people continued in its old traditional form veering round a stagnant economy based predominantly on a 'slash and burn' method of agriculture locally known as *jhum*.

Jhum is a primitive method of shifting cultivation on the slopes of hills with simple tools like *dao*, hoe and pointed wooden or bamboo stick. In the district of Lohit about 95% of the workers among the tribes are cultivators and an overwhelming majority of them are dependent on shifting cultivation. The productivity of a plot of land under *jhum*, which is used

for a brief spell of two or three years at a time, is low. The fertility of jhum land tends to diminish rapidly. This method of agriculture coupled with primitive technology kept production merely at the subsistence level or below it during the lean months.

The economic activities of the people before 1947 were limited to production through elementary methods. Agriculture was of subsistence nature. There was no organised system of trade and commerce, nor any regular market. The internal and external trade were localised, and they were based on barter. Price of a commodity under the barter system was determined by its immediate necessity instead of value. Commodities of higher value were sometimes exchanged for lower ones. The barter was, therefore, detrimental to the growth of economy. Interplay of the factors of demand and supply exerted very little influence on the tribal economy. No wonder, the living standard of the people under these conditions would be miserably low.

The attainment of independence in 1947 is indeed a great turning point of the history of Arunachal Pradesh. The Article 46 of the Constitution of India directs that "The State shall promote with special care the educational and economic interests of the weaker section of the people and, in particular, of the scheduled castes and tribes and shall protect them from social injustice and all forms of exploitation." This directive principle embodied in the Constitution marked the beginning of a wave of changes in Arunachal Pradesh for an all round economic development of the area, and social and cultural welfare of the people inhabiting it. Initially cautions were, however, taken to ensure that development programmes were carried out 'in carefully measured phases' so as not to upset the tribal ways of life and the tribal institutions. Moreover, in this mountainous frontier, it was hardly possible to implement the development projects as speedily as in the plains due to geographical and other factors. The sparseness of population, the difficult terrain which limits and hinders mobility and lack of communications are the major impediments.

Planning

The development of Arunachal Pradesh, started from the scratch, has to be planned from the beginning and carried through phased programmes keeping in view the peculiar problems, immediate needs and available resources. The measures taken in the first stage aimed at improving the existing methods of production for attainment of a higher standard of living, and also bringing about changes in the backward economy through monetisation and mobility of supply and demand so as to organise production and consumption on a broader basis by breaking their localisation.

The development programme in the second stage commencing from before 1960 envisaged the following:

(1) A shift from indigenous methods where they had reached their maximum efficiency to new and more productive system through a transition from primitive agricultural practices to wet-rice and terrace-rice cultivations, from loin loom to Assam loom etc.

(2) The extension of external market facilities to local producers and consumers for creation of new demands and openings for local products.

(3) Building up of new industries larger than indigenous cottage crafts.

(4) Training of the people in the operation of the modern commercial system through direct involvement.

(5) Introduction of a monetary system and establishment of commercial enterprise.

The pace of development gathered a tremendous momentum in the following years. Improvement of economy through the development of agriculture and communications received increasingly greater emphasis in the Five-Year Plans. Highest priority was given to the construction of roads and bridges. Next to this, priorities were laid on agriculture, social services including education and medical, power and industrial developments. In an appreciation of the fact that economy of this tribal area could be promoted to a better productive system only through the development of agriculture, being the mainstay of the people, efforts were made to introduce improved and scientific methods to cultivation in place of the old indigenous methods, which were not found conducive to more productivity. Agricultural stagnation was the main constraint on economy, resulting in the low standard of living of the people.

Keeping in view the national objectives and the special features of Arunachal Pradesh's economy, the following broad objectives have been laid down for this Union Territory's Fifth Plan:

- (a) To maximise food production through intensive cultivation.
- (b) To develop the means of communications as an infra-structure. The road coverage of 5.6 km per 100 sq km achieved at the end of the Fourth Plan is the lowest in the country.
- (c) To harness and develop power resources as a necessary infra-structure.
- (d) To initiate industrialisation of the area by introduction of large, medium and small-scale industries.
- (e) To provide minimum educational and health facilities.
- (f) To ensure that the cultivators, small entrepreneurs and job seekers get a fair share in the fruits of planned development.

Achievements

The results achieved through the Plans have brought about significant changes in all spheres of life—social, cultural and economic. The change has come for a richer life, which is visible in the villages, in the economic conditions of the people. The change is gradual, but sure, leading to a transformation of the society based on primitive methods of production towards economic growth, a better living standard and progress. The Plan implementations have not only resulted in material development, but also developments in every facet of life. The age-old isolation of the tribal people has been broken, and the whole area has been brought into the fold of the economic structure of the country by linking it up with the mainstream of economic activities in India. The barter is now a thing of the past, and has given way to money economy. Money, seldom used earlier in economic transactions, is now the accepted medium of exchange. The monetisation of economy has revolutionised the internal economic system by facilitating trade and commerce, investment and production.

The achievements made in various sectors of development, narrated in detail under relevant chapter-heads, are indicative of the trends of economic developments. Improvement of agriculture to augment food production is under way. In various other sectors, the district has a length of about 1,270 km of roads, 21 small-scale and one medium-scale industries apart from cottage industries and commercial and business establishments, 112 educational institutions and 19 hospitals and dispensaries. Substantial revenue is derived from the district through scientific exploitation and development of forests. Electrification is in progress, eleven places have been electrified upto the month of March 1976. Harnessing of water-power potential in this region has also been taken up. These will not only electrify rural areas, but will also ensure adequate supply of cheap power to industrial units. Thirtytwo posts and some telegraph offices are functioning at different places, and the State Bank of India has opened a branch at the district headquarters. Regular markets have grown all along the plains belt and in other places of the district.

In this context, the Industrial Training Institute, Roing may merit particular mention, for the facilities it provides to enterprising youths for training in different vocational trades. It is envisaged that the trainees coming out successfully from this institution would play an important role in the industrial and economic development of the area.

Community Development

There are eight Community Development Blocks in the district, namely Tezu, Hayuliang, Walong, Wakro, Namsai, Anini, Hunli-Kronli and Dambuk-Roing. Seven blocks are at Post-Stage II and one at Stage II.

The schemes taken up under the Community Development Programme in the district and the achievements made since the inception of the blocks till the month of February 1976 are as follows:

Sl. No.	Schemes	Physical Achievements
1	2	3
1.	Improved seeds distributed	1305 quintals
2.	Seedlings distributed	60157 numbers
3.	Opening of private fruit garden/vegetable garden	16 numbers
4.	Work animals distributed	220 pairs
5.	Agricultural hand-tools and implements distributed	3231 numbers
6.	Land development for permanent cultivation :	
	(1) Wet-Rice Cultivation	747 hectares
	(2) Terrace-Rice Cultivation	182 hectares
7.	Minor Irrigation	232 hectares
8.	Improved animals distributed	165 numbers
9.	Improved poultry-birds distributed	2344 numbers
10.	Private livestock farms subsidised	12 numbers
11.	Private poultry farms subsidised	4 numbers
12.	Private blacksmithy/carpentry/weaving units subsidised	23 numbers
13.	Yarns and weaving materials distributed	200 kg
14.	Panchayat ghar/community recreation centres/youth clubs started	34 numbers
15.	Farmers Training Camp/village leaders camp organised	13 numbers
16.	Conducted Tours	13 numbers
17.	Children parks opened	15 numbers
18.	Roads and Tracks constructed	788 km
19.	Suspension Bridge	32 numbers
20.	Veterinary Dispensary opened	8 numbers
21.	Plant protection chemicals utilised on crops and plants	185 quintals

An important aspect of the economic changes which are taking place in the district is that the monetised economy has given rise to a class of tribal people who have been earning money through their association with the Government as employees, contractors, wage earners and also as private owners of land, business enterprises and small-scale industries. Admittedly, money is a necessary precondition for economic growth. Accumulation of wealth through money may pave the way for private capital leading to the advent of a commercial class.

The Inner-Line restrictions imposed by a Regulation in 1873, which is still effective, prohibiting commercial investments in Arunachal Pradesh by businessmen from outside except on a very limited scale, are intended to protect the tribal people from exploitation. The economic development of the area depends almost entirely on public investments.

The educated tribal boys and girls, as stated before, are now being inducted to various occupations including Government services. The tribal youths are also taking up technical jobs of drivers, operators, mechanics etc. As a result, new occupational groups are coming up in the tribal societies.

In view of the changing circumstances and the local people gradually adapting themselves to them, it is apparent that a economic transition towards growth and development is now taking place in the district of Lohit.

The economic and other developmental activities being carried on in the district in various sectors are also indicated in the following table based on the 1971 Census categories of establishments:

Sectors	Manufacturing, Processing or Servicing Establishments				Trade or Business Establishments			Other Establishments			Total
	Registered Factories	Un-registered Workshop	Household Industries	Wholesale	Retail	Others	Educational Institution	Public Health Institution	Others		
1	2	3	4	5	6	7	8	9	10	11	
1. Government or Quasi-Government	—	8	1	—	17	16	82	21	217	361	
2. Private	1	8	22	—	76	39	—	—	126	272	
3. Co-operative	—	—	1	—	14	—	—	—	—	14	
Total	1	16	22	—	107	55	82	21	343	647	

Source : Census of India 1971, Arunachal Pradesh, Part IIIA & B—Establishments Report and Tables, p. 52.

CHAPTER IX

GENERAL ADMINISTRATION

Under the provisions of the North-Eastern Areas (Reorganisation) Act of 1971, the erstwhile North-East Frontier Agency known as N.E.F.A. was reconstituted as an Union Territory on January 21, 1972, the date from which the Agency came to be known as Arunachal Pradesh. The Union Territory was administered by the Chief Commissioner for the period from January 21, 1972 to August 14, 1975. With the coming into force of the Government of Union Territories Act, 1963 (20 of 1963) in Arunachal Pradesh from August 15, 1975, the Administrator of Arunachal Pradesh has been designated as Lieutenant Governor appointed by the President of India under Clause (1) of Article 239 of the Constitution of India. The Constitution—37th Amendment Act, 1975 providing for a Legislative Assembly with a Council of Ministers for the Union Territory of Arunachal Pradesh has also come into effect from the Independence Day on August 15, 1975.

The Council of Ministers consists of five Ministers including the Chief Minister and four other Ministers of his Cabinet. The Ministers are in charge of the various Government Departments assigned to them, and they are required under Section 44 of the Government of Union Territories Act, 1963 (20 of 1963) to aid and advise the Administrator in the exercise of his functions.

The Arunachal Pradesh Secretariat is headed by the Chief Secretary, who, in the discharge of his duties and responsibilities, is assisted by a number of Secretaries, Deputy Secretaries and Under Secretaries, who are in charge of various secretariat departments and branches respectively.

The administration of Arunachal Pradesh is organised on the principle of what is called the 'Single Line Pattern' which is also known as 'Single Chain Administration'. According to this pattern, power descends vertically from the head of the administration to the lowest executive officers. The technical officers at each level and place are directly responsible to the respective local executive heads at that location. This pattern of administration aims at successful co-ordination of the activities of the various departments for all round development and welfare of the area.

At the Secretariat level various departments, directorates and other offices are under the direct supervision and control of the Secretaries or Deputy Secretaries as the case may be. All cases for the administrative approval and sanction are, therefore, submitted by the heads of these departments to the respective controlling officers in the Secretariat. No

double set of files corresponding to the directorates and other departments is, however, maintained in the Secretariat.

The Deputy Commissioner, as the head of the district, is in overall charge of the district establishments of various departments. He supervises and controls all aspects of administrative and developmental activities that are carried on by the departments in the district under his administrative jurisdiction. The development departments in the district are in fact the integral parts of the Office of the Deputy Commissioner. The important departmental heads who are under the administrative control of the Deputy Commissioner at the district level in Lohit are the District Agriculture Officer, the District Medical Officer, the District Industries Officer, the Deputy Conservator of Forests, the District Education Officer, the District Research Officer, the District Statistical Officer, as also the Executive Engineer belonging to the Central Public Works Department. These officers are responsible to the Deputy Commissioner for all developmental works done and schemes implemented, and to the respective heads of departments for technical matters. They work under the technical guidance of their respective departmental heads. The Deputy Commissioner is responsible for planning and execution of various developmental schemes in the district, and in order to discharge this responsibility, he functions in unison with the district heads of the development departments.

The geographical position of Arunachal Pradesh as a frontier region inhabited by diverse tribes who are at a low level of economic development, and the mountainous terrain rendering communications difficult, call for well-coordinated administrative set-up flexible enough to take quick decision in all important and emergent matters. The 'Single Line Administration' aiming at concerted activities of various government organs is a device to suit the peculiar conditions obtaining in this territory. This pattern of administration has been drawn up with a view to creating a feeling of *esprit de corps* between the various government organs working for a common purpose of development and welfare.

The Lohit district is administratively divided into five sub-divisions, namely Tezu, Namsai, Hayuliang, Anini and Roing, which are again divided into fifteen circles altogether. The Deputy Commissioner is assisted by three Extra Assistant Commissioners and three Circle Officers at the district and sub-divisional headquarters at Tezu. The Anini and Roing Sub-divisions are under the administrative control of an Additional Deputy Commissioner, who is assisted by two Extra Assistant Commissioners and two Circle Officers at the headquarters at Anini. The sub-divisions are each in charge of an Extra Assistant Commissioner and the circles are each under a Circle Officer. The position of the administrative officers in the district is as follow:

Sl. No.	Sub-division	Circles	Position of Administrative Officers			
			Deputy Commissioner	Additional Deputy Commissioner	Extra-Assistant Commissioner	Circle Officer
1.	Tezu	Tezu	1	—	3	3
2.	Namsai	(1) Namsai	—	—	1	1
		(2) Wakro	—	—	—	1
		(3) Chowkham	—	—	—	1
3.	Hayuliang	(1) Hayuliang	—	—	1	1
		(2) Chaglagam	—	—	—	1
		(3) Hawai	—	—	—	1
		(4) Walong	—	—	—	1
		(5) Kibithoo	—	—	—	1
4.	Anini	(1) Anini	—	1	2	2
		(2) Etalin	—	—	—	1
		(3) Adane	—	—	—	1
5.	Roing	(1) Roing	—	—	1	2
		(2) Dambuk	—	—	—	1
		(3) Desali	—	—	—	1
Total			1	1	8	19

CHAPTER X

REVENUE ADMINISTRATION

Land Tenures

The land in the district is held by the people under different categories of ownership, such as individual, clan and village. There is also a mixed type of ownership—partly individual, partly communal. Village lands are generally conterminous with the settlements of individual clans. It is important to note in this context that the plots of land held in communal ownership may extend to one or several villages, and the individual families have the right to cultivate plots of communal land allotted to them by the village community. Although individual right of cultivation and possession is recognised within the limits of village land, the land is, as a matter of rule, owned collectively by a clan or a village. The system of land ownership in the district is not based on any tenancy supported by cadastral survey. In this area *jhum* or shifting cultivation is the most common method of farming. A new family which may come to a village for permanent settlement is allowed, with the permission of the village council, to cultivate plots of land allotted to them and to explore the ofrest and other resources. The ownership of land, however, varies from tribe to tribe, but no land revenue is virtually collected from any one of them whatever the kind of ownership may be.

In accordance with the environmental conditions—topographical and climatic, the people have evolved their own methods of agriculture, which are of three types: shifting or *jhum*, permanent or sedentary, and mixed type of agriculture—partly shifting and partly sedentary. Corresponding to these types, land is held by the people under the three categories already mentioned.

In the areas, where the shifting method of cultivation is followed, all land as a principle belongs to the clan or village.¹ It should be mentioned that in the past, villages used to be coextensive with single clans. Where, however, exception occurred, the right of cultivation of communal land was adjusted within the framework of village lands. . . . It will be wrong to think that communal ownership of land does not countenance individual rights of possession of any sort. It only means that such rights, when acknowledged, do not run counter to the principle of clan or communal ownership, and are actually recognized within the limits of this principle. The individual right of cultivation and posses-

sion continues through the cycle of agricultural operation, and remains suspended during fallow periods. All fences are removed during the fallow season and the land is thrown open to pasturage for all village animals. The pattern of individual possession of land, where communal ownership is the rule, also varies from tribe to tribe.²

The Sadiya Frontier Tract Jhum Land Regulation, 1947 defines the *jhum* land as follows:

“‘Jhum Land’ means and includes all land which any member or members of a village or a community have a customary right to cultivate by means of shifting cultivation or utilize by clearing jungle or grazing livestock, provided that such village or community is in a permanent location but does not include:

- (i) any land which has been or is under process of being terraced for the purpose of a permanent or semi-permanent cultivation whether by means of irrigation or not, or
- (ii) any land attached or appurtenant to a dwelling house and used for the purpose of permanent cultivation, or
- (iii) any land which in the opinion of the Political Officer is subject to permanent cultivation.

“Explanations: (1) Any land which is otherwise *jhum* land according to the above definition shall be deemed to be so notwithstanding the fact that a part or the whole thereof may have been planted with fruit trees, bamboos or tung, or reserved for growing firewood. (2) A village or community shall be held to be in permanent location if it always remains within a specific area, although a part of the whole of such village or community may migrate from time to time to different localities within that area.

‘Community’ includes the residents of a village as a whole, the clan, sub-clan, phratry or kindred.”

In fact, according to the Jhum Land Regulation of 1947, the ownership of individual or clan or village over land is accepted only in respect of permanent, semi-permanent cultivation and land attached to a dwelling house. The ownership of all other land including *jhum* land, therefore, rests with the Government. It should, however, be pointed out that no cadastral survey has so far been made in Arunachal Pradesh, and no land ownership records are available. The Government land has still remained undemarcated.

“To the tribal mind, Government’s attitude about land and forests is as important as any scheme of development or education.”³ Government’s attitude to the settlement of land is formulated in the Sadiya Frontier Tract Jhum Land Regulation, 1947. The Regulation gives the tribal

¹ According to the Jhum Land Regulation 1947, the members of a village or a community have a customary right to cultivate *jhum* land by the shifting method.

² J. N. Chowdhury, *Arunachal Panorama*, (Shillong, 1973), pp. 263-264.

³ Verrier Elwin, *A Philosophy for NEFA*, (Shillong, 1964), p. 62.

people customary rights over their jhum-land, provided a village or a community has enjoyed the right to cultivate or utilise such jhum-land for not less than five years prior to the making of this Regulation. A village or a community is considered to be in a permanent location if it does not shift or migrate as a whole. In most parts of Arunachal Pradesh, however, shifting cultivation does not usually mean shifting homesteads, for many of the village locations are very old. The Regulation also provides customary right to jhum-land in favour of an individual cultivator if he has inherited the land, or purchased it before 1947 in accordance with local custom; and if he, as a resident of a permanent village, has brought under cultivation land which had not been used at any time within the preceding thirty years, provided that such land is within cultivable reach of his own village. The Regulation also applies to an individual cultivator 'if he has purchased the land at any date subsequent to the making of this Regulation, provided such purchase was not contrary to any local custom or any of the provisions of this Regulation'. In actual practice, however, the local customs and traditions are respected, and take precedence over the Regulation.

Land for Government purposes is acquired by negotiation with the village community which owns such land. After executing necessary deed and agreement and on payment of suitable compensation whenever necessary land is formally transferred to the Government. Procedures laid down in the Land Acquisition Act are also followed in such cases. The transfer or sale of land is strictly controlled. The whole area is beyond the "Inner-Line" where outsiders are not normally permitted to settle and no tribesman can sell his land to a non-tribesman. The tribal land in the district is, therefore, well-protected against exploitation by outsiders.

The Inner-Line Regulation was enacted in 1873, not with a view to (as is so often thought) isolating the hill people from the plains, but to bringing 'under more stringent control the commercial relations of British subjects with the frontier tribes'. The activities of speculators in the Lakhimpur District of Assam for caoutchouc had led to serious complications, and the spread of tea-garden beyond the fiscal limits of the settled territories of the day had involved the Government in many conflicts with the hillmen. The original intention of the Inner-Line Regulation was that no British subject or foreign resident could pass beyond a certain point without a licence. The Regulation also put restrictions on trade and the possession of land beyond the Line.

"The tribal people," says Verrier Elwin, "are bound to their land by many and intimate ties. Their feeling for it is something more than mere possessiveness. It is connected with their sense of history, for their legends tell of the great journeys they made over the wild and lonely hills and of the heroic pioneers who made the first clearings in the forest. It

is part of their, reverence for the dead, whose spirits still haunt the countryside. The land is the mother who provides for them in response to the labours of their hands and who, when supplies run short, feeds them with a hundred natural gifts. It is the setting of adventure, in love, in hunting and in war, which can never be forgotten. The land is the foundation of a sense of security and freedom from fear; its assured possession is a lasting road to peace."¹

Forest

In pursuance of the principles formulated by the late Prime Minister Nehru that 'tribal rights in land and forests should be respected', it was envisaged that the forest policy in Arunachal Pradesh in regard to the questions of forest rules and the payment of forest royalties should not be less liberal than that operating in the Autonomous Hill Districts of Assam, and it 'must be conditioned by the direct interests of the people and not by a desire to increase revenue by launching upon a policy of exploitation of forests'.² The Government policy towards the forests under the control of the Tribal Councils was defined in the Jhum Land Regulations of 1947. Besides this, the basic principles of the National Forest Policy of 1952, with some minor modifications to suit the local conditions, are followed in regard to the utilisation and management of the forest resources.

The various forest codes, regulations and rules operating in Assam are also applicable to the Forest Department of Arunachal Pradesh.³ Relevant Central Rules are also followed.

Revenue

The forest is the main source of revenue. The forest revenue derived annually from the district from 1971-72 to 1975-76 is as follows⁴:

Year	Revenue in '000 Rs.
1971-72	4,141.6
1972-73	3,857.2
1973-74	5,017.2
1974-75	4,859.3
1975-76	5,515.8
Total	23,391.1

¹ Verrier Elwin, A Philosophy for NEFA, (Shillong, 1964), p. 66.

² (a) Verrier Elwin, B. Shastri and I. Simon edited, Important Directives on Administration of NEFA, (Shillong, 1967), p. 14.

(b) Verrier Elwin, A Philosophy for NEFA, (Shillong, 1964), pp. 67-68.

³ Vide the Assam Gazette Notification No. FOR. 4/48/7, dated 1st May, 1948.

⁴ (1) Office of the Chief Conservator of Forests, Government of Arunachal Pradesh.
(2) Statistical Hand Book of Arunachal Pradesh, 1975-76.

The other sources of revenue are house tax, State excise, stamps and registration fees, various licence fees, taxes and duties on electricity, taxes on vehicles, agriculture, animal husbandry, industry, public works etc. The royalty realised from the Oil India Ltd. for oil exploration from the oil fields in the district may also be mentioned.

Under the North-East Frontier Agency (Abolition of Poll Tax and levy of House Tax) Regulation 1959 which came into force in some specified areas of the erstwhile NEF Agency with effect from the 1st January, 1965, house tax was levied in the entire Lohit District excluding the Anini areas at the rate of Rs. 2 per house per annum, where poll tax was collected at the rate of Rs. 5 per adult per annum prior to the implementation of the said Regulation. The levying of house tax in the district was done in pursuance of a decision that house tax should not be introduced in any area where neither house tax nor poll tax was in force at the time of the promulgation of the aforesaid Regulation.

Under the Regulation, 'house' includes an outhouse, a stable, latrine, shed, hut and any other such structure whether of masonry, bricks, wood, leaves, grass, thatch or any other material whatsoever but does not include any portable shelter.

It has been provided in the Regulation that the house tax shall subject to the prior payment of land revenue, if any, due to the government in respect of the site of the house, be a first charge upon the house and upon the movable property, if any, formed within or upon the same and belonging to the person liable to such tax.

"House Tax shall be levied in the manner hereinafter specified:—

- (a) on every house in areas, other than urban areas belonging to such family units as are pursuing the vocation of agriculture @ Rs. 2/- per annum per house;
- (b) on every house in urban areas—
 - (i) in trade site, @ Rs. 120/- per annum per bigha in area,
 - (ii) in other site, @ Rs. 60/- per annum per bigha in area.¹

¹ Government Notification No. REV-2/59/141 dt. 17.5.1972.

CHAPTER XI

LAW AND ORDER AND JUSTICE

Administration of Justice

According to the provisions of the Assam Frontier (Administration of Justice) Regulation, 1945 (Regulation 1 of 1945) and the Code of Criminal Procedure Act, 1973 (Act 2 of 1974), the criminal and civil justice are administered by, the Deputy Commissioner, Additional Deputy Commissioner, Extra Assistant Commissioner and the village authorities. The Deputy Commissioner and Additional Deputy Commissioner are respectively the District Magistrate and Additional District Magistrate as well. They also exercise equal powers of a Session Judge. The Extra Assistant Commissioner is vested with powers not exceeding those of a First Class Magistrate as defined in the Code of Criminal Procedure. The Circle Officers, appointed as ex-officio Extra Assistant Commissioners, are vested with the magisterial powers of any class.

Chapters VIII, X and XI of the Criminal Procedure Code, 1973 have been brought into force in the Union Territory of Arunachal Pradesh together with provisions of Sections 2, 3, 4, 5, 20 to 23, Chapter V (with certain modifications) and Section 373 with effect from the 1st April, 1974. In other procedural matters, the principles of the criminal procedure are the guiding principles. While administering justice, the principles of the Indian Evidence Act are applicable. Judiciary and Executive have not been separated. In accordance with sub-section (1) of Section 20 of the new Criminal Procedure Code Act, 1973 (Act 2 of 1974) various officers were appointed as Executive Magistrates and also under sub-section (2) of Section 20 of the same Code, the Deputy Commissioners and Additional Deputy Commissioners are appointed as District Magistrates and Additional District Magistrates respectively. Some of the Executive Magistrates are appointed as ex-officio Assistant Commissioners and are invested with the powers of a Judicial Magistrate of either First Class or Second Class as the case may be in accordance with Section 18 of the Assam Frontier (Administration of Justice) Regulation, 1945 (Regulation 1 of 1945) and Section 3(3) of the Code of Criminal Procedure, 1973 (Act 2 of 1974). The District Magistrates, Additional District Magistrates and Executive Magistrates are also empowered to hold inquest in accordance with Section 174(4) of the new Code of Criminal Procedure.

The maintenance of law and order, and judicial administration in the villages are largely the responsibilities of the statutory village authorities as defined in the Regulation 1 of 1945, which confers on them powers to try any case involving any of the undermentioned criminal offences in

which the person or persons accused is or are residents within their jurisdictions:

- Theft, including theft in a building.
- Mischief, not being mischief by fire or any explosive substance.
- Simple hurt.
- Criminal trespass or house trespass.
- Assault or using criminal force.

The village authorities have also powers to impose a fine for any offence which they are competent to try and also award payment in restitution or compensation to the extent of the injury sustained. Vested also with powers in civil matters, the village authorities can try all suits without limit of value, in which both the parties are indigenous to the tract and live within their jurisdictions. The cases which are beyond the legal powers of the village authorities are tried by the civil officials empowered for the purpose.

The statutory village authorities are different from the customary or traditional tribal or village councils in their composition and legal jurisdiction. The village authorities have limited powers to administer criminal justice and to take preventive measures, whereas the traditional tribal councils exercise unlimited powers in both criminal and civil matters. These councils may even try a case of murder and settle it up by compelling the offending party to pay compensation to the aggrieved party in accordance with the tribal customary law.

The tribal councils can still exercise powers to settle disputes arising in the village. In fact, they try most of the civil cases and very minor criminal offences.

Incidence of Crimes

It is important to note that the incidence of crimes in Lohit is quite low. The people are generally law-abiding. The nature and number of crimes committed as registered by the Police in the district during the period of three years from 1973 to 1975 is indicated below¹:

Sl. No.	Nature of Crime	1973	1974	1975
1.	Murder	—	1	—
2.	Culpable homicide	—	—	1
3.	Dacoity	1	—	—
4.	Burglary	2	2	3
5.	Theft	9	13	20
6.	Rioting	1	—	—

¹ Source: Office of the Inspector General of Police, Government of Arunachal Pradesh.

Sl. No.	Nature of Crime	1973	1974	1975
7.	Criminal breach of trust	1	1	2
8.	Cheating	1	—	1
9.	Motor accident	2	2	3
10.	Violation of Arms Act	1	—	3
11.	Other criminal acts and deeds	23	14	33
Total		41	33	66

Organization of the Police Force

The Assam Frontier (Administration of Justice) Regulation, 1945 (Regulation I of 1945) extended to the whole of the erstwhile North-East Frontier Tracts provides the following for police duties of the village authorities.

"The ordinary duties of police in respect of crime shall be discharged by the village authorities. They shall maintain peace and order within their jurisdiction.

"The village authorities shall not be deemed to be police officers for purposes of Section 25 and Section 26 of the Indian Evidence Act, 1872 or the Section 162 of the Code of Criminal Procedure, 1898.

"The village authorities shall watch and report on any vagrant, or any bad or suspicious character found within their jurisdiction, and may apprehend any such person if they have reasonable grounds for suspecting that he has committed or is about to commit an offence, and shall hand over any person so apprehended to the Political Officer or an Assistant Political Officer.

"Every Civil Police Station shall be under the control of the Political Officer, but its administration with regard to the pay, allowances, clothing, transfer and discipline of the staff shall be vested in the Superintendent of Police of the district which furnished the staff or such other Police Officer as the Government may appoint in this behalf, provided that transfer shall be made in consultation with the Political Officer."

Until recently, there was no regular civil police force of the Administration in the districts of Arunachal Pradesh. The duties of police were performed by the Central Reserve Police and other reserved police forces, and also by the Assam Rifles. With the enforcement of the Police Act, 1861, which has been extended to Arunachal Pradesh since 1972, the Police Department of the Government of Arunachal Pradesh has been set up for organisation of the police force. At present the Inspector General of Police, Government of Arunachal Pradesh holds the charge of the

¹ See P. N. Luthra, *Constitutional and Administrative Growth of the North-East Frontier Agency*, (Shillong, 1971), p. 85.

Police Department. He is assisted by an Assistant Inspector General of Police. In the district, the Deputy Commissioner acts as the ex-officio Superintendent of Police.

The Civil Police Force raised in Arunachal Pradesh in 1971-72 is now functioning in the district. The Police Station at Tezu consists of 1 District Inspector, 4 Sub-Inspectors, 1 Assistant Sub-Inspector and 12 Constables. There are also an Armed Branch and a Special Branch of the Police Force at Tezu. Moreover, a police outpost has been set up at Namsai with 1 Sub-Inspector and 4 Constables.

Jails and Lock-ups

The district has no jail. The Police Station at Tezu has a lock-up. The quarter guards of the Central Reserve Police Force are utilised as judicial lock-up and also as police lock-up where no police lock-up facilities exist.

Organisation of Civil and Criminal Courts

There is no regularly constituted civil or criminal courts in Arunachal Pradesh. Under the provisions of the Assam Frontier (Administration of Justice) Regulation, 1945 (Regulation 1 of 1945), various officers empowered for the purpose are recognised as administrators of justice, and they are competent to try civil and criminal cases including major and heinous criminal offences. The Regulation 1 of 1945 confers wide criminal and civil powers on the Deputy Commissioner. As regards the trial of cases including civil cases, the Regulation 1 of 1945 is still the law of procedure in Arunachal Pradesh.

Legal Profession and Bar Associations

At present, there is no legal profession in Arunachal Pradesh. Lawyers from the adjacent districts of Assam assist in conducting the cases. A panel of lawyers approved by the Government is prepared for this purpose. There is no Bar Association in the district.

CUSTOMARY LAW AND JUSTICE IN THE TRIBAL SOCIETIES

With the extension of the administration to the remote interior parts of the district and setting up of a police force, the serious crimes are now dealt with by the competent civil authorities themselves according to the law of the Government instead of tribal customary laws.

The various tribal groups of Lohit have their own customary laws for administration of justice through their tribal or village councils. A detailed description of these tribal councils and their functions have been given in Chapter XIII. Although the customary laws and punishments differ from tribe to tribe, the principle of compensation have been adopt-

ed by all of them for settlement of cases. An account of the judicial functions of some of the tribal councils is as follows:

Idu.

The village council of the Idus called Abbala administers justice in a number of cases including homicide, murder, causing grievous hurt, adultery, rape, abduction, theft, defamation etc.

"Idu law prescribes the following punishments for various offences: death, confinement, compensation and beating. Punishment by death is for the gravest offences such as murder, mutilation and robbery. An insolvent or a debtor, who fails to repay his debt, due to extreme poverty is sometimes taken into confinement by the creditor, and is made to suffer all sorts of social indignities, and is also penalised legally. Punishment by the payment of compensation is usually considered appropriate for all kinds of offences. In demanding compensation due regard is paid to the offender's wealth as also to the type and magnitude of the offence. In theory there is no limit to the amount of compensation to which the offender is liable, but in practice it is not excessive. Corporal punishment such as whipping is inflicted only on minors and female offenders."

Taraon and Kaman

The Taraon and the Kaman Mishmis have also their own codes of punishment. Penalty for defamation can be cleared off by payment of compensation as fixed by the village council. In case of murder, the clansmen of the murdered are paid requisite compensation by the murderer. The cases of injury are also settled up by the payment of compensation by the offender. When a wife is charged with adultery, the husband is compensated. The disloyal wife, however, suffers severe punishment, and is publicly humiliated. The system of compensation is, therefore, applicable to almost all sorts of crimes.

Khampti

The Khamptis have a well-defined system of law as codified in their holy scripture entitled 'Thamasat'. The Thamasat contains a good deal of legal measures pertaining to criminal law and procedure, law of contracts and civil procedure.

As observed by Verrier Elwin, "The method followed by the Khampti chief in trying cases is this. When any man brings a case to him, he first forms a mokchup (council of members recruited from people of various social status) and with the concurrence of it fixes a date for the hearing. Before the proceedings are opened, both the parties offer flowers

¹ T. K. M. Baruah, *The Idu Mishmis*, (Shillong, 1960), pp. 64-65.

to the councillors as a token of honour to them. The chief then summons the plaintiff to state his case who may bring with him any of his elder relations to plead for him. All the important points of the statement made by the plaintiff are recorded by one of the councillors. If there be any witness of the case, he is also summoned and his statements are recorded properly.

"After the hearing is over, the plaintiff and his witnesses are allowed to go out of the house and the accused is called to give his statement of the case, which is patiently heard and recorded properly. If he produces witnesses in his defence their statements are also heard and noted down.

"Now, in the absence of the plaintiff and the accused, there begins a long session among the councillors and the chief in which the statements made by the parties are discussed thoroughly until they arrive at a decision. The sacred book Thamasat is then consulted to determine the nature of any punishment to be administered.

"The parties of both the defendant and complainant are then summoned to attend the mokchup together, and the chief announces his findings in their presence.

"Khampti law prescribes the following punishments for various offences: death, fines, deportation and whipping. It is said that in olden days punishment by death was inflicted for the most heinous offences, such as murder and mutilation, but this of course is no longer done. Punishment by payment of a fine is considered appropriate for all kinds of offences. Anyone practising sorcery and thereby causing harm to other people is normally deported from his village. Punishments such as whipping and chastisements are imposed upon women and young persons.

"Buddhism in its Khampti form adds authority to justice by its teachings on the fate of the soul after death, for it has, unlike many other tribes, a well-defined code of rewards for virtue and punishments for sin both in this world and the next. A faithless wife, for example, may not, after conviction, be allowed to enter the temples or join in festivals now, and she may turn into a bitch when she dies. And the possibility of a sinner's being reborn in an unpleasant situation is a further powerful deterrent against crime."

Singpho

The Singphos have no regular system of self-government. The elders assemble when a dispute arises and it needs to be settled. The council thus formed is generally presided over by a chief and attended by the whole village. Everybody present may take part in the deliberations when the meeting is on.

The council adjudicates all kinds of criminal cases such as theft,

seduction of unmarried girl, adultery, quarrels, disputes over buffaloes or cows, and disputes about property. The decision of the council is regarded as final, but if the aggrieved persons are not satisfied with the verdict of the council, they can appeal to the Administration for a decision.

The methods of punishment awarded to the culprits are specific in nature and vary according to the nature of the crime committed. The following is a categorical statement of crime, customary law and methods of punishment as noted by Verrier Elwin:

"Theft, disputes about property and sexual offences are considered as major crimes, adultery being held to be the most serious.

"Theft Cases

- (a) Theft of valuable property, such as brocade cloth (singkhap), guns, cattle, paddy etc. is considered a serious offence and the culprit is fined in cash which amounts to Rs. 140. Moreover he is to return to the owner the articles or the value of the articles in cash. A person failing to pay the fine used to be kept as a prisoner. His relatives were asked to release him by paying the fine or standing surety for him. If nobody came forward to help him, the culprit was severely beaten until he promised not to steal in future and to pay up when he could.
- (b) Stealing of vegetables from a kitchen garden, thefts of poultry or of fish from others' traps etc. are also subject to fine. The question of damage caused by the theft is also taken into account.

"Disputes about Property

If any dispute arises about property amongst the brothers of a family, the tra (village council) decides their respective shares and divides the property according to the rules of succession or inheritance.

"Seduction of Girls

A fine in cash or kind is the usual punishment. It depends on the merit of the case, and also on the status of the person concerned, the fine being fixed according to the economic condition of the culprit: a rich man is required to pay a heavier fine than a poor man. If the girl becomes pregnant the person responsible has to perform, for the girl's welfare, a ceremony in the name of a deity called Sisan Nat, sacrificing a pig and a chicken. This is in addition to the fine fixed by the council.

"Adultery

1. If a person is found guilty of adultery with the wife of a

¹ Verrier Elwin, *Democracy in NEFA*, (Shillong, 1965), pp. 168-169.

chief, then it is treated very severely. He is kept tied under the wooden ladder of the house for one night and then exiled from the village after being beaten severely.

2. If a chief is found guilty of adultery with a commoner's wife it is less serious, and can be settled by a fine of one buffalo, one piece of brocade cloth, and Rs. 70 in cash. The husband does not usually object to retaining the erring wife in his home.
3. If anyone goes so far as to elope with the wife of a chief, all his possessions, both movable and immovable, are taken by the husband. If the lovers are caught, the man is tied to a thorny tree and the woman is paraded round the village after her hair has been cropped.¹

Padam

The Padam of Siang and Lohit are one of the most well-known tribal groups of the Adis. They have a long tradition of established village government. As early as 1853, Father Krick, the famous French missionary and explorer, attended a village council of the Padams, and observed that "Each village is self-governing and independent. It has its own administration, both legislative and executive. Women have no share in the government; they cannot even set foot in the council-room. . . . Laws are framed by the people, sanctioned by the council, and promulgated by the president. Every decision is supposed to come from the people; the chiefs have no right but to approve and enforce it. Hence, the people propose, the council sanctions and the president promulgates."² Sixtyfive years after Krick, G. D. S. Dunbar noted that "The village community in the Abor (Adi) and Gallong country, where society is in a slightly more advanced state than amongst the Daflas (Nishi) and the Mishmis of both Dibang and Lohit Valleys, consists of the headmen of the village, the medicine-man, the craftsman, the groups of families, the young men and the slaves. The headman (gam) is chosen by the voice of the community."³

The village council of the Padams is known as Kebang. This is a democratic institution in the most modern sense. Constituted by village elders, the council exercises important legal and judicial powers, and control of the village in social and political matters. Every village with a Kebang is thus an independent administrative unit by itself. According to the tribal customary laws, the Kebang directs and regulates all village activities and adjudicates matters of dispute and all other matters

¹ Verrier Elwin, *Democracy in NEFA*, (Shillong, 1965), pp. 187-189.

² *Ibid*, pp. 101-102.

³ *Ibid*, p. 106.

of common interest. "It is the chief judiciary in the village; all cases of dispute are brought before it for judgment. The contending parties backed by their fellow clansmen and supporters appear before it and try to convince it of the justness of their cause in long speeches cast in a traditional form and delivered in a loud voice with bold gesticulations. Every speech begins with a preamble narrating the ancient history and glory of the Adi race and exhortation on the bench for conformity to the traditional laws and for impartial justice. . . . Women generally do not take an active part in the *kebang*, but every man many."¹ The judgment and verdict of the Kebang are final and binding on all concerned. The Kebang decision is accepted by the villagers as inviolable, and seldom it is challenged.

The jurisdiction of the Kebang extends to its own village. Inter-village disputes are settled by the inter-village tribal councils known as bango. A bango council consists of all the headmen or gams and other influential persons of the villages constituting it.

The customary laws of the Padams are based on some definite codes of conduct. These codes are accepted and abided by all the members of the society without reservation. This wilful acceptance precludes the necessity of any coercion for the enforcement of law by the Kebang. The Kebang deals with a number of civil and criminal cases, such as marriage, divorce, theft, assault, causing hurt and homicide. Laws of inheritance also come under the purview of the Kebang. Compensation is the accepted mode of punishment, applicable to all kinds of offence including murder, and it is generally commensurate with the nature of offence committed.

¹ Sachin Roy, *Aspects of Padam-Minyong Culture*, (Shillong, 1966), pp. 219 & 221.

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¹ Verrier Elwin, *Democracy in NEFA*, (Shillong, 1965), pp. 187-189.
² Ibid, pp. 101-102.

³ Ibid, p. 106.

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¹ Sachin Roy, *Aspects of Padam-Minyong Culture*, (Shillong, 1966), pp. 219 & 221.

CHAPTER XII

OTHER DEPARTMENTS

The Deputy Commissioner is the administrative head of the district. He has the controlling and superintending responsibilities for all works done in the district—administrative as well as developmental. The district administration and the developmental works are carried out in close co-ordination with each other, with the Deputy Commissioner or the Additional Deputy Commissioner functioning as the co-ordinating authority. The technical officers of the development departments are under the general administrative control of the Deputy Commissioner at the district level. In accordance with the 'Single Line Pattern of Administration', the technical officers at different levels are responsible to the executive officers concerned for the developmental works carried out by them in the district, and to the departmental heads concerned for technical matters, such as formulation of plans, schemes, and their implementation. The Deputy Commissioner is assisted by the subordinate executive officers on the administrative side, and by the technical officers on the development side.

The organisational set-up of the Government departments in the district has been shown in some detail in Chapter IX. Besides the establishments of the Deputy Commissioner, Additional Deputy Commissioner, Extra Assistant Commissioners and Circle Officers, the following development departments are functioning in the district:

Agriculture and Community Development Department

The district organisation of the Agriculture and Community Development Department headed by a Director at the Union Territory level is in the charge of a District Agriculture Officer with his headquarters at Tezu. The District Agriculture Officer is assisted by the Agriculture Inspectors stationed at different places of the district. There are also Village Level Workers working under the direction of the District Agriculture Officer.

The Department of Agriculture and Community Development in the district is responsible for the implementation of agricultural programmes concerning improvement of agriculture under permanent cultivation and various other allied sectors of development, such as community development, irrigation, fertilisers, rural water supply, fishery etc. The District Agriculture Officer also acts as a technical adviser to the Deputy Commissioner in agricultural matters.

On the side of agricultural engineering, there is a District Engineer at Tezu. He is assisted by two Assistant Engineers with headquarters at Tezu and Roing respectively and other officers as well as field staff.

Animal Husbandry and Veterinary Department

The Directorate of Animal Husbandry and Veterinary at the Union Territory level consists of one Director and two Deputy Directors. At the district level, the activities of the department are supervised by the District Animal Husbandry and Veterinary Officer. There are six Veterinary Assistant Surgeons and Extension Officers, Animal Husbandry and Veterinary, as well as six Supervisory Veterinary Field Assistants and Assistant Farm Managers. The department is concerned with improvement of breed and upgrading of cattle, protection of cattle against contagious diseases, treatment of sick animals in the veterinary dispensaries, castration of scrub animals and dairy farming.

Engineering Department

The existing Engineering Department in Arunachal Pradesh is a wing of the Central Public Works Department. The Chief Engineer with his headquarters at Itanagar is the head of the department in Arunachal Pradesh. There are altogether three engineering civil circles with one Superintending Engineer in charge of each circle. Besides them, the department has one more Superintending Engineer, who is concerned with electrical works, and also a Senior Architect.

At the district level, the circles are divided into a number of divisions under the charge of Executive Engineers, who are assisted at different levels by Assistant Executive Engineers, Assistant Engineers and various other technical staff.

The engineering divisions in the Lohit District, namely Tezu and Roing, are in Circle III.

Working under the technical guidance of the Chief Engineer and Superintending Engineer of the circle, the Executive Engineers are responsible for execution of the development programmes of the department in their respective divisions. Besides the construction and maintenance of roads, bridges and buildings, the department also works for micro hydel projects, electric installations, rural electrification, water supply and maintenance of helipads and landing grounds.

Medical Department

The departmental head of the Medical Department at the Union Territory level is the Director of Health Services. The officer at the district level in charge of the Medical Department is the District Medical Officer with his headquarters at Tezu. He exercises control over all subordinate Medical Officers in the district and is responsible for execution of health schemes. He also supervises the functions of the hospitals and health units, and looks after their proper maintenance. Moreover, he acts as a technical adviser to the Deputy Commissioner of the district in all matters relating to medical and public health services.

Education Department

The Education Department at the district level is in charge of the District Education Officer with his headquarters at Tezu. Acting under the supervision and guidance of the Director of Public Instructions being the departmental head at the Union Territory level, he is responsible for promotion of education in the district. He also acts as a technical adviser to the Deputy Commissioner of the district and helps the district administration to implement educational schemes. The Primary and Middle English Schools placed under his charge are supervised by him. He is assisted at the district headquarters by an Assistant District Education Officer and also by two other Assistant District Education Officers stationed respectively at Hayuliang and Anini. The management of the Higher Secondary Schools is the direct responsibility of the Principals.

Forest Department

The Forest Department is headed by the Chief Conservator of Forests at the Union Territory level. He is also the ex-officio Secretary (Forests), and assisted by Conservators of Forests who are in charge of forest circles. The Lohit Forest Division in this district falls under the jurisdiction of the Conservator of Forests, Eastern Circle. A Deputy Conservator of Forests with his headquarters at Tezu holds the charge of this forest division. He is assisted by an Assistant Conservator of Forests. At present there are six ranges and fifteen beats in the Lohit District. Except the Namsai Range where an Assistant Conservator of Forests is posted, the other ranges are managed by the Forest Rangers, while the beats are looked after by Foresters and sometimes by Deputy Forest Rangers.

Industries Department

Headed by the Director of Industries at the Union Territory level, the district organisation of the Industries Department is in charge of the District Industries Officer with his headquarters at Tezu. The District Industries Officer is assisted by a team of officials, namely Superintendent of Crafts, Extension Officer, Supervisor of Crafts, Instructors and Demonstrators, who are attached to various craft centres and weaving units in the district. The Industries Department is concerned with the development and progress of indigenous tribal crafts and other industries in the district.

The District Emporium at Tezu is a treasure-house of articles produced by the local artisans, trainees and craftsmen. It also organises sale, distribution and marketing of the products of craft centres.

Co-operative Department

The Co-operative Department is headed by the Registrar of Co-operative Societies at the Union Territory level. The district organisation of

the department is in charge of an Assistant Registrar of Co-operative Societies with his headquarters at Tezu. A Senior Inspector of Co-operative Societies is attached to his office. He assists the Deputy Commissioner to organise and control the various grades of co-operative societies in the district. A Junior Inspector of Co-operative Societies is posted at Anini/Roing.

Research Department

The Director of Research is the head of the Research Department at the Union Territory level. The district organisation of the department is in charge of the District Research Officer with his headquarters at Tezu. All social and cultural research activities in the district are conducted by him under the guidance of the Director of Research. The District Research Officer is also concerned with preparation of monographs on the social life, culture, history etc. of various tribes. He further acts as an adviser to the Deputy Commissioner on the questions of tribal culture and welfare. Assisted by a Keeper, the District Research Officer is also in over-all charge of the District Museum. He further acts as the Librarian of the District Library.

Economics and Statistics Department

The Directorate of Economics and Statistics is headed by a Deputy Director at the Union Territory level. The district set up of the department is under the charge of the District Statistical Officer with his headquarters at Tezu. He is responsible for collection and processing of the basic statistics at the district level, and preparation of District Statistical Hand Book. The statistical reports which are sent by the District Statistical Officer to the Directorate are compiled and published in the consolidated annual Statistical Hand Book of Arunachal Pradesh. The District Statistical Officer is also concerned with various statistical surveys, studies and census operations. The District Statistical Officer advises in economic and statistical matters, and meets the economic and statistical needs at the district level.

In the Dibang Valley Sub-division, the economic and statistical work is looked after by an Inspector of Statistics. He performs the similar job as does the District Statistical Officer at the sub-divisional level. The District Statistical Officer, however, gets all the economic and statistical data from the Inspector of Statistics for compilation and completion of the district level information.

Information and Public Relations Department

The District Information and Public Relations Officer at the district headquarters at Tezu is the district head of the department. Working under the technical guidance of the Director of Information and Public Relations,

who is the departmental head at the Union Territory level, he is responsible for carrying out all works relating to information, publicity and mass communication in the district. Under him there are two Radio Mechanics, one each at Tezu and Anini, who are concerned with the schemes of Community Listening, and six operators stationed respectively at Tezu, Roing, Chaglagam, Hayuliang, Walong and Hunli. The Circle Officer (Social and Cultural Affairs) at Roing is also concerned with the publicity programmes of the department.

CHAPTER XIII

LOCAL SELF-GOVERNMENT

Historical Background : Tribal Councils

The system of self-government in the district evolved through the evolution of tribal society. The nucleus of this system is the village or the inter-village councils also called tribal councils. These councils are time-honoured institutions deriving their authority from age-old traditions, and in fact they function as village governments giving expression to the will and power of all the members of the society constituting them. The village council is the pivot round which the corporate tribal life moves.

The village council is informal in character. It is constituted by elderly, influential and respected persons who are the accepted leaders of a village. But all the villagers may take part in the deliberations of the council. Every participating villager is regarded as a member of the council in session, and he is at liberty to speak out his mind before the general assembly, even though the final say is the prerogative of the village leaders. The village council is a democratic institution in the most modern sense, where all the vital problems concerning the village are freely and publicly discussed and solved, criminal cases adjudicated, decisions taken on social and agricultural matters. No formal vote is necessary for a decision. The discussion continues until a consensus is reached. Each village select their headman, who is the chief or 'gam' responsible for the welfare of the village.

The village or tribal councils may vary from tribe to tribe in composition, powers and privileges, but they have certain features in common. All of them function within the general framework of the Assam Frontier (Administration of Justice) Regulation of 1945. The functions of the village council are threefold—judicial, administrative and developmental. On the judicial side which is in effect the most important function, the councils settle disputes arising in the village, and give verdicts on even serious crimes committed against the tribal society (but not against the Government).

The legal procedure of the council is not burdened with cumbersome formalities, and does not entail any amount of expenses. It is 'free of cost' for everybody, and, therefore, nobody is denied justice for his inability to bear the cost as is otherwise necessary for such proceedings. The council allows both the defendant and the complainant to plead for themselves, and it gives its judgement in accordance with the customary law after a careful consideration of the divergent statements.

The administrative jurisdiction of the council extends to the mainte-

nance of paths and bridges, supervision of water supply and sanitation of the village, fixation of the dates of communal hunting and fishing, taking of decisions as to when the main agricultural operations should take place and when the festivals should be held, and on problems of land, admission of new settlers etc.

The function of the council on the developmental side is a new aspect of work and it depends largely upon the calibre of the leaders and the local officials, upon their efforts and initiative, for development at the village level.

The *Gaon Bura* or the village elder, who is also normally by virtue of his position the head of the village council, acts as a representative of the administration at the village level. Besides the *Gaon Bura*, a team of political interpreters are employed by the Administration for maintaining intimate relations with the village people. The *Gaon Bura* and the interpreter assist the Government officials to perform their duties and to implement Government decisions. They render valuable services in setting of disputes, forwarding of villagers' appeal to the law courts and petitions to the Government, in arresting of offenders and transaction of Government business at the village level.

The Idu Mishmi Abbala

The village council of the Idu Mishmis is called Abbala. The council is composed of a few village elders, respected for their integrity and wisdom. "Its jurisdiction is restricted to judicial matters only, and does not include village administration".¹

The Abbala sits when a complaint is lodged or when a dispute needs to be settled. It has no permanent standing. "When any man brings a complaint to the abbala, the members first hear him and after a few days, go to the house of the accused. Witnesses are summoned to give evidence and their statements along with those of the accused are patiently heard. Villagers who are not immediately concerned may attend the case, if they wish to do so".²

As regards the tribal council of the Idus and their conception of justice, T. K. M. Baruah in his book 'The Idu Mishmi' says, "The members of the abbala have a great responsibility, because they are supposed to scrutinize the claims of both the parties and then to come to a provisional decision. They have a hard task in persuading the parties about the justness of their decision and to bring about a settlement. This naturally entails long discussions and endless comings and goings to the houses of the plaintiff and the defendant, till at length the decision is accepted by both the parties. The members of the abbala are entitled to a portion of

¹ T. K. M. Baruah, *The Idu Mishmis*, (Shillong, 1960), p. 54.

² *Ibid*, p. 54.

the compensation demanded from the accused, and they get a remuneration from the complainant for their services.

"The principle behind the Idu sense of justice is that a person who has made others suffer unjustly should himself be made to suffer in return. The man who gratifies his own passion by insulting another should himself be shamefully humiliated. No hard and fast rules seem to be laid down as to the severity of punishments, which depend upon the nature and seriousness of individual transgression in each case. Although the punishment is proportionate to the seriousness of the offence, extenuating circumstances are always taken into consideration. Murder, robbery and mutilation are, as a rule, considered to be serious offences, but a man who commits such acts unwittingly is not usually held guilty. For instance, A before going to sleep lighted a fire to keep the room warm, which severely burns B who was sleeping by the side of the hearth. In such a case, A is not to be held responsible for the misfortune of B".¹

The Idu Mishmis live in widely separated hamlets which sometimes consist of only one house. The isolation and the blood feuds prevented them from being coalesced into a village community. They are now inclined to 'substitute the legal process for the blood feud of revenge'.

The Kaman Mishmi Pharai

The Kamans convene a 'kebang' or village council when a case is to be settled. Although they have no regular system of village government, they have faith in referring their disputes to arbitration. "Their temperament", says Verrier Elwin, "is very different from that of the Idu Mishmis—and when necessary they approach some man of substance and influence, . . . and he summons what they call a pharai, a gathering of local elders representing each clan from several 'villages' in the vicinity as well, of course, as the parties to the dispute. The matter is publicly discussed and normally the 'chairman', as we may call him, after ascertaining the views of the elders present, gives his decision and decides the compensation to be paid . . . There are spheres of jurisdiction for all normal disputes, but when there is any matter of unusual difficulty or where the parties cannot come to an agreement, they go to any Chief who is generally regarded as having the greatest wisdom and influence."¹

The Khampti Mokchup

The Khamptis have a well-organised system of self-government. According to this system, the village chief is the political head, who is to exercise his powers and privileges in consultation with a council of members drawn from people of various social status. The body-politic thus formed

¹ T. K. M. Baruah, *The Idu Mishmis*, (Shillong, 1960), pp. 54-55.

¹ Verrier Elwin (a) *Democracy in NEFA*, (Shillong, 1965), p. 150.

(b) *A Philosophy for NEFA*, (Shillong, 1964), p. 160.

is called *mok chup* or *mok chup khai-kham*. "The office of the chief is hereditary in the clan, but not in the family. A chief continues to hold his office till he either dies, or is incapacitated by old age".¹

The Khampti administration of justice is said to be regulated by their sacred text known as *Thamasat*. Verrier Elwin in his 'Democracy in NEFA' describes the *Thamasat* as follows :

"The *Thamasat* contains a good deal of secular law such as criminal law and procedure, law of contracts and civil procedure as well as rules of morality and religion. Through the ages, the principle of law as laid down in the *Thamasat* has been used for deciding legal matters by interpreting it to suit the changing requirements of the people.

"... The *Thamasat* lays down that the minimum number of members who are to sit for the purpose of deciding any legal case shall not be less than six, and that they must have such qualities as noble birth, fluency of speech, knowledge of the law, a sense of humour and an indifference to bribes".²

Panchayat Raj

In harmony with the democratic self-governing traditions of the people as manifested in their tribal councils, a panchayat system of local self-government has been introduced in the district under the provisions of the North-East Frontier Agency Panchayat Raj Regulation, 1967 (Regulation 3 of 1967) as amended by the North-East Frontier Agency (Administration) Supplementary Regulation, 1971. The Regulation 3 of 1967 aims at establishing the panchayat system by investing the various bodies constituted under the provisions of the Regulation with such powers and authorities as may be necessary to enable them to function as units of self-government. It offers opportunities to the people to take effective parts in the administration and development. The Regulation provides for the districts a three-tier structure of self-governing bodies, namely Gram Panchayat, Anchal Samiti and Zilla Parishad. The Gram Panchayat is the unit of the panchayat system of self-government at the village level, the Anchal Samiti at the block level and the Zilla Parishad at the district level. It has been defined in the Supplementary Regulation of 1971 that "Gram Panchayat means a body of persons elected according to the tribal customary methods by the residents of any village or a group of villages". The 1967 Regulation also provided for constitution of an Agency Council in the erstwhile North-East Frontier Agency. Subsequently, under the provisions of the North-East Frontier Agency (Administration) Supplementary Regulation, 1971, a Pradesh Council was constituted in place of the Agency Council which was functioning immediately before the commencement of this Regulation. But with the enforcement of the Constitution—37th

¹ Verrier Elwin, *Democracy in NEFA*, (Shillong, 1965), p. 167.

² Ibid, pp. 167-168.

Amendment Act, 1975, the Pradesh Council has been replaced by the Legislative Assembly functioning in the Union Territory of Arunachal Pradesh from August 15, 1975.

Anchal Samiti

Constitution and Composition : The Anchal Samiti is constituted for such contiguous areas in a district as are termed a Block. It is an unit of self-government at the Block level. An Anchal Samiti consists of the following members :

- (1) One representative elected by the members of each Gram Panchayat falling within its jurisdiction in a Block. An Anchal Samiti comprises a specified number of Gram Panchayats ;
- (2) One representative from the Co-operative Societies situated within the Blocks, as ex-officio member ;
- (3) Five persons nominated by the Deputy Commissioner from the members of the unrepresented tribal communities ;
- (4) The Sub-divisional Officer of the sub-division in which the Block is situated, as ex-officio member.

Besides the above members, the Deputy Commissioner may appoint such officers as ex-officio members of an Anchal Samiti without the right of vote as may be deemed necessary.

The Sub-divisional Officer who is a member of an Anchal Samiti acts as its President. The Vice-President is elected from amongst the members of an Anchal Samiti.

Powers and Functions : The Anchal Samiti, the jurisdiction of which is coterminous with the area of a Block, is an important unit of planning and development. In fact it is the organ through which various developmental and welfare activities are channelised at the inter-village level. It has an effective part to play for promotion of education, improvement of agricultural methods and increased production, and also in the sphere of administration. The North-East Frontier Agency Panchayat Raj Regulation of 1967 has vested the Anchal Samitis with specific powers and functions for the following matters :

- (1) Improvement of sanitation and public health including :
 - (a) Supply of water for drinking and domestic use,
 - (b) Provision of medical relief as well as establishment and maintenance of hospitals and dispensaries,
 - (c) Maternity and child welfare,
 - (d) Encouragement of vaccination in human beings and animals, and
 - (e) Taking of anti-malarial and anti-kala-azar measures.

- (2) Public works including :
 - (a) Construction, maintenance and repair of buildings, waterways, public roads, drains, embankments, bunds and bridges, and
 - (b) Construction and maintenance of minor irrigation works.
- (3) Education and culture relating, *inter-alia*, to
 - (a) Establishment and maintenance of library, reading room, club or other places of recreation and games, and
 - (b) Spread of education to Middle English and Middle Vernacular standards, and also above those standards.
- (4) Self-defence and village defence,
- (5) Administration which includes :
 - (a) Maintenance of records relating to agricultural produce, census of village industries, population census, cattle census, spinning wheels and weaving machine census, census of unemployed persons or persons having no economic holding or such other statistics as may be necessary,
 - (b) Registration of births, deaths, marriages and maintenance of registers for the purpose,
 - (c) Drawing up of programmes for increasing the output of agricultural and non-agricultural produce in the village,
 - (d) Preparation of a statement showing the requirements of the supplies and finance needed for carrying out rural development schemes,
 - (e) Preparation of plans for the development of the village, and
 - (f) Acting as agent of the Government for developmental works within the area where funds for specific purposes are provided.
- (6) Welfare of the people which includes :
 - (a) Organisation of welfare activities among women and children and among illiterate sections of the community,
 - (b) Organising voluntary labour for community works and works for the uplift of the village, and
 - (c) Relief to people affected by floods, drought and other natural calamities.
- (7) Agriculture and preservation of forests comprising :
 - (a) Improvement and development of agriculture and horticulture,

- (b)^o Production and use of improved seeds, and
- (c) Promotion of co-operative farming.
- (8) Breeding and protecting cattle.
- (9) Promotion, improvement and encouragement of cottage and village industries.

An Anchal Samiti may assign to any Gram Panchayat falling within its jurisdiction some of its specified functions.

Financial Resources : The Panchayat Raj Regulation of 1967 provides for a fund for each Anchal Samiti for discharging its functions. The Regulation lays down that the following shall be credited to and form part of the Anchal Samiti Fund, namely :

- (i) the proceeds of any tax, fees, licence fees, cess and surcharge levied under this Regulation ;
- (ii) the collection charge of tax or revenue due to Government ;
- (iii) any grants and contributions made by the Governor or any local authority or other persons ;
- (iv) all sums received by way of loan or gift ;
- (v) the income from, or the sale proceeds of, any property of the Anchal Samiti ;
- (vi) the sale proceeds of all dust, dirt, dung or refuse collected by the employees of the Anchal Samiti ;
- (vii) all sums received in aid of, or for expenditure on, any institution or service, maintained, managed or financed by the Anchal Samiti ;
- (viii) any other sums paid to the Anchal Samiti.

Zilla Parishad

Constitution and Composition : The North-East Frontier Agency Panchayat Raj Regulation of 1967 provides for a Zilla Parishad for each of the districts of Arunachal Pradesh. The Zilla Parishad is the highest unit of local self-government at the district level and it consists of the following members :

- (1) The Vice-Presidents of all the Anchal Samitis in the district as ex-officio members ;
- (2) One representative of every Anchal Samiti in the district who is elected by the members from amongst themselves ;
- (3) Not more than six persons to be nominated by the Governor from out of the tribes which have not secured representation on the Zilla Parishad ;

(4) The Deputy Commissioner in charge of the district, ex-officio.

The Deputy Commissioner of the district is the President of the Zilla Parishad. The Vice-President is elected by the members of the Zilla Parishad from amongst themselves for a period of three years.

Powers and Functions: The Zilla Parishad is an advisory as well as coordinating body. It advises the Governor on all matters concerning the activities of the Gram Panchayats and Anchal Samitis situated within the district. It makes recommendations to the Governor in respect of:

- (1) the budget estimates of the Anchal Samitis ;
- (2) the distribution and allocation of funds and grants to the Anchal Samitis ;
- (3) the coordination and consolidation of the plan proposed by the Anchal Samitis and drawing up of the District Plan ;
- (4) the coordination of the work of the Gram Panchayats and Anchal Samitis ; and
- (5) land settlement and raising of revenue for the Anchal Samitis.

The Zilla Parishad also makes a review of the working of the Anchal Samitis from time to time, and gives advices on such other matters as may be referred to it by the Governor.

There are 86 Gram Panchayats, nine Anchal Samitis and one Zilla Parishad in Lohit. The implementation of the Panchayat Raj in the district is a step towards realisation of the principles of self-government and democracy.

CHAPTER XIV

EDUCATION AND CULTURE

Historical Background

The Khamptis merit particular mention in the history of education in the district in the old days. They are the only indigenous people of Lohit who have a script of their own and a traditional system of education based on the principles of Buddhism. E. T. Dalton wrote of them in 1872 that "The Khamptis are very far in advance of all the north-eastern frontier tribes in knowledge, arts, and civilization. They are Buddhists and have regular establishments of priests well versed in the recondite mysteries of their religion, and a large proportion of the laity can read and write in their own language".¹ There are about seventeen monasteries in the Khampti area and they are the centres of learning as well. The education in the monasteries is based on the sacred texts, but it includes local arts and crafts. Boys are admitted into the monasteries at the age of four or five and they stay there for about twelve years to complete their education. There is no educational provision for girls in the monasteries. The medium of instruction is Khampti at the primary stage. Pali is taught in the higher classes to enable the students to continue higher studies in other Buddhist educational centres where Pali is the medium. The certificates of the Khampti educational centres are recognised by the educational institutions belonging to the Hinayana School of Buddhism. The Buddhist education confined only to the Khampti area, the rest of Lohit District did not have any educational institution and it remained a pre-literate society till the modern system of education was introduced in the district.

The first efforts for spreading education among the tribal people were made by the American Baptist Mission in the middle of the 19th century, when an education centre was set up at Sadiya. Tribal boys and girls were admitted in the Mission school. A few booklets were published by this Mission in the Roman script.

After 1914 when Sadiya was the administrative headquarters of the Central and Eastern Sections, North-East Frontier Tract, a Government school was opened for the school-going children from the state transferred areas. But a few tribal children came to read in this school. On the eve of the World War II, Primary Schools were opened at Chowkham and Bolung.

On the first day of September, 1947, just after the Independence, the

¹ E. T. Dalton, *Tribal History of Eastern India, (Descriptive Ethnology of Bengal)*, (Delhi, 1973), p. 6.

Department of Education was constituted under the charge of an Education Officer with headquarters at Sadiya which was at that time the headquarters of the Sadiya Frontier Tract. Mrs. Indira Miri was appointed as the first Education Officer, and it was she who started the pioneering work in the field of education. The supervision as well as administration of the educational activities was carried on from Sadiya, where a Teachers' Training Institute was also established in the month of December, 1947 for training of teachers for spread of education in the interior areas. The trained teachers from this institute were sent for opening of new schools. In 1948, the Administration took over all the schools of the Sadiya Frontier Tract under its own control. Some more new schools were also set up at Kherem, Dambuk and Koronu respectively. But the earthquake of 1950 and the subsequent flood in 1952 dealt a severe blow to the expansion of educational programme. The flood washed away a large part of Sadiya with the result that the Education Department and the Teachers' Training Institute were shifted to Margherita in Assam in 1952 and the latter was finally shifted to Changlang in the Tirap District in 1957. The Teachers' Training Institute was later renamed as Buniadi Siksha Bhavan. A separate inspectorate was constituted for the district of Lohit.

Organisation and Management

As a result of the gradual extension of educational activities, the need for an education directorate was felt, and consequently a Director of Education was appointed in 1956. In order to maintain a close supervision of the then Adviser to the Governor of Assam on the implementation of educational policy and programme, the directorate was stationed at Shillong. In place of the Director of Education a Director of Public Instructions was appointed in 1977 as the head of the department, who now controls, guides and directs all the educational activities in Arunachal Pradesh. The Education Department in the district is under the administrative control of the Deputy Commissioner. The District Education Officer, Principals and Assistant District Education Officers assist the Deputy Commissioner for implementation of the educational schemes and programmes.

The schools in the district are organised in the pattern of Central School Organisation and the Central Board of Secondary Education, New Delhi. The school education starts from Class I and continues upto Class XII. In some schools, there are also pre-school centres for children of 3 to 5 years age group. The stages of school education are as follows :

Pre-Primary	..	..	One year for children of 3 to 5 years age group.
Primary	..	..	Classes I to V
Middle	..	..	Classes VI to VIII
Secondary	..	..	Classes IX & X
Higher Secondary	..	..	Classes XI & XII.

EDUCATION AND CULTURE

The District Education Officer, who is in charge of all the Primary and Middle Schools in the district, has his headquarters at Tezu. He is assisted at the headquarters by an Assistant District Education Officer. The Higher Secondary Schools are placed directly under the Principals acting under the administrative control of the Deputy Commissioner and supervision of the Director of Public Instructions. For inspection and supervision of the educational institutions, an Assistant District Education Officer has been posted to Hayuliang and Anini each.

All the educational institutions in the district are directly managed and financed by the Government. Special care is taken to see that the institutions are run in the best interest of the tribal people, and educational facilities are extended to all of them.

Literacy and Educational Standards

According to the Census Reports, the percentage and growth of literacy in the district is as follows :

	Number of persons		Literacy percentage		Decadal Growth of Literacy percentage from 1961 to 1971
	1961	1971	1961	1971	
Total population	36,050	62,865	13.07	17.39	4.32
Scheduled Tribe population	27,150	36,611	5.40	7.38	1.98

The male and female literacy percentage is shown below :

Total population				Scheduled Tribe population			
1961		1971		1961		1971	
Males	Females	Males	Females	Males	Females	Males	Females
21.03	4.17	25.14	7.37	10.15	0.92	11.86	2.98

The decadal growth of literacy is also indicated in the number of literate and educated persons enumerated below :

Total Literate Population

Census year	Males	Females	Total
1971	8,914	2,021	10,935
1961	4,004	709	4,713
Decadal growth of literacy (in number)	4,910	1,312	6,222

Literate Scheduled Tribe Population

Census year	Males	Females	Total
1971	2,151	550	2,701
1961	1,337	129	1,466
Decadal growth of literacy (in number)	814	421	1,235

General Education

Although some schools existed in the district before 1947, the spread of education for the development and welfare of the tribal people of Lohit may rightly be taken as beginning from the Independence, which marked an era of educational progress in the district. The limited efforts made by the British Government and the Baptist Mission for establishment of a few schools were confined to a very small area, and the educational policy was not directed towards general promotion of education amongst the people. In fact, the people remained in isolation without the light of education for a very long period of time.

It should also be noted in this context that the difficult mountainous terrain of the Lohit and Dibang Valleys prevented easy access into the district in the early days. Likewise, no easy exit was available for the hill people to come down to the plains of Assam. There was hardly any road communication except foot-paths and tracks across the rugged hills and valleys intersected by deep gorges and turbulent rivers which allowed crossing only in the winter.

There was yet another problem to be dealt with. The people were generally averse to modern education and female literacy due to their ignorance. Growth of literacy during the early years of independence was, therefore, rather slow. The initial problems and difficulties were soon overcome by persuasions and educational campaigns. The people responded and came forward with initiative to have more schools. Meanwhile, great changes were taking place in other sectors of development. A wide area of the interior part of the district was opened up by road communications, and the administration extended to the remote regions. A link between the hills and plains was established and participation of the people in the developmental activities sponsored by the Government was secured.

Admittedly, the percentage of literacy in the district is a low 17.39 and it is still lower among the Scheduled Tribes. There can be no doubt that the people are well on the path of steady educational progress since independence. Altogether 112 educational institutions, with about 7,242

students—4,917 boys^o and 2,325 girls—on their roll have been established in the district upto the month of March 1976, as follows :¹

Institution	Number
1. Higher Secondary School	— 4
2. Middle School	— 16
3. Primary School	— 89
4. Nursery/Pre-Primary School	— 3
Total	— 112

Moreover, there is one Industrial Training Institute at Roing.* A detailed statement of the number of Schools and Students is at the Appendix to this Chapter.

From the educational point of view, the district of Lohit was relatively a dark area prior to 1947. There was no question of female education, for the people were plunged in illiteracy and ignorance. The educational progress achieved since then shows a gradual growth of female literacy even though it is extremely low as already indicated. But, it is significant to note that the number of girl students in schools is in the increase as follows :

Year	Number of Girl Students
1972-73	— 1,511
1973-74	— 1,986
1974-75	— 2,047
1975-76	— 2,325

It may also be noted that the Lohit District of all the districts of Arunachal Pradesh has the highest literacy rate of 17.39 per cent against 11.29 per cent of Arunachal Pradesh as a whole. The male and female literacy percentage of 25.14 and 7.37 respectively are also the highest compared to other districts.

Basic and Primary Education

The stage of primary education is from Class I to V. All the Primary Schools are under the supervision of the District Education Officer. There is a system of co-education in all these schools. Lower Primary examination is conducted by the Arunachal Pradesh Examination Board.

Before the close of the First Five Year Plan the need for organising the Primary Schools on the line of basic education was emphasised, and for that purpose batches of education officers and teachers were deputed to

¹Source : Statistical Hand Book of Arunachal Pradesh, 1975-76.

*See Chapter V for details

the Hindustani Tamili Sangh, Sevagram and Jamia Milliz Islamia, Delhi to receive training in basic education. As a result, a number of schools were converted into Junior Basic Schools. The trained teachers were the pioneers for carrying out the basic Education Programme. By 1962, the Primary Schools and lower primary section of the Middle and High Schools in the district were converted into Junior Basic Schools.

The curriculum of the Junior Basic Schools includes crafts and agriculture as important subjects for teaching. Generally, a school has an agricultural garden attached to it, where seasonal vegetables are grown by the students. The training in the improved methods of agriculture and other arts and crafts is imparted in order to keep up the interest of the educated Arunachal boys and girls in their agricultural economy and in the development of their indigenous crafts. Besides these, physical exercise, social work, indigenous and modern games are also important items of teaching in the schools. Particular care is taken to develop among the students qualities of self-reliance, mutual help, respect and reverence for elders and superiors and willing co-operation with others. The object of Basic Education in Arunachal Pradesh is to provide such opportunities to the children as are conducive to their intellectual and moral growth so that they can contribute in future their best to the development of their society and to the nation as a whole.

Inter-village Residential Schools: Of the 620 inhabited villages in the district, 563 are diminutive villages, that is the population of each of these villages is less than 200 persons. Moreover, the villages are scattered over wide areas. In appreciation of this fact, a scheme for opening of inter-village residential schools in the district was taken up in the year 1964-65. It was envisaged that in place of many scattered schools in the villages, it would be desirable to have a few centrally situated residential schools. Accordingly, some inter-village schools were opened, one each at Chaglagam, Hayuliang, Hawaii, Wakro, Emphum and Mipi.

Secondary Education

The Secondary Education is imparted through classes in two sections—the middle school section consisting of classes from VI to VIII and the secondary section IX to XII. All the high schools have since been upgraded to Higher Secondary Schools, and their number rose to four in 1974-75. A system of co-education is followed in all these schools, for no separate institution exists for the girls. However, separate classes are held on household crafts, such as cooking, weaving etc. for the girl students. There are hostels for the girls attached to different educational institutions. Boarding facilities with free food and clothing are extended to the students of distant villages reading in the Middle and Higher Secondary Schools. Textbooks are also supplied free of cost to all the tribal students of these schools. The Middle School examination is conducted by the Arunachal

Pradesh Examination Board. Higher Secondary Schools are affiliated to the Central Board of Secondary Education, New Delhi.

Higher Education

The Jawaharlal Nehru College at Pasighat in the Siang District, which was established in 1965, is the only college in Arunachal Pradesh for higher education upto degree standard. The students from this district are sent to this college or to some other colleges in the country for prosecution of higher studies, and the deserving students among them are awarded necessary stipends.

Technical Education

The Industrial Training Institute at Roing is the only institute in the district which provides technological training facilities in motor mechanics, electricity, carpentry etc. As for the students who are desirous of taking up higher technical education in engineering, medical, agriculture, veterinary etc., arrangements are made with the premier institutions of the country for their admission. Meritorious students are given scholarships for prosecution of studies in technical courses.

School for Cultivation of Fine Arts

There is no school for cultivation of fine arts in the district. The traditional art and culture of the tribal people as expressed in their weaving and other crafts as also in their dance and music are given encouragement in all possible ways. Regular classes for dance and music are held in the schools. The Craft Centres at Tezu and Anini have training units for various courses of weaving, wood-carving, smithery etc.

Medium of Instruction

The medium of instruction at different stages of school education in Arunachal Pradesh was a complex question. The district is inhabited by diverse tribal groups speaking in different dialects. None of them except the Khamptis has a script of their own, but they are familiar with some form of Assamese language. Assamese was, therefore, initially adopted as the medium in the primary, middle and high school standards. Hindi was also introduced as a compulsory subject in all the school standards and also as medium in the border area schools. Science and mathematics were taught in English from Class VII to Class X. Later English was taken up as the medium in the Higher Secondary Schools for classes from VIII to XI.

Thus there were three media of instructions in the schools of the district as under :

- (1) Assamese in all stages of school education,
- (2) Hindi in the border area schools, and
- (3) English in the Higher Secondary stage.

Eventually, since 1972 English has been accepted as the medium of instruction in all stages of school education. Besides English, Hindi is taught as the second language from Class I to X and Assamese or Sanskrit is taught as the third language from Class VI to VIII.

Adult Literacy

Two Adult Literacy Centres, one at Hayuliang and the other at Hawai, had been functioning since the academic session of 1969-70. The drive for adult literacy has not gained much momentum in Lohit. Absence of compact villages, hard struggle for livelihood, lack of interest and indifference of the adults towards the art of reading and writing are some of the clogs standing on the way of adult literacy drive. There are eight Community Development Blocks in the district. A few reading rooms and libraries were opened earlier in some of the Blocks under the programme of Social Education.

Buddhist Monastery School of the Khamptis

The Khampti monasteries are centres of religious activities as well as seats of learning. There are about seventeen monasteries in the Khampti area. All the monasteries have small dormitories for the pupils to live in. The principal monastery is at Chowkham where the chief monk lives. The pupils who stay in the monasteries undergo a regular course of education. The teachers are the Buddhist monks. Girls are not allowed to live in the monasteries. Four to five year old children are admitted in the monasteries and they stay there for about twelve years to complete their educational course. The monastic education is divided into five standards, namely *Ay*, *Prathama*, *Adya*, *Madhyama* and *Upadhi* or *Visharada*. The *Ay* is equivalent to Lower Primary, *Prathama* to the Primary, *Adya* to the Middle School, *Madhyama* to the High School and *Upadhi* or *Visharada* to the Graduation standard. *Adya*, *Madhyama* and *Upadhi* standards are again sub-divided into three grades—*Sutra*, *Vinaya* and *Abhidharma*.

Education in these monasteries is religion-oriented. But the students are also taught in subjects like fine arts, local handicraft etc. Moreover, as inmates of the monastery the students are required to do all chores of the monastery. They fetch fuel from the jungle, cook food, wash their clothes and do other similar works. This practical training serves the purpose of basic education. At the same time they learn how to lead a pious and religious life.

Those boys who desire to become monks are required to take a special course of training under the guidance of a qualified monk. On successful completion of the course, they may take up the career of a monk with the permission of their preceptor.

The text books are written either in Pali or in Khampti (Tai) script. These books are manuscripts, and they are supplied to the students by

the monasteries. When a student leaves the monastery, he leaves there the books also. The books pass from one hand to another, and the system continues from generation to generation. Some of the textbooks are locally written in Khampti by the monks. The lessons in the books are drawn from sacred literatures such as *Jataka*, *Tripitaka* and *Mahabharata*. The medium of instruction in all these monasteries is Khampti, but in higher classes Pali is also taken up as a medium. The teaching in Pali starts from the *Adya* standard and continues upto the *Upadhi* standard. The students prosecuting studies in *Upadhi* or *Visharada* standard generally go to other Buddhist centres of learning in India, such as Nalanda in Bihar.

All the teachers in the monasteries are monks, and they are well-versed in the Buddhist religious literature. They are to fulfil the following conditions in order to become monks: (1) a monk should not be in the service of any secular authority, (2) he must possess a good moral character, (3) he must be sound in health and mind, and (4) he must know the Khampti language. No specific educational qualification is required for a teacher, but he should possess adequate knowledge for teaching.

The teachers do not get any remuneration. They have to follow scrupulously the monastic rules of Buddhism, such as renunciation and celibacy.

The pupils living in the monastery have also to follow, more or less, the same pattern of life, although there is some relaxation for them.

Living in the monastery in direct, continuous and close contact with the monk-teachers during the pliable period of childhood and adolescence, the students lead a virtuous life.

The monasteries are managed by *Bhikshu Sangha*, a committee of monks. There is a system of election for the *Sangha* or committee. Although the *Bhikshu Sangha* controls the affairs of the monasteries, the village panchayat which is responsible for the maintenance of the monastery has also a part to play. Generally, when the monastery needs any help, the secretary of the village panchayat calls a meeting of the panchayat committee for collection of fund. The villagers also assist the monks with labour and other services as and when necessary.

Teacher's Training

An important feature of the educational system in Arunachal Pradesh is the training facilities extended to the teachers. Matric teachers are sent from this district to the Buniadi Siksha Bhavan at Changlang in the Tirap District for training. Matric teachers are also deputed for senior basic training at Titabar in Assam. A few arts graduate teachers and arts senior teachers are deputed every year to the Gauhati University for a course in Bachelor of Training (B.T.). The science graduate teachers and science senior teachers are sent annually to Bhubaneswar in Orissa for training in Bachelor of Education (B.Ed.).

The Teacher's Training Programme of the Buniadi Siksha Bhavan is so designed that the teachers are trained up as multipurpose workers in the interior villages. Thus, on completion of training, when they are posted in the interior, they function not only as teachers, but also as agricultural demonstrators and emergency doctors. Training in social education is part of the training course in the Buniadi Siksha Bhavan and the teachers are fully equipped to organize social education activities in the interior village.

In the Buniadi Siksha Bhavan the training is imparted with special emphasis on agriculture, cane and bamboo work, social services and development of tribal culture including songs and dances. The Bhavan has so far produced four batches of trained under-Matric tribal teachers and there are as many as 136 trained teachers working in various educational institutions in Arunachal Pradesh. The Junior Basic and Senior Basic are the two main training courses in the Buniadi Siksha Bhavan and it also provides for an orientation course of about three months for teachers who have qualified in Basic Education from places outside.

Extra-curricular Activities

Development of tribal arts and culture is an important component of the system of education in Arunachal Pradesh. Music and dance, which are important aspects of tribal life, have been introduced in the schools as compulsory subjects. Cultural functions organised by the students are given encouragements and adequate help. Amenities for games and sports are provided to all Primary, Middle, High and Higher Secondary Schools. Great stress is laid on the indigenous games of the tribal people, and a book entitled 'Games of NEFA' in English, Hindi and Assamese has been published by the Government. Every year an inter-district tournament is held in a district headquarters. Competition in a number of sports and games are held, and teams of players and athletes from different districts are sent up to participate in the tournament. These tournaments provide a meeting ground to the boys and girls from different parts of Arunachal Pradesh. Prizes are awarded to the distinguished teams and deserving participants. Besides this, educational excursions of a batch of students selected from each district are sponsored by the Government. These students are taken on a conducted 'Bharat Darshan' tour to various places of interest in India. All expenses on this account are borne by the Government. It has been seen that such excursions are not only of immense educative value but also help the students to develop a sense of belonging to the vast country, that is India as a whole.

National Cadet Corps

The National Cadet Corps (N.C.C.) training was introduced in the High School at Tezu in 1963, and some of the students were sent to the training camps in Assam. Since then the other High Schools also took up

the N.C.C. training as one of the extra-curricular items. For this purpose, selected teachers were deputed to the N.C.C. camps for training so that they could coach the cadets of the district schools. Scout Companies and Girls' Guides were also formed in some of the schools.

Libraries

The district has two public libraries, one at Tezu and the other at Anini. Some of the schools have their own libraries of which particular mention may be made of the one attached to the Higher Secondary School at Tezu.

The stock of books as on 31st March, 1975 in the public libraries has been shown, language-wise in the following table :¹

Name of Library	Stock of Books							Total
	English	Hindi	Assamese	Bengali	Malayalam	Punjabi	Tamil	
(1) District Library, Tezu	1,969	1,644	2,502	1,759	235	—	—	8,109
(2) Sub-divisional Library, Anini	1,778	1,661	2,762	1,944	159	5	15	8,324
Total	3,747	3,305	5,264	3,703	394	5	15	16,433

Besides the books, the public libraries also subscribe a number of newspapers and journals in different languages.

Museums

The District Museum at Tezu was established in 1956 for preservation of valuable specimens of arts and crafts of the people inhabiting the area. The scientific way of preservation and modern system of displaying the exhibits were introduced in the museum in 1960 when a new building for the museum as well as the District Library was constructed, and it came to be known as the cultural centre of the district. The cultural centre at Tezu is also known as Gopinath Bordoloi Memorial Cultural Centre after the name of the late Chief Minister of Assam.

The museum is a treasure-house of about 538 anthropological specimens of different categories. They depict the cultural heritage of various tribes of this district. It contains, among other things, the following exhibits :

(1) *Textiles*—The Khampti dress, Bodo dress, Naga shawls, Manipuri dance-costume, Idu and Digaru dress consisting of skirts, shawls, blouses, coats and headgears of various designs with decoration of goat's and yak's hair, Mishmi priest apron, war coats etc.

¹ Source: The Central Library, Government of Arunachal Pradesh, Shillong.

(2) *Bamboo and Cane Crafts*—The Khampti refrigerators, Wancho and Mishmi haversacks with bark fibre decorations, Mishmi cane-shield, fish-traps, containers, sunshades, cross-bows (made both of wood and cane), ornaments of cane etc.

(3) *Wood-Crafts*—Khampti works in wood and bamboo which include figures of animals and birds, images of Lord Buddha, masks, statues and dolls.

The museum is looked after by a Keeper working under the direct supervision of the District Research Officer.

Some of the schools have miniature museums where specimens of different crafts and modes are exhibited.

Appendix
Number of Schools and Students during the years 1972-73 to 1974-75

Year	Number of Educational Institutions			Number of Students		
	Higher Secondary School	Middle School	Primary School	Total	Boys	Girls
1	2	3	4	5	6	7
1972-73	4	4	77	87	5113	1511
1973-74	4	6	77	87	5528	1986
1974-75	4	13	80	97	4234	2073
						6624 7514 6307

Source: (1) Statistical Hand Books of Arunachal Pradesh, 1972-73, 1973-74 and 1974-75.
(2) Directorate of Education, Government of Arunachal Pradesh.

CHAPTER XV

MEDICAL AND PUBLIC HEALTH SERVICES

Survey of Public Health and Medical Facilities in Early Times

The people have their own traditional methods of diagnosis and cure, and they have faith in their own medicine-men. According to the old belief of some of the tribes, the diseases are caused by evil spirits, and, therefore, can be cured only spiritually. In case of any illness, fowls, pigs and mithuns are sacrificed to appease the evil spirits who are believed to have caused it. Herbs, roots and leaves of some wild plants are used by them as preventives against indigestion, stomach trouble, cuts and wounds, diarrhoea and dysentery.

Some of the local herbs used by the tribal medicine-men for treatment of patients are known to be very effective. Investigation into the efficacy of these local medicinal herbs and aromatic plants is likely to enrich our knowledge of medicines. A medicinal herb known locally as *omerinko* or *arong* and botanically as *coptis teeta* (Mishmi teeta) has been found in the district. Since 1956, at least twenty different herbs and plants have been analysed besides *coptis teeta*. One of these herbs is said to possess properties comparable to cocaine.

The first step towards the introduction of health services in this area was the opening of a hospital at Sadiya following the formation in 1919 of a separate administrative unit called Sadiya Frontier Tract comprising the present district of Lohit. One Civil Surgeon and two Assistant Surgeons were posted. By 1928, there were twelve dispensaries out of which eight dispensaries functioned throughout the year, while others were open for only six months during the winter season. Government dispensaries were only four in number. Six dispensaries were attached to the units of Assam Rifles deployed in this area, and they were in charge of Sub-Assistant Surgeons. In fact, medical relief was available only in those administrative centres where armed forces were stationed for maintenance of law and order. The Political Officer of the Sadiya Frontier Tract accompanied by a doctor visited the interior villages once a year during the winter, and that was the only opportunity for the villagers to receive some medical aid. The medical facilities were too inadequate to mitigate the sufferings of the people.

Before 1947, the Government administration in this area was not very extensive and firmly based. Most of the people living in the deep interior areas of the district remained without the benefits of modern medical science. The limitations of medical coverage were due to other reasons too. There were only a few doctors, and the wider parts of the

district were not connected by road communications rendering it difficult to extend medical services to the villages. Moreover, the people had a distrust for modern medicines due to ignorance. They depended entirely on their indigenous drugs and on their own tribal medicine-men. They suffered and died, yet tenaciously held on to their faith that disease was the work of evil spirits.

It, therefore, took time in the beginning to convince the people of the efficacy and benefits of modern medicines and the utility of public health services. The task of the medical staff was not only to extend modern medical facilities to the tribal people, but also to educate them in the elementary principles of hygiene and sanitation.

After independence, the Government took up a series of schemes for opening of dispensaries and hospitals in the interior areas of the district so as to provide medical aid to as many people as possible. An Assistant Civil Surgeon in charge of the health services in the district was appointed with his headquarters at Sadiya. He was placed under the supervision of the Civil Surgeon of the Sadiya and Tirap Frontier Tracts.

During the period from 1947 to 1959, dispensaries and hospitals were established at the following places :

Name of place	Year of opening
Hayuliang	— 1947
Changwinty (now Hawaii)	— 1947
Walong	— 1947
Tezu	— 1947
Nizamghat	— 1949
Dambuk	— 1949

But the great earthquake of 1950, and the subsequent floods caused a set-back to the entire medical programme in the district. The hospital at Nizamghat which was washed away by the floods of 1951 was to be shifted to Chidu. With the shifting of the sub-divisional headquarters of the Dibang Valley from Chidu to Roing in March 1952, the hospital was again shifted to Roing. The headquarters of the Lohit District (then called Mishmi Hills District) was shifted from Sadiya to Tezu in 1952, and consequently the headquarters of the Assistant Civil Surgeon at Sadiya was also shifted to Tezu.

Vital Statistics

Formerly, there was no system for registration of births and deaths, and, therefore, no actual birth and death rates are on record. An endeavour was made at first to collect statistics of birth and death through local teachers, Village Level Workers and *Gaon Buras* (village elders). This was

not very successful due mainly to the indifference of the local people about giving information of births. The scanty information collected so far shows that infant mortality rate is not very high and the birth-rate among the Singphos, in particular, is low.

The people are comparatively at a low level of economic development. The poor sanitary condition in which the larger section of the people had to live must have reflected adversely on health. But it is certain that the general standard of health in the district is improving today, although a full assessment of the health conditions and birth and death rates is yet to be made.

Under the Registration of Births and Deaths Act, 1969, enforced in Arunachal Pradesh in October, 1973, the *Gaon Buras* of each village and the members of Gram Panchayat have been appointed as informants and notifiers of births and deaths respectively.

It may be mentioned in this context that the percentage of decadal increase in the population of the district from 1961 to 1971 is 74.38.

Common Diseases

The diseases which are common and which the people mostly suffer from are malaria, scabies and other skin diseases, diarrhoea and dysentery, stomach and intestinal diseases and respiratory diseases. The number of patients treated against various diseases during the period 1971-72 to 1975-76 is shown in the charts appended below:¹

Chart I

	1971-72	1972-73	1973-74
(a) Indoor Patients	1,630	1,980	2,150
(b) Outdoor Patients	58,440	72,470	62,020
Total	60,070	74,450	64,170

Chart II

Diseases	Number of Patients Treated				
	1971-72	1972-73	1973-74	1974-75	1975-76
(a) Syphilis	50	80	70	96	92
(b) Gonorrhoea	20	210	200	96	
(c) Malaria	2,860	900	—	8,210	10,158
(d) Scabies	670	1,470	1,370	863	
(e) All Other Skin diseases	2,880	6,430	5,420	975	998
(f) Diarrhoea/Dysentery	6,450	7,840	6,730	8,634	
(g) Stomach and Intestinal diseases	5,660	9,550	8,540	7,820	2,218

¹ Source: Statistical Hand Books of Arunachal Pradesh, 1971-72, 1972-73, 1973-74, 1974-75 and 1975-76.

Diseases	Number of Patients Treated				
	1971-72	1972-73	1973-74	1974-75	1975-76
(h) Respiratory diseases	8,630	12,780	10,770	2,635	499
(i) Goitre	70	420	410	75	181
(j) Tuberculosis	—	90	80	48	65
(k) Leprosy	10	—	—	—	—
(l) All Other diseases	32,770	34,680	30,580	43,584	48,622
Total	60,070	74,450	64,170	73,036	63,465

In 1959, about 259 cases of black fever (kala azar) was detected in the Tezu-Hayuliang area. Occurrence of tuberculosis is perceptible in the Tezu, Dambuk and Roing areas. Goitre is endemic in the Namsai area, Changwinty (Hawai), Dambuk and in other places, and prevalent in the Dibang Valley. Malaria is common in the foot-hill areas. Mosquitoes both anophelids and culex abound as do sandflies, dam-dim flies and leeches.

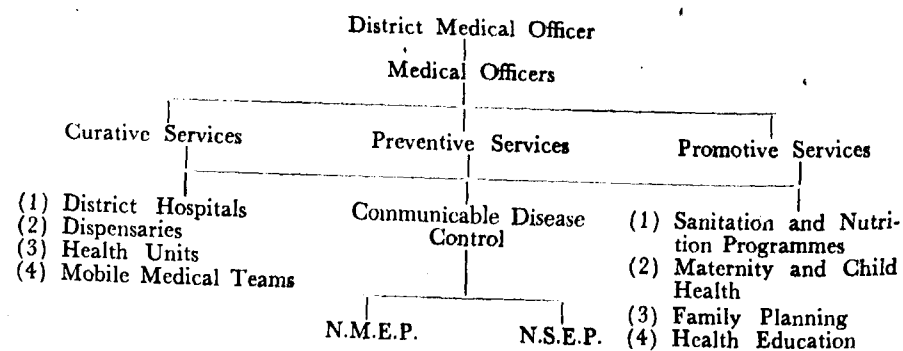
Epidemics

The villages are not free from epidemics. In 1918, the Mishmis, Khamptis and Singphos inhabiting the plains belt suffered extremely from influenza which broke out in an epidemic form, while in 1919, epidemics of dysentery and cholera amongst the coolies and *busti* (clustered houses) dwellers in the Lohit Valley were reported. Recorded instances of epidemics occurred before 1947 are scarce, but one can surmise that epidemics broke out from time to time. In 1952, an epidemic of dysentery occurred in the Roing-Chidu area due to water pollution caused by floods. In 1969-70, there was an outbreak of virus pneumonia in the Lohit Valley which took a toll of 47 lives, and in 1960-61, an epidemic of whooping cough and cholera broke out near Dambuk resulting in the death of 12 persons.

With the extension of medical cover to the whole of the district, epidemics are now held in check more promptly and effectively than ever before. No incident of any serious epidemic has been reported in the recent years.

Hospitals and Dispensaries

The District Medical Officer is the head of the Medical Department in the district. The Deputy Commissioner of the district exercises a general administrative control over the activities of the department. Assisted by a number of medical officers and staff, the District Medical Officer supervises all Government medical institutions of the district. The Director of Health Services is the highest medical authority in Arunachal Pradesh. The district medical department works under his guidance and direction. The organisation of the medical department is shown in the following chart:



In 1951, nine medical units in the shape of dispensaries and mobile health units were functioning in this district. With the extension of administration into the interior areas new hospitals and dispensaries were opened at various places. There are now one general hospital and 18 dispensaries, health units and teams in the district. The health units are each provided with beds. The 40 bedded District General Hospital at Tezu is one of the best hospital in Arunachal Pradesh. In 1964-65, for instance, almost 5000 persons received treatment in this hospital. The average number of indoor patients a day was 2.6, while that of outdoor patients was 40.8 during that year. Placed under the charge of the District Medical Officer, the hospital provides modern medical aids including X-ray for general, surgical and specialised treatments.

The location of hospital, dispensaries and health units with number of doctors and authorised beds, as in 1975, is shown below:

Sl. No.	Location	Number of Doctors	Number of Beds
1.	Tezu	4	40
2.	Sunpura	1	8
3.	Chowkham	1	8
4.	Namsai	1	8
5.	Wakro	1	2
6.	Hayuliang	2	12
7.	Hawai	2	12
8.	Walong	2	8
9.	Chaglagam	1	2
10.	Mahadevpur	—	—
11.	Anini	2	8
12.	Anelih	1	2
13.	Desali	1	2
14.	Kronli	1	2
15.	Roing	3	12
16.	Etalin	1	2
17.	Dambuk	1	2
Total		25	130

In the month of March 1976 there are in the district the following :

	Number
(1) District/General Hospital	1
(2) Dispensary/Health Unit	15
(3) Medical team	3
(4) Authorised beds	
(a) General	134
(b) T.B.	20
(5) Doctor	24
(6) Staff nurse	3
(7) Auxiliary nurse/Midwife	15
(8) Pharmacist	21
(9) Sister	1

There is no T.B. hospital, but 20 beds in hospital are authorised for T.B. patients.

Three medical teams are working in the district. To provide extensive medical cover to the people, the Medical Officers undertake tours to the villages. The preventive aspects of health services, such as improvement of environmental sanitation with special emphasis on fresh water supply and cleanliness, are stressed during these tours.

A Maternity and Child Health Centre attached to the District Hospital at Tezu has been functioning. The doctor in charge of this Centre also goes about to visit other centres to impart training in Family Planning.

National Small-Pox Eradication Programme (NSEP)

Twelve NSEP teams consisting of Inspectors and Health Assistants have been working in the district and they take regular preventive measures against small-pox. The achievements made under the programme are shown below:

Year	Primary Vaccination (PV) given (in number)	Re-Vaccination (RV) given (in number)	Total (in number)
1971	5,000	17,460	22,460
1972	4,140	21,210	25,350
1973	4,120	26,200	30,320
1974	4,780	34,210	38,990
1975	3,920	27,940	31,860

¹ Source : Statistical Hand Book of Arunachal Pradesh, 1975-76.

² Source : Statistical Hand Books of Arunachal Pradesh, 1971-72, 1972-73, 1973-74, 1974-75 and 1975-76.

National Malaria Eradication Programme (NMEP)

In 1952, an anti-malaria unit was opened at Sadiya, which was subsequently shifted to the district headquarters at Tezu. This marked the beginning of a series of measures taken towards effective control of malaria in the district. In 1953, two units, one at Moka and the other at Ningru, were set up. With the extension of anti-malaria activities to a wider area, two more units came up in 1954, and they were stationed at Dambuk and Chowkham. In 1958, the anti-malaria organisation was brought under the National Malaria Eradication Programme, and at this time some more units were opened respectively at Hayuliang, Roing, Namsai and Anini.

The territory of Arunachal Pradesh is divided into four zones for operation of the National Malaria Eradication Programme. The Lohit District falls under the Lohit Zone. The programme includes D.D.T. spray and active surveillance.

The D.D.T. spray is done by eleven teams of workers stationed at Tezu, Sunpura, Hayuliang, Hawaii, Chowkham, Namsai, Roing, Anini, Kronli and Hunli. Each team consists of one Malaria Inspector or Sub-Inspector and three regular labourers, and they are required to cover 30 to 85 villages annually. The number of villages for one team varies according to the area of the villages as one village might scatter over a large area.

The active surveillance is exercised by Domiciliary House Visitors (D.H.V.). Each visitor is allotted a number of villages ranging from five to twelve according to the dispersion of houses in the villages. The D.H.V. visits each house at regular intervals to find out possible malarial cases. Collection of blood slides and presumptive treatment are done by the D.H.V. and the cases of positive slides are referred to hospitals or treated radically.

The achievements under the programme in the Lohit Zone are indicated below :¹

Year	Blood slides collected	Blood slides examined	(in number)					Cases radi- cally treated
			Blood slides found malaria positive					
			PV	PF	PM	Mixed	Total	
1971	21,870	21,870	2,440	410	—	10	2,860	1,910
1972	22,040	22,020	1,900	390	—	8	2,298	900
1973	22,500	22,500	2,820	2,260	—	10	5,090	2,550
1974	24,680	24,680	4,150	4,030	—	29	8,209	3,170
1975	27,320	27,320	4,681	5,452	—	25	10,158	—

Sanitation

The sanitary conditions in many of the villages are still far from satisfactory. The people live in pile dwellings which are often of enormous

¹ Source : Statistical Hand Books of Arunachal Pradesh 1971-72, 1972-73, 1973-74, 1974-75 and 1975-76.

length, accommodating quite a number of families. A fire-place is kept in the centre of every room with fire burning day in and day out. But there is no proper outlet for quick emission of smoke from the rooms. In the absence of ventilation, the rooms remain dark even in the day time. Light comes in only from two exits at the extreme ends of the house. The stifling atmosphere inside the house causes chronic conjunctivitis and other eye troubles, and may be loss of eye-sight. Most of the people are yet to develop a sense of cleanliness and hygiene. The space under the floor of many houses is used for pigsty and also latrine. Filthy water and garbages accumulate under the floor of the house and around it. The houses in a village are scatteredly situated or huddled together without any system of drainage.

In fact, the lack of sanitation is often the cause of various diseases which the villagers suffer from. Water reservoir of any kind for supply of drinking water is absent in many villages, where water for drinking and domestic use is fetched from streams running down the slopes or from stagnant pools. Sometimes, water from a distant spring is channelised to the village through bamboo splits. In the absence of fresh water supply, the people are compelled to take water from any source that exists near their village without any hygienic consideration. In the more level areas, they draw water from the streams and rivers for domestic use. The high occurrence of diarrhoea, dysentery and other stomach and intestinal diseases is due mainly to the scarcity of drinking water.

It has been one of the constant endeavours of the Government to improve the sanitation of villages. The people are persuaded to clear both the dry and wet refuses, and campaigns through posters and other means emphasising the dangers of insanitary way of living are organised to educate the people. The need for protection of the drinking-water reservoirs from pollution is also explained to them.

With the spread of education and medical activities in the district, the people are becoming gradually conscious of the health problems and the value of sanitation. Their economic betterment for which various development schemes are being implemented would no doubt infuse in them a hygienic sense. A number of schemes for fresh water supply has been taken up and implemented. Steps have also been taken for drainage to prevent logging of liquid wastes and for laying down pipe-lines in the villages in order to fetch water from perennial streams. The progress under the Rural Water Supply Schemes till the month of March 1975 shows that 165 villages have been provided with water supply to the benefit of a population of about 34,000.¹

Village-sanitation and cleanliness drive is a part of the welfare programmes in the district, in which the Village Level Workers take active parts. Health education is imparted to the villagers by audio-visual and

¹ Source : Statistical Hand Books of Arunachal Pradesh, 1973-74 and 1974-75.

other means, such as magic lantern and film shows, display of posters in schools, health centres and other places. Principles of elementary hygiene and sanitation are explained to the students in schools as also to the village leaders.

All these measures sponsored by the Government for promotion of health have brought about a general improvement of the sanitary conditions.

Nutrition

The staple food of the people of the district consists of rice, millet, vegetables and meat. Rice-beer is also an important item of the daily diet. Although no extensive scientific study has so far been made to examine the food value of their diet, a dietary survey carried out in the Siang District showed that the food of the Adis, which is basically the same as that of the tribal people of Lohit, was richer than that of the average Indian peasant by 16 per cent in calorie, 17 per cent in protein, 70 per cent in calcium and 33 per cent in vitamin A. The richness of food is largely due to the rice-beer containing protein and minerals, which supplements the ordinary diet.

The food habit has been developed by the people through centuries of their living in this region so as to adopt themselves to the environmental conditions.

Minor occurrence of deficiency diseases, such as beriberi, rickets, scurvy, pellagra or xerophthalmia in this district, suggests that the local diet is not devoid of vitamins and nutritious value. But the main dietary problem is that there is not enough of food for the people, and a good many of them depend on decomposed meat and jungle produce during the slack seasons.

CHAPTER XVI

PUBLIC LIFE AND VOLUNTARY SOCIAL SERVICE ORGANISATIONS

Representation of the District in the State and the Union Legislatures

Under the Government of Union Territories Act, 1963 (20 of 1963) as amended by the Government of Union Territories (Amendment) Act, 1975 (29 of 1975) both coming into force in Arunachal Pradesh from August 15, 1975, Arunachal Pradesh has two seats in the Lok Sabha, i.e. the House of the People. The two parliamentary constituencies into which the Union Territory of Arunachal Pradesh has been divided are (1) Arunachal West and (2) Arunachal East. The whole of Lohit and Tirap Districts and a part of the Siang District are included in the Arunachal East Constituency.

According to the provisions of the said Acts and the Order of the Election Commission made in respect of the delimitation of assembly constituencies, the district of Lohit is represented in the Legislative Assembly of the Union Territory by four members elected from the following single member territorial constituencies :

<i>Name of Constituency</i>	<i>Extent of Constituency</i>
(1) Anini	Anini, Etalin and Adane (Anelih) circles in the Anini Sub-division; and Hunli (Desali) circle in the Roing Sub-division.
(2) Roing	Roing and Dambuk circles in the Roing Sub-division.
(3) Namsai-Chowkham	Namsai and Chowkham circles in the Namsai Sub-division in the Lohit District and Bordumsa circle in the Miao Sub-division of the Tirap District.
(4) Tezu-Hayuliang	Tezu circle in the Tezu Sub-division; Wakro circle in the Namsai Sub-division and Hayuliang, Chaglagam, Hawaii, Walong and Kibithoo circles in the Hayuliang Sub-division.

Political Parties

The Janata Party and the People's Party of Arunachal are the two main political parties functioning in the district. The Indian National Congress also exercised an influence in the area.

In the General Election to the Lok Sabha, held for the first time in the Union Territory of Arunachal Pradesh in the month of March 1977, Shri Bakin Pertin, an independent candidate was elected from the Arunachal East Constituency comprising the Lohit District. His nearest rival was a Congress candidate.

In the first General Election to the Legislative Assembly of Arunachal Pradesh, held in the month of February, 1978, twelve candidates contested for the four Assembly seats. The contest between the Janata Party and the People's Party was the most important feature of the election. The Janata Party set up candidates for all the seats, while the People's Party contested for three seats. It was only in the Tezu-Hayuliang Constituency there was a straight contest, and it was between these two parties.

The results of the elections are as follows :

<i>Parties</i>	<i>Number of Seats Won</i>	<i>Name of Constituency</i>
Janata Party	2	Namsai-Chowkham Tezu-Hayuliang
People's Party	1	Roing
Independent	1	Anini

The total number of electorate in the four constituencies was 32,668 and the percentage of valid votes polled in these constituencies was 71.24 on average.¹

Voluntary Social Service Organisations

Some of the voluntary social service organisations functioning in the district for social and cultural welfares and advancement of the tribal people are as follows:

- (1) The District Social and Cultural Society, Tezu
- (2) The Lohit Bodhi Society, Tezu
- (3) The Idu Cultural Society, Roing
- (4) The Adi Cultural Society, Roing
- (5) The Arunachal Bhikku Sangha, Chowkham and
- (6) The Tai Khampti Cultural Society, Chowkham.

These organisations are given necessary assistance and grant-in-aid by the Government.

District Social and Cultural Society

The voluntary organisations, as already mentioned, have been working

¹ Source : Arunachal News (Shillong, February-March 1978), Vol. 7, No. 1, pp. 1-2.

in different areas and at various levels in the district for preservation and promotion of the cultural heritage of the people and welfare of the tribal societies. The District Social and Cultural Society at Tezu is an important such organisation at the district level.

Social Welfare Advisory Board

The Social Welfare Advisory Board, constituted in Arunachal Pradesh in 1963, has been executing various welfare programmes for women and children through the Welfare Extension Project Centres under the Project Implementing Committees. There are two Project Implementing Committees in the district, one at Tezu and the other at Roing.

Under these committees there are five Welfare Extension Project Centres located at Tindolong, Tafrogam, Bolung, Koronu and Mihindu. Each of the W.E.P. Centre is staffed by one Gramsevika, who looks after the Balwadi (pre-basic school), adult education classes, craft classes etc., and one Dai attending to maternity cases and taking preliminary medical care of the local population.

The Supplementary Nutrition Programme sponsored by the Central Social Welfare Board and the Union Territory Government has been extended to the Balwadis attached to the W.E.P. Centres. The Board receives grant-in-aid from the Government and financial help and assistance from the Central Social Welfare Board for implementation of its various welfare programmes.

The welfare programmes undertaken in the district by the Board pertain, among other things, to the following :

(1) *Balwadis (Pre-Basic Schools for Children)*—The Balwadi provides the children elementary education through recitation of nursery rhymes and English alphabet, demonstration of toys, numerical blocks etc. Apart from giving nutritious food to the children, the Balwadi also looks after their bathing and clothing.

(2) *Free Medical Aid to the Villagers*—Medical care is rendered freely by the trained Dais to patients in villages and the W.E.P. Centres. Maternity—pre-natal and post-natal, services are also rendered by the Dais.

(3) *Condensed Course of Education for Adult Women*—This programme aims at holding classes by the Gramsevikas for education of adult women.

(4) *Vocational Training*—Under the Vocational Training Programme, various arts and crafts, such as weaving, sewing, tailoring, knitting etc. are to be taught to the village women. Besides these, the women are also to be given instructions in culinary and household matters concerning preparation of nutritious food, preservation of food, kitchen gardening, flower gardening etc. At the initial stage, attempts are being made to impart training in weaving.

(5) *Mohila Mandal*—A Mohila Mandal has been organised at Sitpani village in the district.

CHAPTER XVII

PLACES OF INTEREST

The district of Lohit lies in the north-eastern corner of India, and adjoins Tibet (China) on the north and Burma on the east. Situated at the tri-junction of three countries, the district has assumed a great importance. Besides this, the district occupies an unique position in the history of India as a meeting place of various cultures, indigenous and exotic.

Lohit is also fascinating for its natural grandeur and scenic beauties. The lofty snow-capped mountains cascading down into the profusely wooded lower hills, and the innumerable streams flowing through deep gorges and glens, and through the verdant valleys till they merge with the great tributaries of the Brahmaputra, namely Lohit and Dibang rumbling on to the plains, constitute a topography which is at once formidable, sublime and magnificent.

Amidst this wild tangle of hills and rivers live a group of colourful tribes, simple, sturdy and hospitable. The Mishmis form the major tribal community of the district. "... I was", said Verrier Elwin on his first visit to the Mishmi country, "entirely unprepared for the wealth and beauty of their weaving designs, for their sense of colour and pattern, for the bright clean faces of the children, the shining white teeth—rare in a part of the world where the teeth are blackened or reddened with the eternal betel and lime—the friendly hospitality of everyone, and the quite wonderful coiffure of the Taraon and Kaman women which would not disgrace a Parsian lady of fashion". It is this wonderful land and the people that make travelling in this district interesting and adventurous. A description of some places of interest in the district is given below.*

Anini

Anini is the headquarters of the Additional Deputy Commissioner in charge of both the Anini and Roing Sub-divisions. Situated on a high plateau at 1,565 metres above the sea level and surrounded by distant hills and snow-capped mountains, Anini is a beautiful place. It has the possibilities of becoming a fine 'holiday resort' in future. The climate is cool and salubrious. Anini is not far from the international border. The local people are the Idus, and the population of the place is 565 persons.

¹ Verrier Elwin, *A Philosophy for NEFA*, (Shillong, 1964), pp. 21-22.

* The population figures of places shown in this chapter are based on the Census of 1971

Even though Anini is remotely situated, it has the amenities of a modern town, such as Post and Telegraph Office, school, hospital, electric light, craft centre, library, museum, dairy farm, horticultural nursery, co-operative stores etc.

Bhismaknagar

Bhismaknagar, a place of historical fame, is situated at the foot of the Mishmi Hills about 24 km south-east of Roing by road and about 40 km north-east of Sadiya as the crow flies. Popular traditions connect this place with Bhismak, the mytho-historical king of Assam and the incident of marriage of his daughter Rukmini with Krishna.

The ruins of an extensive fort with brick-built ramparts and gates, inner and outer stone walls enclosing a palace built on a brick basement of 6,100 sq metres in area, and other archaeological relics which have been exhumed from a dense jungle indicate that Bhismaknagar was probably a stronghold of the Chutiyas who ruled in the Sadiya region for centuries and were defeated by the Ahoms in 1523 A.D. The ruins of the fort extending over an area of about six and a half sq kilometres bear evidence of an ancient human settlement that existed in this region.

Bhismaknagar area is at present inhabited by the Idu Mishmis, who have a tradition that Bhismak and Rukmini belonged to them. The nearby Idu villages are Koronu, Marinda and Itiango.

Brahma Kund

The Brahma Kund or the well of Brahma adjacent to Parasuram Kund is situated in a deep pool where the Lohit river descends from the hills upon the plains about 21 km east of Tezu. Both the Kunds are associated with the legends of Parasuram who, it is said, opened a passage for the Brahmaputra through the hills with a single blow of his *kuthar* or axe. In allusion to this legend, the place is also known as Prabhu Kuthar. It is a place of pilgrimage for the devout Hindus from all over India.

The Brahma Kund is stated to have existed in a backwater on the south bank, but now it cannot be distinguished from the main course of the turbulent river with which it is mingling.

Chaglagam

Chaglagam, a circle headquarters in the Hayuliang Sub-division, is on the left bank of the Derai (Delai) river. The place is situated at a distance of 47 km from Hayuliang. The climate is moderately hot in summer, but extremely cold in winter. The local people are the Kamans, and the total population of the place is 398 persons.

Chaglagam has a primary school and a health unit. The place has been electrified.

Chowkham

Chowkham, a circle headquarters in the Namsai Sub-division, is on the left bank of the Tengapani river. The place is situated at an altitude of 183 metres above the sea level and about 25 km away from Tezu by road. The climate is humid and hot in summer. Chowkham is a famous Khampti settlement. The original name of this place was 'Chong-khamp', meaning in Khampti 'a temple of gold' (*Chong* = temple or monastery; *khamp* = gold). About one and a half centuries ago, a Khampti chief constructed a beautiful monastery at this place which was decorated with gold. This old monastery does no longer exist but there are two other temples at Chowkham, of which one is about fifty years old and the other is newly constructed. The place was in former times a seat of Raja Chow's government and of the Chief Buddhist Monk of the Khamptis. Besides the monasteries at Chowkham, there are Buddhist temples in other Khampti villages, many of them worn out, but all these temples depict marvellous wood-carving.

Chowkham is one of the biggest villages in the district with a population of 1,503 persons. It has a higher secondary school, hospital, horticulture garden and two co-operative societies. Electricity has been extended to Chowkham, and there are a number of rice mills in its vicinity.

Dambuk

Dambuk, a circle headquarters in the Roing Sub-division, has a population of 341 persons. The place is connected with Roing by road. It has a Post Office, co-operative stores, middle school and a health unit. Electricity has also been extended to this place. The devastations of the great earthquake of 1950 are widely visible in the vicinity of Dambuk.

Hawai

Hawai, a circle headquarters in the Hayuliang Sub-division, is on the right bank of Lohit, about 51 km south-east of Hayuliang by track. The place is situated on a table land at an altitude of 1219 metres above the sea level. The climate is cool and salubrious, the average annual rainfall being 212 cm. The local population of 191 persons is constituted by the Kamans. There is a health unit at Hawai.

Hayuliang

Situated at a distance of 101 km from Tezu by road, Hayuliang is a Sub-divisional headquarters. The local population is constituted by the Taraons and Kamans.

The word Hayuliang means in Taraon 'the place of my liquor' (*ha*=my, *yu*=liquor, *lyang*=place). The first batch of the Taraon migrants are said to have settled for some time at this place in the course of their wanderings through the Lohit Valley some five hundred years ago.

Ideally placed at an altitude of 762 metres above the sea level, Hayuliang enjoys a very pleasant, cool and salubrious climate. It has a middle school, horticulture nursery, health unit and a co-operative bank. The place has been electrified.

Hot Spring

There are two hot springs, one is on the right bank of the Dichu river at a distance of 39 km from the confluence of the Lohit and Dichu rivers and 64 km from Kibithoo, and the other is on the right bank of Lohit, 4 km away from Walong on the way to Kibithoo. The former is popularly known as the Hot Spring.

Kibithoo

Kibithoo is one of the remote circle headquarters in Arunachal Pradesh close to the Indo-Tibetan border. The place is situated at an altitude of 1,371 metres above the sea level, 122 km north-east of Hayuliang. The Meyors form the bulk of its small population of 191 persons.

It has an imposing scenery. The whispering pines, wild raspberries, beautiful flowers and majestic waterfalls set against the background of blue hills receding far away into the snowy peaks have imparted a grandeur and a serenity to the surroundings of Kibithoo. Indeed, the place has all the requisites of a beautiful hill resort. The climate is cool and salubrious.

The Kibithoo region witnessed a gallant fight by the Indian soldiers against the Chinese in 1962.

Namsai

Situated in the plain-belt at an altitude of 143 metres on the right bank of Noa-Dihing, Namsai, a sub-divisional headquarters, is a famous place. The Khamptis and the Singphos form the most of its population of 2,965 persons.

Namsai was probably an Ahom settlement in former times. 'Nam'—the Shan word for river or water, occurs in many place-names in the north-eastern extremity of Assam and Arunachal Pradesh as a prefix. The name Namsai in Khampti (the Khamptis are, like the Ahoms, a Shan tribe) means 'sandy water' (*nam*=water; *sai*=sand).

Electricity was extended to Namsai in 1963. The place is connected with Tezu by road via Chowkham. The Man Bum range near Namsai is a vast forest area. The Assam Saw Mills and Timber Co. Ltd. at Namsai is the oldest of its kind in the north-eastern India. There is also a rice mill at this place. Namsai is a flourishing trade centre with a good number of shops of which some are owned by the local people themselves. It has a higher secondary school, hospital and a general co-operative stores. A sericulture farm has been opened at Nonkhong in the Namsai area.

Namti Valley

Namti Valley commonly known as 'Namti-maidan' is situated about 7 km from Walong on the way to Kibithoo. In 1962, a grim battle was fought here by the Indian forces against the Chinese, and its memories lived in the minds of the local people for a long time.

Parasuram Kund

Close to the Brahma Kund there is another holy place called Parasuram Kund or the well of Parasuram in the beautiful lower reaches of the Lohit river about 21 km by road from Tezu.

The place is associated with the legend of Parasuram expiating his sins. The Kalika-Puran (C. 8th Century A.D.) makes mention of this Kund as a sacred place. The Yogini-Tantra states that a bath in the Kund washes away all sins. Streams of pilgrims visit the Kund for a holy dip during the 'Magh Sankranti Mela' held in the month of January every year. On this occasion, the place takes a festive look with thousands of devotees coming from far and near and elaborate arrangements are made by the Government to extend transport, lodging, medical and other facilities to them.

The Kund or pool stated to have existed at this place has now been submerged by the main course of the river probably as a result of the topographical changes and shifting of rivers brought about in this area by the great earthquake of 1950. There exists today somewhat like a rocky inlet where the real Kund is supposed to have existed previously. The Lohit river at this point takes a south-westerly course. Taking a sharp bend through a glen between three lofty hills, the river descends into the plains and rumbles down in two mighty currents on the sides of a cliff rising high from the river bed itself. Here a stream cascading down from the hills merges itself into the Kund. The neighbouring hills and dales impart a picturesque scene to the whole area.

There is a Dharamsala at the foothills on the way to the Kund for the visitors. A Siva temple has also been newly constructed on the slope of the hill near the Dharamsala.

Paya

Paya is situated near Sadiya on the Sadiya-Tezu road. It was an important administrative outpost before the district headquarters were shifted to Tezu in 1952.

The famous Tamreswari Temple is about 13 km north of Paya. A Sivalinga (phallic stone) has also been discovered in the vicinity of Paya. These relics indicate that the area came under the influence of Saktism in the remote past.

Roing

Roing is an important Sub-divisional headquarters, 83 km north-west of Tezu by road. It is situated on a mild slope of the hills gradually descending into the plains of the Brahmaputra Valley. One can have a panoramic view of the immense plains from Roing having an altitude of 396 metres. The climate is hot and humid in the summer and temperate in the winter.

Roing is a developing electrified township with a population of 1220 persons. The local people are mostly Idus, and a number of Padams. It has a residential higher secondary school, hospital, post office besides an Industrial Training Institute and a rice mill. The market at Roing with a number of well-stocked shops was quite flourishing. Roing has other attractions too. The archaeological site of Bhismaknagar, where ruins of an ancient fort and a palace have been excavated, is only 24 km away from Roing by road. A co-operative bus plies regularly between Roing and Sadiya. There is also a sericulture farm at this place.

Tamreswari Temple

An ancient temple called Tamreswari is situated about 13 km north of Paya and 10 km south of Bhismaknagar in the wider vicinity of Sadiya. Probably it was built by the Chutiyas who ruled in this region from thirteenth to sixteenth century. It was described as a square structure of granite enclosed by a brick wall. The temple, which has now fallen to ruins, is approachable by a jungle track. Its roof was stated to have been sheathed with *tamra* or copper from which probably it came to be known as Tamreswari Mandir or Copper Temple.

The temple enshrined a mother goddess resembling Kali, whom the Chutiyas called Kesai-Khati or 'the eater of raw flesh', and to whom they offered human sacrifices. The Bara Bhuyans of Assam were also the worshippers of Tamreswari. They had a manual called 'Tamrakshari' containing magical formulae for the propitiation of the goddess.

The Tamreswari was so venerated by all the hills people of this region that it was aptly called the Eastern Kamakhya. A Sivalinga discovered a few years ago in its near vicinity is now installed in the Siva Mandir at Tezu.

Tezu

Tezu, the district headquarters, is situated 57.50 km east of Sadiya at an altitude of about 182 metres above the sea level. The original name of Tezu is Tezab—a rivulet flowing nearby. The climate of Tezu is on the whole salubrious, pleasant during the winter, hot and humid in the summer.

Tezu is a beautiful electrified town at the foot of lofty hills. It has a population of 4,182 persons. The local people are the Taraons. Besides

the Government establishments and a branch of the State Bank of India, it has a higher secondary school and a primary school, a general hospital with indoor, outdoor, X-ray and other medical facilities and services. Amongst other important features, mention may be made of a craft centre with an emporium, a district library with museum, an agricultural farm and horticultural nursery, a dairy farm, and a beautiful children's park. Two newly built Siva and Buddha Mandirs are its additional attractions. Tezu is now flourishing as a most modern town with electric lights, automatic telephone system, a net-work of beautiful metalled roads, an exhibition hall for cinema and other cultural performances, a good number of shops including co-operative stores and groceries, restaurants, book-stalls and even photo-studios. Its importance as a trade centre is in the increase. Industries, such as rice and saw mills, have also developed centering round Tezu.

Tezu is well-connected with the rest of the country by road, air, post and telegraph communications. But in the rainy season, the road communication is seriously disrupted due to the raging spate of the Digaru river.

Wakro

Wakro, a circle headquarters in the Namsai Sub-division, is situated near the famous Parasuram Kund. Its small population of 173 persons is constituted mainly by the Taraons. A middle school and a health unit have been opened at this place.

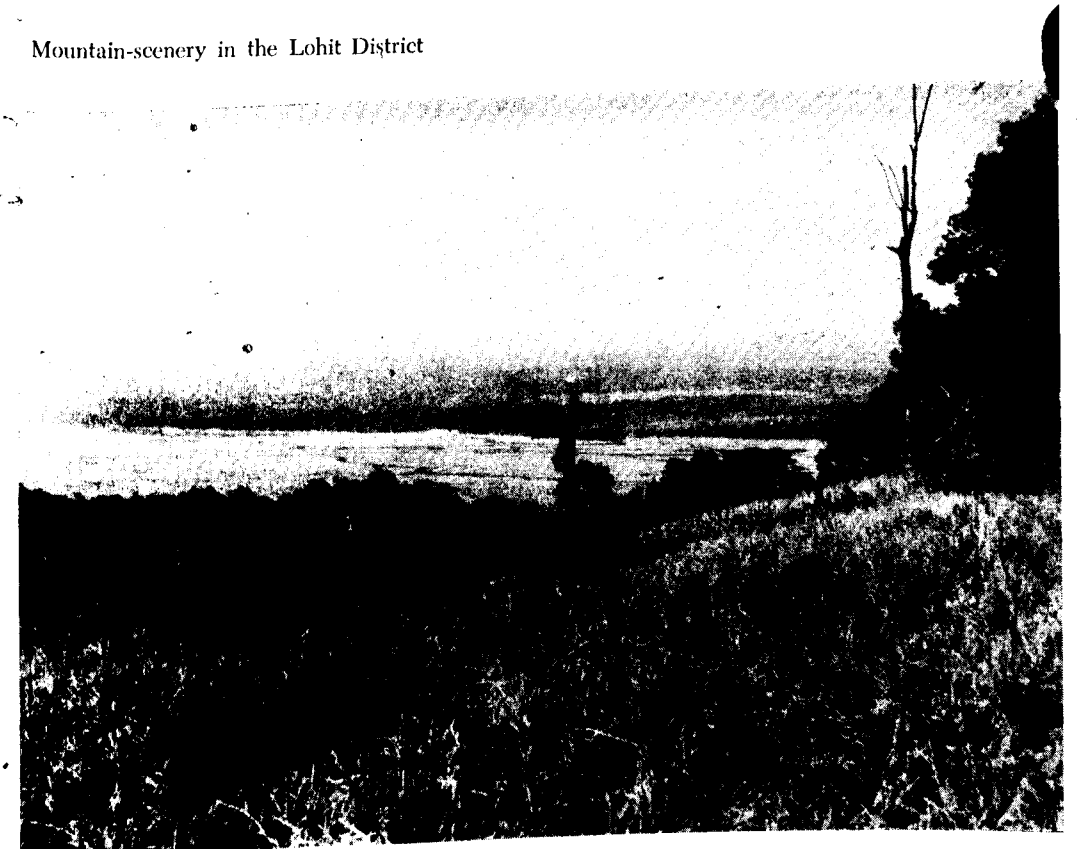
Walong

Situated at an altitude of 1371 metres above the sea level, 98 km away from Hayuliang, Walong is a circle headquarters in the Hayuliang sub-division on the bank of Lohit. Walong is a Mishmi word meaning 'a place full of bamboos' (*wa*=bamboo, *long*=place). The local Zakhriings and Meyors form the most of its population of 366 persons.

Walong is an electrified place with a hospital, middle school, co-operative stores, weaving centre and a horticulture garden. With its pine forests, sparkling streams and the Lohit river gliding by its side, Walong has all the requisites of a fine hill resort. The climate is cool and salubrious. The vicinity of Walong was the scene of gallant fighting by the Indian soldiers and of their martyrdom when the Chinese invaded it in 1962.



Mountain-scenery in the Lohit District



A view of the plains of Assam from the upland of Lohit



Streams cascading down to Parasuram Kund



Pilgrims on a Mishmi boat at Timaighat on their way to Parasuram Kund



Parasuram Kund—a place of pilgrimage



A mithun (*Bos frontalis*)



Ruins of Bhismanagar



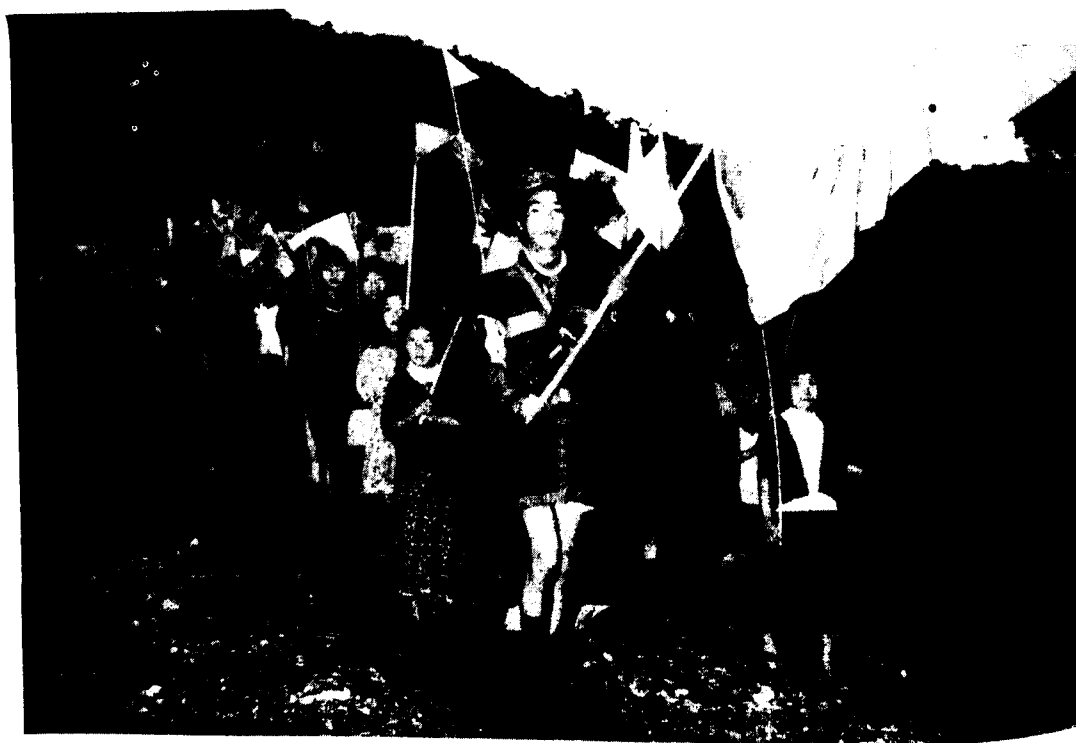
An old stupa in Namsai



Terracotta deer plaque found at Bhismanagar



An Idu priest



A morning procession of the Idu boys and girls heralding the Reh festival



Pantomime at Chowkham monastery



Prayer before the image of Lord Buddha at Chowkham



An old lady with tobacco pipe



An Idu family



The mother and child



A Taraon couple



An archer



A tribesman in warrior dress . ,



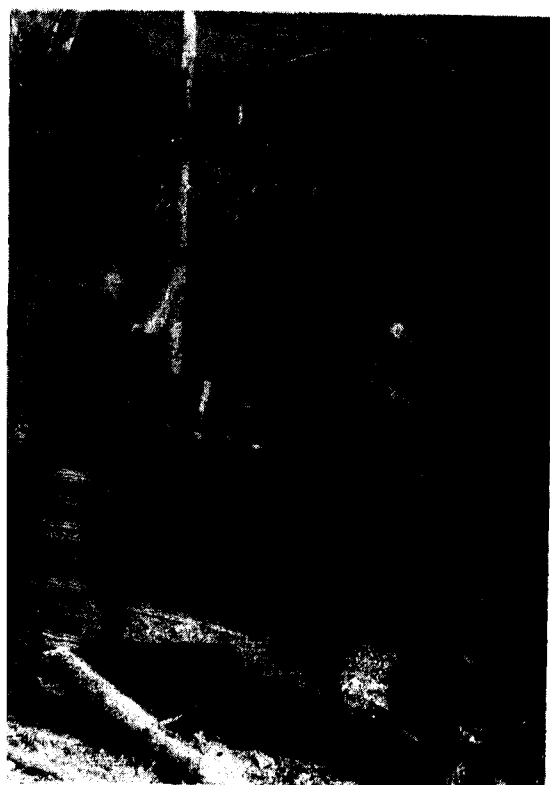
A girl on her way to the field



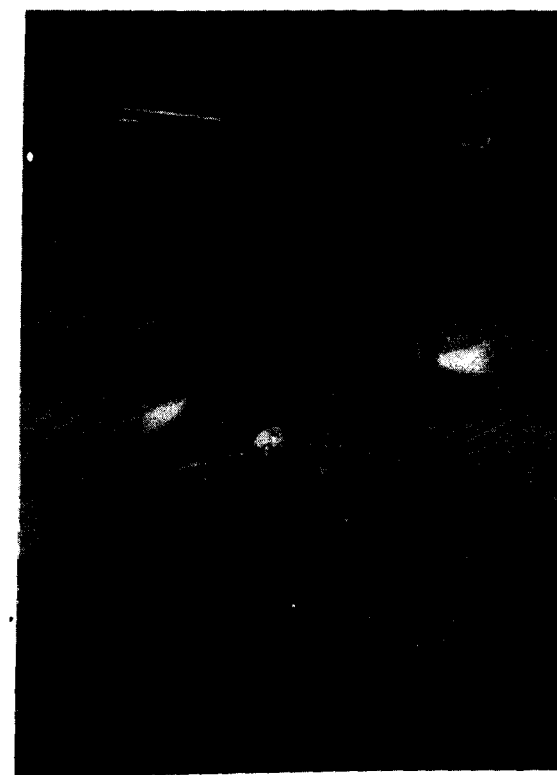
A maiden carrying a basket



A typical Idu house



Paddy-husking

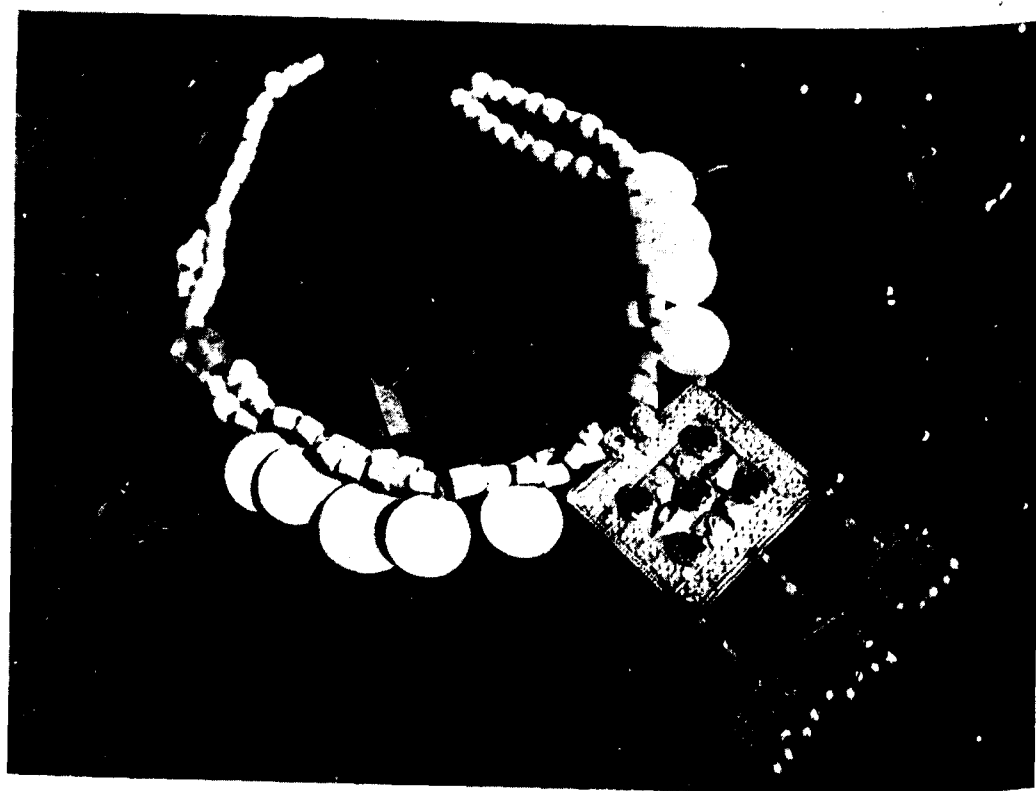


Styles of hairdressing

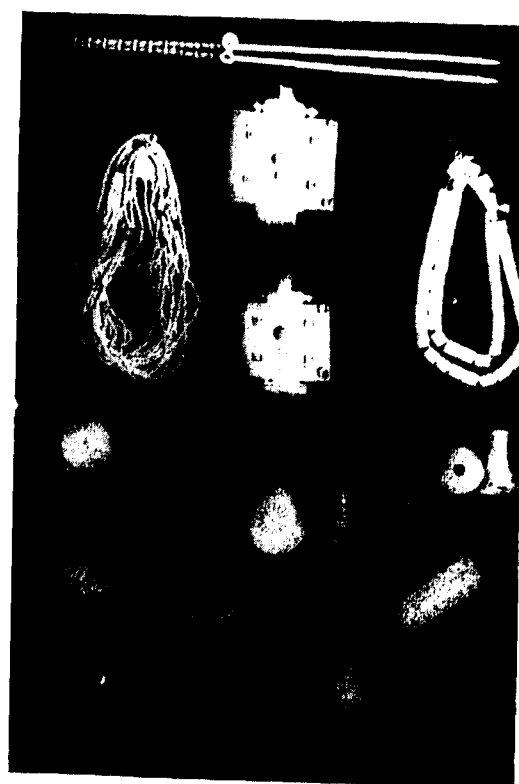


A Khampti family





A group dance



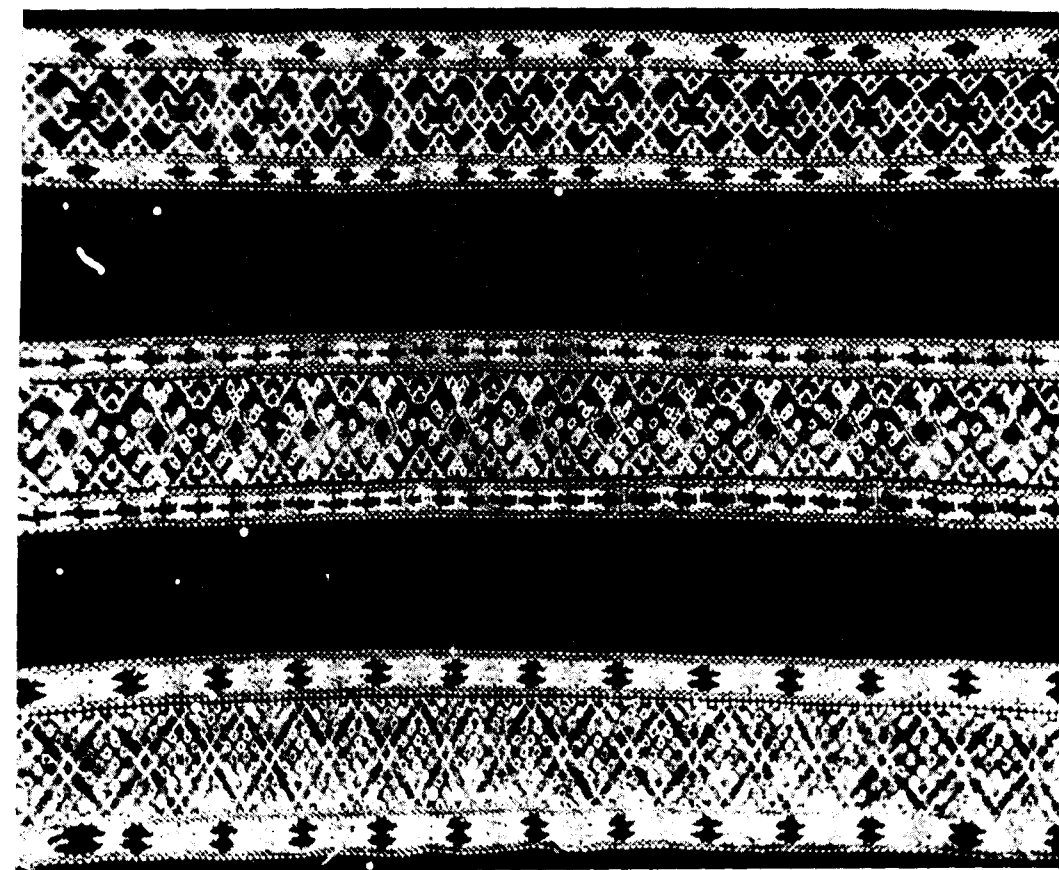
Ornaments and artefacts



A community dance by Idu men and women



Irrigation channel in Chowkham



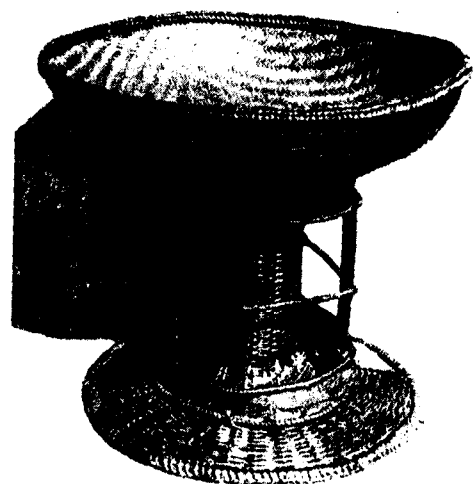
Textile designs



A girl weaving at her loom



Khampti bag with a design of the national emblem



Khampti rice-plate



A jeep moving joltingly on a road under construction



A cane suspension bridge in Anini



A view of a road winding through the hill



Facade of the science block of the Tezu Higher Secondary School



The Higher Secondary School at Chowkham

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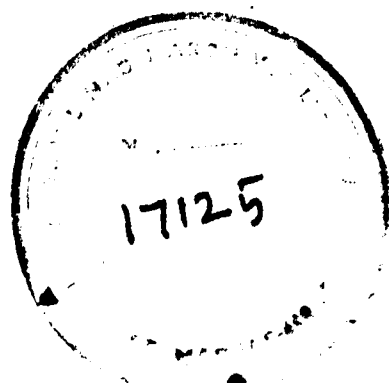
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ERRATA

Page	Line	For	Read
2	35	the	are
3	19	Chaglagram	Chaglagam
3	42	m	metres
6	4	syntaial bend	syntaxis
6	6	atre	are
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7	6	tne	the
7	1P	hornblendo	hornblende
7	21	emplaced	emplaced
7	27	granite	granitic
8	2	secession	succession
8	35	quartzitics	quartzities
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9	22	syntax	syntaxis
10	5	quartz. Keins	quartz veins
11	10	deposit	deposits
11	38	reported	reported from
13	42	Mino	Mimo
14	14	Commelinaceae	Commelinaceae
15	17	Rhododendron	Rhododendron
15	37	Fagopyrum	Fagopyrum
16	7	in the north	in or north
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16	18	partiridge	partridge
16	21	melanotes	melanotos
16	28	lathan	Latham
16	29	Spsdiceous	Spadiceus
16	32	Rattan	Ratten
16	37	olivea	olivea
16	38	Muscicapidae	Muscicapidae
17	6	philla	philia
17	6	Arborophilla	Arborophilia
17	10	menal	monal
17	17	Beddaert	Boddaert
17	26	crecca	arecca
17	28	Carganey	garganey
18	8	hormaphroditus	hermaphroditus
18	21	secrow	serow
18	21	sumatensis	sumatrensis
18	23	Bulalus	Bubalus
18	13	Anourosorex	Anourosorex
20	37	As no	As there is no
21	1	argus	argus
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22	7	Chaguntus	Chagunius

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22	7	<i>chaqunio</i>	<i>chagunio</i>
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25	15	gives	give
31	18	no	little
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35	19	covered	carved
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43	Foot Note —last line	178	187
51	40	killing	killed
51	45	directlv	directly
55	6	Tippam	Tippum
67	16	pity	piety
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96	25	spends in	spends the day in
97	5	tools	stools
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109	23-24	Chakmas of Bangladesh	Tipras of Tripura
113	26	boatsmen	boatmen
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