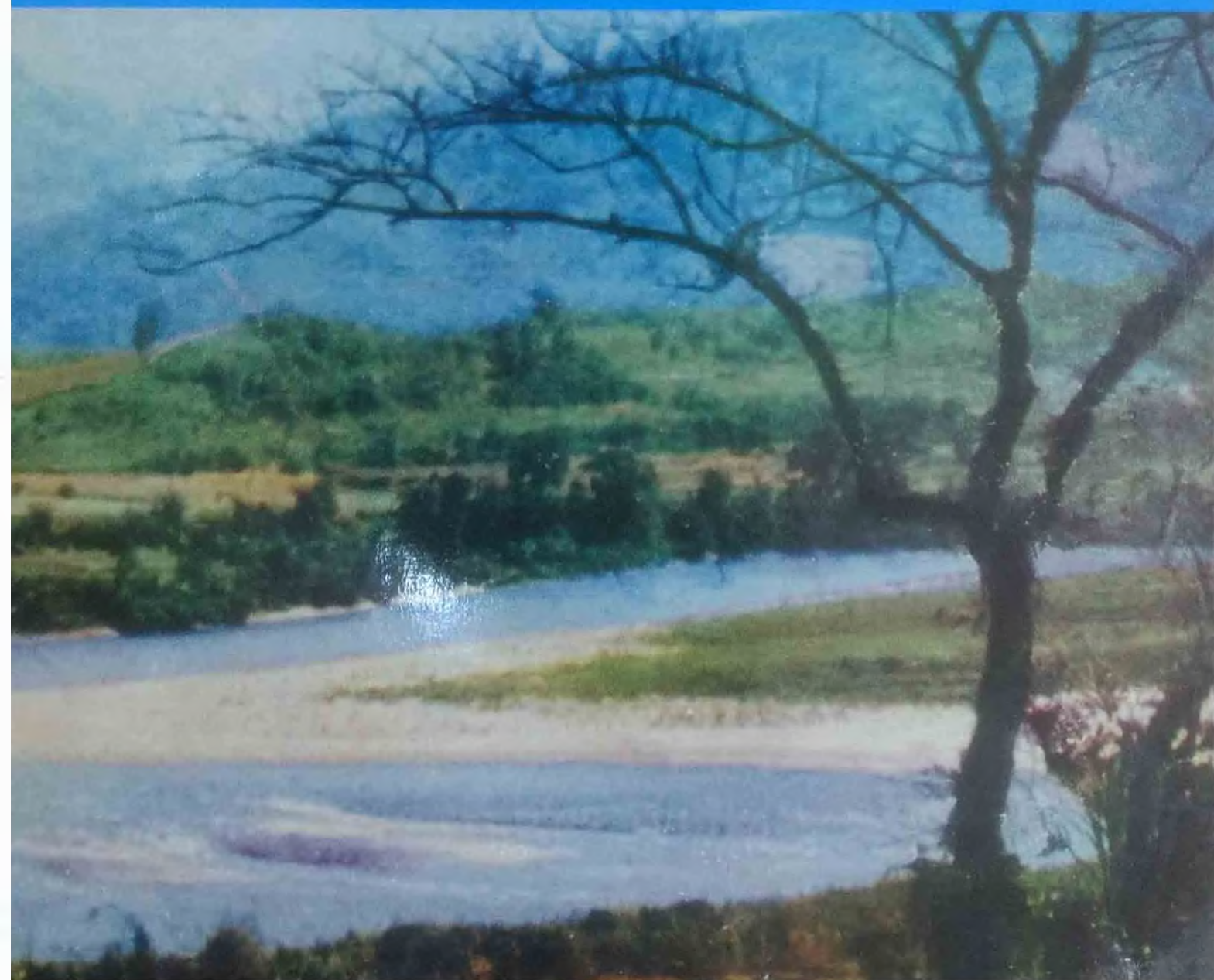


Gazetteer of India

ARUNACHAL PRADESH

Subansiri District



**GAZETTEER OF INDIA
ARUNACHAL PRADESH
SUBANSIRI DISTRICT**

**ARUNACHAL PRADESH DISTRICT
GAZETTEERS**



SUBANSIRI DISTRICT

By
S. DUTTA CHOUDHURY
Editor

**GOVERNMENT OF ARUNACHAL PRADESH
1981**

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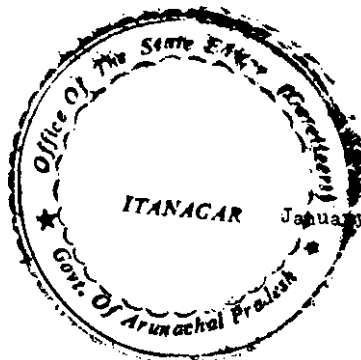
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Under the provisions of the Arunachal Pradesh (Re-organisation of Districts) Act, 1980 (Act No. 3 of 1980) as notified in the extraordinary issue of the Arunachal Pradesh Gazette dated May 13, 1980, the Subansiri District of Arunachal Pradesh has been divided into two new districts — the Lower Subansiri District and the Upper Subansiri District. The Lower Subansiri District with its headquarters at Ziro comprises three subdivisions, namely Ziro (*Sadar*), Sagalee and Koloriang; and the Upper Subansiri District with its headquarters at Daporijo consists of two subdivisions, namely Daporijo (*Sadar*) and Nacho.

The present volume is the Gazetteer of Subansiri District as it existed prior to June 1, 1980, i.e. the date from which the said Act has come into force.



RAJ NIWAS
ITANAGAR-791111

January 31, 1982

FOREWORD

I am happy to be associated with the publication of the Gazetteer for Subansiri district. This marks the third milestone in our journey towards the first complete documentation of the geographical, historical and cultural features of Arunachal Pradesh.

History has shown how District Gazetteers have sometimes been the only source of information for the researcher, visitor and students of history. How little we would have known about various places if the institution of District Gazetteer had not come into being in our country. In a Pradesh like ours, where history is not only being recounted but even created in an extremely compressed time-frame, the great significance of a Gazetteer can hardly be over-emphasised. Each such document will be a monument for those who have striven to make the Gazetteers possible but also a source of inspiration for the Arunachalis and public servants in the years to come.

I am sure, the inquisitive reader will find this volume to be as useful as a reference book as those relating to Lohit and Tirap districts and will get a comprehensive and objective picture of the socio-economic transformation which this Pradesh has been undergoing in the recent decades.

(H.S. Dubey)

PREFACE

The present volume is the third in the series of Arunachal Pradesh District Gazetteers. With the promulgation of Arunachal Pradesh (Re-organisation of Districts) Act, 1980 (Act No. 3 of 1980) from June 1, 1980, the Subansiri District has been divided into two new districts — Lower Subansiri District and Upper Subansiri District. This volume is being brought out as a gazetteer of the erstwhile Subansiri District for which it was written and the draft of which was approved by the Advisory Board in April 1980. The draft was duly modified in conformity with the comments and suggestions of the concerned Ministries of the Government of India and also the Survey of India.

This gazetteer of Subansiri District is the first of its kind. There is no earlier gazetteer of the district, which could be revised. The old volumes of the Assam District Gazetteers, namely B. C. Allen's Lakhimpur District Gazetteer published in 1905 and the Sadiya and Balipara Frontier Tract Gazetteer brought out in 1928 are, however, our important sources.

The present volume comprises statistical data up to the year 1978-79, and a good deal of important information ranging from early times to the recent past has been incorporated in it.

The Subansiri District is in many ways a land of extremes. There lies the beautiful Apa Tani valley presenting a serene landscape and conversely there are the most difficult and formidable tracts of lofty and precipitous hills and mountains soaring to snowy heights. The diversities are also glaring in regard to the stages of development of various tribes living in this district. It is the abode of the energetic Nishis, who are known in history for their valour; of the enterprising Apa Tanis, who have evolved a remarkable system of irrigation and sedentary cultivation, and also of the Sulungs, who are said to be lagging behind at the stage of hunting and food-gathering. Despite these diversities, the tribes living neighbourly in this district for centuries have some cultural traits in common and are bound together traditionally by economic ties. Their age-old seclusion is today a matter of the past, and the road to progress is now open to them.

Under the tremendous impact of the Government policy of welfare and development, the tribal societies in this region have been undergoing a process of transitional change. We have tried within our limited means to give in this volume a fair account of all these important facts. The account is based on available material, and hence we make no claim that this covers all facets of life in the district in every detail.

It needs to be mentioned in this context that in former times the term 'Dafla' was mistakenly or confusedly used to address the Nishis. This term occurring in passages which have been quoted in this volume has been changed into 'Nishi', by which name the tribe is known and should be properly called. The word Dafla or its variants, however, appear only in quotations of passages from some old documents, particularly of the 19th Century.

I would like to take this opportunity of expressing my deep gratitude to Shri H. S. Dubey, Lt. Governor of Arunachal Pradesh, who was kindly written the foreword of this gazetteer. I am grateful to Shri Tadar Tang, Minister of Supply, Transport and Co-operation, Arunachal Pradesh for his valuable advice and to Shri I. P. Gupta, formerly Chief Secretary to the Government of Arunachal Pradesh and Chairman of the Advisory Board for his inspiring leadership.

I am particularly grateful to Shri T. P. Khaund, Secretary to Lt. Governor. It would not have been easy for us to get over multitude of problems and publish this gazetteer without the help, guidance and support given by him as the Secretary-in-Charge of the Gazetteers Department.

My thanks are due to Dr. P. N. Chopra, Editor (Gazetteers), Government of India, Department of Culture and the staff of the Central Gazetteers Unit, Union Ministry of Education, New Delhi for the important guidelines and encouraging co-operation received from them.

I am also thankful to the officers of the Map Publication Office, Survey of India, Dehra Dun for their important contributions towards preparation and publication of maps in the gazetteers.

I am greatly indebted to Professor C. von Furer-Haimendorf, the eminent scholar and author, who has kindly permitted me to quote in our gazetteers passages from his celebrated book entitled 'The Apa Tanis and their Neighbours'. I thank him gratefully.

As for the important reports on geology, flora, fauna and climatology, I am grateful respectively to Shri B. Kakoti, the then Geologist (Sr.)-in-Charge, Geological Survey of India, Arunachal Pradesh Circle ; Dr. S. K. Jain, the then Deputy Director, Botanical Survey of India, Eastern Circle and Shri C. L. Malhotra, Systematic Botanist, who compiled the floristic report ; Dr. A. K. Ghosh, the then Officer-in-Charge, Eastern Regional Station, Zoological Survey of India and Shri B. B. Sen of the India Meteorological Department, New Delhi. I would also thank Shri C. Radhakrishnan, the present Officer-in-Charge of the Eastern Regional Station, Zoological Survey of India, for his active interest in the gazetteers and the photographs on fauna given by him and published in this gazetteer.

My thankful acknowledgements are due to Shri I. M. Simon, the then Director of Research, Arunachal Pradesh, Shri J. M. Syiem, the then Deputy Commissioner, Subansiri District and Shri K. Ringu, formerly Language Officer, Directorate of Research, Government of Arunachal Pradesh, All of them had painstakingly gone through the draft and made helpful and constructive suggestions.

Indeed, I am obliged to many officers of the Government of Arunachal Pradesh for the co-operation extended by them. The contributions of Shri R. P. S. Sarin, Deputy Secretary (Law and Judicial), Shri R. N. Bagchi, Art Expert, Shri B. Goswami, Publication Officer, Shri S. N. Goswami, Cameraman and the staff of the Photo Section, Shri Dipak Choudhury in particular, of the Directorate of Information and Public Relations ; Shri K. Tajang, Statistical Officer and Shri S. R. Chakraborty, Draftsman of the Directorate of Economics and Statistics merit particular mention. The cover photo is by Shri Ahmed Hussain.

I am also thankful to Shri A. K. Paul, Investigator, Shri I. N. Gohain, Investigator, Shri D. N. Ram, Cartographer, Shri K. J. Pandit, Artist and Shri S. Baishya, Draftsman of the Directorate of Census Operations, Arunachal Pradesh, for the special care taken by them to prepare the maps.

I would express my hearty thanks to all my colleagues — the officers and members of staff of the Gazetteers Department — Shri Ramendra Narayan Bagchi, Compiler, Shri C. K. Shyam, Compiler, Shri Kamalendu Ghosh, Research Assistant and Shri S. S. Kharakor, Stenographer, in particular, for their contributions and assistance.

Shillong
February 4, 1982

S. DUTTA CHOUDHURY

PREFACE TO REPRINTED EDITION

Etymologically a gazetteer means a geographical dictionary which enfolds many more subject matters than mere geography. It presents in a schematic manner factual, objective and well-documented accounts of different facets of peoples' life and indicates the trend of socio-economic and cultural developments that take place in a region. In short gazetteer is a storehouse of valuable and worth knowing information relating to a district or a state for which it is written. It is a dependable source of information for the administrators and research-workers, for the readers at large, and the explorers and tourists seeking knowledge of people and place.

The old district gazetteer of Subansiri District published in 1982 contained very valuable information, which was not wholly re-produced in the revised volume. These gazetteers have gone out of stock and are not available. The scheme of reprinting of old gazetteers was taken up as there is great demand for these volumes by research scholars and educationists.

The Subansiri District Gazetteer was brought out under the editorship of Shri S. Dutta Choudhury. The entire Subansiri region, until 1961, was administered under Subansiri Frontier Division. By 1971, this Frontier Division was declared as district. On 1st June, 1980, the district of Subansiri was curved into two districts namely, Lower Subansiri and Upper Subansiri. Lower Subansiri was again divided into two more districts namely, Papum Pare (1992) and Kurung Kumey (2001). Compilation works for bringing out separate district gazetteers for these districts is being taken up.

The volume is the reprinted edition of the Subansiri District Gazetteer of 1982. This is the 3rd in the series of reprinted gazetteers of Arunachal Pradesh. Every care has been taken in maintaining the complete originality of the old gazetteer while reprinting. I extend my appreciation to Shri Hage Nobin, Compiler (Gazetteers); Chow Sujing Namchoom, Compiler (Gazetteers) and Shri Duyu Tale, Research Assistant (Gazetteers) who have handled the reprinting work of this volume with great care and efficiency.

I am also very much thankful to Himalayan Publishers and Printers, Itanagar and New Delhi for completing the work of reprinting in very short time.

Itanagar
April 16, 2008.

SOKHEP KRI
State Editor (Gazetteers)

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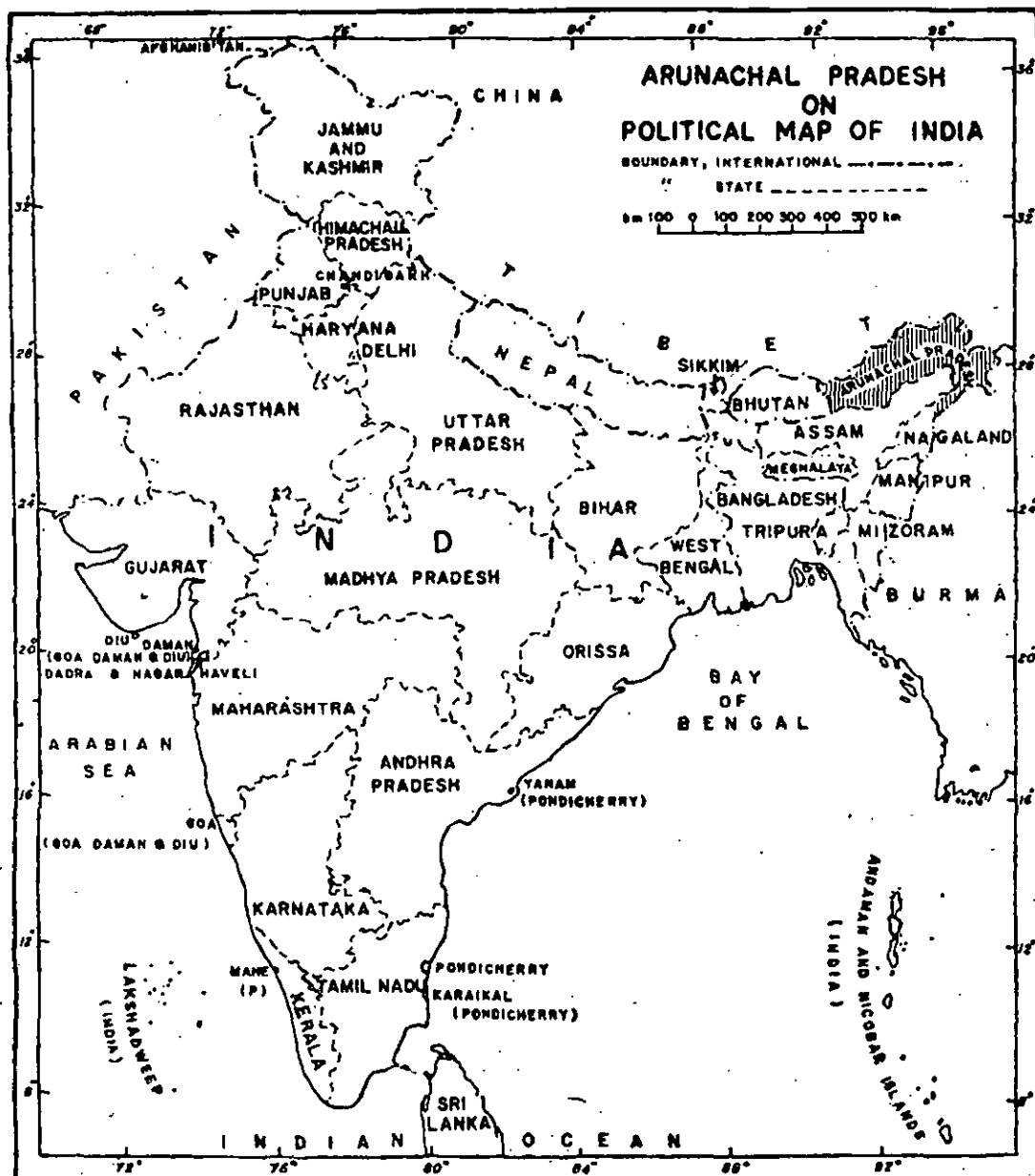
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GUIDE TO SPELLING AND PRONUNCIATION OF SOME PLACE, RIVER AND OTHER NAMES

(Based on Survey of India List of Names)

FOR	READ	FOR	READ
Arunachal	... Arunāchal	Nacho	... Nācho
Balipara	... Bāliparā	Niorchi	... Niyārchi
Balu	... Bālo	Nirke	... Niyārke
Changlang	... Chānglāng	Nirpung	... Niyārpung
Charduar	... Charđuār	Nyapin	... Nyāpin
Darjeeling	... Dārjiling	Pachin	... Pāchin
Doimukh	... Duimukh	Palin	... Pālin
Godak	... Gadāk	Pamluk	... Pāmluk
Hamching	... Hāmching	Pange	... Pānge
Hapoli	... Hāpoli	Pangen	... Pāngen
Harmuti	... Hārmati	Panior	... Pānyor
Harmutti }		Pannyu	... Pānyu
Hema	... Hāma	Papu	... Pāpu
Itanagar	... Itānagar	Par	... Pār
Jahing	... Jāhing	Pasighat	... Pāsighāt
Jorum	... Jorām	Patkai	... Pātkai
Kalimpong	... Kālimpang	Polosang	... Pullosāng
Kali	... Kāle	Raga	... Rāga
Kele }		Sagalec	... Sāgāli
Kamarupa	... Kāmarupa	Sengkhi	... Senkhi
Khetabari	... Kherbāri	Sibsagar	... Sibsāgar
Khru	... Kurung	Silonibari	... Silanibāri
Koloriang	... Koloriāng	Tale	... Tāle
Laij	... Lāij	Tali	... Tāli
Lamdak	... Lāmdāk	Taliha	... Tāliha
Layang	... Lāyang	Talo	... Tālo
Mara	... Māra	Tirap	... Tirāp
Margherita	... Mārgherita	Tsari	... Tsāri
Menga	... Menge	Yachuli	... Yāchuli
		Yazali	... Yāzali



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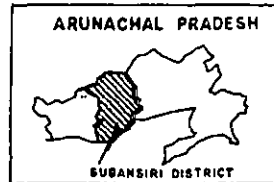
The territorial waters of India extend into the Sea to a distance of twelve nautical miles measured from the appropriate base line.

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.

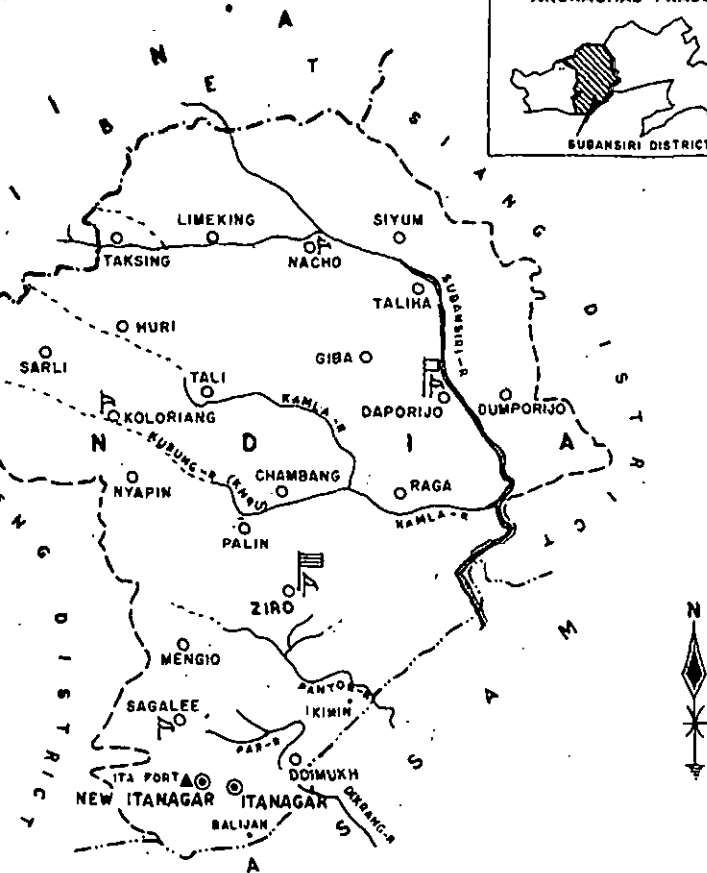
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ARUNACHAL PRADESH SUBANSIRI DISTRICT

Km. 10 0 10 20 30 40 50 Km.



REFERENCE	
Boundary, International	---
" State / U.T.	---
" District	---
Headquarters, District	■
" Circle	○
" Sub-Division, under Addl. D.C.	□
" " " E.A.C.	△
U.T. Capital Complex	⊙
Historical / Archaeological Site	▲



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CHAPTER I

GENERAL

PHYSICAL FEATURES AND NATURAL RESOURCES

Origin of the Name of the District and its Formation as an Administrative Unit

The name of the district has its origin in the river Subansiri, the tributaries of which take rise in Tibet and enter the territory about 10 km west and north-west of Taksing as the crow flies. In its upper course in the northern part of the district, the river flows due east until it gradually changes direction towards the south-east. Near Taliha the river takes a sharp turn towards the south and eventually descends into the plains of Assam, where it merges with the Brahmaputra. The river delineates the boundary between the districts of Siang and Subansiri of Arunachal Pradesh at some length.

The formation of the administrative unit called Subansiri District is the outgrowth of a sequence of toponymic and administrative changes. In 1914, the area was a part of the administrative unit called the Western Section, North-East Frontier Tract renamed in 1919 as the Balipara Frontier Tract. In 1946, the Balipara Frontier Tract was divided, for administrative convenience, into the Se La Sub-Agency and the Subansiri Area and in 1954, this Tract was bifurcated into two administrative units known as the Subansiri Frontier Division and the Kameng Frontier Division. In 1965, the Subansiri Frontier Division came to be known as the Subansiri District.¹

Location, General Boundaries, Area and Population

The traditional and customary boundary of India in the Eastern Sector obtained the added sanction of treaties in 1914 when the Indo-Tibetan Boundary Agreement of 24-25 March, 1914 and the Simla Convention of 3 July, 1914 were concluded.

The Subansiri District lies approximately between the latitudes 26°55'N

¹ See Chapter II for a detailed account of the history of administrative growth and developments.

and 28°42'N and the longitudes 92°41'E and 94°37'E. The 28°N latitude crosses the district in its broadest part and the 93°30'E longitude runs through its longest part.

The district is bounded on the north by Tibet (China) and partly by the Siang District of Arunachal Pradesh, on the east by the Siang District of Arunachal Pradesh, on the south by the Lakhimpur and Darrang Districts of Assam and on the west by the Kameng District of Arunachal Pradesh.

The district occupies an area of approximately 16,939 sq. km¹ inhabited by 1,12,928 persons² of whom 58,097 are males and 54,831 females. The density of population per sq. km is about 7 persons. The population is almost entirely rural.

Sub-Divisions and Circles

The district is divided into five sub-divisions -- Ziro, Sagalee, Koloriang, Daporijo and Nacho. The sub-divisions are further divided into twenty circles. The Ziro, Sagalee and Koloriang Sub-divisions are administered by the Deputy Commissioner, Subansiri District with headquarters at Ziro and the Daporijo and Nacho Sub-divisions by the Additional Deputy Commissioner with headquarters at Daporijo.

ZIRO

The Ziro Sub-division with Ziro as the headquarters of both the district and the sub-division occupies the central part of the district. The sub-division is under the overall charge of the Deputy Commissioner, Subansiri District, who is assisted at the headquarters by one Additional Deputy Commissioner (Development), some Extra Assistant Commissioners and Circle Officers.

The population of the sub-division is 44,495 persons, and the area is inhabited by the Apa Tanis, Nishis and Hill Miris.

The sub-division is divided into five circles -- Ziro, Palin,³ Raga, Tali

¹ The area figure of the district including the whole of Daporijo Sub-division is provisional.

² The population of Subansiri District as enumerated in the 1971 Census is 99,239. This figure excludes 13,689 persons living in a part of the erstwhile Daporijo Sub-division which was included in the adjacent Siang District at the time of the 1971 Census, vide Census of India 1971, Arunachal Pradesh, Part II-A, General Population Tables, pp. 16-19. According to the revised administrative set-up delimiting circles and sub-divisions as laid down in the North-East Frontier Agency Administration directive no. GA-40/71 dated the 21st May, 1971, this part of the Daporijo Sub-division has been included in the Subansiri District. The total population of Subansiri District shown in this gazetteer is, therefore, 1,12,928 (99,239 + 13,689).

³ The circle headquarters shifted to New Palin.

and Chambang. Ziro is under the charge of an Extra Assistant Commissioner while the other four circles are each in charge of a Circle Officer.

SAGALEE

The Sagalee Sub-division lies to the south-west of the district. Under the charge of an Extra Assistant Commissioner with his headquarters at Sagalee the Sub-division is divided into three circles—Sagalee, Doimukh and Mengio in charge of one Circle Officer each.

The population of the Sub-division is 17,632 persons, who are mostly Nishis. The Mikirs also form a part of the sub-divisional population.

KOLORIANG

The Koloriang Sub-division with Koloriang as the headquarters is situated in the north-western part of the district. Under the charge of an Extra Assistant Commissioner the sub-division is divided into four circles—Koloriang, Sarli, Huri and Nyapin which are each under the charge of a Circle Officer.

The sub-division has a population of 18,787 persons composed mainly by the Nishis. The area is inhabited also by the Sulungs.

DAPORIJO

The Daporijo Sub-division with Daporijo as the headquarters occupies the north-eastern part of the district. The Sub-division is under the charge of one Additional Deputy Commissioner who is assisted at the headquarters by two Extra Assistant Commissioners and some Circle Officers. The sub-division consists of four circles—Daporijo, Taliha, Dumporijo and Giba, which are each under the charge of a Circle Officer.

The Tagins constitute a great part of the sub-divisional population of 23,933 persons. The Gallongs and the Hill Miris also form substantial parts of the population of this area.

NACHO

The Nacho Sub-division with Nacho as the headquarters comprises the northern part of the district. Placed under the charge of an Extra Assistant Commissioner, the sub-division is divided into four circles—Nacho, Taksing, Limeking and Siyum. A Circle Officer is in charge of each of these circles.

The sub-division is predominantly inhabited by the Tagins, and the population is 8081 persons.

ITANAGAR

Itanagar, the capital complex of Arunachal Pradesh, formed as a functional sub-division for administrative purposes, is placed under the charge of an Additional Deputy Commissioner. An Extra Assistant Commissioner and a Circle Officer are also posted to this place.

TOPOGRAPHY

The entire Subansiri District is a mountainous terrain forming a part of the Eastern Himalayas. The area comprises a cross-section of the foothill region adjoining the border of Assam, the lower hills, the plateaux and the lofty mountains extending northward in a succession of steep and towering ridges receding far away to the snow-clad peaks along the International Border. From the northern heights take rise a number of rivers flowing down to the south. These rivers form the main river system of the district, the Subansiri, which in its southward course meets the Brahmaputra in the Lakhimpur District of Assam. The physical features of the district can conveniently be grouped under four natural divisions as follows:

(i) *Foothill Region*: Strips of level area all along the foothills adjoining the northern border of Assam form the plains belt of the district. In this area the plains end and the hills begin as if to delineate a natural borderline, which almost coincides with the 'Inner Line' of the territory. Here the lower hills rising abruptly from the plains run in a west-east direction along the 'Inner Line'. The elevation gradually rises as one proceeds to the north.

This foothill region is covered with dense tropical evergreen forests, and receives heavy rainfall during the monsoon.

(ii) *Rolling Grasslands*: The area above the foothills region is marked by rolling grasslands. This is featured by a number of hillocks, undulating hills and flat valleys on which grass and ferns grow in abundance. The grasslands stretch out over wide areas dissected by gullies and streams which are fringed by trees. Roughly the grasslands extend from Yazali to the hills that separate the settlements of Jorum and Jara from the woods of the Apa Tani valley. This belt has the appearance of an inverted triangle bounded on the south-east by the Pangen river and the south-west by the Panior river.

Such patches of grassland are also found in other areas of the district. A section of the Kamla valley near Tamen, for instance, and the adjoining valley of the Pein are also marked by grasslands.

(iii) *Plateaux*: On the northern side of the triangular grassland described above lie two plateaux, namely the Apa Tani plateau and the Tāle plateau.

(a) *The Apa Tani Plateau*: The plateau is situated in the heart of the district at an altitude of about 1,524 metres fringed by high hills. The plateau is confined to approximately an area of about 32 sq. km lying between the valleys of Kamla and Khru on the north and Panior on the south. The plateau is itself a single small valley, uneven and dotted with a number of hillocks of which Ziro and Sulaila are particularly important. On the east, a high ridge extends for about 16 km, and it demarcates the plateau from the wooded hills of the lower region. The ridge is having some important peaks. The Salin peak is on the old Apa Tani trade route to North Lakhimpur. This route was frequently used by the Apa Tanis before the opening of the Ziro-Kimin road. Ekhadi is another peak, and the highest peak is Ghuggu. Often most of these ranges remain covered with thick clouds.

The plain of the Apa Tani valley is drained by a small river, the Kele. It flows to the south for some 40 km before it meets the Panior river near Yazali.

(b) *The Tāle Plateau*: Situated at an altitude of about 2,438 metres the plateau lies nearly 32 km north-east of Ziro behind a ridge which, as already stated extends for a length of about 16 km. Like the Apa Tani plateau, the Tāle plateau is also very uneven. It is covered with dense forests marked by giant silvery fir trees. Other trees are birch, maple, oak and horse-chestnut. The forest also contains thin pliable bamboo in abundance. Besides these, a variety of rhododendrons, medicinal plants like *gaultheria fragrantissima*, orchids and ferns are other resources of the forests of this plateau. There are small lakes and large swamps. There are also some beautiful streams rippling through the plateau.

Tablelands, other than the two plateaux, are rare. Although a few small flat lands lie scattered here and there, the district in its northern, eastern and western parts is a tract of high hills and forests.

(iv) *Northern and North-Eastern Hill Regions*: This region comprises the Kamla and Khru valleys. The Kamla valley is separated from the Subansiri valley by a range of high hills extending in an approximate west-

east direction. The peaks are high, and the highest mountain of this region is called Keradadi.

A long range of lofty mountains rising from the confluence of the Kamla river and its tributary the Tapa stretches out towards north-west up to the Phura river which is another tributary of the Kamla. The range then turns towards north-east and joins the Chimpong mountains. There is another prominent chain of mountains on the right bank of the Kamla river. The Tadikiri is the highest peak of this range. On the left bank of the Kamla a peak called Yabi rises to a great height.

The upper basin of the Kamla river is demarcated from that of the Khru by the watershed running along the Fate, Tugrung and Hamching hills. In the Khru valley near Koloriang a towering hill with vertical face leaning towards the direction of the Khru is called Gelo Dumcho. The Hamching range is on the left bank of the Khru.

RIVER SYSTEM

The main rivers of the district are the Subansiri, Kamla, Khru, Panior, Par and Dikrang.

Subansiri: The artery of the river system of the district is the Subansiri. The headwater of the river in Tibet is formed by the Char Chu, Chayul Chu and Yume Chu rivers. It flows from the west to the east across the remote northern part of the district where, for some length, it goes by the name of Siniak. Near Taliha it bends sharply and descends on to the south until it loses itself in the bosom of the Brahmaputra in Assam.

In its long course the Subansiri river receives many tributaries of which the Kamla merits special mention as the main feeder. The Kamla meets the lower Subansiri at a point some 26 km east of Raga, a little far from the border of Assam. In the upper course, the Subansiri is met by a number of snow-fed tributaries, namely Tsari Chu (also called Gelen by the local people), Meni, Kabu, Kobit, Sibar, Sichi etc. Other important tributaries in the middle course are Sipi, Menga and Singen. These tributaries in their turn are fed by innumerable streams and rivulets.

The Subansiri river has many rapids and falls rendering it difficult for navigation. Some of the falls are magnificent.

Kamla: The river Kamla forms an important part of the Subansiri drainage system. It emerges from the confluence of a number of small rivers cascading down from the north-western snowy heights of the district. It flows from the north-west to the south-east, intersecting the district. Before meeting the Subansiri, of which it is the principal feeder, it receives

its main tributary the Khru. The Kamla is also fed by a number of other tributaries, the important being the Selu and Hema on the north bank, the Pein and Persin on the south bank. From the point of its confluence with the Khru the Kamla flows almost in a west-east course.

The Kamla valley like that of Subansiri is a difficult terrain, particularly beyond Huri. The river rumbles through steep cliffs and ravines of high mountains. The middle and the lower Kamla valleys are fairly populated, while the population in the upper reaches is sparse.

Khru: The Khru river takes rise from the high mountains in the north-west of the district, where its headwater is formed by a number of rivulets called the Vangee, Viang, Vari, Vaphi and Phurchi. It meets its tributaries the Pannyu and the Palin before it joins the Kamla river near the village of Balu. The Khru is a turbulent river and like the Kamla it too cuts through precipitous gorges.

Panior: The Panior river rises from a high mountain called Khoren Putu lying to the north-west of Sagalee in the southern part of the district. The river, formed by two streams --- Nirpung and Nirke, is also fed by a tributary called Pering. The Panior known in the plains of Assam as the Ranga-Nadi falls into the Brahmaputra.

Par: The river Par originates from the Senkeng Gekah range lying about 40 km away from Sagalee. It flows to the east for about 50 km before it meets the Niorchi and Pachin rivers. The main tributaries of the Par river are Pang and Nimte coming down from the nearby hills.

Dikrang: Besides the Panior the southern part of the district is also drained by the Dikrang, an important river. The Dikrang is formed by the Par, Niorchi and Pachin rivers. It flows from the west to the south-east, and passing through the Itanagar region merges with the Brahmaputra in the Lakhimpur District of Assam.

Lakes: In the upper reaches of the Kamla river there is a beautiful lake called Yabeuk fringed by silver-fir trees. Another lake in the Itanagar region is locally known as Gyakar Sinyi. It is famous for its beautiful setting.

GEOLOGY

The Subansiri District has been visited by many geologists from the later half of the 19th century. Gold panning in the lower reaches of the Suban-

siri river mentioned in the old records and discovery in later times of the marine fossiliferous sediments associated with the Gondwana rocks have brought this district into geological significance. Of late, the investigations made for base metal occurrences, graphite and systematic geological mapping have further enlivened the geological interest in this area.

Physiography

Delimited roughly between the Subansiri river on the east and the proximity of the eastern water divide of the Kameng river system on the west, the district embraces the Great Himalayas in the north and touches the Assam plains in the south. Physiographically, the foothill zone i.e. the Siwalik Hills* runs in the northeast-southwest direction within a width of about 20 km. In this zone the longitudinal drainage is better developed on the western side. North of the Siwalik Hills, the outer lower Himalayas follow the same trending, but towards the north this terrain is linked with the Great Himalayas through northwest-southeast ridge connections. In the upper reaches the Kamla and the Subansiri rivers also exhibit northwest-southeast deep gorges, while in the southern parts the Subansiri gorge takes a regional swerve towards south to south-west.

Tectonics

The physical succession seen in the northwest-southeast section is represented as follows:

NORTH-WEST

AGE	LITHOUNITS	CORRELATION
Pre-Cambrian with younger granites	Daporijo group of Crystallines-gneisses, migmatites etc.	Darjeeling gneisses and Dalings
Early Palaeozoic to Pre-Cambrian (granitic intrusives could be younger)	Khetabari formation of graphite schists, carbonate and phyllitic quartzites: potin formation of biotite (garnetiferous) schists and gneisses granites	(Bomdila group of Kameng District)

* The Siwalik Hills are in the north-western part of India. As similar geological formation is seen in this part of North-Eastern India, the name Siwalik has been used.

THRUST

Pre-permian- Palaeozoic sediments	Cherty rocks and dolomites; Miri quartzites (basic rock present)	= Elements of Buxas (Bichom of Kameng)
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THRUST

Permian	Black shales, hard sand- stones, calcareous nodules (sometimes marine fossils present)	= Lower Gondwanas
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THRUST

Upper Miocene Pleistocene	Fine sandstones, clays, pebbly sandstone, boulder bed etc.	Middle to Upper Siwaliks
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Assam Plains

SOUTH-EAST

There is no information about the rock constituents of the Great Himalayas, but it is expected that pre-cambrian schists, migmatites and sometimes younger granitic intrusive of the Sela group of Kameng would also extend to this region.

Daporijo Group of Crystallines etc.

High grade metamorphic rocks like biotite, garnet, sillimanite and graphite schists, migmatites and intrusions of pegmatite, tourmaline-granite are seen in the Lamdak and Daporijo areas. The regional trend is north-northeast to northeast—south-southwest to southwest. These rocks are supposed to continue westwards in the Kamla Valley upstream of the confluence of the Kamla and Pien rivers. These rocks appear to be folded into synform and antiform. The disposition of metamorphic grade in the underlying schists and the position of the gneisses above indicate inversion of metamorphic grades. Whether or not the sequence is also inverted is to be seen.

Potin Formation

Potin formation comprises chlorite, biotite and sometimes staurolite garnetiferous schists with grey to whitish quartzitic to quartz-muscovite schists up in the succession as seen in the Ranga Valley. Concordant bands of banded or augen-biotite gneisses are seen associated with the schist. Extensive development of gneissic and granitic rocks within this formation is seen on the Apa Tani plateau. North-eastwards these rocks form the upper contours of the outer Himalayan range upto about 10 km west of the Subansiri river. South-westwards these rocks may join the Bomdila group in the Kameng District. The formation is folded into anti-forms, one of the important antiformal axes being the Yazali-Pangin river alignment in the northeast-southwest direction. Sulphide mineralisation (cobalt, nickel and copper) occurring in this formation has also been recorded.

Khetabari Formation

This formation comprises a distinct suite of rocks characterised by grey-greenish, finely laminated phyllitic quartzites, graphitic or carbonaceous schists, whitish quartzites, associated impure carbonate facies. It is well exposed in the Ranga valley in the Yazali area physically underlying the potin formation. Similar rocks trending in the eastern-north-eastern to north-eastern—west-south-western to south-western directions are seen on the southern flanks of the Pein river and north of the Ziro valley. The graphitic rocks etc. also occur in the Lamdak area and they have also been noted across the Subansiri valley in the Siang District maintaining the regional northeast-southwest trend. Here, the rocks akin to Potin schist, and the Daporijo crystallines physically overlie these Khetabari rocks. Although the Khetabari schists etc. structurally underlie the Potin formation, it is considered that the former is younger than the latter. The Khetabari formation is also expected to merge with the Bomdila group in the Kameng District.

The Daporijo crystallines, Potin and Khatabari formations are considered to form a thrust sheet over the younger sediments. This can be broadly inferred from the relation that these metamorphics have with the Miri quartzites etc. in the Kamla valley and the antiformal core of dolomite etc. surrounded by these overthrust metamorphics seen in the Subansiri valley in the Daporijo-Taliha region.

Miri Quartzite and Associated Rocks

Underlying the metamorphites are the sediments comprising pink, white,

brown-grey quartzites, some basic volcanic rocks and ochery rocks (Abor volcanics, dolomites, cherts and grey to ochery shales). These rocks are well exposed in the lower reaches of the Kamla and Subansiri valleys. The dolomitic and quartzitic rocks near Taliha in the Subansiri valley also belong to this group of sediments. The prominent trend is northwest-southwest to north-northeast—south-southwest with dips on either side due to folding. The upper part exhibits hard dark coloured shaly and cherty rocks, bands of limestone and dolomite, dirty grey to brownish pebbly sandstones and bouldery slates. Although the rocks are intensely folded, the quartzites with some conglomerates form the lower part of the group. The distribution of limestone and dolomite so far known is restricted in the Kamla valley and the Subansiri valley. It is also possible that this wedge of quartzite, brownish slaty shales and volcanics intricately squeezed in between the overthrust potin formation and the thin wedge of Gondwanas, as seen in the Ranga valley and the outer Himalayan ranges also belong to this group of rocks. These rocks in general are highly folded and faulted and it appears that part of the sequence is involved in thrust scales. The Miri quartzites and associated rocks in general may be correlated with the Bichom group of the Kameng District although the strike-continuity between the two has not yet been established. The dolomites and cherts of the Kamla valley were earlier referred to Buxas, no stromatolitic zones have, however, been reported so far.

Gondwana Rocks

In the Subansiri District the Gondwana forms a very narrow strip on the northern side of the Siwalik belt with the prominent northeast-southwest trend usually showing northwesterly dips. The characteristic lithic unit is the black carbonaceous to coaly shales (phyllitic). The black or dark grey shales are sometimes associated with rather greenish shales and rusty looking cherty and carbonate nodules. The permian marine fossils, e.g. of *productus*, *spirifer* etc., have been recorded from Puripera stream, a tributary of the Ranga river about 38 km on the Kimin-Ziro road and also between 32 and 35 km on the same road sector. The typical fluvial sandstones and coaly shales/slates seen in the Kameng District are very much attenuated in the Subansiri District. In the Subansiri gorge the Gondwana as a whole are very much attenuated; and it is intimately associated with pinkish quartzites and grey gritty sandstones with pebbles of pink quartzite.

Siwalik Belt

The Siwalik belt consists of hard, fine grained, greenish grey sandstones

together with intercalations of greenish to brownish clays towards the exposed base. These are overlain by massive medium to coarse and occasionally pebbly sandstones rich in heavy minerals. The uppermost unit consists of yellowish silty clays, sandstones and pebbles. Boulder beds are more frequently seen towards the top of the succession. The sequence was earlier referred to Tipoms and Dihings. But the general nature of sediments, and geographic continuity lend support to its identification more with the Siwalik belt.

Essentially, these rocks are divided into two structural blocks—the southern one consisting of upper and middle units and folded into steep limbed anticlines and synclines affected by strike faults and the northern block consisting of the lower unit and some parts of the middle unit and occurring as upthrust block against the southern one. The regional strike in the western part is east-northeast—west-southwest, whereas in the Ranga valley it is essentially northeast-southwest which continues upto the Subansiri belt. In the western part 'dun' type of valleys like those of Doimukh (Dikrang valley) show gently folded upper unit rocks which seem to merge with Seijosa upper unit rocks in the Kameng District further west.

Quaternary and Recent Deposits

The Ziro valley contains some grey clays, sands and thin peat beds belonging probably to the Pleistocene Age. Raised terraces are seen between Yazali and Yachuli areas along the Kimin-Ziro road.

MINERAL OCCURRENCES

Arsenopyrite

About 100 m upstream from the confluence of the rivers Kele and Ranga sulphide mineralisation containing some amount of arsenic exists within a zone of about 1 m thick sheared quartzite and associated quartz veins. On rapid analyses the sulphides showed arsenic-23.37%, sulphur-10.13%, cobalt-1000 ppm and nickel-50 ppm.

Beryl

Occurrence of crystals of white beryl in small pegmatite veins in the gneisses near Yachuli (29°29':93°46') about 69 km on the Kimin-Ziro road has been reported.

Clay

Thin clayey zones in terrace material are noticed in the upper region of Pitapol ($27^{\circ}20':93^{\circ}48'$) along the Ranga valley. The clay is grey in colour due to impurities.

Coal

Tertiary Coals: Occurrences of tertiary coal in the Subansiri District are of academic interest only. Woody, lignitic to peaty, material in different forms is discernible in various sections across the tertiary rocks.

In the Ziro valley, a 0.3 m thick peaty outcrop exists in a 100 m long area close to Saro village along the right bank of the Kele river.

Gondwana Coals: Occurrence of only a few lenses of crushed, semi-anthracitic coal within carbonaceous slates in the Dikrang and Ranga valleys has been reported so far.

Sulphide Cobalt Nickel

Ranga Valley Area: Existence of sulphide mineralisation in the Gamje Nala, one of the steep right bank tributaries of the Ranga river, about 40 km from Kimin ($27^{\circ}18':93^{\circ}58'30''$) was first reported by Lasker (1959). The sample collected by him was, on analysis, found to contain 0.3% nickel. This was followed up by further investigations, but the sulphide mineralisation of some consequence could not be confirmed until Kakoti and Rao (1968) found definite indications of significant sulphide occurrences along both the banks of the Ranga river. The cobalt bearing pyrite was identified on the left bank, a sample of which showed 2.22% cobalt and 41.84% sulphur.

The sulphides occur in a schistose belt flanked by gneissose granitic rocks. The copper-ore (chalcopyrite) and pyrrhotite show pockety distribution and a number of places along the watershed of Gamje Nala on the right flank and Rup Nala on the left flank. These sulphide lenses sometimes show association with recrystallised amphiboles or calc-silicate bodies with tremolite crystals. In Rup Nala the sulphide also shows association with quartz veins, sometimes stray granitic boulders in Rup Nala contain streaks and patches of chalcopyrite suggesting that along the upstream gneissose granite is also mineralised at places. It has been generally observed that the copper mineralisation is followed by pyrrhotite and subsequently by the cobalt bearing pyrite mineralisation. The mineralisation is seen along the foliation and shear planes are distributed in the meso-

grade schistose zone. Shearing has also been observed in the mineralised zone.

On the northern flank cobalt bearing pyrite has been traced for a length of 250 m by drilling and trenching. The drill hole samples have given cobalt percentage upto 0.3, whereas the trench and surface samples have given an average of 0.5% to 0.7%.

On the southern flank, the pyrite-ore is seen on the surface at one place along the strike extension of the ore body on the north bank. Shallow drilling did not pick up the cobalt bearing zone but has given nickel values upto 0.13% for a width of 1.7 m.

Indications of copper, nickel and cobalt are present in this area. Cobalt values of the pyrites may prove to be one of the important factors for determining the pattern of investment on an otherwise low grade deposit so far known.

Copper Ore (Ranga Valley)

Chalcopyrite occurs as patches, specks and dissemination on both the banks of Ranga near the Potin village at 40 km point on the Kimin-Ziro road. Drilling for cobalt indicated a disseminated body of chalcopyrite, the percentage is 0.56% of Cu from a width of 6.9 m. Sporadic occurrence has been found exposed on both the banks of Ranga. Samples collected from the Rupa Nala section has shown the occurrence upto 1.06% of Cu. Specks of chalcopyrite and coatings of malachite along the Daporijo-Ziro road exists at a point about 4 km towards Daporijo from Saddle (27°49': 94°10'). Similarly, near Lamdak (27°51': 94°15') village about 55 km from Daporijo on the Daporijo-Ziro road, minor copper ore containing some chalcopyrite and pyrrhottite occurs in association with gangue minerals like quartz, mica and hornblende in a steep fracture within the quartzites. The rapid chemical analysis showed Cu-75 ppm., Ni-750 ppm. and Co-250 ppm.

Magnetite (Ranga Valley)

A magnetite band was traced along both the banks of Ranga during the base metal investigation in the Ranga valley in the vicinity of Potin village. The occurrence will be further investigated for finding out some base metals.

Lead Zinc (Ranga Valley)

In course of investigations for base metal in the Ranga valley sporadic occurrence of lead and zinc were reported from this area. Some of the samples analysed showed lead upto 125 ppm. and zinc upto 2000 ppm.

Occurrence within Dolomite near Taliha (28°15':94°10')

Indication of sulphide mineralisation was found from dolomite near Taliha. Out of 14 samples of dolomite collected from the neighbourhood of Menga one has shown 0.6% lead content.

Graphite

Flanky and amorphous graphite schist bodies occurring as pockets and lenses in the high grade metamorphic rocks are seen near La village about 51 km from Daporijo on the Daporijo-Ziro road. The estimated reserve of graphitic schist containing flanky graphite down to a depth of 30 metres is about 21,886 tonnes having 12% graphitic carbon. A reserve of about 3.30 million tonnes with 16.22% LOI of amorphous graphitic schist in the same area is estimated.

Investigation of graphitic in the Khetabari and Dodoserum areas is being continued. Earlier bulk sample collected from the area showed LOI upto 28%. The width of the Khetabari graphite is about 200 metres and the strike length is traced upto a kilometre.

Occurrence near Depo (27°17'05":93°40'23")

Two closely spaced graphitic schist bands, each about 40 metres thick, occur near Depo village. These bands are separated by a narrow strip of phyllitic quartzites and resemble the graphitic schist with amorphous graphite exposed on the south bank of the Ranga river behind the Khetabari agricultural farm. Minor graphitic schist bands, about one metre thick, are also observed east of Depo village.

Occurrence near Pamruk Nala between 27 km and 28 km on Ziro-Tamen Road

A 50 metres wide band of graphite has been located near Pamruk Nala between 27 km and 28 km on the Ziro-Tamen road.

Iron Ore

A number of small occurrences of iron ore have been noticed between Lamdak (27°51':94°15') and Godak (27°49':94°11') villages on the western flank of the Simmi river. Presence of small rolled boulders of iron ore in the alluvial terrace in the tertiary belt near Kimin (27°19':93°58') and Jahing (27°19':93°59'30") across the Ranga valley is also reported.

Limestone

Siliceous dolomitic limestones have been observed in the Khetabari-Yazali area in the Ranga valley and in the Kamla river section between Lamdak and Godak villages. Chemical analyses of a few samples collected from the Kamla river section gave Insolubles 2.06 to 28.03%, R2O3-2.50 to 6.70%; CaO-33.06% to 52.70%; Mge-0.71 to 7.96% and LOI-31.53 to 42.70%. These are, however, minor occurrences.

Mica

The pegmatites in granite near Ziro ($27^{\circ}36':95^{\circ}51'$) and near Pitapol ($27^{\circ}20':93^{\circ}48'$) and Potin ($27^{\circ}20':93^{\circ}49'50''$) contain small, highly crippled fractured and strained biotite and muscovite books. Similarly, the pegmatite veins in quartzite near Mughu ($27^{\circ}53':94^{\circ}15'$) on the Daporijo-Ziro road contain small books of muscovite. The occurrences are uneconomic.

Phosphorite

Samples collected from dark shales and calcareous to cherty bands within the Gondwanas on the Kimin-Ziro road section between 25 km and 35 km stone have shown less than 5% P2O5 content. Near 30 km stone a few samples indicated the P2O5 content upto 7%. No phosphorite band is, however, located in the area.

Pyrite and Pyrrhotite

Sulphide mineralisation containing chiefly pyrite with rare chalcopyrite and specks of malachite and azurite has been noticed near 20/3 culvert within 20 km and near 31/3 culvert within 32 km from Ziro to Tamen on the Daporijo-Ziro road. The country rock consists of grey, silvery mica schist, quartz-biotite schist and cherty quartzitic bands.

Thin layered disseminations of pyrite in hard and compact dark grey phyllitic boulders are also observed in the Pange river near Pel and Laij villages.

FLORA

The flora of Subansiri District is fairly well known. This sketch of vegetation and flora is based on the publications and explorations undertaken by the officers of the Botanical Survey of India.

The vegetation has an altitudinal distribution and may be broadly classified into five main types: (i) *Tropical Evergreen Forests*, (ii) *Sub-tropical Forests*, (iii) *Sub-tropical Grasslands*, (iv) *Temperate Forests* and (v) *Sub-Alpine and Alpine Vegetation*.

(i) *Tropical Evergreen Forests* (upto 900 m):—These forests extend upto a height of 900 m. The top storey is formed by tall trees, such as *Dipterocarpus macrocarpus* ('Hollong'), *Artocarpus chaplasha*, *Tetrameles nudiflora*, *Altingia excelsa*, *Terminalia chebula*, *T. myriocarpa* ('Hollock'), *Bombax ceiba*, *Chukrasia tabularis*, *C. velutina*, *Lagerstroemia speciosa*, *Bischofia javanica*, *Dysoxylum procerum*, *Castanopsis indica*, *Sloanea assamica*, *Amoora wallichii*, *Callicarpa arborea*, *Cinnamomum cecicodaphne*, *Dillenia indica*, *Duabanga sonneratioides*, *Magnolia campbellii*, *Pterospermum acerifolium*, *Quercus glauca* and *Shorea assamica*. The next storey is represented by small trees, namely *Mesua ferrea*, *Phoebe goalparensis*, *Duabanga grandiflora*, *Eugenia formosa*, *Goniothalamus simonsii*, *Talauma hodgsonii*, *Dillenia indica*, *Illicium griffithii*, *Michelia doltsopa*, *Bauhinia purpurea*, *Ficus hispida* and *Syzygium pseudoformosum*. The canes, mostly *Calamus leptospadix* and *C. erectus* occurring in swamps and forming impenetrable thickets, are met within these forests. Tree ferns *Cyathea* spp. and large fern *Angiopteris evecta* are found associated with *Pandanus furcatus*. The wild banana *Musa balbisiana* is a conspicuous feature of these forests.

The common shrubs met within these forests are *Abroma augusta*, *Ardisia humilis*, *A. undulata*, *Capparis acutifolia* spp. *sabiaefolia*, *Micromelum roxburghii*, *Solanum torvum*, *Clerodendrum glandulosum*, *C. serratum*, *C. villosum* and *Boecia fulva*. The ground flora is represented by *Achyranthes bidentata*, *Alternanthera sessilis*, *Commelina paludosa*, *Murdania nudiflora*, *Polygonum barbatum*, *P. serrulatum* and *Oxalis corniculata* and many species of ferns and fern allies like *Asplenium*, *Equisetum* and *Selaginella*. The epiphytes include ferns, fern allies, orchids and members of families Gesneriaceae and Zingiberaceae. *Balanophora dioica*, a fleshy root parasite on the roots of trees, occasionally seen in shady, moist, humus covered areas of the forest.

(ii) *Sub-tropical Forests* (900-1800 m):—These forests are dominated by *Schima wallichii*, *Callicarpa arborea*, *Actinodaphne obovata*, *Alnus nepalensis*, *Castanopsis indica*, *Bauhinia variegata*, *Eurya acuminata*, *Byttneria aspera*, *Evodia fraxinifolia*, *Ficus gasparriniana*, *Kydia calycina*, *Magnolia pterocarpa*, *Prunus nepalensis*, *Saurauia punduana*. Among smaller trees *Photinia notoniana* and *Aphania rubra* are common. The common shrubs and undershrubs in these forests are *Berberis wallichiana*, *Mahonia nepa-*

lensis, *Agapetes auriculata*, *A. buxifolia*, *Vernonia saligna*, *Tephrosia candida* and *Viburnum foetidum*. The climbing shrubs are represented by *Clematis acuminata*, *Holboellia latifolia* and *Tinospora malabarica*.

The herbaceous flora includes *Anaphalis odorata*, *Anemone vitifolia*, *Plantago erosa* and *Viola serpens*.

(iii) *Sub-tropical Grasslands* (1000-1500 m):—These make their appearance where both the *Sub-tropical forests* and the *grasslands* are found to co-exist. The grasslands owe their origin to the practice of *jhuming* (shifting cultivation). As the name suggests there are a number of grasses such as *Arundinella bengalensis*, *Saccharum arundinaceum*, *S. spontaneum*, *Setaria palmifolia*, *Neyraudia reynaudiana* and *Thysanolaena maxima*. Several species of bamboos are found in this region, such as *Cephalostachyum latifolium*, *Chimnobambusa callosa* and *Phyllostachys bambusoides*. Some scattered trees, namely *Bombax ceiba*, *Syzygium cumini* and *Sterculia villosa* are also found.

(iv) *Temperate Forests* (1800-3500 m):—These forests are not so dense as the *tropical evergreen* or the *sub-tropical forests*. The dominant families represented here are Coniferae, Cupuliferae, Ericaceae and Magnoliaceae. The *Rhododendrons*, *Conifers* and *Oaks* show fairly distinct altitudinal zonation. The chief tree species are of *Quercus*, *Castanopsis*, *Acer*, *Magnolia*, *Michelia*, *Pyrus*, *Prunus* and *Rhododendron*. In many parts *Quercus* is gregarious, while in some places bamboos like *Cephalostachyum* form pure stands. From the height of 2600 m upwards *Gaultheria fragrantissima*, *Rhododendron anthopogon*, *R. campanulatum*, *R. lanatum* and *Taxus baccata* are seen among common species on the north and eastern slopes in the coniferous forests. *Abies spectabilis*, *Cupressus torulosa* and *Tsuga dumosa* may also be mentioned. A few common herbs in the temperate region are *Gerbera pilloselloides*, *Polygonum molle*, *Urtica parviflora* and *Viola patrinii*.

(v) *Sub-Alpine and Alpine Vegetation* (3500 m and above):—The transitional belt from the *temperate* to the *sub-alpine* or *alpine vegetation* is colonised mainly by the conifers which are easily recognised. These form pure stands and include *Pinus roxburghii*, *P. wallichiana* and *Abies spectabilis*. The shrubs are represented by species of *Vaccinium*, *Gaultheria* and *Berberis*. In the alpine meadows, stunted shrubs of *Rhododendron* spp. are common. Among the herbaceous plants, species of *Exacum*, *Gentiana*, *Swertia*, *Primula* may be mentioned.

The forest vegetation and flora of the district are important economically as well as from phytogeographic viewpoint. Several important timber

species such as *Dipterocarpus macrocarpus*, *Terminalia myriocarpa*, *Taxus baccata*, *Phoebe goalparensis*, *Dysoxylum procerum*, *Duabanga grandiflora* and *Cupressus torulosa* occur in these forests.

The flora shows a dominance of indigenous Indian element (such as in species of orchids and grasses) with an admixture of some foreign elements like Tibetan (e.g. *Hippophae*), Sino-Japanese (e.g. *Schima* & *Quercus*) and Malayasian (e.g. *Dipterocarpus*).

FAUNA

Mammals

Among the wild mammals the following are the more important ones :

Among the carnivores, the tiger [*Panthera tigris* (Linnaeus)] is rare, but the leopard [*Panthera pardus* (Linnaeus)] is generally met with. The Jungle Cat [*Felis chaus* Guldenstaedt] inhabits the drier and more open parts of the country. The Golden Cat [*Felis temminckii* Vigors and Horsfield] lives in rocks, but it is now rarely seen. The Large Indian Civet [*Viverra zibetha* Linnaeus], the Spotted Linsang [*Prionodon pardicolor* Hodgson], the Common Palm Civet [*Paradoxurus hermaphroditus* (Pallas)] and the Masked Palm Civet [*Paguma larvata* (Hamilton-Smith)] are more abundant in the forests. The jackal [*Canis aureus* Linnaeus] is often found in the low lands.

The Indian Elephant [*Elephas maximus* Linnaeus] is found in areas covered by bamboos.

Among different kinds of deer, the principal varieties are the Sambar [*Cervus unicolor* Kerr] and the Barking Deer [*Muntiacus muntjak* (Zimmermann)]. The Indian Bison [*Bos gaurus* Smith] is frequently met with. The Indian Wild Boar [*Sus scrofa* Linnaeus] is found in the grassy and bushy jungles of the region.

The common primates found in this region are the Assamese Macaque [*Macaca assamensis* McClelland] which is abundant in tracts between 600 and 2000 metres, and the Capped Langur [*Presbytis pileatus* (Blyth)] inhabits the southern portion of Subansiri. Both are found in small or large troupes, and they sometimes cause heavy damage to crops.

The insectivores and rodents are very common. Rats are responsible for damage to cultivation and several kinds of human diseases such as plague, rat-bite fever etc. The common varieties of rats are the Long-tailed Tree Mouse [*Vandeleuria oleracea* Bennett], the House Rat [*Rattus rattus* (Linnaeus)], the Large-toothed Rat [*Dacnomys millardi* Thomas], and the White-bellied Rat [*Rattus niviventer* (Hodgson)]. Various types of squirrels, viz. Pallas' Squirrel [*Callosciurus erythraeus* Pallas], Irrawaddy

Squirrel [*Callosciurus pygerythrus* Geoffroy], Giant Flying Squirrel [*Petaurista petaurists* (Pallas)], and the Malayan Giant Squirrel [*Ratufa bicolor* Sparrmann] etc. are found at different heights.

The shrews are also not less economically important. They are helpful in eradicating a large varieties of obnoxious insects. 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 squarripes* Milne-Edwards] are of common occurrence.

Many kinds of insectivorous bats are found in old premises, caves and forests. The most common species are the Himalayan Horse-shoe Bat [*Rhinolophus perniger* (Hodgson)], the Indian Pipistrella [*Pipistrellus coromandra* Gray], the Indian Pigmy Pipistrelle [*Pipistrellus mimus* Wroughton] and the Mustachioed Bat [*Myotis muricola* (Hodgson)]. Another variety occasionally appearing is the Indian False Vampire [*Megaderma lyra* Geoffroy].

Birds

The following is a list of birds of the Subansiri District :

[Game birds are denoted by "G" and Winter Visitor birds by "W.V."]

Class Aves Order Podicipediformes Family Podicipedidae

Great Crested Grebe	<i>Podiceps cristatus cristatus</i> (Linnaeus)
Little Grebe	<i>Podiceps ruficollis capensis</i> Salvadori

Order Procellariiformes Family Phalacrocoracidae

Little Cormorant	<i>Phalacrocorax niger</i> (Vieillot)
Snake-bird	<i>Anhinga rufa melanogaster</i> Pennant

Order Ciconiiformes Family Ardeidae

Great Whitebellied Heron	<i>Ardea insignis</i> Hume
Eastern Purple Heron	<i>Ardea purpurea manilensis</i> Meyen
Little Green Heron	<i>Butorides striatus chloriceps</i> (Bonaparte)

Indian Pond Heron	<i>Ardeola grayii grayii</i> (Sykes)
Cattle Egret	<i>Bubulcus ibis coromandus</i> (Boddaert)
Eastern Large Egret	<i>Egretta alba modesta</i> (J. E. Gray)
Median Egret	<i>Egretta intermedia intermedia</i> (Wagler)
Little Egret	<i>Egretta garzetta garzetta</i> (Linnaeus)
Night Heron	<i>Nycticorax nycticorax nycticorax</i> (Linnaeus)
Chestnut Bittern	<i>Ixobrychus cinnamomeus</i> (Gmelin)

Family Ciconiidae

Painted Stork	<i>Ibis leucocephalus</i> (Pennant)
Openbill Stork	<i>Anastomus oscitans</i> (Boddaert)
Black Stork	<i>Ciconia nigra</i> (Linnaeus)

Family Threskiornithidae

White Ibis	<i>Threskiornis melanocephala</i> (Latham)
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Order Anseriformes

Family Anatidae

Lesser Whistling Teal	<i>Dendrocygna javanica</i> (Horsfield) "G."
Ruddy Shelduck	<i>Tadorna ferruginea</i> (Pallas) "W.V.", "G."
Pintail	<i>Anas acuta</i> Linnaeus "W.V.", "G."
Common Teal	<i>Anas crecca crecca</i> Linnaeus "W.V.", "G."
Burmese Spotbill Duck	<i>Anas peocilorhyncha haringtoni</i> (Oates) "G."
Gadwall	<i>Anas strepera strepera</i> Linnaeus "W.V.", "G."
Garganey	<i>Anas querquedula</i> Linnaeus "W.V.", "G."
Shoveller	<i>Anas clypeata</i> Linnaeus "W.V.", "G."
Cotton Teal	<i>Nettapus coromandelianus coromandelianus</i> (Gmelin) "G."
Nakta	<i>Sarkidiornis melanotos melanotos</i> (Pennant)
Whitewinged Wood Duck	<i>Cairina scutulata</i> (S. Muller)

Order Falconiformes

Family Accipitridae

Indian Blackcrested Baza	<i>Aviceda leuphotes leuphotes</i> (Dumont)
Crested Honey Buzzard	<i>Pernis ptilorhynchus ruficollis</i> Lesson
Pariah Kite	<i>Milyus migrans govinda</i> Sykes
Brahminy Kite	<i>Haliastur indus indus</i> (Boddaert)
Burmese Shikra	<i>Accipiter badius poliopsis</i> (Hume)
Indian Sparrow-Hawk	<i>Accipiter nisus melaschistos</i> Hume
East Himalayan Besra	<i>Accipiter virgatus affinis</i> Hodgson
Sparrow-Hawk	
Feathertoed Hawk-Eagle	<i>Spizaetus nipalensis nipalensis</i> (Hodgson)
Greyheaded Fishing Eagle	<i>Ichthyophaga ichthyaetus ichthyaetus</i> (Horsfield)
Himalayan Greyheaded Fishing Eagle	<i>Ichthyophaga nana plumbea</i> (Jerdon)
King Vulture	<i>Torgos calvus</i> (Scopoli)
Himalayan Longbilled Vulture	<i>Gyps indicus tenuirostris</i> G. R. Gray
Indian Whitebacked Vulture	<i>Gyps bengalensis</i> (Gmelin)

Family Falconidae

Laggar Falcon	<i>Falco biarmicus jugger</i> J. E. Gray
Shaheen Falcon	<i>Falco peregrinus peregrinator</i> Sundevall
Indian Hobby	<i>Falco severus rufipedoides</i> Hodgson

Order Galliformes

Family Phasianidae

Pheasant-Grouse	<i>Tetraophasis szechenyii</i> Madarasz
Assam Black Partridge	<i>Francolinus francolinus melanonotus</i> Hume "G."
Assam Painted Bush Quail	<i>Perdica manipurensis inglisi</i> (Ogilvie-Grant)
Common Hill Partridge	<i>Arborophila torqueola torqueola</i> (Valenciennes) "G."
Redbreasted Hill Partridge	<i>Arborophila mandellii</i> Hume "G."
Mishmi Blood Pheasant	<i>Ithaginis cruentus kuseri</i> Beebe
Mishmi Monal Pheasant	<i>Lophophorus sclateri</i> Jerdon

- Indian Pond Heron *Ardeola grayii grayii* (Sykes)
- Cattle Egret *Bubulcus ibis coromandus* (Boddaert)
- Eastern Large Egret *Egretta alba modesta* (J. E. Gray)
- Median Egret *Egretta intermedia intermedia* (Wagler)
- Little Egret *Egretta garzetta garzetta* (Linnaeus)
- Night Heron *Nycticorax nycticorax nycticorax* (Linnaeus)
- Chestnut Bittern *Ixobrychus cinnamomeus* (Linnaeus)
- Painted Stork *Myiarchus leucocephalus* (Pennant)
- Openbill Stork *Anastomus oscitans* (Boddaert)
- Black Stork *Ciconia nigra* (Linnaeus)
- White Ibis *Threskiornis melanocephala* (Latham)
- Lesser Whistling Teal *Dendrocygna javanica* (Horsfield)
- Ruddy Shelduck *Tadorna ferruginea* (Pallas)
- Pintail *Anas acuta* Linnaeus
- Common Teal *Anas crecca crecca* Linnaeus
- Burmese Spotbill Duck *Anas peocilorhyncha haringtoni* (Oates)
- Gadwall *Anas strepera strepera* Linnaeus
- Garganey *Anas querquedula* Linnaeus
- Shoveller *Anas clypeata* Linnaeus
- Cotton Teal *Nettion coromandelianus coromandelianus* (Gmelin)
- Nakta *Sarkidiornis melanotos melanotos* (Pennant)
- Whitewinged Wood Duck *Cairina scutulata* (S. Muller)

Eastern Redshank	<i>Tringa totanus eurhinus</i> (Oberholser) "G."
Little Greenshank	<i>Tringa stagnatilis</i> (Bechstein) "W.V.", "G."
Greenshank	<i>Tringa nebularis</i> (Gunnerus) "W.V.", "G."
Green Sandpiper	<i>Tringa ochropus</i> Linnaeus "W.V.", "G."
Spotted Sandpiper	<i>Tringa glareola</i> Linnaeus "W.V.", "G."
Common Sandpiper	<i>Tringa hypoleucos</i> Linnaeus "W.V.", "G."
Eastern Solitary Snipe	<i>Gallinago solitaria solitaria</i> (Hodgson) "G."
Wood Snipe	<i>Gallinago nemoricola</i> (Hodgson) "G."
Pintail Snipe	<i>Gallinago stenura</i> (Bonaparte) "G."
Fantail Snipe	<i>Gallinago gallinago</i> (Linnaeus)
Jack Snipe	<i>Gallinago minima</i> (Brunnich) "W.V.", "G."
Wood cock	<i>Scolopax rusticola rusticola</i> Linnaeus
Temminck's Stint	<i>Calidris temminckii</i> (Leisler) "W.V.", "G."
Ruff	<i>Philomachus pugnax</i> (Linnaeus) "W.V.", "G."
Painted Snipe	<i>Rostratula bengalensis bengalensis</i> (Linnaeus) "G."
Indian blackwinged Stilt	<i>Himantopus himantopus himantopus</i> (Linnaeus) "G."
Ibisbill	<i>Ibidorhyncha struthersii</i> Vigors "G."

Family Burhinidae

Indian Stone Curlew	<i>Burhinus oedicnemus indicus</i> (Salvadori) "G."
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Order Columbiformes

Family Columbidae

Pintailed Green Pigeon	<i>Treron apicauda apicauda</i> Blyth "G."
Wedgetailed Green Pigeon	<i>Treron sphenura sphenura</i> (Vigors) "G."

Thickbilled Green Pigeon	<i>Treron curvirostra nipalensis</i> (Hodgson) "G."
Ashyheaded Green Pigeon	<i>Treron pompadora phayrei</i> (Blyth) "G."
Indian Orangebreasted Green Pigeon	<i>Treron bicincta bicincta</i> (Jerdon) "G."
Bengal Green Pigeon	<i>Treron phoenicoptera phoenicoptera</i> (Latham) "G."
Northern Green Imperial Pigeon	<i>Ducula aenea sylvatica</i> (Tickell) "G."
Nepal Maroonbacked Imperial Pigeon	<i>Ducula badia insignis</i> Hodgson "G."
East Himalayan Snow Pigeon	<i>Columba leuconota gradaria</i> Hartert "G."
Speckled Wood Pigeon	<i>Columba hodgsonii</i> Vigors "G."
Ashy Wood Pigeon	<i>Columba pulchricollis</i> Blyth "G."
Bartailed Cuckoo-Dove	<i>Macropygia unchall tusalia</i> (Blyth) "G."
Rufous Turtle-Dove	<i>Streptopelia orientalis orientalis</i> (Latham) "G."
Eastern Turtle-Dove	<i>Streptopelia orientalis agricola</i> (Tickell) "G."
Burmese Red Turtle-Dove	<i>Streptopelia tranquebarica humilis</i> (Temminck) "G."
NEFA Spotted Dove	<i>Streptopelia chinensis edwardi</i> Ripley "G."
Indian Emerald Dove	<i>Chalcophaps indica indica</i> (Linnaeus)

Order Psittaciformes

Family Psittacidae

Large Indian Parakeet	<i>Psittacula eupatria nipalensis</i> (Hodgson)
Indian Redbreasted Parakeet	<i>Psittacula alexandri fasciata</i> (P.L.S. Muller)
Assam Blossomheaded Parakeet	<i>Psittacula roseata roseata</i> Biswas
Eastern Slatyheaded Parakeet	<i>Psittacula finschii</i> (Hume)
Indian Lorikeet	<i>Loriculus vernalis</i> (Sparrman)

Order Cuculiformes
Family Cuculidae

Redwinged Crested Cuckoo	<i>Clamator coromandus</i> (Linnaeus)
Large Hawk-Cuckoo	<i>Cuculus sparveroides sparveroides</i> Vigors
Hodgson's Hawk-Cuckoo	<i>Cuculus fugax nasicolor</i> Blyth
Indian Cuckoo	<i>Cuculus micropterus micropterus</i> Gould
Himalayan Cuckoo	<i>Cuculus saturatus saturatus</i> Blyth
Small Cuckoo	<i>Cuculus poliocephalus poliocephalus</i> Latham
Rufousbellied Plaintive Cuckoo	<i>Cacomantis merulinus guerulus</i> Heine
Emerald Cuckoo	<i>Chalcites maculatus</i> (Gmelin)
Indian Drongo-Cuckoo	<i>Surniculus lugubris dicruroides</i> (Hodgson)
Indian Koel	<i>Eudynamis scolopacea scolopacea</i> (Linnaeus)
Large Greenbilled Malkoha	<i>Rhopodytes tristis tristis</i> (Lesson)
Eastern Sirkeer Cuckoo	<i>Taccocua leschenaultii infusata</i> Blyth
Coucal	<i>Centropus sinensis sinensis</i> (Stephens)
Lesser Coucal	<i>Centropus toulou bengalensis</i> (Gmelin)

Order Strigiformes
Family Strigidae

Grass Owl	<i>Tyto capensis longimembris</i> (Jerdon)
Eastern Spotted Scops Owl	<i>Otus spilocephalus spilocephalus</i> (Blyth)
North Indian Scops Owl	<i>Otus scops sunia</i> (Hodgson)
Burmese Collared Scops Owl	<i>Otus bakkamoena lettia</i> (Hodgson)
Collared Pygmy Owlet	<i>Glaucidium brodiei brodiei</i> (Burton)
East Himalayan Barred Owlet	<i>Glaucidium cuculoides austerum</i> Ripley
Indian Brown Hawk-Owl	<i>Ninox scutulata lugubris</i> (Tickell)
Tibet Owlet	<i>Athene noctua ludlowi</i> Baker
East Assam Spotted Owlet	<i>Athene brama ultra</i> Ripley
Himalayan Wood Owl	<i>Strix aluco nivicola</i> (Blyth)

Order Caprimulgiformes

Family Caprimulgidae

Himalayan Jungle Nightjar	<i>Caprimulgus indicus hazarae</i> Whistler & Kinnear
Indian Longtailed Nightjar	<i>Caprimulgus macrurus albonotatus</i> Tickell

Order Apodiformes

Family Apodidae

Himalayan Swiftlet	<i>Collocalia brevirostris</i> <i>brevirostris</i> (Horsfield)
Whitethroated Spinetail Swift	<i>Chaetura caudacuta nudipes</i> (Hodgson)
Himalayan Whiterumped Swift	<i>Apus pacificus leuconyx</i> (Blyth)
Indian House Swift	<i>Apus affinis affinis</i> (J. E. Gray)
Eastern Palm Swift	<i>Cypsiurus parvus infumatus</i> (Sclater)

Order Trogoniformes

Family Trogonidae

Mishmi Redheaded Trogon	<i>Harpactes erythrocephalus</i> <i>helenae</i> Mayr
Ward's Trogon	<i>Harpactes wardi</i> (Kinnear)

Order Coraciiformes

Family Alcedinidae

East Himalayan Pied Kingfisher	<i>Ceryle lugubris guttulata</i> Stejneger
Great Blue Kingfisher	<i>Alcedo hercules</i> Laubmann
Indian Small Blue Kingfisher	<i>Alcedo atthis bengalensis</i> Gmelin.
Indian Threetoed Forest Kingfisher	<i>Ceyx erithacus erithacus</i> (Linnaeus)
Indian Ruddy Kingfisher	<i>Halcyon coromanda coromanda</i> (Latham)

Family Meropidae

Chestnutheaded Bee-eater	<i>Merops leschenaulti leschenaulti</i> Vieillot
Burmese Small Green Bee-eater	<i>Merops orientalis birmanus</i> Neumann
Bluebearded Bee-eater	<i>Nyctyornis athertoni athertoni</i> (Jardine & Selby)

Family Coraciidae

Burmese Roller	<i>Coracias bengalensis affinis</i> Horsfield
Himalayan Broadbilled Roller	<i>Eurystomus orientalis cyanicollis</i> Vieillot

Family Bucerotidae

Rufousnecked Hornbill	<i>Aceros nipalensis</i> (Hodgson)
Assam Wreathed Hornbill	<i>Rhyticeros undulatus ticehursti</i> Deignan
Indian Pied Hornbill	<i>Anthracoceros malabaricus</i> <i>malabaricus</i> (Gmelin)

Order Piciformes

Family Capitonidae

Assam Great Barbet	<i>Megalaima virens magnifica</i> Baker
Assam Lineated Barbet	<i>Megalaima lineata Hodgsoni</i> Bonaparte
Goldenthroated Barbet	<i>Megalaima franklinii franklinii</i> (Blyth)
Bluethroated Barbet	<i>Megalaima asiatica asiatica</i> (Latham)
Indian Blue-eared Barbet	<i>Megalaima australis cyanotis</i> (Blyth)

Family Indicatoridae

Nagaland Orangerumped Honeyguide	<i>Indicator xanthonotus fulvus</i> Ripley
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Family Picidae

Northern Speckled Piculet	<i>Picurnus innominatus innominatus</i> Burton
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Himalayan Rufous Piculet	<i>Sasia ochracea ochracea</i> Hodgson
Eastern Rufous Woodpecker	<i>Micropternus brachyurus phaiiceps</i> Blyth
Assam Blacknaped Green Woodpecker	<i>Picus canus gyldenstolpei</i> Baker
Eastern Large Yellownaped Woodpecker	<i>Picus flavinucha flavinucha</i> Gould
East Himalayan Small Yellownaped Woodpecker	<i>Picus chlorolophus chlorolophus</i> Vieillot
Himalayan Goldenbacked Threetoed Woodpecker	<i>Dinopium shorii shorii</i> (Vigors)
Paleheaded Woodpacker	<i>Gecinulus grantia grantia</i> (Horsfield)
Eastern Rufousbellied Woodpecker	<i>Hypopicus hyperythrus</i> <i>hyperythrus</i> (Vigors)
Darjeeling Pied Woodpecker	<i>Picoides darjellensis darjellensis</i> (Blyth)
Himalayan Crimsonbreasted Pied Woodpecker	<i>Picoides cathpharius cathpharius</i> (Blyth)
Indian Fulvousbreasted Pied Woodpecker	<i>Picoides macei macei</i> (Vieillot)
Redeared Bay Woodpecker	<i>Blythipicus pyrrhotis pyrrhotis</i> (Hodgson)
Eastern Large Goldenbacked Woodpecker	<i>Chrysocolaptes lucidus gutt acristatus</i> (Tickell)

Order Passeriformes

Family Eurylaimidae

Nepal Collard Broadbill	<i>Serilonhus lunatus rubropygius</i> (Hodgson)
Longtailed Broadbill	<i>Psorisomus dalhousiae dalhousiae</i> (Tameson)

Family Pittidae

Bluenaped Pitta	<i>Pitta nipalensis nipalensis</i> (Hodgson)
Greenbreasted Pitta	<i>Pitta sordida cucullata</i> Hartlaub
Blue Pitta	<i>Pitta cyanea cyanea</i> Blyth

Family Alaudidae

Elwes's Horned Lark	<i>Eremophila alpestris elwesi</i> (Blanford)
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Family Hirundinidae

Eastern Swallow	<i>Hirundo rustica gutturalis</i> Scopoli
Himalayan Striated Swallow	<i>Hirundo daurica nipalensis</i> Hodgson
Kashmir House Martin	<i>Delichon urbica cashmeriensis</i> (Gould)
Nepal House Martin	<i>Delichon nipalensis nipalensis</i> Moore

Family Laniidae

Eastern Tibet Greybacked Shrike	<i>Lanius tephronotus tephronotus</i> (Vigors)
Brown Shrike	<i>Lanius cristatus cristatus</i> Linnaeus

Family Oriolidae

North Indian Blackheaded Oriole	<i>Oriolus xanthornus xanthornus</i> (Linnaeus)
Indian Maroon Oriole	<i>Oriolus traillii traillii</i> (Vigor)

Family Dicruridae

North Indian Black Drongo	<i>Dicrurus adsimilis albirictus</i> (Hodgson)
Assam Grey Drongo	<i>Dicrurus leucophaeus hopwoodi</i> Baker
Crowbilled Drongo	<i>Dicrurus annectans</i> (Hodgson)
Bronzed Drongo	<i>Dicrurus aeneus aeneus</i> Vieillot
Lesser Racket-tailed Drongo	<i>Dicrurus remifer lectirostris</i> (Hodgson)
Haircrested Drongo	<i>Dicrurus hottentottus hottentottus</i> (Linnaeus)
Northern Large Racket-tailed Drongo	<i>Dicrurus paradiseus grandis</i> (Gould)

Family Artamidae

Ashy Swallow-Shrike	<i>Artamus fuscus</i> Vieillot
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Family Sturnidae

Greyheaded Myna	<i>Sturnus malabaricus malabaricus</i> (Gmelin)
Eastern Pied Myna	<i>Sturnus contra sordidus</i> Ripley
Indian Myna	<i>Acridotheres tristis tristis</i> (Linnaeus)
Northern Jungle Myna	<i>Acridotheres fuscus fuscus</i> (Wagler)
Northern Hill Myna	<i>Gracula religiosa intermedia</i> A. Hay

Family Corvidae

East Himalayan Redcrowned Jay	<i>Garrulus glandarius interestinctus</i> Hartert
Green Magpie	<i>Cissa chinensis chinensis</i> (Boddaert)
North-eastern Tree Pie	<i>Dendrocitta vagabunda vagabunda</i> (Latham)
East Himalayan Tree Pie	<i>Dendrocitta formosae</i> <i>himalavensis</i> Blyth
Yunnan Nutcracker	<i>Nucifraga caryocatactes macella</i> Thayer & Bangs
Himalayan Yellowbilled Chough	<i>Pyrrhocorax graculus digitatus</i> Hemprich & Ehrembert
East Himalayan Redbilled Chough	<i>Pyrrhocorax pyrrhocorax</i> <i>himalayanus</i> (Gould)
Indian House Crow	<i>Corvus splendens splendens</i> Vieillot
Tibetan Jungle Crow	<i>Corvus macrorhynchos tibetosinensis</i> Kleinschmidt & Weigold
Tibet Raven	<i>Corvus corax tibetanus</i> Hodgson

Family Campephagidae

Nepal Wood Shrike	<i>Tephrodornis gularis pelvica</i> (Hodgson)
North Indian Scarlet Minivet	<i>Pericrocotus flammeus speciosus</i> (Latham)
Shortbilled Minivet	<i>Pericrocotus brevirostris brevirostris</i> (Vigors)
East Himalayan Longtailed Minivet	<i>Pericrocotus ethologus laetus</i> Mayr

Family Irenidae

Northern Goldfronted Chloropsis	<i>Chloropsis aurifrons aurifrons</i> (Temminck)
Fairy Bluebird	<i>Irena puella puella</i> (Latham)

Family Pycnonotidae

Blackcrested Yellow Bulbul	<i>Pycnonotus melanicterus flaviventris</i> (Tickell)
Assam Redwhiskered Bulbul	<i>Pycnonotus jocosus monticola</i> (McClelland)
Whitecheeked Bulbul	<i>Pycnonotus leucogenys leucogenys</i> (Gray)
Bengal Redvented Bulbul	<i>Pycnonotus cafer bengalensis</i> Blyth
Striated Green Bulbul	<i>Pycnonotus striatus striatus</i> (Blyth)
Mishmi Striated Green Bulbul	<i>Pycnonotus striatus arctus</i> Ripley
Whitethroated Bulbul	<i>Crinifer flaveolus flaveolus</i> (Gould)
Rufousbellied Bulbul	<i>Hypsipetes mccllellandi mccllellandi</i> Horsfield
Browneared Bulbul	<i>Hypsipetes flavalus flavalus</i> (Blyth)
Himalayan Black Bulbul	<i>Hypsipetes madagascariensis psaroides</i> Vigors
Assam Black Bulbul	<i>Hypsipetes madagascariensis nigrescens</i> Baker

Family Muscicapidae

Sikkim Spotted Babbler	<i>Pellorneum ruficeps mandellii</i> Blandford
Lakhimpur Spotted Babbler	<i>Pellorneum ruficeps ripleyi</i> Deignan
Marsh Spotted Babbler	<i>Pellorneum palustre</i> Gould
Assam Brown Babbler	<i>Pellorneum albiventris albiventris</i> (Godwin-Austen)
Abbott's Babbler	<i>Trichastoma abbottii abbottii</i> (Blyth)
East Himalayan Slatyheaded Scimitar Babbler	<i>Pomatorhinus schisticeps schisticeps</i> Hodgson
Sikkim Rufousnecked Scimitar Babbler	<i>Pomatorhinus ruficollis godwini</i> Kinnear
Assam Rustycheeked Scimitar Babbler	<i>Pomatorhinus erythrogenys mccllellandi</i> Godwin-Austen
Sikkim Coralbilled Scimitar Babbler	<i>Pomatorhinus ferruginosus ferruginosus</i> Blyth

- Mishmi Longbilled Scimitar
 Babbler
 Slenderbilled Scimitar
 Babbler
 Brown Wren-Babbler
 Spotted Short-tailed
 Wren-Babbler
 Assam Redfronted Babbler
 Nepal Goldenheaded Babbler
 Blackthroated Babbler
 Yellowbreasted Babbler
 Great Parrotbill
 Tibetan Fulvousfronted
 Parrotbill
 Blyth's Orange Parrotbill

 Greater Redheaded
 Parrotbill
 Greyheaded Parrotbill
 Blackthroated Parrotbill

 Striated Babbler
 Eastern Whitethroated
 Laughing Thrush
 Necklaced Laughing Thrush

 Assam Blackgorgeted
 Laughing Thrush
 Assam Striated Laughing
 Thrush
 Himalayan Whitecrested
 Laughing Thrush
 Yellowbreasted Laughing
 Thrush
 Rufouschinned Laughing
 Thrush
 Whitespotted Laughing
 Thrush
 Rufousnecked Laughing
 Thrush
 Bhutan Streaked Laughing
 Thrush
- Pomatorhinus ochraceiceps stenorhynchus* Godwin-Austen
Xiphihynchus superciliaris superciliaris Blyth
Pnoepyga pusilla pusilla (Hodgson)
Spelaeornis formosus (Walden)

Stachyris rufifrons ambigua (Harington)
Stachyris chrysaea chrysaea Blyth
Stachyris nigriceps nigriceps Blyth
Mixornis gularis rubricapilla (Tickell)
Conostoma aemodium Hodgson
Paradoxornis fulvifrons chayulensis
 (Kinnear)
Paradoxornis nipalensis poliotis
 (Blyth)
Paradoxornis ruficeps ruficeps (Blyth)

Paradoxornis gularis gularis Gray
Paradoxornis flavirostris flavirostris
 Gould
Turdoides earlei earlei (Blyth)
Garrulax albogularis albogularis
 (Gould)
Garrulax monileger monileger
 (Hodgson)
Garrulax pectoralis melanotis Blyth

Garrulax striatus cranbrookii (Kinnear)

Garrulax leucolophus leucolophus
 (Hardwicke)
Garrulax delesserti gularis
 (McClelland)
Garrulax rufogularis rufogularis
 (Gould)
Garrulax ocellatus ocellatus (Vigors)

Garrulax ruficollis (Jerdine & Selby)

Garrulax lineatus imbricatus Blyth

Bluewinged Laughing Thrush	<i>Garrulax squamatus</i> (Gould)
Plaincoloured Laughing Thrush	<i>Garrulax subunicolor subunicolor</i> (Blyth)
Sikkim Redheaded Laughing Thrush	<i>Garrulax erythrocephalus nigrimentis</i> (Oates)
Himalayan Crimsonwinged Laughing Thrush	<i>Garrulax phoeniceus phoeniceus</i> (Gould)
Himalayan Silvereared Mesia	<i>Leiothrix argenteauris argenteauris</i> (Hodgson)
Eastern Redbilled Leiothrix	<i>Leiothrix lutea calipyga</i> (Hodgson)
Nepal Cutia	<i>Cutia nipalensis nipalensis</i> Hodgson
Eastern Green Shrike-Babbler	<i>Pteruthius xanthochlorus xanthochlorus</i> Grey
Whiteheaded Shrike-Babbler	<i>Gampsorhynchus rufulus rufulus</i> Blyth
Himalayan Barwing	<i>Actinodura egertoni egertoni</i> Gould
Redtailed Minla	<i>Minla ignotincta ignotincta</i> Hodgson
Bluewinged Siva	<i>Minla cyanouroptera cyanouroptera</i> (Hodgson)
Sikkim Whitebrowed Yuhina	<i>Yuhina castaniceps rufigenis</i> (Hume)
Whitenaped Yuhina	<i>Yuhina bakeri</i> Rothschild
Eastern Stripethroated Yuhina	<i>Yuhina gularis gularis</i> Hodgson
Rufousvented Yuhina	<i>Yuhina occipitalis occipitalis</i> Hodgson
Blackchinned Yuhina	<i>Yuhina nigrimenta nigrimenta</i> Hodgson
Whitebellied Yuhina	<i>Yuhina xantholeuca xantholeuca</i> (Hodgson)
Yellowthroated Tit-Babbler	<i>Alcippe cinerea</i> (Blyth)
Chestnut-headed Tit-Babbler	<i>Alcippe castaneiceps castaneiceps</i> (Hodgson)
Himalayan Redthroated Tit-Babbler	<i>Alcippe rufogularis rufogularis</i> (Mandelli)
Eastern Blackcapped Sibia	<i>Heterophasia capistrata Bayleyi</i> (Kinnear)
Longtailed Sibia	<i>Heterophasia picaoides picaoides</i> (Hodgson)
Ferruginous Flycatcher	<i>Muscicapa ferruginea</i> (Hodgson)
Orangeorgeted Flycatcher	<i>Muscicapa strophata strophata</i> (Hodgson)
Rufousbreasted Blue Flycatcher	<i>Muscicapa hyperythra hyperythra</i> Blyth

Rustybreaſted Blue Flycatcher	<i>Muscicapa hodgeſonii</i> (Verreaux)
Eastern Little Pied Flycatcher	<i>Muscicapa weſtermanni aſtralorientis</i> Ripley
Eastern Slaty Blue Flycatcher	<i>Muscicapa leucomelanura minuta</i> (Hume)
Large Niltava	<i>Muscicapa grandis grandis</i> (Blyth)
Eastern Small Niltava	<i>Muscicapa macgrigoriae ſignata</i> (Horsfield)
Eastern Rufouſbellied Niltava	<i>Muscicapa ſundara ſundara</i> (Hodgeſon)
Pale Blue Flycatcher	<i>Muscicapa unicolor unicolor</i> (Blyth)
Pygmy Blue Flycatcher	<i>Muscicapella hodgeſoni hodgeſoni</i> (Moore)
NEFA Whitethroated Fantail Flycatcher	<i>Rhipidura albicollis ſtanleyi</i> Baker
East Himalayan Paradise Flycatcher	<i>Terpsiphone paradisi ſaturator</i> (Salomonsen)
Indian Blacknaped Monarch Flycatcher	<i>Monarcha azurea ſtyani</i> (Hartlaub)
Slatybellied Ground Warbler	<i>Tesia olivea</i> (McClelland)
Indian Palefooted Buſh Warbler	<i>Cettia pallidipes pallidipes</i> (Blanford)
Himalayan Aberrant Buſh Warbler	<i>Cettia flavolivacea flavolivacea</i> (Hodgeſon)
Arunachal Rufouſcapped Buſh Warbler	<i>Cettia brunnifrons muiroides</i> (Koelz)
Eastern Spotted Buſh Warbler	<i>Bradypterus thoracicus thoracicus</i> (Blyth)
Yellowheaded Fantail Warbler	<i>Cisticola exilis tytleri</i> Jerdon
Eastern Streaked Wren- Warbler	<i>Primia gracilis ſtevenſi</i> (Hartert)
Eastern Plain Wren-Warbler	<i>Primia ſubflava fuſca</i> (Hodgeſon)
Himalayan Brown Hill Warbler	<i>Primia criniger criniger</i> Hodgeſon
Bengal Tailor Bird	<i>Orthotomus ſutorius patia</i> Hodgeſon
Goldenheaded Tailor Bird	<i>Orthotomus cucullatus coronatus</i> Blyth
Striated Maſh Warbler	<i>Megalurus paluſtris toklao</i> (Blyth)
Blyth's Reed Warbler	<i>Acrocephalus dumetorum</i> Blyth
Indian Paddyfield Warbler	<i>Acrocephalus agricola agricola</i> (Jerdon)

Tickell's Leaf Warbler	<i>Phylloscopus affinis affinis</i> (Tickell)
Smoky Leaf Warbler	<i>Phylloscopus fuligiventer fuligiventer</i> (Hodgson)
Eastern Pallas's Leaf Warbler	<i>Phylloscopus proregulus newtoni</i> Gatke
Eastern Greyfaced Leaf Warbler	<i>Phylloscopus maculipennis maculipennis</i> (Blyth)
Eastern Greenish Leaf Warbler	<i>Phylloscopus trochiloides trochibides</i> (Sundevall)
Assam Crowned Leaf Warbler	<i>Phylloscopus reguloides assamensis</i> Hartert
Eastern Blackbrowed Flycatcher-Warbler	<i>Seicercus burkii burkii</i> (Burton)
Greycheeked Flycatcher-Warbler	<i>Seicercus poliogenys</i> (Blyth)
Chestnut-headed Flycatcher-Warbler	<i>Seicercus castaniceps castaniceps</i> (Hodgson)
Arunachal Yellowbellied Flycatcher-Warbler	<i>Abrascopus superciliaris drasticus</i> Deignan
Whitethroated Flycatcher-Warbler	<i>Abrascopus albogularis albogularis</i> (Horsfield & Moore)
Gould's Shortwing	<i>Brachypteryx stellata stellata</i> Gould
Lesser Shortwing	<i>Brachypteryx leucophrys nipalensis</i> Moore
Whitebrowed Shortwing	<i>Brachypteryx montana cruralis</i> (Blyth)
Tibetan Rubythroat	<i>Erithacus pectoralis tschebaiewi</i> (Przevalski)
Eastern Redflanked Bush Robin	<i>Erithacus cyanurus rufilatus</i> (Hodgson)
Assam Magpie-Robin	<i>Copsychus saularis crimetas</i> Oberholser
Indian Shama	<i>Copsychus malabaricus indicus</i> (Baker)
Eastern Black Redstart	<i>Phonicurus ochruros rufiventris</i> (Vieillot)
Guldenstadt's Redstart	<i>Phoenicurus erythrogaster grandis</i> (Gould)
Plumbeous Redstart	<i>Rhyacornis fuliginosus fuliginosus</i> (Vigors)
Whitetailed Blue Robin	<i>Cinclidium leucurum</i> (Hodgson)
Little Forktail	<i>Enicurus scouleri scouleri</i> Vigors
Blackbacked Forktail	<i>Enicurus immaculatus</i> (Hodgson)

Leschenault's Forktail	<i>Enicurus leschenaulti indicus</i> Hartert
Eastern Spotted Forktail	<i>Enicurus maculatus guttatus</i> Gould
Jerdon's Busch Chat	<i>Saxicola jerdoni</i> (Blyth)
Dark-grey Busch Chat	<i>Saxicola ferrea</i> Gray
Himalayan Whistling Thrust	<i>Myiophonus caeruleus temminckii</i> (Vigors)
Eastern Plainbacked Mountain Thrush	<i>Zoothera mollissima mollissima</i> (Blyth)
Tickell's Thrush	<i>Turdus unicolor</i> Tickell
Tibetan Blackbird	<i>Turdus merula maximus</i> (Seeböhm)

Family Troglodytidae

Nepal Wren	<i>Troglodytes troglodytes nipalensis</i> Blyth
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Family Cinclidae

East Himalayan Brown Dipper	<i>Cinclus pallasii dorjei</i> Kinner
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Family Prunellidae

Eastern Alpine Accentor	<i>Prunella collaris nipalensis</i> (Blyth)
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Family Paridae

Sultan Tit	<i>Melanochlora sultanea sultanea</i> (Hodgson)
Lakhimpur Grey Tit	<i>Parus major vauriei</i> Ripley
Greenbacked Tit	<i>Parus monticolus monticolus</i> Vigors
Himalayan Blackspotted Yellow Tit	<i>Parus spilonotus spilonotus</i> Bonaparte
Eastern Redheaded Tit	<i>Aegithalos concinnus rubricapillus</i> (Ticehurst)

Family Sittidae

Eastern Chestnutbellied Nuthatch	<i>Sitta castanea cinnamoventris</i> Blyth
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Himalayan Whitetailed Nuthatch	<i>Sitta himalayensis himalayensis</i>
	Jardine & Selby
Velvetfronted Nuthatch	<i>Sitta frontalis frontalis</i> Swainson

Family Certhiidae

Sikkim Tree Creeper	<i>Certhia discolor discolor</i> Blyth
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Family Motacillidae

Indian Tree Pipit	<i>Anthus hodgsoni hodgsoni</i> Richmond
Grey Wagtail	<i>Motacilla caspica caspica</i> (Gmelin)
Hodgson's Pied Wagtail	<i>Motacilla alba alboides</i> Hodgson

Family Dicaeidae

Indian Thickbilled Flowerpecker	<i>Dicaeum agile agile</i> (Tickell)
Plaincoloured Flowerpecker	<i>Dicaeum concolor olivaceum</i> Walden
Scarletbacked Flowerpecker	<i>Dicaeum cruentatum cruentatum</i> (Linnaeus)
Firebreasted Flowerpecker	<i>Dicaeum ignipectus ignipectus</i> (Blyth)

Family Nectariniidae

Indian Purple Sunbird	<i>Nectarinia asiatica asiatica</i> (Latham)
Mrs Gould's Sunbird	<i>Aethopyga gouldiae gouldiae</i> (Vigors)
Eastern Yellowbacked Sunbird	<i>Aethopyga nipalensis koelzi</i> Ripley
Assam Blackbreasted Sunbird	<i>Aethopyga saturala assamensis</i> (McClelland)
Assam Yellowbacked Sunbird	<i>Aethopyga siparaja labecula</i> (Horsfield)

Family Zosteropidae

Indian White-eye	<i>Zosterops palpebrosa palpebrosa</i> (Timminck)
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Family Ploceidae

Indian House Sparrow	<i>Passer domesticus indicus</i> Jardine & Selby
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Mishmi Tree Sparrow	<i>Passer montanus hepaticus</i> Ripley
Himalayan Cinnamon Tree Sparrow	<i>Passer rutilans cinnamomeus</i> (Gould)
Eastern Baya	<i>Ploceus philippinus burmanicus</i> Ticehurst
Red Munia	<i>Eastrilda amandava amandava</i> (Linnaeus)
Whitebacked Munia	<i>Loncura striata acuticauda</i> (Hodgson)

Family Fringillidae

Allied Grosbeak	<i>Mycerobas affinis</i> (Blyth)
Himalayan Whitewinged Grosbeak	<i>Mycerobas carnipes carnipes</i> (Hodgson)
Spotted-winged Grosbeak	<i>Mycerobas melano zanthos</i> (Hodgson)
Blanford's Rosefinch	<i>Carpodacus rubescens</i> (Blanford)
Sikkim Large Rosefinch	<i>Carpodacus edwardsii rubicunda</i> (Greenway)
Eastern Redbreasted Rosefinch	<i>Carpodacus puniceus puniceus</i> (Blyth)
Scarlet Finch	<i>Haematozpiza sipahi</i> (Hodgson)
Goldheaded Black Finch	<i>Pyrrhoplectes epauletta</i> (Hodgson)
Nepal Brown Bullfinch	<i>Pyrrhula nipalensis nipalensis</i> Hodgson
Beavan's Bullfinch	<i>Pyrrhula erythaca erythaca</i> Blyth

Family Emberizidae

Little Bunting	<i>Emberiza pusilla</i> Pallas
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Remarks : *Cairina scutulata* (S. Muller) is an endangered species, and, therefore, it needs protection.

Reptilia

Not much information on the occurrence and distribution of the reptile population of the Subansiri District is available. So far two species of lizards, namely *Lygosoma maculatum* (Blyth) and *Leiolopisma sikkimense* (Blyth) and three species of snakes namely the Bronze-back — *Ahaetulla prasinus* (Boie), the Checkered Keelback — *Natrix piscator piscator* (Smith)

and Maclelland's Coral Snake — *Callophis maclellandi* (Reinhardt) have been authentically recorded from the district.

In addition to these above-mentioned species of reptiles, the following species are likely to be occurring in the Subansiri District in view of the fact of their occurrence and distribution in the adjoining districts :

Altogether eight species of lizards, namely *Gymnodactylus khasiensis* (Jerdon), *Takydromus sexlineatus* (Boulenger), *Takydromus sexlineatus sexlineatus* (Daudin), *Lygosoma indicum indicum* (Gray), the Common House-gecko *Hemidactylus brooki* (Gray), *Lygosoma courcyanum* (Annandale), *Platyurus platyurus* (Schneider) and the Burmese Glass Snake — *Ophisaurus gracilis* (Gray) were recorded in the districts adjoining Subansiri.

As regards the snake fauna only three species of poisonous snakes have so far been recorded, namely Maclellandi Coral Snake — *Callophis maclellandi* (Reinhardt), the Black Krait — *Bungarus niger* (Wall) and the Pit Viper — *Trimeresurus monticola* (Gunther), while approximately eighteen species of the non-poisonous variety of snakes have, hitherto, been recorded from the neighbouring districts of Subansiri. They are as follows :—

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|------------------------------|---|
| 1. Common Indian Blind Snake | <i>Typhlops braminus</i> (Daudin) |
| 2. Diard's Blind Snake | <i>Typhlops diardi</i> (Schlegel) |
| 3. The Whip Snake | <i>Ahactulla prasinus</i> (Boie) |
| 4. Himalayan Cat Snake | <i>Boiga multifasciata</i> (Blyth) |
| 5. The Checkered Keelback | <i>Natrix piscator piscator</i> (Smith) |
| 6. Himalayan Keelback | <i>Natrix himalayana</i> (Gunther) |
| 7. | <i>Natrix khasiensis</i> (Boulenger) |
| 8. Mandarin Snake | <i>Elaphe mandarina</i> (Cantor) |
| 9. The Striped Racer | <i>Elaphe taeniura</i> (Cope) |
| 10. | <i>Dendrelaphis gorei</i> (Wall) |
| 11. | <i>Liopeltis frenatus</i> (Gunther) |
| 12. | <i>Blythia reticulata</i> (Blyth) |
| 13. | <i>Pareas monticola</i> (Cantor) |
| 14. | <i>Pseudoxenodon macrops</i> (Blyth) |
| 15. | <i>Sibynophis collaris</i> (Gray) |
| 16. | <i>Trachischium monticola</i> (Cantor) |
| 17. | <i>Oligodon melazonotus</i> (Wall) |
| 18. | <i>Trachis chium tenuiceps</i> (Blyth) |

Protochordata and Amphibia

Owing to the lack of any authentic record of amphibians in the Subansiri District, the amphibians recorded from both the Kameng and Siang Districts of Arunachal Pradesh are mentioned here, since it is expected that similar

species composition may occur in the Subansiri District too as it lies between Kameng and Siang.

Different kinds of amphibians have been recorded from both the Kameng and Siang Districts. Some of these are purely arboreal and the rest are aquatic, semi-aquatic and terrestrial. The arboreal forms are found on the underside of the 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 argus* 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*, *Phrynoderma moloch* and *Megalophrys kempfi*. The aquatic and semi-aquatic forms are *Rana limnocharis* (the paddy-field frog), *Rana liebigii* (Himalayan Bull Frog), *Rana alticola*, *Rana gerbillus*, *Staurois afghana* (Himalayan Stream Frog), *Staurois himalayana* (Himalayan Frog) and *Micrixalus borealis*.

They are found either in or near the water or in cool places where sufficient moisture is present to keep their skin wet. The purely terrestrial amphibians are toads which need to go to water only during breeding season. The toads possess numerous dermal glands, their secretion keeps their-skin moist. *Bufo melanostictus* (Common Indian Toad) and *Bufo himalayanus* (the Himalayan Toad) have been recorded from those areas.

Crustacea

Macrobrachium hendersoni (de Man)

M. hendersoni platyrostris (Tiwari)

* *Potamon (Acanthotelson) feae* (de Man)

* *P. (A.) wood-masoni* Rathbun (Possibility)

* *P. (Potamon) pealium*, W-M (Possibility)

N.B.:—Species marked * are not reported from the particular area but from the adjoining areas.

Fresh Water Fish

Order Cypriniformes

Family Cyprinidae

Schizopygopsis stoliczkae (Steindachner)

Schizothorax molesworthii (Chaudhuri)

Acrossocheilus hexagonolepis (McClelland)

Family Cobitidae

Noemacheilus multifasciatus (McClelland)

Order Siluriformes

Family Sisoridae

Exostoma labiatum (McClelland)*Platyhelminthes*

Reg. No.	Zoological name	Locality, altitude etc.	Remarks
W 7256/1	<i>Bipalium</i> sp.	Pabin, Arunachal Pradesh, Alt. 650 m.	Subansiri Expdt. 1974-75
W 7257/1	<i>Bipalium</i> sp.	Ca. 4 km. N.W. of Tali, Arunachal Pradesh, Alt. 1000 m.	
W 7258/1	<i>Bipalium</i> sp.	Rui, Arunachal Pradesh, Alt. 750 m.	

Lepidoptera

Order Lepidoptera

Family Papilionidae

Polydorus varuna astorion (Westwood)*Polydorus latreillei latreillei* (Donovan)*Polydorus aidoneus* (Doubleday)*Chilasa agestor* (Gray)*Chilasa epycides epycides* (Hewitson)*Papilio protenor* Cramer*Papilio rhetenor* Westwood*Papilio polycctor ganesa* Doubleday*Papilio chaon* Westwood*Graphium agetes* (Westwood)*Graphium antiphates pompilius* (Fabricius)*Graphium agamemnon agamemnon* (Linnaeus)*Graphium cloanthus* (Westwood)*Lamproptera curius curius* (Fabricius)

Family Pieridae

Pieris canidia indica Evans
Delias belladonna (Fabricius)
Delias aglaia (Linnaeus)
Prioneris thestylis (Doubleday)
Cepora nadina nadina (Lucas)
Cepora nerissa (Fabricius)
Appias lalage lalage (Doubleday)
Appias indra indra (Moore)
Appias lyncida eleonora (Boisduval)
Catopsilia crocale (Cramer)
Catopsilia electo field Ménétries
Ixias pyrene pirenassa Wallace
Ixias pyrene latifasciatus Butler
Valeria avatar avatar (Moore)

Family Danaidae

Danaus aglea melanoides (Moore)
Danaus plexippus (Linnaeus)
Danaus hamata septentrionis (Butler)
Danaus sita (kollar) f. *tytia* (Gray)
Danaus melaneus plataniston (Fruhstorfer)
Euploea mulciber mulciber (Cramer)
Euploea diocletianus diocletianus (Fabricius)

Family Satyridae

Mycalesis visala visala Moore
Mycalesis malsarida Butler
Mycalesis francisca sanatana Moore
Mycalesis malsara Moore
Letha confusa confusa Aurivillius
Lethe yama yama (Moore)
Lethe bhadra (Moore)
Lethe rohria (Fabricius)
Lethe visrava (Moore)
Lethe bhairava (Moore)
Lethe scanda (Moore)
Lethe latiaris (Hewitson)
Lethe kansa (Moore)
Lethe vindhya (C. Felder)
Lethe sinorix (Hewitson)

Lethe chandica chandica (Moore)
Lethe distans Butler
Orinoma damaris Gray
Ypthima sakra austeni (Moore)
Zipoetis scylax Hewitson
Orsotrioena medus medus (Fabricius)
Ragadia crisilda crito de Nicéville
Ethope himachala (Moore)
Neorina hilda Westwood
Elymnias patna patna (Westwood)

Family Amathusiidae

Faunis eumeus assama (Westwood)
Aemona amathusia (Hewitson)
Sticopthalma camadeva Westwood
Sticopthalma nourmahal nurinissa de Niceville
Sticopthalma louisa tytleri Rothschild
Thaumantis diores Doubleday
Discophora timora timora Westwood
Discophora sondaica zal Westwood
Enispe euthymius (Doubleday)

Family Nymphalidae

Charaxes marmax Westwood
Charaxes polyxena psaphon Westwood
Charaxes polyxena hierax Felder
Eriboea dolon (Westwood)
Eriboea delphis (Doubleday)
Eriboes athamas athamas (Drury)
Apatura chevana (Moore)
Apatura parisatis parisatis Westwood
Herona marathus marathus Doubleday
Sephisa chandra (Moore)
Diagora persimilis Zella (Butler)
Euripus halitherser Doubleday
Hestina nama (Doubleday)
Calinaga buddha buddha Moore
Stibochiana nicea nicea (Gray)
Dichorragia nesimachus Boisduval
Euthalia lubentina indica Fruhstorfer

Euthalia jahnu jahnu (Moore)
Euthalia julli appiades Ménétriés
Euthalia telchinia (Ménétriés)
Euthalia duda Staudinger
Euthalia francae francae (Gray)
Euthalia phemius (Doubleday)
Adolias khasiana (Swinhoe)
Adolias cyanipardus (Butler)
Neurosigma doubledayi doubledayi (Westwood)
Limenitis zayla Doubleday
Limenitis daraxa Doubleday
Limenitis austenia austenis (Moore)
Limenitis procris procris (Cramer)
Pantoporia ranga ranga (Moore)
Pantoporia asura asura (Moore)
Pantoporia perius (Linnaeus)
Neptis columella ophiana Moore
Neptis sankara quilta Swinhoe
Neptis radha radha Moore
Cyrestis thyodamas thyodamas Boisduval
Chersonesia risa (Doubleday)
Rhinopalpa polynice hurmana Fruhstorfer
Doleschallia bisoltidae indica Moore
Kallima inachus inachus Boisduval
Kallima allimpra Moore
Precis orythya ocyale Hübner
Precis hierta hierta (Fabricius)
Precis atlites (Johanssen)
Precis iphita iphita (Cramer)
Precis almana almana (Linnaeus)
Vanessa cardui (Linnaeus)
Vanessa indica nubicola Fruhstorfer
Vanessa canacea (Johanssen)
Symbrenthia hippoclus khasiana Moore
Symbrenthia hypselis cotanda Moore
Symbrenthia niphanda niphanda Moore
Argynnis hyperbius hyperbius (Johanssen)
Argynnis childreni childreni Gray
Issoria sinha sinha (Kollar)
Vindula erota erota (Fabricius)
Cirrochroa aoris aoris Boisduval
Cirrochroa tyche mylila Moore

Cethosia cyane (Drury)

Cethosia biblis tisamena Fruhstorfer

Family Erycinidae

Zemeros flegyas indicus Fruhstorfer

Dodona egeon (Doubleday)

Libythea myrrha sanguinalis Fruhstorfer

Abisara fylla (Doubleday)

Abisara neophron neophron (Hewitson)

Hemiptera

Family Fulgoridae

Fulgora pallida Donovan

Lycoma imperialis (White)

Aphana atomaria Burm.

Cerynia maria (White)

Atracis indica (Walk.)

Ricama speculum (Walk.)

Loxocephala aeruginosa (Hope)

Family Cicadellidae

Petaloccephala cultellifera (Walk.)

Bothrogonia ferruginea (Fabr.)

Bothrogonia indistincta (Walk.)

Bothrogonia illustris (Dist.)

Kolla opponens (Walk.)

Evacanthus repexus (Dist.)

Family Cercopidae

Cosmoscarta dorsalis Walk.

C. septempunctata Walk.

C. fulviceps Dall

C. nagasana Dist.

C. menaca Dist.

C. fictilis Butl.

C. dorsimacula Walk.

Eoscarta borealis Dist.
Phymatostetha stali Butl.
Philagra fusiformis Walk.
Abidama producta Walk.
Cosmoscarta trigona Walk.

Family Pyrrhocoridae

Antilochus congneberti (Fabr.)
Dysdercus evanescens Dist.
D. koenigii (Fabr.)
Ectatops rubiacea (Amy. & Serv.)
Pyrrhocoris apterus (Linn.)

Family Coreidae

Leptocorisa acuta Thunb.
Helcomeria spinosa Sign.
Cletus punctatus Westw.
Ochrochira biplagiata Walk.
Homaeocerus biguttatus West.

Family Cicadidae

Haphsa nicomache Walk.
Platylomia radha (Dist.)
Pomponia fusca (Oliv.)
Terpnosia madhava (Dist.)
Gaeana maculata (Drury)
G. sulphurea (Hope)
Balinta octonotata (Westw.)
Mogannia conica (Germ.)
M. viridis (Sign.)
Huechys sanguinea (De-Geer)
Scieroptera splendidula (Fabr.)

Family Aphididae

Capitophorus cardvinus (Walk.)
Cinara atrotibialis David and Raja Singh
Coloradoa rufomaculata (Wilson)
Hayhorstia atriplicis (Linn.)

Macrosiphum miscanthi (Takahashi)
Neomyzus circumflexus (Buckton)
Macromyzus polypod-icola (Takahashi)

Family Reduviidae

Coranus obscurus Kirby
Cydnocoris gilvus (Burm.)
Macracanthopsis nodipes Reuter
Panthous excellens Stal

Family Pentatomidae

Carbula crassiventris Dallas
Erthesina fullo Thunb.
Eurydema lituriferum Walk.
E. pulchrum Westw.
Eysarcoris guttiger (Thunb.)
E. montivagus Dist.
Nezara viridula (L.)
Zierona caerulea (L.)

Hymenoptera

Family Mutillidae

Mutilla ruficrus Rad
Mutilla tornatorai Magr.
Mutilla emergenda Magr.
Trogaspidia dimidia (Lepel)
Dasylabris argenteomaculata (Smith)

Family Tiphidae

Tiphia compressa Smith
Tiphia intrudens Smith

Family Scolidae

Elis luctuosa Smith
Campsomeris (sericocampsomeris) rubromaculata rubromaculata (Smith)
Campsoriella (campsomeriella) collaris (Fabr.)

Campsomeris (Dielis) javana (Lepel)
Campsomeris (Megacampsomeris) prismatica Smith
Campsomeriella (Annulemeris) annulata (Fabr.)
Scolia (Discolia) decorata desidiosa Singh
Megascolia (Regiscolia) azurea christiana Betren & Guiglia
Scolia (Discolia) jurinei Sauss.
Liacos erythosoma sikkimensis Micha

Family Chrysididae

Chrysis ionophris Mocsary

Family Ichneumonidae

Chlorocryptus coeruriens Cam.
Acromia punctata Kamath

Family Formicidae

Myopopon castanca (Sm.)
Odontoponera transversa (Sm.)
Ectomyrmex javanus Mayr.
Ponera truncata Sm.
Sima (Tetraponera) rufonigra (Jordon)
Oecophylla smaragdina (Fabr.)
Polyrhachis (Myrma) mayri Roger

Family Sphegidae

Sphex luteipennis Moes
Ammophila atripes Smith
Cerceris instabilis Smith
Sphex umbrosus Christ

Miscellaneous Insect Orders

Order	Odonata
Sub-order	Zygoptera
Family	Coenagrutidae
Sub-family	Coenagrutinae

Pseudagrion bengalense Laidlaw
Agriocnemis clauseni Fraser

Family Agridae
Sub-family Libellaginae

Rhinocypha cuneata Selys
R. ignipennis Selys

Family Agridae
Sub-family Agrinae

Matrona b. basilaris Selys

Sub-order Anisoptera
Family Libellulidae
Sub-family Libellulinae

Orthetrum anceps (Schneider)
O. crystostigma luzonicum (Brauer)
O. sabina (Drury)
O. C. cancellatum (Linn.)
O. glaucum (Brauer)
O. t. testaceum (Burmeister)
O. pruinatum neglectum (Rambur)
Palpopleura s. sexmaculata (Fabr.)
Diplacodes trivialis (Rambur)
Rhyothemis v. variegata (Linn.)

Orthoptera

Order Orthoptera
Family Acrididae

Ceracris nigricornis Walker
Phlaeoba antennata Brunner
Phlaeoba infumata Brunner
Trilophidia annulata (Thunb.)
Oxya fuscovittata (Marschall)
Catantops pinguis innotabilis (Walker)
Xenocatantops humilis humilis (Serville)
Stenocatantops splendens (Thunberg)
Chondracris rosea (de Geer)
Patanga succineta Johanson

Family Pyrgomorphidae

Tagasta indica Bolivar*Atractomorpha himalayica* Bolivar

Family Gryllotalpidae

Gryllotalpa fossor Scudder

Family Gryllidae

Velarifictorus arorai Tandon & Shishodia*Loxoblemmus detectus* (Serville)*Pteronemobius taprobanensis* (Walker)

Family Trigonididae

Trigonidium cicindeloides Rambur

Family Tettigoniidae

Sub-family Listroscelinae

Euhexacentrus annulicornis (Stal)

Order Dictyoptera

Family Blattidae

Trichoblatta sericea (Saussure)*Pycnoscelis surinamensis* (Linn.)*Hemithysocera palliata* (Fabr.)*Panesthia stellata* Saussure*Panesthia laevicollis* Saussure*Hebardina concinna* (Haan)*Stictolampra plicata* (Navas)*Blattella humbertiana* (Sauss)*Blattella germanica* (Linn.)*Arachnida*

Class Myriapoda

Order Scolopendromorpha

Family Scolopendridae

Otostigmus (o.) *rugulosus* Por.*Otostigmus* (o.) *insularis* Haase

Order Proterospermorpha
Family Strongylosomidae

Streptogonopus phipsoni Poc.
Sundanina sp.

Acarology

Family Ixodidae

Amblyomma testudinarium Koch.
Boophilus microplus (Canestrini)
Haemaphysalis birmaniae Supino
Haemaphysalis bispinosa Neumann
Haemaphysalis davisii Hoogstraal, Dhanda & Bhat
Ixodes acutitarsus (Karsch)
Isodes ovatus Neumann
Rhipicephalus haemaphysaloides Supino

Isoptera

No termite fauna has been recorded from the Subansiri District. Only two species of termites have been recorded from the adjacent Siang District. These termite species may be available also in the Subansiri District.

Family Termitidae

Nasutitermes moratus (Silvestri)
Odontotermes giriensis Roonwal & Chhotani

Diptera

Family Simuliidae

Simulium Sp.
General Non-Chordata

Phylum Annelida
Class Oligochaeta
Family Moniligastridae

Drawida kempii Stephenson
Drawida nepalensis Michaelsen

Family Megascolecidae

Pheretima diffringens (Biard)
Perionyx excavatus Perrier
Perionyx macintoshi Beddard
Perionyx gravelyi Stephenson

Family Octochaetidae

Dichogaster bolau (Michaelsen)
Dichogaster saliens (Beddard)

Class Hirudinea
Family Haemadipsidae

Haemadipsa zeylamica (Moquin-Tandon)

The following is a report on the fauna collected during the Subansiri Expedition, 1974-75 by Dr. J. M. Julka, Zoological Survey of India.

Introduction

In the Subansiri Multi-disciplinary Scientific Surveys Expedition, the Zoological Survey of India was represented by Dr. J. M. Julka from the headquarters at Calcutta and Shri M. R. Rynth and Shri Padam Bahadur Thapa from the Eastern Regional Station, Shillong. The main object of the Zoological Survey of India party was to carry out an extensive collection *en route* and preservation of the various faunistic groups for systematic studies in the laboratory. Data regarding habitat, behaviour, general ecological conditions, etc. were also recorded. Efforts were made to collect large series of specimens of species in each case. Various ecological niches, viz. rivers, streams, pools, dense forests, under stones, decaying logs, cow dung, cultivated fields etc. were explored.

During the course of the expedition, the party could collect about 6,000 specimens of about 250 species belonging to flatworms, round worms, earthworms, leeches, millipedes, centipedes, crabs, prawns, spiders, scorpions, various kinds of insects, shells, slugs, snakes, lizards, bats etc. The majority of the specimens collected were found at comparatively low altitudes between 800 to 1400 m., but some were also collected at greater heights upto 3200 m.

Topography of the Area

The general topography of the area is of mighty mountains, intersected by large river beds and water courses. The slopes of the hills are covered with almost impenetrable forests. Many places on gentle slopes near the villages have been cleared of forests for 'Jhum' cultivation. The whole area is very sparsely populated. The vegetation at lower altitudes consists of tall trees, shrubs, bamboo, wild bananas, cane and various kinds of creepers, and at higher altitudes it is mostly composed of ferns, pines and rhododendrons. The average annual rainfall is over 300 cm., mainly occurring from April to October. During the winter, the climate of the area is very cold with the temperature falling below the freezing point at many places during the night. The snow is encountered above 2700 m.

Fauna

The fauna collected during the expedition consisted of the following groups:

<i>Name of the group</i>	<i>No. of specimens</i>
Platyhelminthes	5
Nematomorpha	2
Annelida	2893
Arthropoda	
Crustacea	31
Arachnida	57
Myriapoda	48
Insecta	2564
Mollusca	30
Chordata	
Pisces	89
Amphibia	3
Reptilia	10
Mammalia	1
	<hr/>
Total	5733
	<hr/>
Nematoda	16 soil samples

Platyhelminthes

They are commonly known as flatworms and have free-living and parasitic

mode of life. A few specimens of free-living flatworms belonging to *Bipalium* spp. were collected from under stones and decaying logs in the forests. They were found in rolled up condition with dust and bits of decaying leaves attached to their sticky bodies.

Nematoda

A number of soil samples were obtained from the cultivated fields and forests for the collection of soil-inhabiting nematodes (roundworms). They cause severe damage to the crops and are of great economic importance.

Nematomorpha

They are elongated and thread-like worms. Only two examples of these worms (*Gordius* sp.) could be collected from small pools in a stream bed.

Annelida

(i) *Oligochaeta*: A good number of earthworms, which play an important role in the fertility of the soil, were dug out from the damp soil, from under the stones, dung and decaying logs. They were also collected from under the mosses growing on rocks. The collection consisted of the species of *Pheretima*, *Tonoscolex*, *Dichogaster*, *Perionyx*, *Drawida*, *Plutellus* and *Dendrobaena*. One of the interesting aspects of the present survey is the opportunity to observe the vertical distribution of the earthworms. The collections made from various localities at altitudes varying from 450 to 3200 m. are plotted in a histogram. A study of the histogram reveals that the species of *Dichogaster* occurs at 900 m., *Tonoscolex* upto 1400 m., *Pheretima* upto 1670 m., *Perionyx* and *Drawida* upto 2300 m., and *Plutellus* upto 2450 m. The species of *Dendrobaena* are only to be found between 1300 to 3200 m.

(ii) *Hirudinea*: A few parasitic leeches (*Haemudipsa* sp.), which suck the blood of the human beings and livestock, were collected from under stones in the vicinity of streams.

Arthropoda

(i) *Crustacea*: A number of isopods were collected from under stones and decaying leaves. A few prawns (*Macrobrachium* spp.; Fam. Palaemonidae) were captured from small pools in the river bed. A species of crabs was caught in the vicinity of the Kau Pass under hibernation below the stones.

(ii) *Archnida*: Several specimens of spiders predominated the archnid collection. The other archnids collected were a few scorpions (*Scorpiopes* sp.; Fam. Vejovidae). Some plant mites of reddish colour were also collected. *Isodes acutitatus* (Karsch), a species of ticks often attacked the members of the expedition party while they trekked through the dense forests.

(iii) *Myriapoda*: Though numerically small, both the millipedes and centipedes inhabited almost all the terrestrial habitats explored. A millipede, *Arthrosphaera* sp., belonging to the family Sphaerotheridae, when disturbed, rolled up into a ball.

(iv) *Insecta*: Over 2500 insects consisting of about 200 species from various habitats were collected during the expedition. Special efforts were made to collect insect pests and to study their mode of infestation in the cultivated fields. The following groups of insects are represented in the collection.

Order of insects	No. of specimens
Collembola	26
Thysanura	9
Odonata	25
Orthoptera	222
Dermaptera	168
Dictyoptera	37
Mantoidea	7
Isoptera	548
Hemiptera	419
Trichoptera	5
Plecoptera	30
Lepidoptera	130
Diptera	53
Hymenoptera	193
Coleoptera	715
Insect Larvae	4
Total	2591

The spring-tails (Collembola), Silver-fish (Thysanura), earwigs (Dermaptera) and termites (Isoptera) were found in the soil, decaying matter and under the stones and bark of trees. The blattids (Dictyoptera) were caught from under the stones in the forests and on the margins of a stream.

The dragonflies and damselflies (Odonata) were caught in the vicinity of streams and pools. The collection consisted of species of *Calicnemis* (Fam. platycnemididae), *Rhinocypha* (Fam. Chlorocyphidae) and *Orthetrum* (Fam. Libellulidae).

The orthoptera collection consisted of a variety of grasshoppers and crickets. These were collected from under the logs, among dead leaves, cultivated fields and wild bushes. A number of grasshoppers were found infesting the vegetable fields near Nacho. A rare wingless species of short-horned grasshoppers (Fam. Acrididae) was collected in December from the snow covered areas at Taksing (altitude 2300 m.). The mode of copulation was observed in this species. The loss of wings in this species may be a part of the specialization to the prevailing environmental conditions of low atmospheric pressure, oxygen deficiency and limitation of habitat at higher elevations.

Both the aquatic and terrestrial bugs (Hemiptera) were collected in good numbers. Among the aquatic bugs, *Micronecta* spp. (Fam. Corixidae) were abundant in still and running waters and *Anisops* spp. (Fam. Notonectidae) were common in the pools. Many semi-aquatic bugs (Fam. Gerridae) were found skating on the water surface in streams. A number of aphids (*Aphis* spp.) and Jassids were found infesting the plants. They suck the juices of plants, which leads to curling, browning, deformation, wilting and sometimes even death of plants. A few spit-bugs (*Philagra* spp., *Phymatostetha* spp., *Cosmoscarta* spp.; Fam. Cercopidae) were collected from various kinds of plants. They are known to transmit plant viruses. The other kinds of bugs collected were of families Cicadellidae (*Tettigoniella* sp., *Evacanthus* sp., *Kolla* sp.), Cicadidae (*Pycna* sp.), Fulgoridae (*Lycorma* sp., *Loxocephala* sp., *Aphana* sp.), Coreidae (*Leptocoris* sp., *Cletus* sp., *Ochrochira* sp., *Homoeocerus* sp.) and Pentatomidae (*Eusarcocoris* sp., *Cyclopelta* sp., *Eurydema* sp.).

The lepidopteran collection consisting of a variety of colourful butterflies and belonging to *Appias*, *Delias*, *Eurema*, *Pieris* (Pieridae), *Precis*, *Euthalia*, *Stibochiona*, *Cirrochroa*, *Hestina*, *Eriboea*, *Argynnis*, *Symbrenthia*, *Cethosia*, *Limenitis*, *Neptis* (Fam. Nymphalidae), *Lethe*, *Mycalesis*, *Ypthima* (Fam. Satyridae), *Zemeros* (Fam. Erycinidae), *Heliophorus*, *Neopithecops* (Fam. Lycaenidae), *Potanthus*, *Polytrema*, *Tambrix* (Fam. Hesperidae), *Thaumantis diores* Westwood, commonly known as the 'Jungle Glory', is of interest because of its rare occurrence.

A number of trueflies (Diptera) were found on the water surface of a hot spring near Maja. Their larvae and pupae were also collected from the water. A few black flies (Fam. Sikuliidae) and houseflies (Fam. Muscidae) were also collected.

The wasps, bees and ichneomons (Hymenoptera) were collected while

at wing and resting or hovering on the flowers and leaves. They belonged to *Bremus*, *Megapis* (Fam. Apidae), *Xylocopa* (Fam. Xylocopidae), *Vespa* (Fam. Vespidae) and *Salius* (Fam. Pompilidae). At Damin (Kamla valley), it was observed that the efforts to grow potato and 'lai saag' by the local people were being frustrated by a species of brown ants, viz. *Dorylus orientalis* (Fam. Formicidae). These ants eat up the budding potato by making holes in it and they were also found eating up the stem of the 'lai saag' plant, which resulted in the curling, browning, and ultimately the death of the plant. About 80% of the plants of both potato and 'lai saag' were found to be destroyed by these ants.

The beetles (Coleoptera) inhabited refuse of all kinds, dung, humus, rotting wood and bushes. They consisted of tiger beetles (Fam. Cicindelidae), ground beetles (Fam. Carabidae), rove beetles (Fam. Staphylinidae), ladybird beetles (Fam. Coccinellidae), diving beetles (Fam. Dytiscidae), long-horned beetles (Fam. Cerambycidae), leaf beetles (Fam. Chrysomelidae) and dung beetles (Fam. Scarabidae: *Cathersius* sp., *Liatongus* sp., *Onthophagus* sp.).

Mollusca

A few gastropod shells belonging to families Melaniidae and Cyclophoridae were collected. Some land slugs were also collected from the forests. They were found hibernating under the stones.

Chordata

(i) *Pisces*: A variety of fishes were found in the streams and some of them show interesting adaptations, in the development of an adhesive disc, to life in hill streams subject to sudden floods. A number of fishes, *Noemacheilus* sp. (Fam. Cobitidae), were collected from under the stones on the banks of a stream. There is ample scope for development of hill stream fisheries in the area. The Indian trout (*Schizothorax plagiostomus* Heckel), a good game and food fish, can be cultured.

(ii) *Amphibia*: Due to unfavourable conditions of extreme cold during this time of year, the frogs and toads had undergone hibernation. Only two species of frogs belonging to *Rana* (Fam. Ranidae) and *Philautus* (Fam. Rhacophoridae) could be collected.

(iii) *Reptilia*: The reptile collections were scanty as they undergo hibernation during the winter. A few lizards belonging to *Mabuia* (Fam. Scincidae) were collected. Only four specimens of snakes could be captured. They

are *Elaphe* sp. (Green Tree Racer), *Psammodynastes* sp. (Mock Viper) and *Zaocys* sp.

(iv) *Aves and Mammalia*: Barring a species of bat, no birds and mammals could be collected. However, a number of birds like magpie robin, Indian hornbill, a variety of woodpeckers, sparrows, thrushes and pheasants were observed in this region.

Among the mammals, the barking-deer (*Muntiacus muntjak* Zimmerman), flying squirrel (*Petaurista magnificus* Hodgson), jungle cat (*Felis chaus* Guldenstaedt), the large Indian civet *Viverra zibetha* Linnaeus), the white-browed gibbon (*Hyalobates hoolock* Harlan) and the common langur (*Presbytis entellus* Dufresue) were common in the forests. However, the local people confirmed the occurrence of the clouded leopard, takin, sambar and musk-deer.

Remarks

The vast territory of Arunachal Pradesh has remained more or less unexplored till recent times. The fauna of Arunachal Pradesh is of great importance in respect of zoo-geography, because of its confluent borders with the neighbouring countries like Bhutan, Tibet and Burma, providing a rare opportunity to study the intermingling of the fauna migrated from Indo-Chinese, Malayan and Peninsular India. Certain species have migrated from Indo-China and Malaya to this Himalayan Region and could be traced in the Western Himalayas and ultimately to the Peninsular India. The detailed studies on the fauna collected during the expedition will throw more light on the migration of the fauna not only in the North-East India but also in the other parts of the country. These studies would also reveal a number of new species and would extend the range of distribution of several species. The study on the species collected from extreme conditions like hot springs, torrential streams, high altitude and snow would provide an insight into the ways of their adaptation to these conditions. As the collections were made from various altitudes, it would be interesting to observe the vertical distribution of the species.

CLIMATE

The climate of the district is largely influenced by the nature of its terrain varying with the natural divisions and elevations. The district, as a whole, is a mountainous terrain intersected by valleys and ravines through which flow innumerable streams and rivers. The elevation along the southern periphery of the district is as low as 200 metres or less, increasing steadily

to 4,000 metres on the north with mountain peaks and ridges rising to the maximum of about 5,500 metres.

The winter prevails from December to February. This is followed by the pre-monsoon season marked by thunderstorms till May. The south-west monsoon begins in June and continues up to the middle of October. The period from the second half of October to November may be termed as the post-monsoon season.

The foothill region comprising strips of plain land is covered by dense forests. The rainfall in this region is extremely heavy, particularly in the Kimin and Doimukh areas. As a result, the climate at lower elevations is highly humid. It is considerably hot in the summer and the high humidity makes it sultry, aggravating in places which are denuded of vegetation. The temperature falls when the monsoon brings in heavy showers. The winter is not as cold as in the other areas of the interior of the district. During the winter thick sheets of mist lie low in the morning, but there is hardly any frost.

In the higher elevation marked by the rolling grasslands the climate is salubrious. The summer is not as hot as it is in the foothill region, nor is the winter very severe. A strong wind blowing frequently during the summer brings down the temperature. The rainfall is moderate.

The climate in the plateaux is cool and salubrious. The summer in the Apa Tani plateau is pleasant. The winter is, however, extremely cold, which is partly redeemed by the bright and sunny days. In the Tāle plateau the winter is marked by occasional snowfall at high altitudes. The rainfall in the plateaux is moderate, but for a considerable part of the year the sky remains cloudy, especially in the afternoons.

In the northern and north-eastern hill regions the climate varies according to the variation of altitudes. Heavy cloudiness with widespread rains is a characteristic feature of climate in the river valleys. The lower part of this region is warmer, and cold in the winter is not very chilly. The higher elevation is, however, a cold region. The upper reaches of the Kamla and Khru valleys remain snow-clad during the winter months. The north-eastern section of this region close to the snow-capped mountain ranges is extremely cold for the greater part of the year. At higher elevations the precipitation takes place mostly in the form of snow.

Rainfall

During the months November to March, western disturbances pass across or near the region from west to east. In association with this disturbances precipitation, mostly in the form of snowfall, occurs over the northern areas. A major portion of the annual rainfall is received in the south-west

monsoon season. During the monsoon, rainfall is particularly heavy in the valleys and over the southern regions of the district, and it is associated with strong monsoon current or depressions from the Bay of Bengal. The variation in the amount of rainfall and precipitation from year to year is relatively small.

Temperature

January and February are the coldest months, but the degree of coldness varies from place to place depending on the elevation. At places at higher elevations temperature in the cold season may go down a few degrees below the freezing point, and frost is common. The temperature rises gradually after February. The summer is not very palpable in this district except in the foothill region. The south-west monsoon season is slightly warmer than the period March to May. With the disappearance of the south-west monsoon by about the middle of October the weather gradually becomes cooler, and the temperature falls gradually.

Humidity

The atmosphere is highly humid throughout the year, the winter months being slightly less humid than other months.

Cloudiness

In the cold season the morning sky remains often obscured due to lifted fog, and it withers away with the advance of the day. During the period March to May the sky generally becomes moderately clouded. Heavy clouding occurs occasionally. Heavily clouded to overcast sky prevail during the monsoons when the hills and ridges are enveloped in cloud. Clear or lightly clouded skies are a common climatic feature of the post-monsoon season.

Winds

Winds are generally high during March to May. They may become strong during thunderstorms. Strong katabatic wind down the valleys are experienced.

Special Weather Phenomena

The cyclonic storms originating from the Bay of Bengal sometimes move

on to upper Assam and affect the district. Thunderstorms occur during the period February to June, and some of them occurring particularly from March to May are similar to the norwesters of Bengal, and are violent. Fog appears frequently, particularly in the valleys in the post-monsoon and cold seasons.

Rainfall and temperature charts are appended to this chapter.

ANNUAL RAINFALL AT DIFFERENT PLACES OF SUBANSIRI DISTRICT

(in centimetre)

Sl. No.	Rain Gauge Stations	1974	1975	1976	1977	1978
1	2	3	4	5	6	7
1.	Ziro	291	124	185	289	288
2.	Kimin	207*	172*	304	379	311
3.	Yazali	135	129	100	NA	89
4.	Damin	NA	38*	NA	331	339
5.	Tali	331	251	279	291	240
6.	Raga	153	53	859	423	52*
7.	Palin	219	180*	248	NA	37*
8.	Sarli	121*	320	265	206	230
9.	Koloriang	163*	298	216	NA	109
10.	Daporijo	173	167	159	118	250
11.	Sagalee	—	—	—	104	112
12.	Doimukh	NA	NA	NA	NA	135
13.	Sonajuli	NA	NA	NA	NA	261
14.	Tamen	NA	NA	NA	NA	20

* data incomplete

NA = not available

Source: Statistical Hand Book of Arunachal Pradesh, 1978-79.

MONTHLY AVERAGE TEMPERATURE IN DIFFERENT CENTRES OF
SUBANSIRI DISTRICT

(in centigrade)

Month	Ziro				Daporijo	
	1972		1976		1978	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
1	2	3	4	5	6	7
January	15.6	2.2	13.0	5.0	23.6	10.2
February	13.7	3.1	14.0	4.0	23.4	9.5
March	18.8	5.3	20.0	3.0	25.8	11.0
April	21.3	6.7	25.0	3.7	27.8	18.0
May	21.5	14.4	26.0	6.4	24.2	15.0
June	25.6	18.4	27.0	12.5	33.7	23.7
July	25.8	16.6	27.0	14.3	30.3	21.0
August	28.1	17.4	26.0	10.0	30.0	22.5
September	24.6	12.9	25.0	9.70	27.5	20.3
October	21.4	8.3	25.0	8.7	27.0	21.0
November	9.4	2.3	25.0	6.5	29.0	23.0
December	6.3	2.2	21.0	5.0	24.0	23.0

Source: Statistical Hand Books of Arunachal Pradesh, 1973-74, 1975-76 and 1978-79.

TEMPERATURE RAINFALL AND HUMIDITY IN SUBANSIRI DISTRICT
YEAR—1974

Month	Temperature (centigrade)		Rainfall (millimetre)	Humidity (percentage)
	Maximum	Minimum		
1	2	3	4	5
January	11.0	5.0	352.9	64%
February	11.2	1.0	150.7	82%
March	20.4	1.8	88.9	83%
April	16.7	4.4	464.6	75%
May	18.2	4.6	130.3	64%
June	23.0	7.8	269.5	66%
July	12.4	6.6	580.4	55%
August	15.2	11.3	57.6	67%
September	24.0	12.8	54.7	82%
October	23.0	11.0	50.8	83%
November	19.8	6.5	7.5	75%
December	8.4	7.8	51.4	83%

Source: Regional Meteorological Centre, Alipore, Calcutta.

CHAPTER II

HISTORY

ANCIENT PERIOD

Introduction

Our sources of the ancient history of Subansiri are too scanty and fragmentary to give a connected historical account. The archaeological relics of later times discovered in the district do not provide any key to the ancient period of history. At the present stage of our knowledge based largely on old literary sources and tribal traditions as borne out by ethnological researches we can, therefore, do little more than trace the courses of tribal migrations that took place in the district in the remote past and sketch a faint outline of the early history.

The major tribal communities living in the area now known as the Subansiri District are the Nishis, Tagins, Apa Tanis and Hill Miris. But it is not clear as to where they came from, when and where did they first settle and whether they were preceded by other peoples who lived and passed through north-eastern India in waves of migrations from time immemorial.

Old extant sources indicate that the early waves of tribal migration crossed over to India in the east probably through the eastern extremity of Arunachal Pradesh and Assam long before 1000 B.C. at about the same prehistoric time as the arrival of the Aryans in the west. According to Dr. S. K. Chatterji 'the North-Assam tribes of the Adis and Akas, Nishis 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 Mongoloid Bodos in this tract...' Some of the North-Assam tribes probably took a path westward along the course of the Brahmaputra in Assam and then turned north to the mountainous tracts of what is now known as Arunachal Pradesh. The Bodos, with whom they came into contact, were the most dominant people of north-

¹ S. K. Chatterji, *The Place of Assam in the History and Civilisation of India*, (Gauhati, 1970), p. 9.

eastern India, who held sway over Assam and some neighbouring hills for centuries till the advent of the Ahoms in the 13th century A.D. The Bodos and all these North-Assam tribes were probably known in ancient India by the old Sanskrit name Kirata.¹ Who were actually the Kiratas?

KIRATAS

According to the Indologists, the term Kirata occurring first in the Yajur Veda and subsequently in the Atharva Veda, the Ramayana and Mahabharata and other ancient scriptures refers to the Indo-Mongoloid tribes living in the hills and mountains, particularly the Himalayas and in the north-eastern areas of India. "From the Yajurveda onwards, the mountain regions of North and North-eastern India—the Himalayas particularly, are well attested as the abode of the Kirātas. In the Mahabharata, the Kirātas are dwellers in the Himalayan regions, particularly in the Eastern Himalayas".²

The Lauhitya or the Brahmaputra Valley was specially connected with the Kiratas. In the Vedic literature the name Kirata was also applied to a people living in the caves (*guha*) of mountains as it appears clearly from the dedication of the Kirata to the caves in the Vajasaneyi Samhita and from the reference in the Atharva Veda to a Kirata-girl (*kairatika*), who digs for a herbal remedy on the ridges of the mountains. In the Puranas, Kiratas are designated as 'foresters', 'mountaineers' etc.³ Kirata appears to be a common name given to all the Indian tribes of Mongoloid origin. They are described in the Mahabharata as 'gold-like', i.e. yellow in colour unlike other pre-Aryan peoples. In the Ramayana, they are mentioned as pleasant-looking with hair done in pointed top-knots and shining like gold. Their yellow complexion evidently distinguished them from other peoples of India.

Some branches of the Kiratas of north-eastern India came into contact with the Aryans as far back as the Battle of Kurukshetra (c. 900 B.C.). The Mahabharata makes mention of Bhagadatta, the King of Pragjyotisha (Kamarupa or Assam), who with his Kirata soldiers took part in the battle as an ally of the Kauravas. He was defeated by Arjuna and both the king and his Kirata followers were compelled to pay tribute.

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.

¹ S. K. Chatterji, (a) *Kirata-Jana-Krti*, (Calcutta, 1974), p. 38.
(b) *The Place of Assam in the History and Civilisation of India*, (Gauhati, 1970), pp. 17, 18.

² S. K. Chatterji, *Kirata-Jana-Krti*, (Calcutta, 1974), p. 30.

³ B. K. Barua, *A Cultural History of Assam (Early Period)*, Vol. I, (Gauhati, 1969), p. 5.

The Greek classical literature also bears evidence that the north-eastern region of India was not wholly unknown to the author of the *Periplus of the Erythrean Sea* (1st-2nd century A.D.) as also to Ptolemy.¹ The *Geography of Ptolemy* (c. 150 A.D.) states that *Serica*, a country probably located in 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 North-East India to South-East Bengal.

Account of Hiuen Tsang

Incidentally, Hiuen Tsang, the great Chinese traveller who came to Assam in about 642 A.D. during the reign of Bhaskaravarman, may be quoted. He stated that Kamarupa was under a Hindu ruler and its extent was about 10,000 li (nearly 1,700 miles) in circumference. Hiuen Tsang's account suggests that the country of Kamarupa included the whole of Assam and also extended to the tracts of present Arunachal Pradesh. *Yogini Purana* (c. 8th century A.D.) further states that Kamarupa extended right upto the Himalayan range in the north.

Origin and Migration of Tribes

The tribal myths and legends are tales of the shadowy past. Every tribe has a story of its ancestry and migration which, though vague, contain allusions to certain sequence of historical events faded out with the passage of time. It is significant to note that the Nishis, Tagins, Apa Tanis and Hill Miris all trace their descent from a common mythical ancestor called Abo Tani or Abo Teni.

NISHI

The following is an account of the Nishis given by B. K. Shukla, who was formerly the Divisional Research Officer, Subansiri Frontier Division.

"No one knows the original home of the Nishis or when they left it. All that is lost in the mists enshrouding the unwritten past as the people have no written traditions."

"All Nishis believe that they descended from Abo Teni, a mythical

¹ P. C. Choudhury, *The History of Civilisation of the People of Assam*, (Gauhati, 1966), p. 35.

ancestor,¹ and lived at a place called *Supung* which, they say, exists somewhere in the far eastern Himalayas. Later they came to Narba and drifting from village to village through Begi, Bolo, and Yalang successively, crossed the Shinit or Subansiri river, and then the Kumme or Kamla river. Here they spread all over the hills lying between the Kamla and the Khru, and later made their way to the Palin and the Panior hills. While coming to these hills they brought with them animals like mithuns (*bos frontalis*) and pigs, and such articles of value as *majis* (Tibetan tongueless bells) and *talus* (metal plates) and beads. They wore their hair in a bun called *podum* and knew even at this early stage weaving and agriculture.

"That this myth has some significance in throwing light on the tribe's origin and migration is beyond doubt. All the priests, and many others, remember their genealogies from their own time back to Abo Teni, and a large number of myths gather about his person. The various places mentioned in the above myth are narrated in the *id* songs, which are sung during marriage and the Yulo ceremonies. What remains obscure, however, is the geographical location of each place. Nevertheless, one thing is certain. If the people's traditions are to be taken as a guiding factor, then in all probability they originally dwelt in some remote corner of the eastern Himalayas. At some early date in human history, they migrated in groups to their present habitat in waves. The migration extended perhaps, over several centuries—one group ousting the earlier settlers, till it was itself ousted by yet another and stronger group. This process must have continued till the people finally settled in the hills north of the Khru, and made further excursions to the west in the hills of the Palin, Panyu and Panior river valleys."²

TAGIN

The Tagins are believed to have migrated from Penji, a village in Tibet, to Tadadege region. They came to their present abodes probably from Tadadege.

There is another tradition. "The country of the Tagins stretches from a little beyond the junction of the Sipi with the Subansiri and along the banks of the former. They believe that their ancestors came from a place called Pui Pudu farther beyond the source of the Sipi. They have no clear remembrance as to where the place was exactly located but believe that it

¹ "Indeed, as the Nishi tradition lays it down, Abo Teni is not only the eponymous ancestor of the Nishis, but also of Apa Tanis, Sulungs, Miris and Bangrus, as well as of the people of the plains or Halyangs. In fact a large number of tribes in the neighbourhood are one in the person of the ancestor."

² B. K. Shukla, *The Daflas of the Subansiri Region*, (Shillong, 1965), pp. 3-4. (N.B. The name Dafla occurring in the book is changed into their actual name Nishi throughout the text).

was across the frontier, in the land of Nimme or Tibet. From Pui Pudu they came to Pumta and from there to Dibeh. The first to come was their mythical ancestor Abo Teni who reached a place called Nide Lanking and died there.

"The followers of Abo Teni pursued the course of migration from Dibeh to Nari and from Nari to Nalo which is another name of the present village of Siggen. It appears that a Tagin village has two names, one of these after the original dominant clan of the village, as in the case of Nale. They retain the memory that, in course of movement, their ancestors had crossed Chhinik (Subansiri) and Kuru (Khru)".¹

APA TANI

"In the absence of any archaeological data we have no means of determining how long the Apa Tanis may have been dwelling in their present habitat. But judging from the way in which they have transformed their environment, one can safely assume that many centuries must have passed since the forefathers of the present population first set foot in the valley. A tradition current among the Apa Tanis tells that their ancestors came from a country to the north or north-east situated near two rivers known as Supupad-Pudpumi. These names may refer to two tributaries of the Subansiri, but neither the Apa Tanis nor anyone else is likely to identify this legendary country of origin. All Apa Tanis agree, however, that at one stage in their migrations they crossed the Subansiri River from north to south and came to a place in the Sipi valley called Karr, which lies beyond the Pij Cholo, a peak of 8,417 feet rising from the north bank of the Kamla River and visible from the hills surrounding the Apa Tani country. In this area the original Apa Tanis are believed to have split into three groups, each of which took a different route to the Apa Tani country. The stages on these routes refer to identifiable localities in the Nishi and Miri Hills north of the Apa Tani country, and it is likely that this part of the tradition reflects historical events imprinted on the tribal memory. Each of the three groups of immigrants is believed to be responsible for the foundation of different villages, and the present division of the Apa Tani tribe into three clusters of closely allied settlements is traced to the days when three waves of migrants occupied the valley.

"Though local traditions speak of an immigration of the tribe's ancestors from a northern direction, these memories can only relate to the last stages of a population movement which may well have changed its course more than once".²

¹ J. N. Chowdhury, *Arunachal Panorama*, (Shillong, 1973), p. 156.

² C. von Furer-Haimendorf, *The Apa Tanis and their Neighbours*, (London, 1962), pp. 5-6.

HILL MIRI

Dr. Haimendorf writes of the Nishis that they have excellent memories and many of them can not only tell the names of their forefathers but also know of the fate and whereabouts of most branches of collateral kin. But this cannot probably be said of the Hill Miris. "Of migrations or their own origin", wrote Dalton, "the Hill Miri can only say that they were made for the hills and appointed to dwell there, and that they were originally much further north, but discovered Assam by following the flights of birds and found it to their advantage to settle on its borders".¹

SULUNG

The Sulungs are probably the first tribal group to settle in the Subansiri region in the very remote past. According to Dr. Haimendorf, they are believed to have been in the country when 'the other races' migrated in, and are of 'comparatively primitive racial type distinguished from all the other tribesmen by a pronounced prognathism'.² Their legend says that they came from the north.

A study of the legends regarding original home and migrations would suggest that the tribes of the Subansiri region, such as the Nishis, Tagins, Apa Tanis, Hill Miris and Sulungs came to their present abodes from the north and north-east across the Himalayan ranges. The courses of migrations can also be traced through the names of rivers and places occurring in the legends which refer apparently to a general north to south movement.

ITA FORT

Location

About 11 km west of Itanagar, the temporary capital of Arunachal Pradesh, there exist ruins of an old fort strewn about under thick vegetation on a low hill in the southern slopes of the Subansiri District (latitude 27°6'N and longitude 93°39'E). The place came to be known as Ita meaning brick. The foot of the hill overtopped by distant mountains is washed by the Pachin river winding across the area. The Pachin which in its upper course is known as Senkhi and in the lower course as Barpani merges with the Dikrang river at Doimukh. To the west, beyond the

¹ E. T. Dalton, *Tribal History of Eastern Indian* (Descriptive Ethnology of Bengal). (Delhi, 1973), p. 34.

² C. R. Stonor, *The Sulung Tribe of the Assam Himalayas*, (Arunachal Research Bulletin, August 1972), pp. 1-3.

Senkhi, lies the beautiful lake Gyakar Sinyi between the Budputu and Rilo hills. The permanent capital of Arunachal Pradesh is now under construction at the site of the historic Ita Fort.

Early Report

In 1941, Dwarika Nath Das published an exploratory report¹ on the Ita ruins which he identified with the ancient Mayapur, the capital of King Ramachandra (c. later part of the 13th century A.D.), also called Mayamatta, probably a scion of the Jitari dynasty of Assam. The report is an important account of the ruins, and is quoted here in some detail.

"Six and half miles to the north of Harmutty tea garden in the North Lakhimpur Subdivision is *Duimukh* in the Nishi Hills. There is the junction of two rivers, the Dikrong coming from the east and the Barpani from the west. This place is north of Majuli or Ratnapur (Ratanpur) of ancient times.

"(Note :—The Dikrong and Barpani rivers are called *Par* and *Pachin* respectively by the Nishis).

"Going westward from Duimukh along the bed of the Barpani river one arrives before noon at the mouth of the rivulet, *Bukujuli*, which falls into the Barpani from the north. From there, after a long march along the same river-bed, the mouth of another rivulet, Papupani, is reached. The whole march is about a day's journey from Duimukh. The Papupani also flows into the Barpani from the north. Thence, following the course of the Papupani, the junction of two streams, *Taja* and *Lepper* is reached. From there, one climbs the hills which rise towards the south and edge on the Barpani river. This peak, which is called *Ita*, is reached after a gradual climb of about 4 hours march, and here lie the remains of ancient Mayapur.

"Ita hill is about 5 miles in length from east to west, and about 3 miles in breadth from north to south, and is bounded on the east by the Papupani, on the south by the Barpani, on the west by the Sengkhi (the northern branch of the Barpani river) and to the north, rise the main Nishi Hills. The hill is practically flat on top and more or less a plateau.

"The Nishis call this hill *Hita Rokpo*.

"At one place on the plateau, near the south-east corner, there are the remains of a brick wall surrounding a considerable area on three sides. The wall on each side is three quarters to one mile in length and the width about 6 ft.

"The fourth side is not enclosed by a wall, but by a cliff, which is sheer in parts. Below the cliff runs the Barpani river. There was probably no

¹ The Journal of the Assam Research Society, Vol. VIII, No. 2, April 1941, pp. 43-49.

wall on this side, as its steepness served as a bulwark against an enemy's attack.

"The only traces of the ruins left now are the walls, which are built of bricks and stone blocks, three doorways, one in each wall, and the statue of an elephant which was seen in 1923, but has not been since found.

"In the centre of the area enclosed by the walls is a tunnel which leads underground; but, due to the subsidence of the ground, it could be followed up a few feet. This also has not been seen since 1923.

"The top of the hill is almost flat and a small stream flows through the area enclosed by the walls. At all places in these hills, where such ancient ruins enclosed by similar walls exist, there are to be found one or more streams, all of which are perennial, and supply good drinking water.

"No human habitation is there now; but there used to be a village called *Ita* which was inhabited by Nishis a few decades ago. It was abandoned owing to many deaths which occurred among them. As is their custom, when too many deaths occur or disease is prevalent, the Nishis begin to think the village unlucky, and abandon it and migrate elsewhere.

"In the summer, a herd of elephants, known as the *Lost Herd* always migrate to Ita.

"Standing on the highest point among the ruins, facing south and looking towards the low range of hills situated between the Barpani river and the plains of Gohpur, Dholpur and Narayanpur mauzas, one can see that this hill lies to the north-west of the Majuli (Ratanpur). Although, from time immemorial, many a Nishi from the hills and plainsmen from below, have been travelling, hunting and fishing in the forests lying between the Majuli and the Ita hill, yet no man has ever found any ancient ruins of such size and prominence, enclosed by stone and brick walls of such dimensions, as are found on the Ita. Surely, this place was adorned by the palaces of some past king or kings.

"May not Mayapur, which was once associated with the name of Ratanpur, be the name place as *Hita*, and the capital of the refugee king *Mayamatta*?

"The Nishis relate the following story on solemn affirmation about the Ita.

"In ancient times a refugee king from Assam built a fort on Hita and, with his very beautiful queen, came there to live. He always richly clothed her and bedecked her with precious ornaments. In course of time the queen became pregnant; she, being ashamed for some reason, went down to the plains to some place to the east to give birth to her child. There, at that place which was on the bank of the Brahmaputra, a son was born, and he was named Arimatta. On a certain day during the childhood of the prince the queen was bathing in the river with her son, the prince, nearby. It was then that they found a very long hair floating

down the river. This hair was so long that, when coiled, it made a heap equal to a basketful. The queen told the prince that the hair belonged to his ancestor and warned him not to go to the north. In time, Arimatta grew to be a great king. Afterwards thinking that there must be some king greater than himself in the north he resolved to visit him. He then marched along the course of the Dikrong river and reached Dujmukh, whence he proceeded along the course of the Barpani river until he reached the junction of the *Simpu* and *Sengkhi* rivers, which are the southern and northern branches respectively of the Barpani river. In those days, a wide road ran along the south bank of the Barpani river, but is now no longer in existence, having been washed away by rain and storms in the course of long ages. Jungle has since overgrown it and there is no trace of it now.

Finding no way up the hill from there Arimatta returned to the mouth of the Papupani and went upstream to the junction of the Taja and Lepper streams, whence he saw many men on the Ita hill, but could not advance as the door of the fort was closed to him. He returned to the plains, collected his troops and went back to assault the fort. Many a man fell in the assault; but eventually the fort fell into his hands. Arimatta unsuccessfully tried to kill the refugee king by shooting arrows at him, on which the captive addressed him thus :—

'Thou shall not be able to kill me unless thou piercest my heart with thy fingers'.

Arimatta did as he was advised; but his whole body was besmeared with the blood which gushed forth from the pierced heart. At that moment, before he breathed his last, the refugee king informed Arimatta that he was his father.

Sorrow and grief seized Arimatta and he then remembered his mother's warning against going northwards where his own people lived.

He then gave away many presents to atone for the sin of patricide committed unwittingly by him. He hid many jewels, gold and silver articles, *deoghantis* and utensils, etc. in the Goruchuntia hill which are supposed to be still lying there as in these days nobody went there thinking it haunted. Once in the past a certain Nishi brought a *deoghanti* from there; but on being warned by others to return it to its place, he did so; yet he died after his return from that hill.

(The hill, where the riches are said to be in deposit and lie hidden, is called *Porbor Potu* by the Nishis and the Goruchuntia by the Assamese. It is the highest peak of the first range of the low hills, N.E. of Dufflaghur tea garden, Darrang).

After returning to the plains Arimatta tried to wash away his father's blood from his body by bathing in the Brahmaputra; but the stains could not be completely removed. Hence, on his mother's advice, he had oil

poured over his hair, his head covered with dry straw and set fire to it, on which a big flame arose which burned him to ashes.

"For generations the Nishis have related this ancient story of others, but have absolutely no stories in which their own people are concerned with the ruins. They call the hill on which the ruins stand *Hita* (Ita), because of the cut-stone blocks and bricks found there.

"The cut pieces of stone which are all roughly chiselled are all of two sizes. Some, which are approximately $8' \times 2' \times 1\frac{1}{2}'$ feet were probably used as uprights in the doorways, while the others of $2\frac{1}{2}' \times 1\frac{1}{2}' \times 1'$ were used in building the walls.

"The bricks are of the usual Assamese flat type and are roughly $8'' \times 6'' \times 2\frac{1}{2}''$ inches in size.

"So far no carvings have been found on any of these stones. Hitherto, not a single cut stone, nor brick, nor any other thing from these ruins has been found in any other part of the Nishi hills, which is due to the fact that the Nishis, believing that the ruins are inhabited by evil spirits, have touched nothing.

"The legend among the Nishis goes so far. Now let us turn to the historical records which were based on better known legends. In Gait's History of Assam, a Ksatriya prince, named Dharmapal, came from the west and founded a kingdom and built his capital west of Gauhati. He was succeeded by many kings of whom Ramchandra was the last; and the later built his capital at Ratanpur in the Majuli. His queen gave birth to a son named Arimatta who afterwards came in conflict with his father and killed him unwittingly.

"This story is described in detail in Asamar Buranji by Mr. Gohain Barua.

"After the Kumar dynasty Dharmapal founded the Jitari dynasty in the 11th century A.D. He was succeeded in turn by Subali, Padma Narayan, Mahendra Narayan, Prem Narayan, Joy Narayan, Ksobha Narayan, Pratap Chandra and Ramchandra. Ramchandra's kingdom extended from Bhalukpung to the Majuli and his capital was at Ratnapur in the Majuli. He made another capital, Mayapur, on the N. W. corner of his kingdom and he himself was known by another name, Mayamatta, and Mayapur was named after him.

"The Ahoms, led by Svargadeva Cukapha, crossed the Patkai and the Naga Hills, entered Saumar in 1229 A.D., and their kingdom spread towards the west during his reign until his death in 1263 A.D. It was perhaps during his conquest of the Barahi, Matak and Maran kingdoms in Sibsagar and Lakhimpur districts that Ramchandra fled to the hills and resided in his new capital, Mayapur; for that reason the Nishis perhaps called him the refugee king.

"It is also described in the Asamar Buranji that Mayamatta gave away

his beautiful queen, Mahisi, to one Kachari prince who was his guest. She was then pregnant and was brought down to the palace of the latter where she lived and gave birth to a son who was named Arimatta.

"We have noticed that the kingdom of Ramchandra (Mayamatta) extended from Bhalukpung to the Majuli and Arimatta was his son. The Akas claim descent from Arimatta and their country lies in the N.W. corner of the above area e.g., from Bhalukpung to the Majuli".

Archaeological Explorations and Excavations

In course of the archaeological explorations and excavations undertaken since March 1975 by the Research Department of the Government of Arunachal Pradesh the entire fortress has been surveyed and explored. The following is a description of the structural complex that has been brought to light:

"The Ita Fort is actually a fortified area of an irregular shape, enclosed by natural ridges and brick ramparts. There are two brick walls and three Gates. The Western Rampart runs for almost one-and-a-half km in length and has two Gates in it. The Eastern Rampart is more than a half km long, with only one Gate in it. The walls cross over uneven terrain and deep nallahs, where remains of culverts, steps etc. exist. The average width of the walls, is 1.5 metres and the original height could be about 5 metres, depending on the terrain. The destruction is immense due to a number of factors such as earthquakes, heavy rains, abundance of forest and bamboo groves in particular. Therefore it is almost impossible to get an idea of the original structure.

"In the north and south, irregular steep ridges of more than a km length each, provide natural defence. No man-made earthworks were necessary. The area thus fortified, more than a square km, is sloping from south to north, and has a number of nallahs and gorges providing ample water supply as well as escape routes. The Fort is drained in two different directions. The currents flowing in the north-western direction, join the Moob nallah and those in the north-eastern direction, meet the Papu.

"Three Gates of varying designs have been built at strategic points. The Eastern Gate, largely built of stone masonry, overlooks Doimukh in the Dikrang valley. It is the highest point in the Fort (512 metres above MSL), best suited to watch and guard the eastern approach from Harmati. Remains of an old brick-built road at Harmati were noticed by Major Cory in the year 1874. They could be of the old North Trunk Road. (Unfortunately the Eastern Gate has been considerably destroyed because

of somebody's amateurish enthusiasm for archaeology. It has been dug out like a well and valuable evidence is lost).

"The South-western Gate (480 metres above MSL), is comparatively in a better condition. It is largely brickbuilt though stone is also utilised. Stone slabs with animal and floral designs were used for the door-ways. The doors are completely lost but the existing remains give an idea of their shape and size. The purpose of this Gate was obviously to check the enemy from Gohpur and Ramghat in the south.

"The Western Gate in the plains faces the Senkhi river and appears to be the main entrance. Comparatively less defence arrangements exist at this Gate, probably because no attack was expected from that side. Brickbats and stone slabs are discovered at different places within the Fort but they are so completely destroyed that it is impossible to get any idea of the residential buildings.

"The bricks are of more than twenty different sizes. Even decorative bricks exist. Their mass production was obviously made at the site itself. Good soil for the same is easily available. The sand stone seems to have been brought from elsewhere; it is found in this region but not at the Fort site. The local stone is geologically, gneiss of granite, useless for construction. The entire complex is indeed, a meticulously planned work. It is a monumental task based on intimate knowledge of the terrain and involving immense resources, human as well as material".¹

Conclusions

Who built the Ita Fort and when? A number of legends as well as literary sources giving contradictory and dubious accounts of the history of this period do not bear conclusive evidence to answer these main questions. But all accounts agree in stating that one Arimatta, an important ruler whose memory has been preserved in a number of legends and traditions current all over Assam, killed his father unknowingly and committed suicide in repentance. According to the testimony of the chronicles, namely the Asamar Buranji and Kamarupar Buranji, the legends of the local Nishis, the reference to a capital named Mayapur in the hills and other supporting evidences, it may be surmised reasonably that King Ramachandra, the father of Arimatta, was the builder of the Ita Fort. In the light of the same sources the patricidal King Arimatta, whose mother was the legendary Harmati,² can also be identified as the ruler of the Ita Fort.

"It is quite probable that the Fort was built in the later part of the

¹ Y. A. Raikar, Ita Fort.

² It is interesting to note that the legend still survives in the place-name Harmuti, a Railway Station in the adjacent area of Assam close to Itanagar.

13th century A.D. when the Muslims were invading from the west and the Ahoms advancing from the east. The hide-out was best suited for defence, under such conditions.

"Unfortunately there is no conclusive archaeological evidence as yet, to establish the date. The bricks of the Fort are typically mediaeval and pre-Ahom as well. A piece of pottery (spout) unearthed has a large content of kaolin in it. It is typical of the mediaeval pottery of Assam. The carved stones in bas-relief, have floral and animal designs. The lion-and-elephant motif appears to be common. Iron clamps and nails are also found. Unless further evidence comes out and it is compared with that at Simnaparbat, Borgong, Vidyargarh, Phengunagarh etc. nothing more could be said.

"It would be worthwhile to see the Ita Fort in comparison with two other forts in Arunachal — Bhishmaknagar and the Mud Fort near Tezu, both in the Lohit district. All the three are forest forts, quite different from the mediaeval forts in other parts of the country. But the Ita Fort is a hill fort while the other two are in the plains. Bhishmaknagar has both brick-works and earthen ramparts. It has an elongated semicircular shape, as prescribed by the Sanskrit texts, and the construction is also as per the canons of classical fort architecture. It is the largest in extent (about 10 sq. km) and earliest in time (8th to 16th centuries A.D.). The Mud Fort near Tezu is a rectangular earthwork (1200' × 1150') with ditches on either side and a cavalier in the centre. It belongs to the mediaeval period. The Ita Fort, much larger than the Mud Fort, but smaller than Bhishmaknagar has, however, the longest brick ramparts, but no regular shape and no man-made earth-works".¹

The Ita Fort stands out as an archaeological monument of a forgotten chapter of the early history of north-eastern India.

MEDIAEVAL PERIOD

It is in the late mediaeval period marked by the dominance of the Ahoms in Assam that the history of Subansiri emerges from vague traditions. Our sources for this period are a series of invaluable chronicles known as the Ahom Buraniis, bearing important literary evidences to the historical developments that took place in this region. Indeed, the advent of the Ahoms is a landmark not only of the history of Assam, but of Arunachal Pradesh as well, for from then on we can trace the main course of political history of the entire north-eastern India. A good deal of authentic information of the Arunachal tribes and their relations with the Ahoms can be gleaned from the contemporary sources and the Buraniis of the Ahoms, who

¹ Y. A. Raikar, Ita Fort.

ruled in Assam for long six centuries from 1228 A.D. to 1826 A.D. These sources are fragmentary but precise as historical documents. The recorded history, as distinct from archaeology, of Arunachal Pradesh in general and the Subansiri District in particular may, therefore, be taken as beginning from the days of the Ahoms.

The Ahom invasion of Assam led by Sukapha began in 1228 A.D. They came from North Burma crossing the Patkai range, and made steady advances along the course of the Noa-Dihing river and then forced their way along the western course of the Brahmaputra. In their bid to gain supremacy in Upper Assam the Ahoms had to measure their swords first with the Chutiyas and the Kacharis, the two powerful Bodo tribes of the north-eastern Assam, and in a series of battles lasting for centuries they came out victorious. Consequent on the decline of the Chutiyas and also of the Kacharis the Ahoms gradually annexed the whole strip of land from Sadiya up to the area east of the Bhoroli river on the north bank of the Brahmaputra fringed by the hill ranges of Arunachal Pradesh, and in doing so they gradually came into contact with the northern tribes of Arunachal Pradesh, such as the Mishmis, Adis, Nishis, Hill Miris and Akas, and established extensive relations with them.

The works of the Muslim writers and historians of this period contain valuable information about the political relations between the Ahoms and the northern tribes. One such writer was Shihabuddin, also known as Talish, who accompanied a Mogul expedition to Assam in 1662-63 led by Mir Jumla during the reign of Jayadhwaj Singha (1648-63). Mir Jumla's forces advanced to the fringes of the present Arunachal Pradesh bordering Assam. Shihabuddin's *Fathiyah-i-Ibriyah* conveys that 'although most of the inhabitants of the neighbouring hills paid no taxes to the Raja of Assam yet they accepted his sovereignty and obeyed some of his commands'. He further observed that the 'Miri Mishmi women surpass in beauty and grace the females of Assam'.

Another document containing an account of the interview which the Assamese ambassador Madhabcharan Kataki had with the Mogul commander Raja Ram Singh refers to the tribal legions of the Ahom army and it declares, 'Numerous chieftains of the mountainous regions have become our willing allies in the campaign. They consist of a total strength of three lakhs of soldiers... Their participation in this campaign has been directly sanctioned by His Majesty.'

Ahom-Nishi Relations

In the hills and valleys extending westward of the Subansiri river to the bank of the Bhoroli in Kameng live the Nishis. They were in former

times addressed wrongly as 'Dafla'. The Nishis living across the northern borders of the Darrang District and the Lakhimpur District of Assam were in the past referred to as "Paschima Daflas" or Western Nishis and "Tagin Daflas" or Eastern Nishis respectively. They were also called by various other names. The easterners, however, commonly call themselves Nishi, while the westerners Bangni meaning man, and they appear to be two broad sections of the same tribal community. Both the Western Nishis and the Eastern Nishis appear to have been mentioned in the Ahom Buranjis. But the term "Tagin Daflas" used for the Eastern Nishis is obviously a misnomer, for the Tagins and the Nishis are two different tribes, although they have cultural affinities with each other. It may also be noted that it was unlikely for the Ahoms to come across the Tagins living in the remote northern part of the present Subansiri District.

The Nishis were divided into many clans under numerous chiefs, for which they were incapable of combined action except casually. As observed by Robinson and Dalton, there were as many as 238 Nishi gamas or chiefs who received since 1836-37 a compensation amounting to Rs. 2,543 for the loss of *posa* granted to them by the Ahom rulers. The Nishi owed allegiance to an oligarchy of chiefs numbering from two or three to thirty or forty in a clan. Their villages consisted of long houses, and a house was occupied by related families. They were attached to the house rather than to the village.

Yet, of all the Arunachal tribes met by the Ahoms, the Nishis were found to be the most formidable. According to Mohammad Kazim, a writer and a contemporary of Aurangzeb, the Nishis were an independent people. In fact, the Ahoms were never quite successful in their attempts to reduce the Nishis to complete submission. When king Udayaditya Singha (1670-72) wanted to send a force to punish the Nishis for having taken away from the plains a number of men, women and children, his celebrated Prime Minister Atan Buragohain said that it was impossible to capture the Nishis. The Nishis in their inaccessible hill abodes were invincible indeed.

A work written in the 17th century on the Political Geography of the Assam Valley contains the names of tribes who were tributaries of the Ahom kings. The Nishis, Akas and Bhutias were referred to in this list. It also makes mention of the tributes paid by them and the passes by which they descended to the plains. The work further gives description of certain villages of the Mikirs and Miris which were under direct Ahom rule.

The Ahom Buranjis made the first mention of the Nishis as allies of the Koches who invaded Assam in 1562 A.D. After the withdrawal of the Koches, the Ahom king Sukhampha, Khora Raja (1552-1603) brought the entire territory to the east of the river Bhoroli directly under the Ahom

administration and a new officer called Salal Gohain was appointed to administer it. This measure was taken to keep the Nishis and the Akas in check.

The Buranjis refer to several Ahom expeditions into the Nishi country. The first was directed against the Western Nishis in 1614, which ended in a total defeat of the Ahoms. In order to resist the Nishis, King Pratap Singha (1603-41) constructed a fort called Dafala-garh in the Darrang District which was also known as Rājgarh (i.e. royal fortification). He also granted the Nishis right of *posa*, that is the right to receive payments from certain specified villages in the foothills, provided they paid annual tribute to the king. *Kataks* were appointed for this purpose. A number of *paiks* were engaged in the duars or passes to supply the Nishis with the necessaries of life. These *paiks*, who were actually 'agricultural labourers' working under an officer called Dafalaparia Phukan, came to be known as 'Dafala-bahatias'. This was a privilege enjoyed by the Nishis in addition to *posa*.

The records of 1825 as quoted by Mackenzie testify that the Nishis were entitled to receive, from every ten house at the foothills, one double cloth, one single cloth, one handkerchief, one *dao*, ten heads of horned cattle and four seers of salt.

Mackenzie also noted that 'the different clans of Nishis did not interfere with each other on the plains. Each knew the villages to which it had to look for *posa*. But they claimed a right to collect from their allotted *paiks* wherever these might migrate, and they demanded full dues whether the *paiks* could pay or not. This exacting spirit made them very difficult to deal with'.¹

Despite the grant of *posa* the Nishis could not be prevented from committing raids in the plains of Assam. In 1646, during the reign of Sutyinpha also called Naria Raja (1644-48), a punitive expedition was sent against the so-called Eastern Nishis to avenge the outrages committed by them. The expedition failed and a second expedition against the same tribe was undertaken in 1648. This time the Nishis were assisted by the Hill Miris. After a fierce battle the Ahoms compelled the allied force to retreat. The Nishis, however, proved that they were not to be subdued easily. They yielded at length only when they faced an acute scarcity of food.

The Nishis reciprocated the help rendered by the Hill Miris by taking side with them in their rebellion against the Ahoms during the reign of Chakradhwaj Singha (1663-70).

¹ A. Mackenzie, History of the relations of the Government with the Hill Tribes of the North-East Frontier of Bengal (Calcutta, 1884), p. 27 ff quoted in India's North-East Frontier in the Nineteenth Century (London, 1962) by Verrier Elwin, pp. 167-168.

A section of the Eastern Nishis rose in revolt in 1672 and refused to pay tribute to the Ahom king. They raided a village called Taiban in the Lakhimpur District, and carried off a number of people. Some of the Buranjis assigned the cause of the raid to the extreme sufferings of the Nishis for want of food. As mentioned earlier, the reigning king Udayaditya Singha despatched a retaliatory force against the Nishis, ignoring the caution of his wise Prime Minister. The expedition dragged on for some time until it ended in a total failure with heavy loss of lives.

Hostilities between the Ahoms and the Nishis continued until the latter came to terms during the reign of Rudra Singha (1696-1714), the mighty king of the Ahoms. The Nishis agreed to supply six hundred soldiers to the Ahom army. The peace and friendship, however, did not last long. The Nishis committed a series of raids in the plains of Assam following the death of Rudra Singha. The Eastern Nishis were subdued in 1717 by the next Ahom king Siva Singha (1714-44), and an embankment was raised along the border of the hills to foil future incursions of the Nishis. To counteract the raids of the Western Nishis, King Rajeswar Singha (1751-69) imposed a blockade on them by closing the passes leading to their hills, and fortifying the strategic points along the border. Consequently, the Nishis led a deputation to the king, and gave him presents. They also returned the captives taken away previously. But the arrest of the Nishi representatives by the king resulted in the renewal of hostilities, and finally in the restoration of the right of *posa* to the Nishis.

During the Moamaria rebellion, which broke out in Assam in 1769 and continued till the early part of the next century, the Nishis made a common cause with the rebels in their bid to overthrow the Ahom domination. The rebellion eventually died down.

The Hill Miris

The word Miri is a common name given indiscriminately to a number of tribal groups living in the hills and the plains. The Miris of the plains, a motley tribe, live scatteredly in the foothill areas of Arunachal Pradesh. They have been mentioned in the Ahom accounts as go-betweens of the Adis and the traders of Assam, a fact in which the Assamese word 'Miri' meaning intermediary has had its origin. The Hill Miris living in the valleys of the Kamla and Subansiri in the Subansiri District as far as the plains are, however, a separate tribal group quite distinct from the Miris of the plains. They have been called, as noted by Verrier Elwin, the 'Hill Miris' for want of a better name. As far back as 1872, Dalton made a distinction between the Miris of the plains and of the hills and referred to the latter as Parbatia or Hill Miris. The Report of the Miri Mission (1911-

12), which made the first ever extensive survey of the district, states that the name Miri is purely an Assamese word originally used to denote all the hill people between the Nishis of the Ranga valley and the Adis of the Dihang. The Hill Miris are, therefore, not to be confounded with the Miris of the plains.

The 'Preliminary Notes on the Miris (1897)' ascribed to G. W. Dun refers to different sections or clans of the Hill Miris as follows:

"The Ghyghasi Miris inhabit the country to the west of the Dirjemo and to the north of the Sissi subdivision of North-Lakhimpur.

"The Ghasi Miris live between Dhol river and the Subansiri.

"The Sarak Miris live in the outer range between the Subansiri and the Ranga. It is to be noted that the Ghyghasi and Ghasi Miris may be considered one clan, and they are regarded as such by the other Miris...

"The Panibotia and Tarbotia clans live in the hills to the west of the Subansiri. The Tarbotia have their villages on the southern bank of the Kamla river, and consequently do not need to travel by water to reach the plains: hence their name."

The names Pani-botia (pani=water, botia=way) and Tor-botia (tor=land, botia=way) given by the people of the adjacent plains seem to suggest that the former descended into the plains by water and the latter by land.

"The first reference to the Miris, in the Buranjis of the Ahoms we get in the reign of king Pratap Singha (1603-41 A.D.). In order to stop the acts of oppression committed by the Miris, king Pratap Singha appointed Katakis to watch them and keep the authorities informed of their movements. With that end in view he introduced the 'posa' system in order to conciliate them. In recognition of this privilege granted to them, he arranged for the payment of annual tribute by the Miris to the Ahom government and thereby compelled the Miris to recognise the overlordship of the Ahom kings. This arrangement made by king Pratap Singha with the Miris remained in tact till the end of Ahom rule in Assam." The Miris referred to here are evidently the Hill Miris, who had the right to *posa* as enjoyed by the Nishis, while the Miris of the plains did not have any such right. It was noted by Mackenzie that the Hill Miris had acquired an acknowledged right to *posa*.

Ahom Policy

The Ahoms, as already stated, had extensive political relations with the

¹ Verrier Elwin, *India's North-East Frontier in the Nineteenth Century*, (London, 1962), p. 160.

² Lakshmi Devi, *Ahom-Tribal Relations*, (Gauhati, 1968), p. 159.

northern tribes. Special officers were appointed by them to keep close contact with the hill tribes and also to regulate the relations between the tribesmen and the villagers living in the plains along the foothills belt. In order to induce the tribal people to peaceful life, they granted them what is called *posa* and other concessions in return for tributes paid by them to the Ahom Government. The Ahoms, however, in exercise of their sovereignty sent out punitive expeditions to the hills and imposed blockades when there were serious raids and outrages committed by the tribes whom they tried to contain in their own hills. They adopted and successfully pursued a policy of conciliation backed by force and their political authority.

The Nishis and the Hill Miris were granted *posa* by the Ahom kings. The word *posa* literally means a collection or subscription for a common purpose. In the olden days, the various hill tribes from the north would descend annually to the plains to receive subscriptions from certain border villages. The subscription raised by a village to meet the customary demands of the hillmen was paid in kind. 'It appears that the quantities demanded from each village or hamlet were fixed and well known to both parties; and as no individual inhabitant of a plains village was liable for any particular article, the whole amount was raised collectively by a village subscription, or *posa*'.

As observed by Mackenzie *posa* is often rather wrongly defined as blackmail. "It is a mistake", says Mackenzie, "to suppose that the *posa*, which, as we shall see, was paid to most of the hill tribes bordering on the plains, was an uncertain, ill-defined exaction, depending in amount upon the rapacity of the different hordes who might descend to levy it. It was really well-ascertained revenue payment, on account of which a corresponding remission was made in the State demand upon the *ryot* satisfying it. It may have had its origin in encroachment, or it may have been based upon customary and primeval rights asserted by the hillmen; but it was a distinct feature in the revenue system of the country when the British annexed Assam".¹

After the British took over possession of Upper Assam from the Ahom king Purandar Singha (1832-38) in 1838, the payment of *posa* in kind was commuted for fixed money payments. In 1852, the Nishis were finally induced to commute their claims for a money payment. The system of *posa* introduced by the Ahom king Pratap Singha (1603-41) to deal effectively with the northern tribes and maintain peace and order in the country was in fact followed by the British for many years as a legacy until the

¹ A. Mackenzie, History of the relations of the Government with the Hill Tribes of the North-East Frontier of Bengal, (Calcutta, 1884), pp. 21 ff quoted in the India's North-East Frontier in the Nineteenth Century, (London, 1962), by Verrier Elwin, p. 429.

payment was finally stopped from the forties of the present century by order of the Government.

MODERN PERIOD

The Moamaria rebellions and the successive Burmese invasions of Assam (1816-24) brought about the downfall of the Ahoms. The devastated Brahmaputra Valley fell into a state of chaos and disorder. The Burmese were driven out, but the Ahoms were a spent force by now, and the country was left without any government. As an inevitable consequence of the historical developments, the course of later history was shaped by the British who annexed Assam gradually. It was decided that the Brahmaputra Valley with the exclusion of two tracts in Upper Assam, namely Sadiya and Matak,¹ would be provisionally administered as a British province. In 1823, David Scott was appointed Agent to the Governor General for administration of the whole eastern frontier. By the Treaty of Yandabo (1826) Assam was ceded to the British. Eventually, in 1838, as already mentioned, the British took over the administration of Upper Assam from Raja Purandar Singha, the tributary ruler of that region, who was for his misrule deposed and pensioned.

British-Nishi Relations

The Nishis, as we have seen, were restive throughout the Ahom rule in Assam. They were so turbulent that the British Government 'did not for many years see its way to insisting upon commutation of *posa* where the clans objected to it'. In fact, the Nishis gave much trouble to the authorities from beginning of the British rule in Assam, 'and many fruitless efforts were made to induce them to resign the right of collecting *posa* directly from the *ryots*'. The Government's intention was to discontinue *posa* and make money payments in lieu thereof. But the offer was not acceptable to the tribesmen for the reason that money had no exchange value in the interior of the district. 'It was not, however, till 1852 that the *posa* was finally commuted for a money payment'.

Up to 1852 the Nishis had been a source of frequent anxiety to the Government, for which it became necessary to establish military posts along the frontier to secure its peace. 'From 1852, however, the Nishis, much to the relief of the local officials and somewhat to their surprise, settled quietly down, many of them devoting their attention to agriculture and residing

¹ Matak lay to the south of Sadiya between the Brahmaputra and the Burhi-Dihing and was inhabited by people belonging mainly to the Moamaria Sect. Sadiya and Matak tracts were annexed to the British territory in 1842.

permanently in the plains. In the year 1853-54, at the time of Mills' inspection of Assam, the following payments were made to them :

	Rs.	a	p
From Tezpur Treasury to Nishis of Charduar and Naodwar	2,494	0	0
From Lakhimpur Treasury to Nishis of Charduar	1,243	14	5
From Lakhimpur Treasury to Nishis of Banskotta	392	1	6

with 24 maunds of salt to the last-named in lieu of certain *hath* or market dues.

The tribe remained quiet and gave no cause of anxiety up to 1870..."

It is not until 1872-73 that we hear about the so-called Eastern Nishis. The Administration Report of 1872-73 makes mention of an outrage committed by them in that year. An account of the outrage is as follows :

"The Nishis along the Darrang and North Lakhimpur borders had not for many years past given much trouble, though the report for 1870 described an outrage committed for private reasons by one hill Nishi upon another man of the same tribe living on the plains. Many Nishis have settled in the plains, and a few even occasionally work on tea gardens. The tribe of Eastern Nishis living in the hills on the borders of East Darrang and part of Lakhimpur have, however, this year placed themselves in an attitude of positive hostility to the Government, and perpetrated a raid which, though directed against the Nishis in the plains, and not against the Assamese, was far too serious to be overlooked. On the night of the 12th February 1872, the village of Amtola, two miles north of the Gohpore police-station of Darrang, and seven miles from the foot of the hills, was attacked by a body of two or three hundred hillmen. The village was sacked. The villagers who were taken away were all Western Nishis, while a few settlers belonging to the Eastern Nishis were left unharmed. The guard at Gohpore made an attempt to follow the raiders, but did not succeed in overtaking them. Orders were, however, sent to reinforce the district police with troops. All the Nishi passes to the east of Darrang and along the Lakhimpur frontier were blockaded, and payment of the allowances annually made to the Eastern Nishis was stopped. Spies sent into the hills traced the raiders to their homes, and by their reports and the statements of one or two captives who escaped, the position of their villages has now been

¹ A Mackenzie, History of the relations of the Government with the Hill Tribes of the North-East Frontier of Bengal (Calcutta, 1884), pp. 27 ff quoted in India's North-East Frontier in the Nineteenth Century, (London, 1962), by Verrier Elwin, pp. 169-170.

pretty well ascertained. The cause assigned for the outrage is a curious one. The hillmen had, it seems, been much troubled by an epidemic, which they believed to have been imported from the plains. They called upon the Nishis of the plains to compensate them for the loss they had sustained in children and adults from the disease; and because the Nishis of Amtola declined to meet their wishes, they came down to recoup themselves by seizing them all as slaves. The Eastern Nishis refuse to surrender the captives save on ransom paid, and even threaten further raids if the blockade is maintained'.¹

The blockade, however, was proved ineffective and in 1874-75 a military force was despatched into the hills. No active opposition was offered by the Nishis, and the force succeeded in obtaining the release of the captives. Thereafter, except for some sporadic raids and endemic feuds flaring up intermittently up to the forties of the present century, the history of the British-Nishi relations is comparatively uneventful.

From the early part of the 20th century the relations between the Nishis and the Government took a new turn. Effective and direct contacts with the Nishis of the interior were made. In 1911-12, a survey party known as the Miri Mission explored a wide area of the interior of the district. Their recommendations that a knowledge of the Subansiri tribes was necessary for extensive survey and explorations was approved by the Government.

The Tagins

The Tagins were hardly mentioned in the British records as a separate tribal group. The term 'Tagin Daffas' appearing in the 19th century records referred to, as already indicated, the Eastern Nishis or the Nishis of Subansiri living across the Lakhimpur District of Assam. The reference to so-called Tagin Daffas did not certainly mean the people of the far north and north-eastern Subansiri, whom we know today as Tagins and who were scarcely known in the last century as a separate tribal group distinct from the Nishis. The Assam Census Report of 1881 states the following :

"The origin and meaning of the name Daphla are not known. As pronounced in Lakhimpur, it would be written Domphila. They call themselves Niso or Nising. The Miris they call Bodo and the Abors Tegin, but this last word seems to be merely the name of a tribe common to the Abors and Daphlas..."²

¹ A. Mackenzie, *History of the relations of the Government with the Hill Tribes of the North-East Frontier of Bengal*, (Calcutta, 1884), pp. 27 ff, quoted in *India's North-East Frontier in the Nineteenth Century*, (London, 1962), by Verrier Elwin, pp. 171-172.

² See Verrier Elwin, *India's North-East Frontier in the Nineteenth Century*, (London, 1962), pp. 183-184.

Whatever may the term Tagin denote, the Tagins living in a deep interior region remote from the border of Assam do not appear to have come in direct and close contact with the people of the plains in the last century. A survey party visited their country in 1911, and since then very little was heard of the Tagins for long forty years until 1951 when K. T. Khuma, Assistant Political Officer of Along visited a part of the Tagin country and gave us a vivid description of the area and of its people. Official visits to the area, which continued in the following years, received a jolt in 1953 when the Achingmori incident took place. In that year a group of Tagins ambushed an official party and inflicted heavy casualties on them. Altogether 47 persons of the party of 165 members including officials and porters were killed and some others were taken away as hostages.

"The administration realised the importance of the situation and dealt with the Tagins not only from the point of view of law and order question but from the humanitarian point also. In one hand they took all necessary steps to re-establish the rule of law and with the other tried their level best to bring the various benefits of administration to their doorsteps so that the roots of their grievances could be removed. To deal with their peculiar problems and various grievances two administrative centres were established one at Denekoli and the other at Taliha under two responsible officers who had opportunities to know the area and the Tagin people thoroughly. The first officers to be placed in charge of Denekoli and Taliha were Mr. K. T. Khuma and U. Hipshon Roy both of the Indian Frontier Administrative Service.

"The sympathetic attitude of the Government regarding the whole affair and tactful handling of the case satisfied all concerned and created a very good impression on the Tagins who came forward readily to cooperate with the various nation-building activities of the Government which were meant for their benefit both immediate and future.

"To clear the atmosphere of suspicion and to build up a spirit of fellow-feeling and good neighbourliness the Government paid to each of the families of the Gaonburas, who lost their lives a sum of Rs. 1000, the families of each of the murdered porters Rs. 800. Those who were kept as hostages received Rs. 400 each and those who were captured but ultimately escaped received Rs. 100 each. Over and above these, the affected families got compensation in kind from the Tagins also".

The Tagins have settled down to a peaceful life after the incident of Achingmori, and no such tragedy has taken place since then.

¹ L. N. Chakravarty, *Glimpses of the Early History of Arunachal*, (Shillong, 1973), pp. 32-33.

British-Apa Tani Relations

The Apa Tanis appear on the British records as the Ankas (sometimes called Tenai Miris), Apas or Apa Tanang. The last name, as pointed out by McCabe, is a complete misnomer. E. T. Dalton said of them that "between the Duphla and Meri countries there is a tribe called 'Auks' and 'Auka Meris' (clearly, the Apa Tanis) by the Assamese, who never visit the plains. . .".¹ Major Graham's report on the 'Dafila Expedition of 1874-75' referred to the Apa Tanis for the first time. Mackenzie did not make any mention of the Apa Tanis in his book 'History of the relations of the Government with the Hill Tribes of the North-East Frontier of Bengal'. These records are suggestive of the fact that the Apa Tanis were little known to the plains people of Assam in the last century, who looked upon them as a group of the Miris and called them Aukas or tattooed.

The Apa Tani valley was first visited by H. M. Crowe of the Joyhing Tea Estate in 1889, and again four years later when he escorted Captain Dun into that country. Both his visits were apparently very successful. The German explorer Herr von Ehlers entered the valley in 1895, but he was met with an inhospitable reception, and was robbed and turned out of the country.

The Apa Tanis are a gentle, peace-loving people who had committed violence only once during the British days. "In 1896, a party of Ankas put up at the house of one Podu Miri near the Kadam Tea Estate, and when the family had peacefully lain down to sleep, killed Podu and his stepson, and carried away four captives. Three months later, a small expeditionary force was despatched into the hills, which reached the valley of Hong, rescued the prisoners, and punished the Ankas by compelling them to release six persons whom they had carried off a short time previously from a friendly Nishi village. The comparative leniency of this punishment was due to the fact that the Ankas seem to have had a genuine grievance against Podu. Since that date they have not given any trouble while in British territory".²

R. B. McCabe, a member of the Indian Civil Service, who accompanied the expedition as Political Officer, wrote a report on the natural grandeur of the Apa Tani valley where he saw the wonderful cultivation of rice on irrigated terraces.

The Apa Tani country was visited by the Miri Mission in 1912. Dr. Haimendorf was appointed Special Officer for the territory in 1944. He wrote the following about his duties :

¹ Verrier Elwin, *India's North-East Frontier in the Nineteenth Century*, (London, 1962), pp. 156-157.

² B. C. Allen, *Assam District Gazetteers*, Vol. VIII, Lakhimpur, (Shillong, 1905), p. 75.

"I was given the task of establishing friendly relations with the tribes of Subansiri region and of preparing the ground for reconnaissance beyond the area explored by the Miri Mission. My directives were that I should first visit the Apa-Tanis and win the confidence of this large tribe, whose goodwill seemed essential for the success of such a reconnaissance. The collection of information on the general character of Apa-Tanis and the neighbouring tribes, on economic and social conditions, customs, tribal politics and routes were to be my next task, but any active interference in tribal matters were to be avoided".¹

Dr. Haimendorf first visited the Apa Tani valley in 1944. His remarkable books *The Apa Tanis and their Neighbours*, *Himalayan Barbary* and *A Himalayan Tribe* give us a vivid and intimate description of the country and the people of Subansiri, the Apa Tanis in particular, he saw and studied closely during his repeated and long visits.

British-Hill Miri Relations

The Hill Miris were not familiarly known as a distinct tribal group of Subansiri before the Miri Mission surveyed their country in 1911-12. But the survey reports² by R. Wilcox and E. T. Dalton, who came across the Hill Miris in 1825 and 1845 respectively, and the 'Preliminary Notes on Miris, 1897' probably by G. W. Dun³ containing a good deal of information about them give out the fact that their relations with the Government were exceptionally friendly and cordial. "Our political relations", says Michell in 1883, "with the Miris (Hill Miris) have been so satisfactory that there is nothing to record about them further than that the administration reports for years past tell us that their conduct has been most satisfactory. In this respect they form a marked contrast to every other tribe on the North-Eastern Frontier. From the time of Wilcox's visit in 1825 until the present day they have not only freely traded in our territory, but gladly welcomed us to their hills. There have been a few complaints at times from the occupants of the exposed tea gardens as to misunderstandings with the Miris, but the quarrels have been easily explained away. Colonel Dalton and Captain Maxwell are the only two political officers who have actually been in the Miri villages, of the high hills, and their reception was most satisfactory. All the gams of villages received them with the greatest respect, and appeared to consider themselves our ryots.

¹ See L. N. Chakravarty, *Glimpses of the Early History of Arunachal*, (Shillong, 1973), pp. 30-31.

² See Verrier Elwin, *India's North-East Frontier in the Nineteenth Century*, (London, 1962), p. 133 ff.

³ See Verrier Elwin, *India's North-East Frontier in the Nineteenth Century*, (London, 1962), p. 159 ff.

"When the survey of the Subansiri was undertaken there was very considerable doubt as to its advisability, and it was only on the very urgent representations of Captain Maxwell as to the ease with which it could be carried on that it was at last permitted. The reception of the survey party was most cordial, and Colonel Woodthorpe considered there would be no difficulty in pushing the survey well in to the interior of the country; in fact, he was only prevented doing so by the strict orders of the Government".¹ The 1928 publication of the Balipara Frontier Tract Gazetteer affirms that "They are well behaved and have never given us any trouble. We have always been on most friendly terms with them. The *posa* of Rs. 2,244-12-8 which we pay them is more perhaps of a charity than any we pay on the North-East Frontier".²

The Miri Mission reported that the country inhabited by the Hill Miris is covered with dense jungle from the high water level of the Kamla to the top of the highest hills. The jungle is of high trees with masses of creepers and thick evergreen undergrowth. On the left bank of Kamla are occasional spurs covered with coarse grass and bushes, viewed from a distance these look quite open but, when approached, movement is found to be much restricted to the paths. The villages of the Hill Miris with very few exceptions all lie between 300 feet and 4000 feet, and the paths connecting them are very bad village tracks.

We do not read about the Hill Miris for quite a long lapse of time after the visit of Miri Mission until 1944 when Dr. Haimendorf explored their country and brought out his 'Ethnographic Notes on the Tribes of the Subansiri Region (1947)'.

ADMINISTRATIVE GROWTH AND DEVELOPMENTS

The British largely followed the policy of the Ahoms in regard to the North-East Frontier in the nineteenth century. The system of *posa* introduced by the Ahoms to conciliate the frontier tribes was carried on by them for a long time. They also, like the Ahoms, tried to contain the tribes in their own hills. They made efforts to befriend them, but the relations were occasionally marred by sudden outbreak of disturbances and punitive measures taken by the Government to maintain peace and tranquillity. The policy of the British Government, particularly upto the first decade of the present century, was generally to leave the tribes more or less to look after themselves, and not seek to establish any detailed administration in these tribal areas such as was to be found in the rest of

¹ John F. Michell, *The North-East Frontier of India*, p. 246.

² Assam District Gazetteers, (Vol. XI), *The Sadiya and Balipara Frontier Tract Gazetteer*, Part II (Shillong, 1928), p. 15.

British Indian territory. But they always exercised the sovereign jurisdiction of the Government where questions of law and order were involved and regulated inter-tribal relations and relations between the tribal people and the plains people.

The administration of the India's North-East Frontier now known as Arunachal Pradesh has been consolidated through many decades of Government jurisdiction and effective administrative control exercised upto the international boundary, and developmental activities undertaken in this area for welfare of the tribal people.

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

The Bengal Eastern Frontier Regulation I of 1873 empowered the authorities to prescribe a line to be called the Inner Line and to prohibit any British subject living outside the area from going beyond that line without a licence. No rubber, wax, ivory or other jungle products was to be obtained from the hill areas by people from outside. They were also not to hunt wild elephants beyond the Inner Line without special permission of the Government.

Under this Regulation of 1873 a detailed description of the Inner Line dividing the tribal areas from the plains districts of Assam was issued. This line has been laid down along the northern, eastern and south-eastern borders of the Brahmaputra Valley. Notifications describing the Inner Line in the Lakhimpur District and the Inner Line in the Darrang District were issued in 1875 and 1876 respectively. In 1884, a revised notification regarding the Inner Line in Lakhimpur was issued. Under the Regulation of 1873 passage to the hill areas now known as Arunachal Pradesh was not permitted without a permit or licence. This Regulation was enacted not with the intention (as is so often thought) of isolating the hill people from the plains, but to bring under more stringent control the unrestricted commercial intercourse which formerly existed between the traders from the plains of Assam and the frontier tribes, and prevent the traders from exploiting rubber and other hill products. In Lakhimpur the operations of speculators in rubber had led to serious complications, and the spread of tea gardens beyond the fiscal limits of the settled territories of the day had involved the Government in considerable difficulties. In order to prevent the recurrence of these difficulties, power was conferred to the

local authorities by the Regulation of 1873 to prohibit people from going beyond a certain line, laid down for the purpose, without a pass or licence. The Regulation also laid down rules concerning trade and possession of land and property beyond the line.

It may be noted that the term Inner Line was used to distinguish it from the 'Outer Line' that is, the international boundary. The Inner Line marked merely an administrative limit and the area north of it was also controlled by the Government of India. The Inner Line, revised by notifications from time to time, e.g., in 1928, 1929, 1934 and 1958 still remains in force.

The year 1912-13, which marked a definite turn in the policy as a result of political and administrative developments that took place in the area at this time, was of great importance in the history of the frontier administration. As a first step towards securing more effective control of the hill tracts of the North-East Frontier and establishing close and better relations with the tribes inhabiting them, extensive topographical survey and explorations of the interior areas were undertaken. The Miri Mission (1911-12) mentioned earlier surveyed the valleys of the Subansiri, Kamla and Khru rivers. All these paved the way for gradual extension of administration. Some other important measures were also taken. A separate district was formed comprising the tribal area of the frontier east of the Subansiri-Syom divide, and consisting of two sections, Eastern and Central, under the control of a Political Officer working directly under the Chief Commissioner of Assam. Survey operations and road constructions on an extensive scale were taken up. Sanction was also accorded to the appointment of a Political Officer to have charge of the section of the frontier west of the Subansiri-Syom divide and effect was given to the orders by the close of the year 1912-13.¹

An administrative reorganisation of the frontier tracts now known as Arunachal Pradesh was made under the Government of India, Foreign and Political Department, Notification of 1914, which promulgated that the Assam Frontier Tracts Regulation of 1880 would extend to the hills inhabited or frequented by Adis, Mishmis, Miris, Nagas, Singphos, Khamptis, Akas and Nishis. These hill areas were separated from the then Darrang and Lakhimpur Districts of Assam, and as a result the North-East Frontier Tract consisting of the following three administrative units came into existence:

- (1) The Central and Eastern Sections, North-East Frontier Tract.
- (2) The Lakhimpur Frontier Tract.
- (3) The Western Section, North-East Frontier Tract.

¹ See Resarun, (Shillong, July, 1976), Vol. 2, No. 3, by the Research Department, Government of Arunachal Pradesh, pp. 3-4.

In the year 1914, the first and third units were each placed under the charge of a Political Officer and the second unit under the Deputy Commissioner, Lakhimpur District, in addition to his own charge. The Political Officer of the Central and Eastern Sections had his headquarters at Sadiya, while the Political Officer of the Western Section was stationed at Charduar. A further step in the demarcation of specific areas of administration was taken during 1914-15. Southern boundaries of the Eastern, Western and Central sections as well as the Lakhimpur Frontier Tract were formally defined, and rules were formulated in regard to administration of these areas.

In 1914, the traditional and customary boundary of India along the northern border of the present Arunachal Pradesh obtained the added sanction of treaties according to the Indo-Tibetan Boundary Agreement of 24-25 March, 1914 and the Simla Convention of 3 July, 1914.

In 1919, on the recommendations of the then Chief Commissioner of Assam, the Western Section, North-East Frontier Tract was renamed as the Balipara Frontier Tract and the Central and Eastern Sections, North-East Frontier Tract was termed as the Sadiya Frontier Tract. The Lakhimpur Frontier Tract, however, continued to be known as such. This position held till 1937 during which period certain areas were either excluded from or included in the so-called North-East Frontier Tract.

In 1921, all the frontier tracts of Assam were declared 'backward tracts' in which, under the new Government of India Act of 1919, only such laws would operate as the Governor in Council or the Governor-General in Council might direct. The Government of India Act of 1935 made special provisions for the administration of these hill areas upto the international boundary whereby the erstwhile 'backward tracts' were reclassified as 'excluded' or 'partially excluded' areas. In 1937, the Balipara, Sadiya and Lakhimpur Frontier Tracts came to be known collectively as the excluded areas of the province of Assam under the provision of Section 91(1) of the Government of India Act of 1935, which was given effect to by the Government of India (Excluded and Partially Excluded Areas) Order of 1936. Under Section 92 of the 1935 Act these excluded areas came under the charge of the Governor of Assam who administered them in his discretion under the general control of the Governor-General.

"In the year 1943, a new administrative charge was created with certain areas from the Lakhimpur Frontier Tract and the Sadiya Frontier Tract and was named as the Tirap Frontier Tract. The Tirap Frontier Tract was placed under a separate Political Officer with headquarters at Margherita. In 1946, the Balipara Frontier Tract was divided, for administrative convenience, into the Se La Sub-Agency and the Subansiri Area. In 1948, the remaining portion of the Sadiya Frontier Tract was bifurcated

into two separate administrative charges, namely, the Abor Hills District and the Mishmi Hills District."¹

The Political Officer of the Subansiri Area had his headquarters at first at North Lakhimpur with a base camp at Kimin. The headquarters were shifted to Kimin on January 1, 1950 and finally from there to Ziro on March 24, 1952.

Since 1937 the excluded areas, as already stated, were administered by the Governor of Assam through the Political Officers and the Deputy Commissioner of Lakhimpur. The Constitution of India, which came into force on the 26 January, 1950 made detailed provisions under the Sixth Schedule for the administration of the whole area now known as Arunachal Pradesh. The Constitution brought about a change in the administrative set-up of the 'excluded areas', and accordingly the North-East Frontier Tract comprising the Balipara Frontier Tract, Tirap Frontier Tract, Abor Hills District and Mishmi Hills District was administered by the Governor of Assam acting as the agent of the President of India under the provisions of paragraph 18 of the Sixth Schedule to the Constitution and Part B of the Table below paragraph 20 of that Schedule.

"In the year 1951, the plains portions of the Balipara Frontier Tract, Tirap Frontier Tract, Abor Hills District and Mishmi Hills District were transferred to the administrative jurisdiction of the Government of Assam. The aforesaid areas minus the transferred plains portions of the Frontier Tracts together with the Naga Tribal Area were thereafter renamed collectively as the North-East Frontier Agency."²

Under the North-East Frontier Areas (Administration) Regulation of 1954 the North-East Frontier Tract came to be known as the North-East Frontier Agency, and according to this Regulation the administrative units were also reconstituted and renamed with redefined boundaries. The administration of the North-East Frontier Agency was carried on by the Governor of Assam as the agent of the President of India.

Before 1950, there were administrative centres at Kimin opened in 1947, and at Doimukh, Sagalee and Koloriang opened in 1949. In the fifties, the civil administration further extended to the far interior parts of the district. Administrative centres came up at Raga in 1951, Nyapin, Daporijo and Dumporijo in 1953, Taliha in 1954, Nacho and Limeking in 1956, Palin and Tali in 1957, Sarli, Huri and Taksing in 1959. Another such centre was established at Siyum in 1962. As a result of establishment of these centres, the whole of the district, constituted as an administrative unit, came under the benefits of a regular administration.

¹ P. N. Luthra, *Constitutional and Administrative Growth of the North-East Frontier Agency*, (Shillong, 1971), p. 11.

² *Ibid*, pp. 11-12.

Under the North-East Frontier Areas (Administration) Regulation of 1954, the Balipara Frontier Tract was divided into two separate units of administration called the Subansiri Frontier Division and the Kameng Frontier Division. Shri R. G. Menzies was the first Political Officer of the Subansiri Frontier Division. Finally in 1965, under the North-East Frontier Agency (Administration) Regulation of 1965, the Subansiri Frontier Division came to be known by its present name—the Subansiri District, and the Political Officer of the erstwhile division was redesignated as Deputy Commissioner. Shri R. S. Nag became the first Deputy Commissioner of the district.

Epilogue

The Independence of India in 1947 is a great turning point in the history of Arunachal Pradesh as of the rest of the country. Article 46 of the Constitution of India directs that "The State shall promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the Scheduled Castes and the Scheduled Tribes, and shall protect them from social injustice and all forms of exploitation". This directive principle embodied in the Constitution has led to a wave of progressive changes brought about in Arunachal Pradesh for an all-round development of the area. Measures taken by the National Government for welfare of the Scheduled Tribes received an enthusiastic response from the tribal people, who were freed from neglect and long isolation which they suffered during the pre-independence period. The erstwhile North-East Frontier Agency has attained the status of a Union Territory since January 21, 1972, the date from which it came to be known as Arunachal Pradesh. The territory has been provided with a Legislative Assembly from August 15, 1975¹.

In Arunachal Pradesh today, people's participation in the welfare activities of the representative Government is a new development of utmost importance, and it upholds the principle enunciated by the late Prime Minister Nehru that 'People should develop along the lines of their own genius'.

¹ See Chapter IX for details.

CHAPTER III

PEOPLE

Population

The Subansiri District has a total population of 1,12,928 souls as enumerated in the 1971 Census.¹ In Arunachal Pradesh Subansiri, next to Tirap, is the most thickly populated district where the density of population per square kilometre is about 7 persons. The population, distributed in 1,102 villages, is entirely rural. The break up is as follows :

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Total population	58,097	54,831	1,12,928
Scheduled Tribe population	51,345	52,413	1,03,758

The Scheduled Tribes constitute 92 per cent of the total population. The Scheduled Caste population, only 5 persons according to the 1971 Census, is negligible.

The indigenous population of the district is constituted by a number of hill tribes. There are also various other groups of people engaged in Government services, public works, trade and business etc. Besides them, a few tribal groups have been rehabilitated in the district.

The distribution of total population of the district among the sub-divisions and circles is indicated in the following table² The administrative circles of Mengio, Chambang and Giba, which were established after 1971, have not been shown in this table.

<i>Sl. No.</i>	<i>Sub-division/Circle</i>	<i>Population (1971 Census)</i>
1.	Ziro Sub-division	44,495
	Ziro	23,648
	Palin	6,503
	Raga	7,175
	Tali	7,169

¹ Census of India 1971, Arunachal Pradesh, Part II-A, pp. (XI), 16-18.
Population of the whole of Daporijo Sub-division, a part of which was in the Siang District at the time of census, is included.

² Source: (a) Census of India 1971, Arunachal Pradesh, Part II-A, pp. 16-19.
(b) Statistical Hand Book of Arunachal Pradesh, 1974-75.

<i>Sl. No.</i>	<i>Sub-division/Circle</i>	<i>Population (1971 Census)</i>
2.	Sagalee Sub-division	17,632
	Doimukh	9,597
	Sagalee	8,035
3.	Koloriang Sub-division	18,787
	Koloriang	4,354
	Sarli	2,155
	Huri	3,792
	Nyapin	8,486
4.	Daporijo Sub-division	23,933
	Daporijo	10,505
	Dumporijo	6,757
	Taliha	6,671
5.	Nacho Sub-division	8,081
	Taksing	602
	Limeking	614
	Nacho	3,034
	Siyum	3,831

Distribution of Population

The tribes living in the district are mainly the Nishis, Tagins, Apa Tanis, Hill Miris, Gallongs and Sulungs. Besides them, there are small groups of the Bangros and the Bagis. The Mikirs and the Chakmas have been rehabilitated in this area.

THE NISHIS

The Nishis, who are numerically the most prominent and powerful tribe of Subansiri, are a vigorous people. They were enumerated in the 1971 Census under different names, such as Dafla, Nishang, Nissi etc. But they are commonly known as Nishi (the prefix *ni* meaning 'human being'), by which name they call themselves.

The Nishis occupy a vast stretch of hills and forests extending from eastern Kameng to the Hill Miri country adjacent to the Siang District. They are mainly concentrated on the north and south of the Apa Tani valley along the river valleys of the Kamla, Khru, Panior and Dikrang.

THE TAGINS

Almost the whole of northern and north-eastern parts of the district adjoining Kameng on the west and Siang on the east is inhabited by the Tagins. It is a rugged mountainous area, most formidable and desolate. The Tagin population is mainly concentrated in the riverine tracts of the Subansiri and the upper course of the Kamla.

THE APA TANIS

The Apa Tanis are the people of the Apa Tani valley, a plateau situated at an altitude of about 1,524 metres ringed by mountains. The plateau, as stated before, lies between the valleys of Kamla and Khru on the north and Panior on the south.

The Apa Tanis, settled on permanent cultivation on irrigated terraces, are an enterprising and industrious tribal community and they are one of the most advanced groups of people of Arunachal Pradesh.

THE HILL MIRIS

The Hill Miris occupy the lower Kamla valley and their settlement extends to the bank of the Subansiri river adjacent to the plains of Assam. The Hill Miris live in the midst of the Nishis, Apa Tanis, Tagins and Gallongs. They have been described as a handsome people, friendly and co-operative in temperament.

THE GALLONGS

The Gallongs are a very prominent tribe of the Aids, living in the Siang District. A section of the Gallongs inhabit the Daporijo Sub-division of the Subansiri District, where they are mainly concentrated in the Dumporijo circle along the left bank of the Subansiri river.¹

THE SULUNGS

The Sulungs inhabit the extreme north-western corner of the district. They live on both sides of the Subansiri-Kameng border, more numerous in the Kameng District.²

¹ The District Gazetteer of Siang will contain a comprehensive account of the Gallongs.

² A detailed account of the Sulungs will be found in the District Gazetteer of Kameng.

THE MIKIRS

The Mikirs, who migrated from the Mikir Hills of Assam in the recent past, have settled down in the foothill areas of the south-western corner of the district adjoining Assam.

THE CHAKMAS

The Chakmas of Bangladesh migrated to India in 1964. About 238 families of them have been rehabilitated at Kokila and Holongi in the Doimukh area bordering the plains of Assam.¹

Language

The major dialects spoken by the people of the Subansiri District are Nishi, Tagin, Apa Tani, Hill Miri and Gallong. According to Dr. Grierson's linguistic classifications, these dialects are placed under the North Assam group of the Tibeto-Burman languages. "The Abor (Adi)-Miris and the Daflas (Nishis) speak dialects which are so closely related that they can justly be considered as one and the same form of speech".² Sulung and Bangro dialects, which are yet to be investigated, have not been categorised.

The most important characteristic of the Tibeto-Burman languages current in the district is that they are largely monosyllabic. Like other languages of the same speech-family, the order of words in these languages is subject, object and verb, and shades of meaning are generally conveyed by a combination of two or more roots used together. They also possess a large number of particles which come into play in denoting number, grammatical relationship, tense or the like. Broadly, these languages 'are of the agglutinative type in which relationship between principal words in sentence is expressed by means of affixes, suffixes and infixes. Distinctions about reciprocity, repetition etc. are conveyed by the addition of affixes'.

Another characteristic feature peculiar to the North Assam group of languages spoken in the district 'is the use of classificatory terms which are prefixed to the root of a numeral to indicate number (generally living and non-living things except human beings). For example, in Apa Tani the phrase for two buffaloes is *mendih dor-nyi* where *dor* the definitive for animals is added to the numeral root *nyi* (two)'.

"Nature has itself played a significant role in the evolution of tribal languages in the hills of Arunachal as elsewhere. In a country of ups and

¹ A detailed account of the Chakmas will be found in the Lohit District Gazetteer.

² G. A. Grierson, 'Linguistic Survey of India, Vol. III, Part I, (Delhi, 1967), p. 568 (the words within brackets are ours).

downs, one word for the action of going or of coming generally may not be adequately clear; there are different words for going up, going down or going on level ground. Likewise different words are used for going when applied to a local inhabitant and to an outsider. There is also no general word for 'there' or 'that'. The position of the place or object indicated in relation to the speaker is more explicitly stated. Simple operations like washing or cutting are similarly expressed differently according as they signify washing the face, washing the hands, washing utensils, washing clothes or cutting a stick, cutting fruit, cutting diagonally, cutting vertically and the like."¹

The dialect of the Mikirs, also of the Tibeto-Burman language-family, has an intermediary position between the Naga and Bodo languages.²

The tribal dialects may sometimes vary from village to village or from one area to the other. For example, among the Apa Tanis, "The people of Bela speak the same dialect as those of Haja, Duta, Mudang-Tage and Michi-Bamin, whereas Hari and Hang each speak a different dialect. All the dialects are mutually freely understandable and the linguistic differences between the villages are of no social consequence".³ In fact, the dialectal variations in a particular linguistic area is generally hardly discernible.

The other Indian languages spoken in the district are mainly Assamese, Bengali and Hindi, but the use of these languages is confined to the government employees and the people engaged in trade and commerce and public works. A colloquial form of Assamese used in the district serves as the medium of languages between the different tribal groups and between them and the other groups of people. Similarly, a form of broken Hindi is also used for this purpose. English is the official language.

None of the indigenous tribal dialects of the district has a script of its own. They are now written in Roman and in a modified form of Devanagiri scripts. The Chakma alphabet is almost identical with the Khmer character. The Bengali script is also used by the Chakmas.

Religious Beliefs and Practices

A complex system of beliefs in the spiritual qualities of nature and at the same time conception of a Supreme Being are the two important ideas which characterise the tribal religions of the district. The spiritual world of the tribes is dominated by a host of spirits, good or evil. The evil spirits are believed to be capable of causing diseases, miseries and misfor-

¹ I. M. Simon, A Brief Note on the Languages of Arunachal, Resarun, (Shillong, April 1976), Vol. 2, No. 2, pp. III 2-3.

² (a) Sir Charles Lyall, The Mikirs, (Gauhati), p. 73.

(b) Hem Barua, The Red River and the Blue Hill (Gauhati, 1962), p. 64.

³ C. von Furer-Haimendorf, The Apa Tanis and their Neighbours, (London, 1962), p. 64.

tunes to human beings. The spirits have such great powers that they may exert influence on man in his earthly life and after-life. Propitiation of the evil spirits is, therefore, an important aspect of the religions practised by the tribes. There is also a general belief in a Supreme God, who is conceived as just, benevolent and good. Donyi-Polo or the Sun and the Moon is often regarded as one high god symbolising the eternal truth.

NISHI

B. K. Shukla wrote about the religion of the Nishis as follows:¹

"To a Nishi the world is full of Wiyus.² There are Wiyus in the jungle, on the lofty hills, in shadowy recesses and inaccessible caves, on the tops of tall trees, in the rivers, and inside and outside the house. The Wiyus are dreaded, for, as men hunt wild animals, so do the Wiyus hunt men. When the rains are incessant and the sky is stormy with lowering clouds, and when gale blows across the hills, the Wiyus in their hunting garb walk all over the world in search of the souls of men. There are the orums, the ancestral ghosts, who return from the Land of the Dead to take away the things they forgot to take with them. Both the Wiyus and the orums make people sick and even cause death, unless appeased with appropriate sacrifices.

"Life would be extremely miserable, if there were no Ane Duini the Sun-mother, the good, the benevolent. She is the Supreme Mother. Nothing can be obtained or achieved in this world without her kindness and will. Duini gives crops and keeps the granaries filled. She gives children and keeps them well. She gives mithuns, pigs, *majis*, *talus*, and precious beads. Without her mercy, none could get or keep slaves. It is Duini who determines whether a man is to be rich or poor, whether he is to have one wife, several or none. But Duini appears to be so forgiving and indulgent and overflowing with mercy that there are no special prayers offered to her on ordinary occasions. She is however given the highest offering, the sacrifice of mithuns, and her name is sung in songs on all important occasions such as marriage, and the Yulo. She is remembered in distress but, unlike other Wiyus, is not reviled even in most trying calamities such as death.

"The Nishi pantheon of Wiyus is very large. Most of them are malevolent rather than good to the people. It is impossible to describe them all here; only an important few are described below.

"The most important Wiyus of the jungle are Dojing and Yapom. They take a toll of human lives as they please by making people fall ill. They

¹ B. K. Shukla, *The Daffas of the Subansiri Region* (Shillong, 1965), pp. 83-85.

² "Wiyu — A god, demon or spirit. The word is usually pronounced 'ui' in Subansiri."

can be appeased only with sacrifices of pigs and mithuns. The Wiyus who are particularly noted for causing various kinds of fevers are Jengte and Pamte, Nyori and Pamri. Living in deep valleys and ravines are Girr and Nyori who make people suffer from every sort of pain. Yan Wui is supposed to live in the northern high hills with a large family, and to visit people with diseases of one kind or another. There are numerous other Wiyus of the forest whose function appears to be making people miserable by sending fevers and aches, swellings, dysentery and sores.

"On the banks of rivers live Kirri and Lirri. They are prone to take offence when people go for fishing or otherwise trespass into their haunts. They occupy a prominent place in the Yulo shrine, and share the sacrifice of mithuns or pigs with other Wiyus.

"By far the most important aspect of the Nishi social economy is agriculture. If a man is to have good crops, Parte Rinte Wiyus should be favourably disposed. Small bamboo representations of them are hung in the granaries to guard them from harm. Hunting can only be successful through the grace of the Wiyus. In the front balcony of the house or at the entrance, Yobu, the god of the chase, is invariably found. Like other Wiyus he resides with a large family and has a special liking for *kra* leaves with which the structure is decorated. If Yobu gets offended, hunters may not get any game in spite of their best efforts. Consequently, if men repeatedly return empty-handed from the jungle, Yobu is propitiated with the sacrifice of a fowl. The same sacrifice is made to Yobu when a man kills a tiger.

"Inside the house are hung several small representations made of woven split bamboos and decorated in various ways. These are for the Wiyus living within the house who are responsible to a great extent for the welfare of the inmates. Thus, on the main wall or *nyodang* reside Neer, Lyer, Chusi and Khesi. If they are offended, they get men and women killed in the jungle by tigers or snakes. Other domestic Wiyus are Rintum, Purtum, Rine, Chirne, Chirr, Yorr, Nimi, Gami and Erki. All of them look after the welfare of the family and receive offerings of chicken or fowl. The opposite wall or *koda* is for Hirub, Gorub and Isir, Posur. If they are displeased, deliveries are likely to have complications, with haemorrhage. On such occasions, they are immediately propitiated lest a woman dies in child-bed. Under the family hearth lives Yeni Wiyu who causes premature bleeding in a pregnant woman.

"Dugur and Siki Wiyus live near the house under the ground where the troughs for feeding pigs are kept. They look after the pigs. Piki and Lene likewise live where the fowls are kept. Duini, Kangi, Hirgi, and Si Hirgi dwell where the mithuns drink water.

With so many Wiyus, only a few of whom have been mentioned, there

is no denying the fact that the Nishi is always in danger of getting into some trouble or another. With only a few exceptions, all kinds of diseases are attributed to the malice and wrath of the Wiyus who are only too eager to do harm. As a result, there is a large number of rituals with complicated techniques for their propitiation¹.

TAGIN

Idea of the supernatural as conceived by the Tagins is essentially the same as that of other neighbouring tribes. The Tagins seem to have a belief in a creator god, to whom their Si-Donyi festival is devoted. But, they also believe in numerous spirits or *wiyus*, who are regarded as capable of exercising a direct and strong influence, for good or evil, on the daily course of human life. The spirits are of two kinds—malignant and benevolent. Malignant spirits often preponderate over the benign ones, and receive more attention. These malignant spirits, who may cause disease or accident unless appeased in time, are propitiated through offerings and sacrifices. Another important aspect of the religious beliefs of the Tagins is the idea of the soul. *Yalo* or the soul of the dead is dreaded, for it may do harm.

“At the apex, having unlimited power, is Daini-Pol or Sun-Moon God. They are, of course, benevolent with goodwill towards men. Daini (Sun) is believed to be female and Pol (Moon) male. They are often regarded as a compound deity. Their share in sacrifices is limited to only a few special occasions. The *yulo* ceremony after marriage is one such occasion. Oath taken in Daini's name is considered most sacred and binding. It is Daini who decides and writes in the heart of a child as to what he shall be in later life. But, if it is Pol alone who writes, it is believed, the child will die young.

“Other essentially benevolent spirits, though lower in the hierarchy, are Bago, Yabu and Pakya. In various ways they look after the welfare of men, and are actually guardian family spirits. They are not prone to take offence easily but, once displeased, may cause mortal injury to those incurring their wrath by some serious transgressions. Other lesser spirits *wiyus* may cause prolonged sickness, but cannot take away the *yalo* (soul) of any person, thereby causing death, unless permitted by Bago, Yabu and Pakya. It appears that different *wiyus* are responsible for causing different diseases. Done, for instance, is responsible for goitre, a disease quite common among the Tagins.

“It has been referred to above that it is mainly Daini (Sun) who decides the destiny of a new-born child. He is supposed to write in the heart (*apuk*) of each child its destiny, using certain mystic symbols or signs. A *nibu*, who is divinely inspired, can read these signs, and reproduce them on plates

of bamboo. Tagins, like their neighbours, the Miris, bury their dead near the house".¹

APA TANI

The religious ideas and practices of the Apa Tanis have a basic similarity with those of their neighbouring tribes. Like other tribes, they have also developed myths about the creation, the Sun and the Moon, the origin of man and about death. Their idea of the soul, which they call *yalo*, is that a separation of the soul and the body takes place at the time of death. "All men who die natural death go to the home of the dead called *nelli*. It resembles in every way an Apa Tani village. Life there is not very much different from that lived on this side of existence, and is actually a continuation of the same way of life under slightly different conditions. Every new comer to the land of the dead is subjected to questionings at the entrance by the guardian spirit, Nelkiri, about his earthly exploits. His position and status are determined with reference to the earthly possessions he had before he came to the land of the dead. 'As an Apa Tani lived on this earth so he will live in *nelli*'. He will be given back all the cattle he had sacrificed when alive, and also those he left behind. He will even be given back the same number of slaves he had in the land of the living.

"Every woman is united in the land of the dead with her first husband. Those, who leave the world unmarried, can marry and even beget children. *Nelli* is supposed to be located somewhere under the earth but, as we have noted, is not an unpleasant place to live in after all.

"*Nelli* is also the abode of many gods and spirits. They are always on the lookout to catch the straying and unsuspecting souls of living men, and carry them away to their domain. This happens when a man falls ill, or is asleep, or loses consciousness. Only shamans (*nyubu*), who can establish rapport with the spirit world, can set free the souls from the clutches of these spirits (*wiyu*) by promising appropriate sacrifices. If the spirit, responsible for carrying away a soul, accepts the ransom offered, the soul of the sick man returns to him and he regains consciousness or health.

"The Apa Tanis believe that all those, who die an inauspicious or violent death, repair to a different world of the dead, called *talimoko*, situated somewhere in the sky. The souls of dead persons are often attracted towards the habitations of the living but the mortals are ever in fear of their contaminations".²

The Apa Tanis have numerous gods and deities. The two powerful deities are the couple Kiru and Kilo, whom they worship and with whom

¹ J. N. Chowdhury, *Arunachal Panorama*, (Shillong, 1973), pp. 166-67.

² *Ibid*, pp. 151-52.

their greatest annual festival, the Mloko, is associated. It is significant to note that the Apa Tanis conceive most of their deities and spirits as pairs and never invoke them singly. Chandun, the male god, who is believed to be the creator of the earth, has a female counterpart known as Didun, the goddess who is believed to have made the sky.

"Another creation myth current among the Apa Tanis does not mention Chandun and Didun but tells how at the beginning of time there was only water. Next a rock and finally the soft earth appeared, and this was created by three female deities known as Ui-Tango, Ui-Ngurre and Nguntre, and three male deities known as Ei Karte, Rup Karte and Ain Karte. These six deities created all trees, plants, animals and birds, and even the sun, the moon and the stars. The priests now recite on certain occasions long lists of heavenly bodies created in the sky, objects and plants created on earth, and animals of all kinds created to live on the earth".¹

The origin of man is ascribed to a deity called Hilo, who is believed to be the maker of Abo Tani, the first ancestor of the Apa Tanis.

There are other deities who preside over the forces of nature. Among them three deities collectively known as Korlang are prominent. They are Lyiri Korlang, who reside in the sky and protects against the hailstorms; Taging Korlang, who also dwells in the sky and is propitiated to repel thunderstorms and excessive rain, and Anguro Korlang, who lives in the plains of Assam and protects the Apa Tanis visiting that area against disease.

There are still other gods who are associated with human activities. Ui-Kasang and Nia-Kasang are the two gods of war. The Apa Tanis pray to these gods to get strength, courage and protection. A dog, pig or mithun is sacrificed for successful campaigns. Two other deities known as Pilya and Yachu are also concerned with the vicissitudes of war. They are believed to live under the earth and help the prisoners escape from their enemy.

HILL MIRI

The religion of the Hill Miris consists in ideas similar in essence to those of their neighbours, and these ideas seem to extend from beliefs in many spirits or deities to the conception of a high benevolent god.

The Hill Miris believe in Si-Donyi, the pair of deities representing the earth and the sun. Donyi, the sun-goddess is conceived as the highest deity. Si lives in this earth and Donyi in the sky. Ane Donyi, the Mother Sun, protects life and bestows prosperity and happiness. It is significant

¹ C. von Furer-Haimendorf, *The Apa Tanis and their Neighbours*, (London, 1962), pp. 133-134.

that Donyi is regarded by the Hill Miris as well as the Nishis as *ane* meaning mother. Everything on earth is ordained by Si-Donyi, and they are propitiated on all important occasions.

The Hill Miris, like many other tribes, have their myths and legends about the creation of the world and the appearance of man on the earth.

"Long ago, before the world was made, the Wiyu Chungum-Irum was living with his wife Chingum-Erum. One day when this woman was lying asleep, a little water fell and flowed into her. She woke up and felt bitterly cold inside. She looked everywhere to see what had made her so cold, but there was nothing. She told her husband about it, how she was shivering with the cold thing that had entered her body, but he too could not make out what it was.

"Twenty days later, Chingum-Erum laid an egg. Husband and wife looked at it in wonder and put it carefully aside. After six months it broke open of its own accord, and out of it came Sichi the earth. Togle the great mountains and Togji the little hills."¹

Another creation myth states, "Everything was water, water as far as the eye could see. But above the water rose the tree Teri-Ramula. As time passed a worm was born in the tree and it began to eat the wood. The dust fell into the water, year after year, until slowly the world was formed.

"And then at last the tree fell to the ground. The bark on the lower side of the trunk became the skin of the world: the bark of the upper side became the skin of the sky. The trunk itself turned into rock. The branches became the hills".²

"It is remarkable", said Verrier Elwin, "that people who have never seen the sea nor even, so far as we can tell, large sheets of water of any kind, should have devised the idea of a *primaeval* ocean from which all things have emerged. This tradition, of course, is as old as the Upanishads, several of which declare that the original material of the world was water".³

A Hill Miri legend traces the origin of man and races thus :

"There was a big tree of large heavy boughs. It fell down on the earth. Chutu sprang from its roots on the Si(earth). He met a girl and lived with her. Of them were born two sons Tuni and Teki. The former was Abo Tani, the father of all men.

"Teki's children settled in the plains. They were called Nilo (Nipak) and the priest (gohain) were the highest among them. Many different types of gods and goddesses, large animals like tiger, elephant, pig and birds were his children and they also settled in the plains.

¹ Verrier Elwin, *Myths of the North-East Frontier of India* (Shillong, 1968), p. 16.

² *Ibid.*, pp. 16-17.

³ *Ibid.*, p. 3.

"The children of Tuni (Abo Tani) were Nine (Apatani), Nidum (Dodum, Dopum and Dol), Nichi (Gallongs), Ni (Gachi, Gai of Pasighat) Nikom (Chikam) people of Pade Pat (of Daporijo area). They settled in different places. Ni-yi and Niri, settled in these hills"¹

Abo Tani is associated with Boori Boot, the important religious festival of the Hill Miris.

The Hill Miris believe, as already stated, in a number of spirits or deities. A very powerful deity is Yapom, the god of forests. 'He may sometimes appear in human form, but it may not always augur well for a man to see him'.

"As in other simple societies, practice of religion amongst the Hill Miris remains particularly pragmatic. In other words, it is closely bound up with the good or ill of everyday life of the people. Most of their spiritual activity is expended in taking omens. Augury is taken before any small or big undertaking or during every critical situation in life such as illness of members of the family. The Miris take omens before they start on a journey, or before they set traps for game or fish. Consultation of an augury must precede every marriage negotiation. Now, vaticination by examining the entrails of chickens is the most prevalent method of taking omens in this region. Alternatively, an egg is boiled after proper incantation has been recited over it; then its skin is peeled off, and the egg cut into halves. The cut halves are then examined for a reading of the future.

"The Hill Miris also believe in various magical cures for several kinds of illness. The touching of a goat's tail is supposed to bring relief to a person suffering from fever. When the ailment is, however, of a serious nature, and not responsive to simple magical or other kinds of cures known to them, it is laid at the doors of some malignant spirit. A priest is now called in, and he takes appropriate augury in a bid to ascertain the spirit responsible for the illness. He then proceeds to bring about a recovery by promise of proper sacrifice to the offended spirit.

"In the event of an epidemic of any kind, the Hill Miris block all roads to the village. They believe that, by this method, the evil spirits ill-disposed towards the village can be kept at bay. They fell trees across paths, blocking passages. Besides this, they also construct a gate near the village, suspending a cane thread across with bamboo shavings hanging from it. If any one from a different village should enter the affected village, taking no notice of the gate, he is invariably caught and made to pay a heavy fine. Apart from the above measures, the villagers also put up an elaborate shrine and sacrifice a goat or two before it with the idea of propitiating the malevolent spirits".²

¹ B. B. Pandey, *The Hill Miris* (Shillong), p. 120.

² J. N. Chowdhury, *The Hill Miris of Subansiri*, (Shillong), pp. 45-46.

Priesthood

Every tribal society in the district has its priests or shamans for performance of religious rites and sacrifices. A priest has a very responsible role to play in the society. His advice is sought before making a long journey, building a house, sowing in the field, sending out an hunting expedition and matters like that. His services are essential for conducting rituals concerning birth, naming of a new-born child, marriage and death. The priests are believed to have a knowledge of divination, and when summoned in cases of sickness, temporal distress etc. They consult omens by esoteric methods, such as breaking of egg or examination of chickens' entrails, in order to determine the nature of the malady or misfortune that has befallen, the necessary sacrifice to be performed and the spirit to whom it is to be offered.

NISHI

"In the Nishi society, the priest holds a distinct position by virtue of his ability in diagnosis and cure, and his knowledge of the supernatural world. But not all priests are alike. There are priests, called *nijik nube*, who treat only ordinary diseases and observe omens in the egg or chicken. They do not require extraordinary training. Priests of this category are common. More capable and distinguished priests, called *but nube*, are few and are known over wide areas. They are called from distant villages to render services in sickness and sacrifice. A third category of priests includes a few shamans or *nyoki nube*. They serve as intermediaries between men and the Wiyus. Such priests profess to cure all kinds of patients, perform all kinds of sacrifices, and forecast all kinds of miseries and evils."¹

More than a century ago, W. Robinson noted that the office of the priesthood among the Nishis was not hereditary, nor was the profession at all exclusive. "All priests, including shamans, say that it is Chene Mane Wiyu who, while the baby lies in the mother's womb, tells him that he is to become a priest. In early childhood, the boy feels the inspiration in him and picks up sacrificial songs and incantations. A number of typical dreams, followed by appropriate sacrifices to the Wiyus, endow him with the power of curing the sick and performing sacrifices. If a man is to become a shaman, the Hilu Ryayung Wiyu enters his body after appropriate invocations are sung. It is in a state of trance that he prescribes sacrifices and cures for the patient . . .

"A priest's services are indispensable to the Nishis. Whether the occasion be birth or death, sickness or sacrifice, a priest is invariably called.

¹ B. K. Shukla, *The Daflas of the Subansiri Region* (Shillong, 1965), p. 89.

He does not kill the sacrificial animal himself. His duty is to sing songs and make incantations. It is under the direction of the priest that a sacrificial structure is constructed. He alone determines the Wiyus who are to be represented in the shrines. For his services, he receives the traditional presents of special parts of the animal, beer and valuables like beads, *majis* and Tibetan daos.

"Distinguished priests are lavishly entertained. Often their balconies remain decorated with more than a dozen *hidungs* or ceremonial *chungas* containing mithun blood. Inside their houses hang such articles of distinction as head dresses, fans of prized feathers, and mithun shoulder blades with charcoal drawing. Both *but* and *nyoki nubes* observe certain food taboos. These include mushrooms, certain kinds of birds, and wild animals."¹

TAGIN

The Tagin priests or medicine-men are called Nyibus. They hold a very high position in the society. The priests diagnose diseases and find out reasons behind accidents or cases of death. They declare by divination as to the particular spirit which is responsible for causing grief and distress and prescribe appropriate sacrifices to be performed to appease the spirit.

The priests are the preservers of tribal myths and they are regarded as endowed with spiritual powers. Priesthood among the Tagins is not, however, hereditary. Any man having special spiritual aptitude, which is self-manifested, may become a priest. He does not need to be trained by another priest. There are many stories and beliefs current in the Tagin society regarding attainment of priesthood.

CEREMONIES AND FESTIVALS

A variety of ceremonies and festivals are celebrated by the people on different occasions. Some of them are observed by individuals or families and some other by the community as a whole. The community festivals are mostly connected with agricultural activities or fertility rites. Each tribe has its own festivals through which their tradition and culture, religious beliefs and faiths, hopes and aspirations, their joys and exuberance of life find an illuminating and colourful expression. Some of the important festivals are described as follows:

¹ B. K. Shukla, *The Daflas of the Subansiri Region*, (Shillong, 1965), pp. 89-90.

NISHI

Sirom Molo Sochum

"The biggest festival of the Nisis is called Sirom Molo Sochum. This festival is celebrated in the Nisi month of 'Ram Po-Lo' (December) every year. Before this festival all houses and granaries are re-built and all the crops like dry paddy, millet, maize are harvested and stored in the granaries. In the fields people thrash the paddy and bring it in baskets singing songs on the way. For the festival householders cook rice, meat and prepare rice-beer (*Opo*) and entertain guests, and receive blessings for more abundant crops next year. It is believed by the Nisis that the more the guests are satisfied with food and drink, the more crops will grow in the fields in the coming year.

"On the day of the festival all good singers of the village sing old history of the Nisi people. Men and women, young or old, listen to the song in rapt attention. In the song it is described that the god Nima Teni did not worship the goddess of crops and the goddess therefore ran away to the land of summer (*Dogo Dekani*). But Nima Teni went to the land of summer, and entreated the goddess of crops and ultimately married her. Nima Teni got all kinds of seeds from the goddess and learnt the methods of cultivation from her. After that he returned to the land of cold and introduced agriculture. In the song the maestro sings that all should till the fields and set fire to the over-growths when birds like the cuckoo start singing and insects like the cicada begin to chirp. When these animals and insects sing all day long then they should sow the seeds. It is said in the song that Nima Teni taught the Nisi these things and went away to the land of summer with his wife, the goddess of crops.

"Prayers are offered to the goddess of crops requesting her not to go away, but to fill the granaries with crops and vats with rice-beer, with offerings of food and beer. If some food-stuff disappears over night or foot prints of some animals are seen, then it is believed that the goddess came to the people and the crops will be abundant. During this festival the people sing, dance and drink beer to celebrate it."¹

Nishi Nyokum

"After the paddy seedlings have been transplanted and the paddy fields have been fluttering with lush-green, the Nishis look forward to a plentiful harvest. Being thoroughly religious at the core of their hearts, they invoke

¹ M. N. Bardoloi, *Our Festivals* (Sirom Molo Sochum by Tem Tei). (Shillong, 1968), pp. 46-47.

the *Wi-s* or gods and goddesses of the crops to protect these from ravages of insects, wild animals and other pests, give health and vitality to their domesticated animals like Mithuns and cattle, and well-being to the devoted Nishis. The month of August every year is the time for celebrating Nyokum or the worship of goddess of crops (Lakshmi) and other gods and goddesses.

"About the origin of Nyokum, it is believed that once upon a time god Dojing and his brother were angry with Tani, the progenitor of the Nishis, and as reprisal, they caught Tani's two daughters — Kupu and Koyang and kept them as prisoners.

"To appease Dojing and his brother, Tani made an offering of goats, dogs and chicken etc. Dojing and his brother were propitiated after the prayer. They released Tani's two daughters and assured Tani that if they (Dojing and his brother god) were worshipped with sacrifices of animals, there should be no trouble or danger to the descendents of Tani or their crops etc. Tani called this Puja as Nyoin, which was in course of time named Nyokum and celebrated every year.

"On the first day before an altar with images and symbols of the gods and goddesses, the priests start the Puja by chanting prayers to the *Wi-s*. Girls dance and sing to propitiate the unseen gods and goddesses. They sing about abundant crops and goodwill, health and unity among all people, joy and mutual co-operation, and peace and plenty everywhere.

"On the second and concluding day, the villagers of the neighbouring villages perform their puja in their villages and come in long procession — a memorable scene and a feast to the eye. From the top of the hillock one can see rows of bamboo streamers carried by the devotees chanting prayers. The long line come winding up the hill-paths. The sacrificial animals like dogs, pigs and chicken are either carried or hung in long bamboo-poles. On arrival at the place of worship, the people go round and round the altar chanting and the atmosphere seem to be surcharged with a feeling of devotion and godliness. The animals are sacrificed to the *Wi-s* and after invocation of the blessings, the Puja comes to a conclusion.

"All Nishi people are proud to celebrate the festival because, they know that it is great cultural legacy from the past and must be preserved with honour."¹

Yulo

The Nishis perform a number of religious ceremonies of which one called Yulo is important. Yulo is performed for the welfare of the society. Rituals connected with the ceremony are elaborate and they are followed

¹ M. N. Bardoloi, *Our Festivals*, (Shillong, 1968), pp. 57-59.

strictly. The ceremony is marked by a sacrifice of mithuns in which the priest collects the blood of the animal in a bomboo tube and hangs it in front of his house as a mark of distinction.

APA TANI

Mloko

Mloko (also pronounced Myoko), a great seasonal festival of the Apa Tanis of socio-religious importance, is held usually in the month of March. The festival is celebrated by each of the three village groups of the Apa Tanis, formed for this purpose, only once in three years according to an unalterable system of rotation so as to ensure that the Mloko is performed every year in the valley. The system followed by the villages is — Hang performs the Mloko one year; Hari, Kalung, Tajang and Reru the next year and the village group comprising Haja, Duta, Mudang-Tage and Michi-Bamin in the third year of the cycle.

Preparations for performance of the Mloko extend over a pretty long period. Elaborate arrangements are made for erection of tall poles known as *babo* or *bobo* for a game of acrobatics, procurement of sacrificial animals and birds, collection of firewood etc. This is an occasion for every Apa Tani house to prepare rice-beer and arrange for rice, millet and meat. In fact, an Apa Tani family is required to spend a large sum of money for the festival, and this may be a reason for celebration of the Mloko by the village groups in turn so that no family is excessively taxed.

The first day of the Mloko is called *sama pidu*, a term which signifies the beginning of the festival. This is followed by a singing competition known as *khobo gyodu*, where a Mloko-celebrating village invites people from other villages to participate in. When the singers arrive, each house invites only two singers, and there a singing competition in the form of questions and answers is held between the hosts and the guests.

The Mloko is performed to invoke and propitiate a number of deities, for which sacrificial rites of a complex nature are performed by different clans separately under their priests, but intended for the general welfare of the community. For this purpose, a ritual structure (*agyang*) is erected at a place called *yugyang* which serves as the ceremonial centre of the clan. The sacrificial rites performed at *yugyang* on the third day of the festival called *yugyang todu*, which are followed by pig-sacrifices by the clan members, are the most important part of the Mloko festival. At this function, priests in ceremonial dress recite the history of mankind and particularly of the Apa Tanis. They sacrifice chickens and invoke Abo Tani, the first ancestor of the Apa Tanis.

The Mloko is held to propitiate and worship the god Suki, who is believed to have helped Abo Tani and offered blessings on him for his success. The other main gods associated with the Mloko are Kiru and Kilo, a divine couple, who are invoked in most of the invocations of the priests.

On the day following the *yugyang* rites and sacrifice of pigs, *ajing gyodu* is held, when individual members of a village celebrating the Mloko invite their personal friends from other villages. There they sing and are entertained the whole day with food and drink and also given presents when they leave. The hospitality is reciprocated when it is the turn of the other village group to celebrate the Mloko. The festival continues for about a month during which some other important religious functions are held.

A remarkable game of acrobatics held at the time of the Mloko is renowned as *babo-bodu*. The game is performed on strong cane ropes attached to the top of poles, sometimes nearly 30 metres high, and tightly tied to stakes at some distance in the ground. By pulling one of these ropes so as to make the pole swing, persons get themselves flung high up into the air where they perform thrilling acrobatic feats. This sport, once popular among young and old of both sexes and which was performed with zeal and enthusiasm as an integral part of the celebration, now appears to be on the wane.

The Mloko is an occasion for friendship and fraternity among the Apa Tanis. On the festival days men and women from different villages pay ceremonial visits to the Mloko-performing village or villages as the case may be. Visitors are received with generous hospitality and entertained lavishly with rice, meat and beer. It provides an opportunity to the Apa Tanis for inter-village visits and entertainment of guests as well as presentation of gifts. The amity and cordiality expressed at the time of the Mloko establish a bond of friendship between villages. Indeed, the Mloko gives a social and ritual expression to the unity of the tribe.

Dree

Dree, an important festival of the Apa Tanis, is celebrated every year amidst great rejoicings. The festival is held for three days in the month of July when the young paddy plants have grown lush green sometime after transplantation. The Dree, which is observed with a agro-religious purpose, is of great significance to the Apa Tanis, who are an advanced agricultural community.

During the festival, the goddess of earth and crops and other deities are propitiated for a better crop and all round prosperity and welfare of the society.

Dree brings in a message of joy and festivity to the Apa Tanis. Indeed, it is one of their most popular festivals, of which dance, music, feast and merriments are salient features. Preparations for observance of the festival in a befitting manner are made well in time. To start with, the elder members of the society form a committee and they go round the villages for collection of rice. Every house contributes to the festival fund either in cash or kind. A rice-liquor called *oh* is prepared for this purpose.

The festival eve in different Apa Tani villages is marked by prayers chanted by the village priest. He goes round the cultivation fields on his way to the altar at the village outskirt. After performance of customary rites, he declares the Dree festival open.

On the festival day images of Donyi, Tani and other deities made of bamboo shavings are ceremonially installed at the altar at the common festival ground, where people in large numbers from all villages assemble and the girls in colourful costume dance on their way to the altar. The head priest assisted by other priests goes on reciting the prayers. Animals and birds, smeared with rice-powder, are sacrificed to different deities, and meat is preserved for a community feast. The young boys and girls performing games, sports and music make the festival gay and joyous. The girls distribute cucumber to the spectators and offer them drinks, which are followed by dances. The most delightful of the dances is the *pri* dance performed by both boys and girls.

On this auspicious occasion, it is customary for the Apa Tanis to make special offer of *oh* (rice-beer) to old members of the family as a mark of respect to them.

The community feast is held at the common festival ground on the third day followed by songs and dances. The festival comes to an end with the villagers exchanging goodwill visits and entertaining guests at their houses, which continue for some days.

The Dree festival provides an opportunity to the people for a social meet and a brief relaxation. It makes the people happy and refreshed, fills their mind with high hopes for a good crop and inspires them to strive for a better future.

Some social taboos are observed during the festival. "It is interesting to note that during the celebration of the festival it is a taboo to plough or dig the earth. Incidentally, during this same period the 'Ombubachi' is celebrated in the plains when, according to the popular belief, the mother earth starts getting fertile. In the plains also the people never work on the field or dig the earth during these few days".¹ The Apa Tanis further

¹ M. N. Bardoloi, *Our Festivals*, (Shillong, 1968), p. 56.

refrain from nipping green vegetables or cutting trees and grass for three to five days during or after the Dree festival.

Apart from the Apa Tani valley, the Dree festival is now held at other places as well, where people belonging to different communities participate in the celebrations enthusiastically.

Morom

Another important festival of the Apa Tanis is the Morom, which seems to be performed as a fertility rite. Morom is celebrated at the end of winter before the beginning of agricultural work. A very interesting feature of the functions held during this festival is the processions of young boys dressed in their best clothes and ornaments headed by a priest (or two priests) in ceremonial dress. The processions move in single file from village to village round the valley. "The priest waves a fan of feathers and scatters husked rice-grains as he walks across the fields, and the boys and young men brandish swords and beat brass plates in the manner of gongs. As they lift the flashing blades of their Tibetan swords, they utter rhythmic shouts, but the priest keeps on chanting prayers until the procession reaches a village. An older man accompanies the procession carrying a basket of rice-flour, small quantities of which he distributes in the villages visited by the procession.

"Each procession spends a whole day visiting all the villages of the valley. In each village, the young men and boys are entertained with rice-beer, which they drink while standing in line, and here and there they are also offered small snacks of food. In the open squares of the visited villages, they dance and chant, but seldom leave the formation of their file".¹

The Morom's character as a fertility rite can be deduced from the scattering of husked rice by the priests, as the procession moves, with a view to increasing the fertility of the soil ritually.

Morom is celebrated individually by rich men who intend to raise their prestige. Any one wishing to rise in the social scale would take opportunity of this occasion for performance of sacrificial rites, which are of the nature of feasts of merit. The rites are known as *un-pedo* and *rung-sere*, in which mithuns are sacrificed and the meat is distributed to kinsmen and neighbours. In case of *un-pedo*, a more expensive feast is held and the meat is widely distributed to different villages. The performance of these feasts lends the donor a measure of social prestige, but does not entitle him to any material privilege.²

¹ C. von Furer-Haimendorf, *The Apa Tanis and their Neighbours*. (London, 1962), pp. 138-139.

² See *A Himalayan Tribe — From Cattle to Cash* by C. von Furer-Haimendorf. (New Delhi, 1980), pp. 151-156 for a detailed account of the Morom

TAGIN

Si-Donyi

Si-Donyi, which means the creator—the earth and the sun (Si=earth, Donyi=sun), is one of the most important festivals of the Tagins, which is celebrated on a community basis after the harvest every year. Si-Donyi in its true sense is a community worship in which prayers and sacrifices are offered to the creator in order to secure his protection against failure of crops, disease and death, and his blessings for a prosperous life. Mithuns are sacrificed on this occasion. Every member of the society—male and female, young and old, participates in the celebrations, one of the highlights of which is the performance of mythological dances.

HILL MIRI

Boori Boot

Boori Boot is the main religious festival of the Hill Miris, which is celebrated with great enthusiasm and rejoicings for three days in the month of *Loke Polo* corresponding to February. The Boori Boot festival is being observed traditionally by the Hill Miris from early times. Boori Boot signifies unity among men, and implies that all should join together to worship the God, who is known to the Hill Miris as Boori Abo, for welfare of the people. Boori Abo presides over other deities or *wiyus*, who are propitiated on this occasion.

"There is a myth to say why and how *Buri But* came to be celebrated. Abo Tani had many children, the Nishi, Hill Miri, Apatani, Adi etc. Some of them did not obey him and started quarelling among themselves. They did not respect their elders. He got angry and caused them to suffer from diseases.

"The Nish Nile, Nee Niri, Miji, Niboom, Nido, Nik Tili and other spirits sat together and started thinking what to do about it. They agreed that the displeasure of their father should be removed.

"Priests were consulted, omens on eggs, and livers of fowls were taken. It was found that they should have a big ceremony with many sacrifices to please the spirits Si-Donyi, Kri Pirte, Rinle and others..."¹

The Boori Boot is celebrated at Raga and Daporijo on a grand scale for the Hill Miri community as a whole. The Tagins, the Gallongs and the Nishis living in this area also participate in this festival.

¹ B. B. Pandey, *The Hill Miris* (Shillong), p. 127.

The place for propitiation of the deities is selected by the priest. On the first day of the festival, the priest invokes the deities thus : "My people have called me to invoke you, Oh deities ! please do come, accept our offerings and bless us with plenty and happiness".

The second day is the day of sacrifice. A symbolic effigy of *Ri-gi*, a deity or spirit is made with leaves and bamboo fibres. The people in large numbers assemble to sacrifice mithuns at the altars of different deities. The priest leads a magnificent procession of men and women dressed in their traditional costume from his hut to the altars, and he keeps on chanting prayers as he proceeds. A group of girls with brass-plates of rice-powder on their heads and small gourds of beer in their hands throw the powder at the assembly of people, while a group of men sing and dance on their way to the altars. At the time of sacrifice the people—men and women, boys and girls throw the rice-powder at each other.

The community feast is held on the following day. The group of girls carrying the rice-plates enter the scene again, and a lot of merrymaking takes place in which the girls try to paint everybody's face with the rice-powder.

The Hill Miris believe that the performance of Boori Boot would bring about fortune and happiness and dispel enmity from the society.

Social Life — Organisation of Society

The tribal societies of 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 aspects common to all the tribes. Generally, 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 the tribal marriage systems whereby marriage within a clan or sub-clan is strictly prohibited. The tribes are patriarchal and patrilineal.

No caste system exists, nor is the society stratified into a hierarchical order except in case of the Apa Tanis who have two distinct high and low endogamous classes called *mite* and *mura*.

NISHI

The Nishis living scatteredly in a wide mountainous area separated by the Apa Tani valley were less homogeneous than what they are today.

The primary social unit is the house where a number of related families having in some cases sixty or seventy members live together. The long-house of the Nishis is virtually autonomous, and the members of each house submit to the authority of the head of the household. In the old days the houses were sometimes at war leading to the movement of families from one place to another and the population was in a state of flux. Moreover, the Nishis are highly individualistic in socio-political matters.¹

"All the Nishis are related to one another as children of a common ancestor, Abo Teni. All the relevant myths indicate that he is a half real and half mythical character. The Nishis are good at remembering genealogies and the paternal line of descendants is remembered in detail, beginning with Abo Teni right to the present generation. Abo Teni's descendant was Atu Nyah, whose son was Herin. Herin's son was Ringdo who had three sons, namely, Dodum, Dol and Dopum. These three sons then formed, as it were, the three main divisions of the tribe. The Dodum and Dol groups still form a large majority, but the Dopum Nishis are now very few in number. For the purpose of marriage, these major groups are endogamous as well as exogamous. That is to say that a Nishi, belonging to the Dol group, for example, may either marry within his own group or outside it with members of the other groups. Except for the purposes of tracing descent and migrations, therefore, these divisions are not significant. More important are the phratries and clans.

"Phratries and Clans. The three major divisions of the tribe are subdivided into a number of exogamous phratries, which in turn, comprise a number of patrilineal clans. Owing to the lack of data from the widely separated and hitherto unknown areas, it is not possible to give an exhaustive list of all the phratries and clans. What is presented below is only a partial list based on the existing groups in the Panior, Palin and parts of the Khru valleys, and in the area around the Nyapin Administrative Centre.

Major Division	Phratry	Clans
Dol	Durum-Dui	Tasu, Likha, Chuahu, Pil, Hijang, Harku, Takyang, Chonyu, Yowa, Tade, Tajing, Byabang, Byajang (Nengbia), Byari, Ganku, Gami, Dohu, Dolang and Dobam.

¹ See 'the Nishi Gingdungs' in Chapter XII.

Major Division	Phratry	Clans
	Dukum-Duri	Tari, Tai, Hora, Huryang, Ryangpa, Ryangra, Ryankyo, Ryangme, Takyo, Tame, Tadang, Tali, Lindum, Linko, Gida, Gichik, Biri, Dadung, Damang, Khyoda and Joram.
Dodum	Kemdir	Pei, Pochu, Nara, Ralo, Toku, Tab, Telih, Taha.
	Dumchi-Chili	Yumri, Yumdo, Khasang, Rengu, Naborn, Hidu, Hibu, Gyamar.
	Pekhi	Devva, Sodu, Sobum, Niri, Kholi, Tao, Tech, Tana.

"Whereas it is possible to give at least an outline of the sub-divisions of the Dol and Dodum groups, little is yet known of the sub-groups of the Dopum Nishis. There are a few scattered clans of this group particularly the Gnuri, Gnurang, Hilang, Heba, Deying, Hodu and Hopu. Nothing is known about the phratries of this major group. Some of the clans of this group, such as Tede and Deke are extinct.

"In the villages around the Nyapin Administrative Centre exist a number of clans who claim to have descended from Atu Nyah through Riku. Thus they constitute a separate major division. We do not yet know the phratries of this group, but the important clans are the Teder, Tayer, Tayi, Take and the Rare. These clans, claiming their descent through Gnukha, a descendant of Riku, do not intermarry. Other scattered clans are the Charu, Pate, Lido, Linya, Liyo and the Lidung. The Gollo clan, which Dr C. von Furer-Haimendorf includes in the Dol group, actually belongs to this Riku group. The well-known priest of this clan, Gollo Tegin, lives in the village of Tapo Gollo near the village of Mengo. He traces his descent from Riku, through Pale, Gnuri, Mabu, Tayang, Dago, Kagnu, Kojum, Tago, Kanu and Tamang in a direct line.

"Without going into the details of the phratries and clans, two features of the Nishi clans should be noted. In the first place, the clans are not totemistic. Each clan is named after an ancestor, who is considered to have been real. The clan consists of a few lineages or groups of men and women who trace descent from that ancestor in the patrilineal line.

Secondly, all the members of the clan regard themselves as brothers and sisters. Thus clan exogamy is the rule for marriage. This criterion is further extended to the phratries which are also exogamous. The inter-relationship of clans within a phratry is very loose, but for the purposes of marriage, the members consider themselves as consanguineous.

"Beyond this, a clan does not function as a close social unit. Not all its members occupy a common territory. The whole clan is not a political unit for war and peace, nor is it a unit for economic and religious purposes. In fact, only those members of a clan who are also bound together by the bonds of individual kinship and neighbourhood, form a unit for the above purposes".¹

TAGIN

The Tagins have some cultural and religious affinities with the Adis, but their social and political institutions seem to have closer similarities with that of their other neighbour the Nishis, who like them live in scattered and isolated villages. The Tagins are not as coalesced into a village community as some groups of the Adis are. They did not have the highly organised traditional council of elders or *kebang* which is so vital in the socio-political life of the Adis. Bachelors' dormitory, another important social institution of the Adis, does not exist in the Tagin society. However, the society of the Tagins today is changing remarkably.² They are reported to have constituted regular council of elders like the Adi *kebang* or *bango*, which settle disputes arising in a village or between villages.

The Tagins have among them the rich and the poor as in the other tribal societies, and social mobility between the two is greatly restricted due to wealth or absence of it. The rule of clan-exogamy, however, regulates all marital relations.

APA TANI

The Apa Tani villages lack a centralized authority commanding absolute allegiance from all the inhabitants. But there is an informal council of clan representatives called *buliang* which manages the village affairs.³ In spite of the absence of a central authority the Apa Tani society is highly stable in character. The spirit of solidarity based on tradition, language, culture and habitat finds expression in the willing acceptance of certain norms of social relations and conduct which distinguish the Apa Tanis from all of their neighbours.

¹ R. K. Shukla, *The Daffas of the Subansiri Region*, (Shillong, 1965), pp. 47-49.

² The social life of the Tagins is yet to be closely investigated and studied in detail.

³ See Chapter XII for the role and functions of the Apa Tani *buliang*.

The social life in a village moves round two focal points, namely *nago* and *lapang*. The *nago*, which is a small hut, serves as a kind of shrine and a ritual centre of a group of clans living in a village. *Lapang*, a large open sitting-platform, is another centre of group activities, where members of the clan gather on social, ritual and other occasions.

The Apa Tani society is characterised by a well-defined class system. There are two distinct classes known as *mite* and *mura* representing two broad divisions of the society. The *mite* holds a higher status than the *mura*, and members of the two classes do not intermarry. The class division is rigid in the sense that it is impossible for a *mura* to become a *mite*. Social relations are limited to class-barriers sanctioned by usage and tradition. The *mura* stands dependent in relation to the *mite* involving certain obligations of a ceremonial nature. The subordinate position of the *mura* is unalterable in spite of his abilities or wealth. It may be surmised that the *mite* and *mura* of the Apa Tanis represent two different though largely assimilated ethnic elements, and the aliens, either conquered or received, were absorbed in the *mura* class of the Apa Tani society.

The social distinction among the Apa Tanis characterised by class-endogamy resembles the Hindu caste system in some respects. But there is no commensal taboo except on some ceremonial occasions when *mite* and *mura* do not eat together. To the outsider the distinction between *mite* and *mura* is, however, not easily discernible.

"An Apa Tani clan (*halu*), whether of *mite* or *mura* status, is a very real social unit and its members are bound to each other by definite obligations of mutual help. It is the only unit in Apa Tani society which can be expected to act almost invariably in complete solidarity.

"Some *mura* clans possess their own *lapang* and are represented by a *buliang* who has a voice in village affairs. Each *mura* clan stands in a relationship of ritual dependence to a *mite* clan, and clans in this relationship usually share the same *nago*...

"Breaches of the rule of clan-exogamy are rare, but if a man and woman of the same clan insist on living together as husband and wife, a mithan has to be sacrificed in expiation of the offence. A certain inconsistency is brought into the system of clan-exogamy by the fact that some clans known as 'brother-clans' are debarred from intermarriage, while there are cases of two sub-clans of the same clan (e.g. Akhang Koji and Aio Koji of Duta) practising intermarriage. The explanation is perhaps that each of these sub-clans has a *lapang* of its own, whereas 'brother-clans' forming a single exogamous unit usually share a single *lapang*".¹

¹ C. von Furer-Haimendorf, *The Apa Tanis and their Neighbours*. (London, 1962), pp. 69-70.

HILL MIRI

The Hill Miris count their patrilineal descent from their remote ancestor Abo Teni with remarkable accuracy. Their social structure consists of a number of phratries comprising a group of clans. The villages inhabited by particular clans are usually known by the clan names, such as Bini, Biku, Gocham, Taya and so on, although all the clans are not any more localised units.

The broad divisions of the Hill Miris into phratries and further into clans seem to have an regional basis. The phratry called *Pei* consisting of about ten clans live on both sides of the Kamla river near its confluence with the Subansiri. The *Chimr* phratry, with its sub-division *Yuchi-Yuli*, comprising sixteen clans and inhabiting sixteen villages settled at one time on the north bank of Kamla, but now they are concentrated in two villages on the south bank. Similarly, the Komdu-Kange phratry having previously nine clans and as many villages left their villages long ago and is now settled in one village called Dobom. Another phratry known as Telu-Todum was divided into two groups of clans of which the first group consisting of five clans lived in five villages between the Kamla and the Pein rivers, and the second group having four clans was concentrated in one village called Bua. Yet another phratry called Tenu-Talom was divided into three clans of which the one named Guchi was later divided into two sub-clans namely Dangme and Dungu.

The Miri Mission (1911-12) observed that the phratries of the Hill Miris related more to physical divisions of the country than to any clan system. A group of villages maintained some sort of friendly relations among themselves and intermarriage between groups and clans took place in so far as the limited communications between them permitted. The Miri Mission also noted that the division between the Kamla and the Subansiri clans was more distinct.

Besides the division of the Hill Miris into phratries and clans, the names of broad groups or sections by which they were popularly referred to have also been mentioned by early writers and explorers. In the 'Descriptive Ethnology of Bengal' (1872) by Dalton and the 'Preliminary Notes on the Miris' (1897) probably by G. W. Dun, these sections of the Hill Miris have been named as the Ghvghasi Miris, the Ghasi Miris, the Sarak Miris and the Panibotia and Tarbotia Miris.¹ Evidently, these names probably used by the plains people to designate different groups of the Hill Miris are suggestive of the distribution of population into different regions.

Frequent movements of the people that took place in the past leading to abandonment of villages and regrouping of clans in new settlements

¹ See Chapter II for details.

have brought about recently some remarkable changes in the system of class-exogamy of the Hill Miris, who are stated to have developed a tendency to seek brides near their own villages. "This could have been due to various factors. The unstability of the region often led to movements of population from one place to another both in the past and also in comparatively recent times. The localization of a clan in one fixed area was not, therefore, always possible. As lately as the 1950 earthquake, many villages were broken up, and families were obliged to migrate and even settle among people far away from their own group of clans. Movement of population from one place to another is probably one of the important factors which contributes to the break-up of social barriers, leading to liberalization of rules. Shrinkage of population is another great factor which may compel a group of people to introduce far-reaching changes in their social structure. Social separation of different lineages of the same clan, due for instance to migration to new places of residence, may also facilitate intermarriage within the same clan. While strict clan-exogamy has undergone some changes, bringing about new dynamism in interpersonal relationship, it would not be true to say that rules regulating marriage have completely broken down. Even now, certain lineages will acknowledge fraternal relationship with certain other specific lineages and, as a rule, refrain from taking a girl as wife from these lineages. The fact that the Hill Miris generally lay great emphasis on genealogies point to the conservative core of their society".¹ But that the rule of clan relationship has become somewhat flexible is borne out by a report that a man staying far long in the house of another man belonging to a different clan and sharing with him the same social and economic responsibilities declares himself to be of the clan of the man with whom he lives.

Nevertheless, adherence to the rule of clan-exogamy is still strong, and although the Hill Miris are, like the Nishis, too individualistic and lacking a constituted central authority, yet the tribal code of conduct is traditionally enforceable and accepted as binding. The Hill Miris do not have a formally constituted village council, but they do have a venue called *lomtes*² where elders and leading persons of a village hold conferences for settlement of disputes.

Family, Property and Inheritance

All the tribes of the district are patriarchal and patrilocal, the father being the head of the family. They are also patrilineal whereby descent is traced through males. The smallest unit of the society is the family consisting

¹ I. N. Chowdhury, *The Hill Miris of Subansiri*, (Shillong), p. 34.

² See Chapters X and XII.

normally of father, mother and children. As a matter of general principle, right of inheritance to property devolves through male members of the family.

NISHI

The Nishi family consists of man, his wife or wives, and unmarried children who live together in the same house. This is the basic structure of the family, but it changes with the change of members composing it. As polygyny is most common, a man may bring another wife. A daughter after marriage leaves the family to stay with her husband, or the death of a member may also bring about a change. But the basic family structure stands good in spite of the changes.

This portrayal of the family is by no means complete, for within a single house also live a man's brothers and cousins, their wives and children. A group of such families bound by agnatic kinship may roughly be described as a joint family whose members normally accept the authority of the senior man or head of the house. But a joint family may break up due to internal dissensions between families and one or more of them may vacate to live in the house of another relative, or establish separate homes for themselves. Each family within a single large house is to a great extent independent of the other and is not wholly subservient to the patriarch of the house though as a rule he exercises an overall authority over all the families living under the same roof. But members of all the families work together in each other's *jhum* clearings, and participate jointly in hunting, fishing and socio-religious activities.

In the house of a group of families all elderly male members are respected. A child obeys his father as well as uncles and grandfather with regards. The Nishi children grow up with a training for obedience to elders. The father usually takes the opinion of an adolescent son on domestic matters. The behaviour pattern in regard to the women who come to the house as wives is, however, different. The attitude of a grown up boy towards them is normally one of avoidance.

The Nishis are patrilineal. They follow a simple genealogical rule. The name of a son is prefixed with the last syllable of the father's name. Thus, Herin's son is named Ringdo for the sake of indicating the descent and heredity even though he may have a nickname Tado'. Adoption is very rare.

Position of Nishi Women : The customary law of the Nishis does not explicitly recognise the rights of women. The very fact that bride-price has to be paid for obtaining a wife confers on the husband exclusive rights over her person. If a man punishes his wife or even goes to the extent of taking her life for a gross misconduct such as adultery, her kinsmen may be

offended, but they can not have a legal redress under the customary laws. It is not legally possible for a wife to leave her husband unless someone compensate the man for the loss. This is one of the reasons for which divorce is difficult.

Participation of a woman in religious matters is limited to preparation of beer for ceremonial use. She may keep a watch on the religious ceremony, but she is denied a direct participation in it. A woman is also debarred from taking part in political matters. Her presence in the tribal councils is not called for except in case of giving an evidence.

These facts, however, do not imply that the women in the Nishi society have no right or privilege at all. In fact, inspite of the religious and political handicaps of a woman, she enjoys enough freedom and privileges in the management of her own house. She also owns a certain amount of property.

The eldest wife has a precedence over other wives in household affairs. Each wife has, however, a separate hearth and also a plot of land which she cultivates. Moreover she may have a poultry of her own as well as pigs and goats. She shares the economic partnership in the family and is the chief provider of food for her own children. She is not obliged to offer food to her husband every day, a matter depending entirely upon the mutual understanding of the wives themselves. She willingly fulfils her obligations towards her husband to please him, and a loving wife entertains him with beer almost every day.

One may wonder as to how peace and harmony are maintained in a family with a plurality of wives. Here it is to be borne in mind that fidelity extends to all the wives. A father takes equal care of all his children and trains them up. It is his duty to pay the bride-price in order to perform marriage of all his sons. He also gives her daughters in marriage. So long as these paternal duties are performed the conjugal life continues undisturbed.

TAGIN

Among the Tagins, a number of families claiming descent from one common ancestor often live together in one long house. A Tagin family may, therefore, be called a joint family, and the seniormost male member is regarded as the head of the family. The families living under the same roof have separate hearths for themselves. A woman after marriage goes to her husband's house and is taken as a member of her husband's clan. As a matter of rule, a wife's residence is patrilocal.

A Tagin family normally consists of the father, the mother and their sons and unmarried daughters. If the father dies, the property is looked after by the mother provided she does not marry again. The wife acquires

right over the property after her husband's death, but she cannot dispose it of. She can, however, sell the property among the relatives of her husband provided she has no children. The property is divided equally among the sons, and a married son may allow his younger brother a larger share. The *jhum* fields are also divided among them. Daughters, as a rule, do not inherit any property.

APA TANI

Unlike the Nishis who live in very long-houses having a number of families under one roof, the Apa Tanis usually have a single house for a single family. It is unusual for two married couples of equal status to share a house for more than a short time. The Apa Tani family comprising parents and their unmarried sons and daughters is the basic social and economic unit of the society. The parents assist their adult sons to establish their own houses and to have a land-holding of their own. It is also usually the responsibility of the father to buy house-sites for his married sons. A rich man having enough land divides his property among his sons when they marry, and retains only one share for him. This share finally devolves to the youngest son, who continues to live and cultivate with his father. The elder sons do not inherit any more property than they receive during their father's lifetime.

Position of Apa Tani Women: "Daughters usually do not receive any share other than their dowry of cloths and ornaments, but a rich man may help a poor son-in-law in establishing himself, and may even give him land and cattle as presents. This, however, is exceptional and normally property is passed on in the male line only. No case of a man without male heirs taking a son-in-law into his house and designating him as his heir has come to my notice, and such a practice would indeed be incompatible with the concentration of clans in compact localities unless the son-in-law changed also his clan-affiliation.

"On the basis of my admittedly very fragmentary material it appears that in descent and succession to property there is a strong emphasis on the male line, but that the transmission of status and privileges through the female line is not totally excluded. The integration of illegitimate children within the mother's clan is possible; orphans sometimes join their maternal kinsmen's clan, such special functions as that of the *kenna*¹ pass from mother to daughter, and wealthy men may divert some of their property to their daughters if the latter are not adequately provided

¹ An occupational group of women performing the castration of pigs.

for by their husbands. The prohibition of cross-cousin marriage also suggests that recognition of the female descent line is not altogether absent'.¹

The Apa Tani women seem to enjoy considerable rights and privileges in household affairs. They can sell grain and cattle of their own, while a man would rarely dispose of any portion of his crop without consulting his wife. In fact, the women share economic responsibilities of a family almost equally with men, and take active parts in cultivation.

HILL MIRI

The Hill Miris, as already stated, reckon their descent through males. Like the Nishis they live in long houses, which may even extend to 21 metres and accommodate a number of families. An old report stated that sometimes as many as 40 people lived in one house.

Position of Hill Miri Women : It has been generally observed that the position of women in the Hill Miri society is similar to that of Nishi women. Polygyny is common to both the Hill Miris and Nishis.

"While living with parents before marriage, the girls do their share of work at home and in the field. They are even allowed, with the knowledge and active encouragement of their parents, to acquire valuables such as beads, swords and many other things of their fancy. The parents may give their daughter from their piggery a piglet or two, and encourage them to rear these as their own. In course of time, these piglings multiply and augment their personal possession. Rich people's daughters are known to display more initiative; they may even own lands and work them separately. In olden time, chief's daughters and other wealthy persons' daughters could even own slaves for whom they had paid from their own earnings. The property thus acquired, the girls take with them to their new homes after marriage. Such girls, who grow rich by their own pluck and initiative, naturally have greater independence, and may actually feel free to choose their own partners in life, dispensing with all question of bride-price.

"In the management of house-hold affairs, the wives have very decisive influence. The position is as though the wives are the real owners, and they decide how best to utilize the house-hold property such as field produce, pigs and fowls. The granaries are at their disposal. In a polygamous family, the wives may have separate property, and they can augment it with their own initiative and intelligence. The difference between the wife and unmarried daughter is that the wife cannot take her so-called property with her, if she should decide to leave her husband for another man. In other words, so long as she continues to manage the home, she has a very real say in everything. The husband usually does not interfere, and, even

¹ C. von Furer-Haimendorf, *The Apa Tanis and their Neighbours*, (London, 1962), p. 99.

when he does, he would take counsel with his wife first for the sake of family peace and understanding".¹

Marriage

Monogamy is the common form of marriage, but polygyny is also socially recognised. As the clans are exogamous, it is customary for the members of a clan to marry outside their own clan. Each clan consists of 'a few lineages or groups of men and women' tracing or claiming descent from a common ancestor. The members of a clan bound by family ties or blood relationship consider themselves as brothers and sisters. Marriage within one's own clan in violation of the rule of clan-exogamy is, therefore, as already mentioned, a serious offence. Polygyny though accepted as a form of marriage, in practice only the rich can afford to pay the high bride-price necessary for having a number of wives. As a matter of fact, while polygynous marriage often incurs a general displeasure, monogamous marriage is the most popular, and the people by and large adhere to it. According to Dalton writing in 1872 polyandry was far more common amongst the Nishis than amongst the eastern tribes. Other forms of marriage, such as levirate, sororate, cross-cousin and their variants, are also recognised.

The different forms of marriage in vogue appear to have a bearing on the mode of agriculture practised by the people to eke out a living. The Nishis and Hill Miris depending on shifting cultivation may marry more than one wife, for each of the wives is considered to be an economic asset. She cultivates a plot of land set apart for her and helps food production to maintain her children. She may also lend a helping hand to her husband in the *jhum* field. With a separate hearth allotted to her in a house, which she shares with other wives, she serves her husband and guests with food and drink. The Apa Tanis, on the other hand, practising sedentary cultivation are mostly devoted to only one wife, and a plurality of wives among them is rare.

The tribes are endogamous. But today communication and educational developments have paved the way for a closer relationship between them. They do no longer live in complete isolation. As a result, the tribes are more intimate with each other than ever before, and there are reported instances of a few inter-tribal marriages which have taken place.

NISHI

Polygyny amongst the Nishis is due to a variety of reasons. The main

¹ J. N. Chowdhury, *The Hill Miris of Subansiri*, (Shillong), p. 40.

reason is doubtlessly economic. In the Nishi society, a woman shares much of the responsibilities for growing food. She works in the field as well as she does the household chores. She is, as already pointed out, indispensable for agriculture. Another important reason for polygyny is the custom of inheritance of widows, whereby the sons and brothers after the death of a man have a claim to inherit widows. The following is a detailed account of the marriage system of the Nishis:

"Considerations for Marriage: Love, as already mentioned, is not a prerequisite for marriage, nor is age a bar. The customary acceptance of the disparity in age often makes it possible for a rich old Nishi to marry a girl of fourteen, or again, a nubile girl may be married to a young boy. The best age for marriage for their children, so the Nishis think, is adolescence. In many cases, this is conditioned by economic factors. Thus a rich man is not only able to marry a number of wives himself, but to bring as many brides as possible for his sons as well. Consequently, sons of rich men get married earlier. Different is the lot of poor people. A man with few mithuns always finds it hard to get a girl for his son or an additional wife for himself. The difficulty is solved if he has one or more daughters, for then he can accept the bride-price for them and pay it for a wife or a daughter-in-law. As a result, daughters of poor people often get married earlier than their sisters who are rich.

"Finding a suitable girl is not difficult, since girls all over the area are usually known to the parents who arrange the marriage. In many cases, a boy himself may take the lead in selecting his bride. He may visit the house of his maternal uncle frequently, each time giving him little presents of meat, beads or daos. The maternal uncle is obliged to make presents in return, but the gestures from the boy by way of presents are well understood. He may ultimately succeed in winning the maternal uncle's daughter. Wealth and family status are important considerations to be taken into account. Generally the boys and girls have little say in such matters and tend to approve the decisions of their parents in settling their marriages.

"Betrothal and Payment of the Bride-Price: Initially, the boy's father talks about the proposed marriage to certain people, who indirectly try to know the views of the girl's father. If he favours the proposal, it is known in advance. Then one day the groom's father goes to the house of the girl's father with certain presents such as meat, cloth and a dao. These things are customarily accepted. In the discourse which follows he tells the purpose of his visit. It is now that the bargaining begins. The girl's father generally says, 'Take beads, *kojis*, *majis* or *talus*, whichever you like. But where and how should I find a girl for your son?' The talks continue for hours to settle the bride-price, after which the boy's father returns home.

"After a few days he takes omens from the livers of chickens. If they

are good, he goes to the girl's parents, this time with one mithun, pig's meat, one piece of *endi* or other cloth, one *dao*, five bundles of salt and many baskets containing fermented millet for beer. The mithuns and the articles are carried by kinsmen who compose the party along with the prospective groom.

"When the party reaches the girl's home, her father too takes part. He smears the mithun's horns with a paste of rice and household beer. The articles of bride-price are accepted. He kills a pig and numerous gourds of beer is prepared for a feast in honour of the guests. The party stays for three days. Every night during their stay the priests on both sides sing *id* songs. The singing often takes the form of a contest in which the priests of each side try to outwit those of the other party.

"The payment of the bride-price is made in annual or half yearly instalments, or at such intervals as may be convenient to the boy's father. Each time the girl's father gets a part of the payment, he gives cloth, beads and *daos* in return. The return gifts may be only a fraction of the bride-price or form a substantial dowry — depending upon the status of the families.

"*Marriage*: After the stipulated bride-price has been paid, the girl comes, according to the rule of patrilocal residence, to live with the husband. There are no formal ceremonies which mark the consummation of marriage. Only the husband and the wife are both clad in new clothes and wear a number of ornaments. The marriage party with the bride and groom returns home carrying presents given by the girl's father. On the way they sing songs, drinking beer frequently. At the approach to the village the path is closed with a number of bamboo arches. Offerings of eggs or chicken are made to the *Wiyus* of the jungle and they are prayed to return to their abodes if they have been coming along with the party.

"When the bride comes to the husband's house she is received at the *tumko*, where she sacrifices a fowl. Immediately afterwards she enters the house. The only ceremony a few days later is the *Yulo* in which a mithun is sacrificed. Kinsmen and relatives join in the feasting and make merry.

"*Implications of Bride-Price*: In all kinds of unions where the girl goes to live with her husband, the *Nishis* insist on the bride-price. The contract actually binds the girl's parents in more definite terms than one would imagine. Thus, if the girl dies within a few years without any children, the husband may, by custom, claim back whatever he has paid for her. His prerogative clearly extends not only to sexual privileges and the life-long services of his wife, but also to the bearing of children. Barrenness alone, however, is not sufficient reason for claiming back the bride-price. To the *Nishi* mind, even a barren woman is economically useful and she, in turn, does all she can to persuade her husband to marry one of her own sisters.

"The bride's father has yet other responsibilities. If the girl runs away

with some other man, he must help in restoring her to the husband; and if she returns home on account of the maltreatment by her husband, he should compel her to go back to him. The obligations imposed by the bride-price very often force the parents to coax her away from obstinacy. Sometimes she may be beaten, or even be put into a stockade to make her submissive to the husband's wishes.

"Inheritance of Widows: The implications of the bride-price appear to be far-reaching when we note that Nishi customary law specifically prescribes the allotment of widows to the dead man's heirs. Thus, after the father's death the sons inherit his wives with the exception of their own mothers. On the other hand, in theory at least, it is always possible for a father to keep his deceased son's wife for himself. But in practice this rarely occurs. Nishis also permit the levirate which provides that, if a man dies his widow may become the wife of one of his brothers. As we have seen earlier, disparity in age is no bar to marriage. It is not rare, therefore, to find a young boy inheriting a widow of his father or brother who may be more than thirty years of age.

"For the inheritance of widows, commonsense adjustment are made. Unmarried sons or brothers are taken into account; the wishes of the widow too are considered. The outcome is appropriation with agreement. It is only when a widow intends to leave the house that quarrels occur. Then, as a rule, the person who takes her is required to pay at least part of the bride-price. Normally, no Nishi expects quarrels over the inheritance of widows. In many cases, when a widow is too old, she may continue to live in the house without being inherited. This is more likely if, owing to her old age, no one is willing to keep her as a wife. Again, even when a widow is young, a man may waive his claim in favour of a close consanguineous kinsman.

"The above arrangements ensure that there is little or no social friction within the household group. They also ensure a widow's care and companionship for the rest of her life. But from another angle, they also refute the notion that the bride-price among the Nishis does not involve the conception of women as property.

"Kinship Terms and Prohibited and Prescribed Marriages: How the Nishi classificatory kinship terminology is interrelated with various forms of marriage is an interesting subject. The Nishis prohibit union with the paternal aunt's daughter. The latter is addressed by the kinship term *ku*, which is also the term for one's own daughter or son. This usage is further extended, and the same term is also applied to the paternal aunt's daughter's daughter, and so on to infinity. To put it logically, a paternal aunt's female descendants through females are always *ku*. Hence a union with the paternal aunt's female descendants is impossible.

"On the other hand, the Nishis permit marriage with the mother's sister. A person calls his mother's father by the term *atu*, which is also applicable to his wife's father, or father-in-law. The terminology is in accordance with the permitted union. The term *me yi*, with which a person addresses his mother's sisters, also throws light on matrilateral cross-cousin marriage. A person addresses his mother's brother's daughter also as *me yi*, and may take her as a wife. But he does not address his mother's brother as *atu*. He addresses him by the term *kei*, with which he also addresses his wife's brother. A little thought will show why this is so. Since the mother's sisters are possible mates, naturally it is in keeping with tribal usage to call him *kei*. From another angle it is apparent that, for the purposes of marriage, a mother's sister and mother's brother's daughter, are treated as if they were sisters. Further, the term *me yi* is also used to address a wife's sisters. This usage conforms to the sororal marriage among the Nishis, which is actually in vogue over wide areas.

"The Nishis also consider those women as possible mates whom they address by the term *nyahang*. This term is applied to a father's wives (other than the actual mother), a father's brother's wives, and one's own brother's wives. We have already mentioned that a father's wives, other than the mother, are inherited. The terminology extended to a father's brother's wives is also in keeping with the usage. When extended to a brother's wives, however, it proves the levirate marriage. In this case a man's wives, his brother's wives, his father's wives, and his father's brother's wives are treated, for the purpose of marriage, as if they were sisters. This clearly shows that it is possible for a Nishi to keep even his daughter-in-law as his wife. In one case in the village of Ganku, it was actually found that even in the life time of his son, the father appropriated the son's wife for himself.

"...The Nishis, while prescribing marriage with a maternal uncle's daughter, forbid it with a paternal aunt's daughter. This restriction automatically precludes the possibility of exchange of sisters, which is one of the important forms of marriage among many other people."

TAGIN

Marriage, which in Tagin is called *nida*, is generally performed by negotiations on payment of bride-price. Proposal for negotiated marriage is usually initiated by the parents of the boy. Help of a go-between called *lampu* is also taken for negotiations, settlement of bride-price and fixation of the date of marriage according to the convenience of both the parties.

¹ B. K. Shukla, *The Dailas of the Subansiri Region*, (Shillong, 1965), pp. 63-70.

The *lampu* is rewarded suitably for his services. If a marriage is finally settled the boy's father arrange a great feast of meat and drink in which all the relatives and clan members are invited.

On the date of marriage the groom's party starts in a procession for the bride's village carrying with them a few mithuns, pigs and wine. When they approach the house of the bride's father the hosts pull out swords (*daos*) as a sign of resistance. The groom's party also pretends a similar gesture and there ensues a mock fight between the two parties for a few minutes. Ultimately, the bride's party allows the groom's party to enter the house, which is followed by entertainments and feasts offered by both the parties and exchange of gifts. The groom's parents make a present of long and costly swords to the male members of the bride's family. The bride's parents in their turn also give a long sword to the father of the groom. This exchange of swords symbolises reciprocal honour and friendship. The bride's parents also give their daughter gifts in the shape of ornaments like bracelet, necklace and ear-rings. Beads of various colour are also given to both the bride and the groom as ornaments. The role of the priest, who conducts the marriage ceremony, is very important, and he is rewarded suitably by both the parties.

On the third day, the groom's party leaves the bride's village. The bride is allowed to stay back with her parents for a few months before she goes to her husband's house to live with him permanently.

Marriage by capture or elopement is also recognised by the Tagins on payment of bride-price by the man who marries, but such marriage seldom takes place.

Various forms of marriage, such as cross-cousin, levirate both senior and junior, are prevalent in the Tagin society. Sororate is also in practice, and both the senior and the junior sororate are recognised.

"The Tagins are polygynous. If a man has two wives the elder is called *ite* and the younger *ici*. To marry a girl one has to pay a high bride price such as mithun, cow, pig, money etc. One may marry one's mother's sister *anu*; mother's sister's daughter *mui*; sister's daughter *ku*; father's sister's daughter *ku*; and mother's brother's daughter *mui* but one cannot marry one's brother's daughter *burme*, father's sister *anyi*; father's brother's daughter *burme*. One can marry one's step-mother *ane* after the death of the father but nowadays the custom is not favoured. A brother, as a rule, may marry the widow of the younger and elder brother; if the widow desires, she may marry outside the family provided the compensation for the bride-price is paid to the family by the man who marries her. The widow is not allowed to take her sons or daughters with her; if the child is small she may take him and bring him up upto a certain age and then return him to his father's house. The economic motive is

apparent as women cannot be spared since they are indispensable for household and agricultural work. In this way, the bond between two families is maintained after the death of the husband. There is no restriction of age in marriage".¹

Polygyny, though recognised, involving payment of the bride-price in each case of marriage, is restricted to only those few privileged rich who can afford it. Polyandry is unknown among the Tagins. A woman cannot marry more than one man at a time. The rule of clan-exogamy is followed scrupulously. Any sexual relation within the clan is regarded as incest, an unpardonable crime.

Divorce is not easy in the Tagin society. Adultery and barrenness of a woman may lead to divorce. Incidents of divorce are, however, very rare.

APA TANI

The Apa Tani society is divided into two endogamous classes each comprising a number of clans. Marriage is regulated in accordance with the rules of clan-exogamy as well as class-endogamy. Patrilateral or matrilateral cross-cousin marriages are not permissible. A man may, however, marry a girl of his mother's clan if there is no consanguineous link. Marriage with wife's elder or younger sister and even with younger brother's widow is permitted. Polygamy in theory is recognised, but only a few men have more than one wife. An Apa Tani is not usually inclined to take a second wife if the first wife is still living, for fear of offending the first wife's kinsmen, who may feel insulted and take revenge. Polygamy receives social acceptance only under some special circumstances, as in the case of a wealthy man who has no son by his first wife.

The Apa Tani society is most liberal and sober in its attitude to sex. There is little inhibition in the sexual behaviour of the Apa Tani youth. The society does not disapprove the love-affairs of unmarried boys and girls who start mixing freely from an early age. They are free to choose their partners, and marriage of an Apa Tani is generally regarded as his personal affairs. The Apa Tani parents do not much interfere in the choice of mates by their sons and daughters themselves nor do they consider it their responsibility to find out marriage-partners for them. Even rich men of high social status would not like to meddle in their daughter's amatory affairs. Unlike the Nishis who would expect and demand high bride-prices for their daughters to settle marriages, the Apa Tanis do not count the bride-price as something obligatory for a marriage. Generally,

¹ K. Das Gupta, *The Tagins and their Language*, Resarun, (Shillong, January, 1977). Vol. 3, No. 1, p. 7.

parents give their daughters enough freedom to select their husbands themselves.

Formal engagement or ceremony are not essential for an Apa Tani marriage. In case of an agreement for marriage, the girl may go to the boy's house or the boy may live for sometime in her parent's house. In the well-to-do families, however, marriages are often arranged by the parents, which involve exchange of valuables.

Early marriage may take place. It is, however, usual for a 'child-bride' to remain in her natal home and pay a visit to her husband's family only at the time of festivals.

Divorce is concluded mutually by the husband and wife without observance of any formality. The responsibility for children is shared according to their sex. 'A son is given to the father and takes his clan-name, whereas a daughter remains with the mother and takes the maternal clan-name'.

HILL MIRI

As far back as 1872 Dalton made mention of polygyny amongst the Hill Miris, and the custom of inheritance of widows by the sons or heirs.

Different forms of marriage are recognised in the Hill Miri society, and the one called *nyida* is considered to be the first in sanctity and importance. Negotiated marriages are most common, yet love plays its own role in weddings.

Nyida marriage is arranged by the parents in which the boy's father takes the initiative. The procedure of negotiations and performance of a marriage are elaborate entailing giving of presents and bride-price in the form of mithuns by the father of the boy, exchange of gifts, consultation of omen, feasts and festivities. On an auspicious day decided on omen the parents and kinsmen of the girl make arrangement to escort the bride to the groom's house. The bride is dressed befittingly for this occasion. She wears head-necklaces given by her mother and a kind of head-decoration called *dumlup*. The arrival of the bride in the groom's house is accompanied by hilarious dances, and followed by great feasts in which the guests are served lavishly with cooked meat and rice and home-made liquor. "This is also the occasion when the priests relate stories of the creation of the earth and the sky, the sun and the moon, through the medium of songs. The genealogies since the time of the mythical Abo Teni, the exploits of hosts of spirits identified with nature, somehow or other controlling the destinies of men, form the themes of other songs. The memories of the priests are put to hard test on such occasions. The people gathered also find time to discuss about the exchange of gifts that has taken place. The occasion is rounded off with the final presentation

of gifts made by the bride's father. This is called *kin-kimbo* which consists of valuables like manjis, beads and swords.

"The finale to the whole procedure is however yet to come. The last ceremony is called *yulo* which is performed for obtaining the blessings of the spirits responsible for dispensation of good luck....

"It is no wonder that the Hill Miris attach the greatest importance and sanctity to the marriages performed according to the *nyida* rites. If a *nyida* wife should run away with another man, the husband will consider it a great affront. He may refuse to be compensated with the return of bride-price alone and, should he fail to recover her through negotiation, he will have the tacit sanction of his society to make 'war' on his rival. The Hill Miris believe that selling away a *nyida* wife will incur the wrath of gods who may send misfortunes.

"It should be apparent that the *nyida* form of marriage is the privilege only of the rich people who can afford it. So there are other forms of marriage recognized by the Hill Miris. The marriage, which comes next to *nyida* is termed *tado hale*. It requires payment of one or two mithuns as bride-price, but there is no question of dowry or return payment of gifts from the side of the bride's father. If the wife of a marriage contracted according to *tado hale* should prove unfaithful and goes to live with another man, the husband may let her go without arousing the displeasure of the gods. In this case, he will be usually satisfied with the return of the bride-price paid by him.

"There is yet another way in which, a man may get a wife for himself. He may persuade a girl to elope with him without the knowledge of her parents. They may later live as husband and wife with the implicit approval of society. This form of marriage, called *nim-moli*, becomes a cause of much confusion and bickerings between parents on either side owing to the question of unsettled bride-price. The situation is made worse as, in such a case, the girl is usually a willing partner in the whole drama. Mediators are then employed, and, after protracted negotiation, they may bring about a settlement of the question of bride-price, and counter gifts from the girl's father. A planned elopement may not necessarily take place always. A girl may simply go to live with a man of her choice. The society usually gives its approval to such an arrangement later. This is called *nimo kedua*. The formalities of payments have naturally to be gone through at a later date.

"The patterns of marriage among the Hill Miris, as already indicated above, is patrilocal. But exceptions are not unknown. Under special circumstances, the boy may be willing to go to live under the roof of his father-in-law's house. If the father-in-law, for instance, is old and infirm, having no son to look after him, the son-in-law may continue to live with

him and ultimately inherit his land and other material possessions. Under normal circumstances, however, it is considered derogatory for a boy to live with his father-in-law".¹

Death and Funeral

Belief in the life after death is an important aspect of the mortuary concepts of the people. It is commonly believed that a separation takes place between the body and the soul at death and the disembodied soul goes to the 'land of the dead'. The belief, based on the idea of the soul, leads to the conception of the other world peopled by the departed as well as spirits to whom death is often attributed. This naturally implies that funeral rites have to be properly performed for the well-being of the departed soul and the bereaved family, and also for appeasement of the spirits responsible for causing death. There is an essential similarity of ideas about death among the various tribal groups. Burial is the common method of funeral.

NISHI

The Nishis make a clear distinction between normal and abnormal death, and assign specific reasons to every incident of death. The reason for normal death due to old age is attributed to natural exhaustion of the life-material in the bones called *lochang*. But a death is considered abnormal when a man dies prematurely due to sickness or accident, and all such deaths, it is believed, are caused by *wiyus* (spirits) and the *orums* (ancestral ghosts). The Nishis have also a belief that death of every man is preordained and this they ascribe to *Chene Mane Wiyu* which decrees how a man would die when he is still in his mother's womb. He may die due to accidents, such as a fall from a rock or a tree, or snake-bite. He may be drowned or killed by a tiger.

The Nishis bury their dead near their house, whether the deceased is a man or a woman, young or old. It is customary to offer grave-goods to the departed soul for its last journey. The types of burial and the ceremonies connected with it may vary in detail, depending on the status of the deceased and in the case of children. A rich man, for example, having a large number of cattle when alive, receives more sacrificed mithuns and pigs at his death for his last journey than what a poor man gets when he dies.

The Nishis believe that the *yalo* or soul known as *orum* after death makes its last journey to *neli nyoka* or the land of the dead lying below

¹ J. N. Chowdhury, *The Hill Miris of Subansiri*, (Shillong), pp. 36-38.

the earth. Life in this underworld, as known only to the priests, does not differ much from the earthly life. The *orums* live there with their kinsmen in houses like those on earth and cultivate land for food. The picture of the underworld may not be detailed here besides mentioning that the Nishi priests give a vivid description of it.

The Nishis do not have any idea of transmigration of soul. The priests would, however, say that the *orums* or souls die once more, and go to another world called *orum kyulu*. They may occasionally visit this world in the form of butterflies. There is, however, a deep-rooted fear that the departed soul may return in the form of an *orum* or ghost to cause troubles, and the Nishi priest would implore it not to come back.

TAGIN

The mortuary concepts of the Tagins have a basic similarity with that of their neighbours. Death due to old age is considered natural, but a premature death is believed to be abnormal and it is ascribed to evil spirits (*wiyus*). The idea that the spirits may cause illness leads to the belief that if an ailing person does not appease the particular spirit responsible for the ailment with due offerings, it may result in the death of that person. There are various ways by which the spirits may cause death if they are displeased. A man may die due to a fall from a steep hill or by drowning. A spirit may even cause death to a man if he disturbs or destroys its abode while working in the jungle. It is also believed that a man is always punished by the spirits if he violates the social customary laws.

The Tagins, like their neighbours, the Nishis and the Hill Miris, dispose of the dead body by burial. The dead body is kept in a house for about two days so that the relatives and clan members can have a last glance of the deceased. Grave goods are also offered. A monkey thought to be next to man in intelligence, who can climb up the hills, and considered most fit to accompany the soul of the dead on its journey, is killed and placed with the dead body. The site for burial is selected after a careful testing of the soil at a place away and down below the dwelling house. The dead body is covered with clothes and leaves before it is buried. Members of the bereaved family observe a taboo for ten days during which no one except the clan members are allowed to enter the house of the dead person.

APA TANI

The eschatological beliefs of the Apa Tanis, narrated already in this chapter in the context of religious beliefs and practices, appear to be basically similar to the concepts of the neighbouring tribes of the Nishis and

Hill Miris in regard to the life after death. The Apa Tanis believe that the soul, or *yalo* as they call it, of a man who dies a natural death goes to *neli*, 'the land of the dead', which resembles an Apa Tani village with long rows of houses. *Neli* is believed to be located under the earth, but this underworld is not uncongenial for the departed souls to live in. Life in *neli* is described to be the same as life on this earth. There the people do cultivation and work, and ultimately they die once more and go to another 'land of the dead'.¹ *Neli* is not only the home of the dead but also of a host of spirits. It is the shamans or priests (*niubu*), journeying to *neli* in their dreams or while in a state of a trance, who can give a detailed picture of the underworld.

The Apa Tanis believe that death in old age is natural, but premature or accidental death is unnatural as it is caused by the spirits. They bury their dead in burial ground. A man of high status may, however, be buried within the village near his house. Sometimes, the fenced garden of an Apa Tani house may also be used as a burial place for the members of a family. The dead body is wrapped in cloths before it is buried. In the case of a rich family, a sacrificed mithun or cow may be offered to the departed for its last journey to the other world. A bamboo shrine is erected in honour of the dead, its size depending on the social status of the deceased. The skull of the sacrificed animal is tied to the shrine. The members of the bereaved family observe taboos for about ten days.

HILL MIRI

The mortuary concepts of the Hill Miris are in essence not unlike those of the other tribes of Subansiri—the Nishis, Tagins and the Apa Tanis. The Hill Miris believe that death is always the result of mischief done by some malevolent spirit (*wiyu*). This belief is shared by many other tribes who cannot conceive of death as natural. According to the Hill Miris, when a person dies, his soul or *yalo* is carried off by the spirit responsible for the death, and is enslaved by it for some time. It is commonly surmised by them that the soul escapes through the shoulder, but there is divergence of ideas as to the form in which it leaves the body.

Like their neighbouring tribes, the Hill Miris also believe in the existence of 'the land of the dead' called *neli*, which lies deep under the earth. From the land of the spirits the soul goes to the land of the dead. The Hill Miris also believe as do the Nishis in the *orum* or the ancestral ghost, but according to them, the *orum* though frequents its favourite earthly haunts does

¹ See C. von Furer-Haimendorf, *The Apa Tanis and their Neighbours*. (London, 1962), pp. 146-147.

not cause troubles to the living. Food is occasionally offered to please the *orums*.

Consultation of omen at every crucial step is extremely important to the Hill Miris. Vaticination is so important that the relatives would tuck an egg into the hand of a dying person so that the soul on its last journey to the other world may be able to take auguries on the way.

Funeral amongst the Hill Miris is a complex and long-drawn procedure. A special sacrifice, known as *nintan* in some villages, of a mithun in case of the rich and a pig or a fowl in case of the poor is offered. Every house appears to have a kind of protective ghost associated with it. The priest implores this protective ghost to look after the welfare of the soul of the departed. He also cautions the soul about the dangers and difficulties lying ahead of him in the land of the dead. He would also advise him to go carefully, particularly at the time of crossing through the land of the spirits who are always on the look out to catch straying souls.

The Hill Miris bury their dead. The dead body is kept in the house for a whole day and buried on the following day near the house. A mortuary rite peculiar to the Hill Miris is that the women lower the body into the grave when the deceased is a male, and the men perform this last rite if the departed is a female. Grave-goods consisting of food, rice-beer and personal belongings are offered to the dead.

"A stone is put up about the place where the chest of the buried corpse is supposed to be. This is done with the idea of restricting the movement of the ghost. An improvised shed is erected over the stone, and the whole area is fenced in. In front of the shed, a platform is built and, upon it, stand sometimes even up to five stuffed monkeys with arms stretched out. On the back of each is a small basket containing small packets of food, and tiny bamboo tubes filled with rice-beer. In a very realistic fashion, these stuffed monkeys often carry tobacco pipes in their mouths. They are the permanent porters provided for the dead man.

"It is a significant trait of most simple preliterate societies that they think of the other world, where they have a conception of the other world, in a logical and realistic fashion. The Hill Miris are no exception to this and, as a matter of fact, the other world, in their conception, is merely a continuation of this world, perhaps, only under changed conditions. A Hill Miri is, therefore, very solicitous about the well-being of the dear departed in his long and lonely journey ahead to the land of the dead. He is careful to provide the dead with porters, fire-wood, drink and tobacco. Monkeys are chosen as porters because they are very good at climbing and negotiating difficult terrain.

"After the burial of the body is completed, some villagers who take part in the proceedings go down to the streams or rivers for a bath. Now, the

assembled persons divide into two groups. On one side sit the members of the dead man's family, and on the other side the villagers. The *Nibo* or the priest now sacrifices a fowl for each group separately. He then mixes an egg with water and sprinkles the mixture over the whole assembled party with a bunch of bamboo leaves. The idea behind this procedure has not, however, been explained. This is also the occasion for the *Nibo* to expound the legend as to how death descended upon the world and to recite exhortations. A typical exhortation runs as follows :

'Let not the tears of *Abo-Teni* come to our eyes ; let
not the earth of *Abo-Teni* cover our bodies'.

"It has been said that, for quite sometime after the burial, an improvised hearth is maintained within the enclosure and a symbolic meal is cooked for the departed soul. At the end of the year, an elaborate and very high altar, sometimes reaching the height of twenty feet, is put up and the final sacrifice, involving a mithun or a pig according to means, is offered".¹

VILLAGE AND HOUSE

According to the 1971 Census, the entire population of the Subansiri District is, as already stated, entirely rural. There are 1,102 inhabited villages.

Different categories of villages in the district classified by population and the percentage of rural population living in villages of various population ranges are shown in the following tables I and II respectively.²

Table I

Total number of inhabited villages	..	..	1102
(1) Number of villages with a population less than 200	..	..	1020
(2) Number of villages with a population of 200-499	..	..	65
(3) Number of villages with a population of 500-999	..	..	10
(4) Number of villages with a population of 1000-1999	..	..	3
(5) Number of villages with a population of 2000-4999	..	..	4
Total:			1102

¹ J. N. Chowdhury, *The Hill Miris of Subansiri*, (Shillong), pp. 49-50

² Census of India 1971, Arunachal Pradesh, Part II-A, pp. 44, 45, 48, 49. The tables include a part of the Daporijo Sub-division having 142 inhabited villages included in the Siang District in the 1971 Census.

Table II

Categories of villages with population	Percentage of rural population	Percentage of villages
Less than 200—Diminutive village	66.00	92.56
200-499 — Very small village	16.00	5.90
500-999 — Small village	6.00	0.91
1000-1999 — Medium village	4.00	0.27
2000-4999 — Large village	8.00	0.36

The census figures indicate that almost all the villages are diminutive or very small. The diminutive villages constitute 92.56 per cent of the total number of villages where 66 per cent of the district population live, suggesting that the people are settled mostly in hamlets lying scattered over a wide area. In the small villages of the Nishis, Tagins and Hill Miris, a number of agnatic families stay together in rather long houses, and there may be a single or a few such houses in a settlement. The Nishis, in particular, seem to be loyal more to the house than to the village. The Apa Tanis, on the other hand, having 12,859 souls altogether according to the 1971 Census, live in some seven compact and well-knit villages in the narrow confines of their valley. Unlike the other Subansiri tribes, they have normally a single house for a single family. An Apa Tani village is, however, not just a jumble of houses, but is laid out according to a systematic pattern.

NISHI

The village and the house of the Nishis as described by Shukla in his research/ monograph on that tribe are as follows:

"The Village

"To a visitor gazing from another hill, a Nishi village appears strikingly picturesque in its natural setting. Set amid green surroundings, long huts and granaries with grey and black thatches spread over the steep hill-tops. The large clearings lie far and near. Flanking the hill forming the background to its summit stand thick evergreen forests unscathed by slash-and-burn agricultural practices. Deep down below, invariably flows a river or a stream, its banks covered with green vegetation and, occasionally, rich in floral treasures of the wilder species. The most exquisite, however, are villages like Mengo and Pajee which stand against the magnificent background of snow-sugared blue hills. Everywhere clouds may be seen in

masses or patches and thick sheets of mist shrouding the valleys and the villages.

"From the point of view of planning, there is no tendency to huddle up in the Apa Tani fashion. Everyone has ample space and the houses stand quite apart. There are no lanes, no assembly platforms, no dormitories, and no public places for community worship. Small narrow paths lead from house to house and radiate further to merge in the network of tracks linking the different villages, clearings, river banks, and trails for the chase.

"The boundaries of the villages are well defined, both geographically and historically. Every streamlet, ravine or mound, has a name remembered by the people through generations. Indeed, each locality has a place name, although many villages are known by the name of the predominant clan. Most village sites have been occupied for decades. One or more families of individual households may, however, move to other hills in search of better fortune. The size of the villages varies; some, like Joram, Talo, Lingtelot and Pakba, may have as many as 30 houses, with more than 500 souls, while others, Layang for example, may only be new settlements with two or three houses and less than 30 people. But, whether big or small, sanitation within the village is always poor. Pigs and fowls may be seen revelling on heaps of rubbish everywhere which the people never care to remove. As a result most of the Nishi villages, howsoever charming in setting, remain filthy.

"For anyone of its members, a village is not so much the centre of group activity as his own house in which a man's life is lived. No doubt, a Nishi joins others in such group enterprises as the construction of a neighbour's house, or cutting his jhums when invited with offers of food and beer, but these are reciprocal arrangements governed by the rule of normal courtesy in which one expects a similar gesture from one's neighbours. Beyond this, not all the people of the village are 'his people'. His primary loyalty is to his long-house and to its members, and thereafter to the members of the lineage and other relatives.

"The House

"The Nishi house is a long hall erected on poles. The width of the house is usually 18 to 20 feet, but the length varies—depending upon the number of hearths. It is not unusual for a house having more than ten families to run to a length of more than 50 yards. The walls are made of twilled mats, and the floor of flattened bamboos. The thatches used are either dried plantain or cane leaves and millet or paddy straw, or the thatching grasses commonly growing wild in abandoned clearings. At the rear end

of the house, above the ground, is the *tumko*, a spacious platform of wooden beams, usually half open and half covered with thatch. On this will be found a small structure of split bamboo and *kra* leaves representing Yobu Wiyu, the god of the chase, and one or two sharpening stones. A notched ladder placed slantingly connects it with the ground below. The other end of the house is the *bating*, a small porch with one or two sets of mortars and pestles for the pounding of grain. This is not much above the ground and serves as the main entrance and the exit for all. The doors opening on the back platform and the front porch are either sliding shutters of matted bamboo or crude wooden planks.

"A little away from the house lie the granaries. The distance is planned on purpose as it saves them in case a fire breaks out. The pigsty is often sited near the porch and is reached by two logs connecting it with the latter. Around the house, at convenient places, may be found the *yugines* or ceremonial structures of past sacrifices, often lavishly decorated with bamboo shavings and rings of bamboo strips as well as the structures where the dead lie buried.

"Within the house the fireplaces run in a row, along the centre and parallel to the *nyodang*, each being something like a square of two and a half feet, with the traditional three stones to support the cooking pots. Over these hang two, and occasionally three, wooden trays one above the other for drying firewood, grain and meat. Above the trays is the ceiling on which are kept the unused baskets, a few large gourds and the fermenting millet tied in leaves. The loft is reached by notched ladders which, when not in use, are left lying in a corner.

"The main wall of the house called *nyodang* is prominent from the domestic point of view. The members of the household sleep on this side of the house and, occasionally, enclosures are made to keep the various household articles. The opposite wall, *koda*, has one or two racks for keeping articles such as bamboo tubes, gourds and earthen pots. In many houses may be found a few large rough conical baskets hanging on the *koda*. These are used for brewing beer on special occasions such as marriage. Hearth to hearth partition is not universal, though over wide areas privacy is achieved by partitions, with doors closed with mats at night. There are a few openings in the *koda* wall but rarely any in the *nyodang*. As a result, the house always remains dark and filled with smoke fumes struggling to escape through the thatch.

"*Construction of the House* : The Nishi themselves construct their houses. There are no professional house builders. Every young man of a village acquires this skill by participating in the actual constructions. Some of the elderly men, however, are more skilled than others. Their technical guidance and suggestions, therefore, are invariably taken. If such a man

is not available in a village, he may be called from another and requested to supervise the work.

"A Nishi house lasts for over three years. The house materials are wooden beams and posts, cane, bamboo, and cane or banana leaves or other thatching materials. These are collected well in advance. Usually the collection takes two to three months. The long and thick posts are cut and straightened. The banana and cane leaves are dried. These materials are available in nearby jungles, but the cane and bamboos are sometimes brought from distant places to the site of the building.

"Prior to the construction of the house omens are taken with eggs. It is important to ascertain before-hand whether the site for construction will be good or bad for the members of the house. If the omens are good, a day is selected for the actual construction. A request is made to all the grown-up members of the village to contribute their labour. The people who help in constructing the house expect the same co-operation in return.

"On the appointed day, in the early morning, they all assemble at the site. There is no formal ceremony for the erection of the first post. Holes are dug in two rows with daos. A post is first fixed in the hole in the centre of one of the rows. The next is fixed in the corresponding hole in the other row. After that, the remaining posts are erected on both sides of these first two fixtures, till the desired length is attained. The length, as has been mentioned before, depends upon the number of hearths. From time to time the width is measured with a bamboo stick and kept even. Each post is further strengthened with two slanting supports which are notched to fit in a tight grip to the posts under the floor and ensure that the post is perpendicular. If the land is slopy, care is taken to support the posts at an even height at which the floor is to be made. There are no instruments. Practical experience and simple measurements with bamboo sticks result in perfect symmetrical constructions.

"After all these posts have been set in place, the wooden beams to support the floor are tied to them. This operation is followed by tying of beams to the upper ends of the standing posts. Next comes the placing of battens across the width of the house on top of the beams first tied to the posts. Over these again a second layer of battens are so placed as to leave the gaps between them not exceeding eight or nine square inches. This framework is covered with a layer of flattened bamboos. This completes the floor, save for the hearths. Spaces of two and a half square feet for the purpose are left without the bamboo covering in a row along the length of the house. Later on, these are properly fitted up with wooden boards at the sides, and the bottoms are secured from below. These tray-like hollows are then filled with earth, to render them fire-proof.

"When the floor has been put, the next stage is to perform the Geglo

ceremony. The priest is present. He starts the incantations and the head of the house produces the leaves of *tanyum* and *kra*, rice, the beer-ferment, ginger, and a small potsherd. These articles are placed on a large leaf. A hole is dug under the front balcony. The head of the house holds these things in his hand while the priest prays to the gods and the ancestral spirits.

'We have constructed this new house at a new place. O Wiyus and *orums*, be kind to us. Do not come to trouble us. Do not make either us or our children sick. Do not take them to the Land of the Dead. O Wiyus and *orums*, we are giving you these offerings. Be propitiated and do not come to us.'

"The person holding the offerings goes under the floor and puts them inside the hole. A big pole is then erected over this and the house is completed finally. It takes two or three days to complete the house.

"While the men are busy in the construction work, the women in the house brew beer which is in great demand. The quantity consumed per day is more or less 10 large gourds each holding roughly 1 gallon. The people who take part in the construction are served with rice and vegetables at noon. The beer, however, is served frequently. A person who fails to have enough beer may stop working till sufficient quantity has been procured."

The Census of 1971 reports the following on the house-site of the Nishis and the ceremonies associated with it.¹

"Household site — The household site is always selected within the village commonland with the approval of village elders. The site initially belongs to the village commonland. Subsequently, the right of ownership on such site devolves upon the head of the family so long as he occupies the site and resides in the house built upon it. If he abandons the site, the same automatically reverts back to the village commonland.

"Ceremonies — After selection of a site by the owner, the village priest, sometimes called a 'Dondai', brings handful of soil from the site, and uttering some mantras kills a chicken. Sometimes, the omen is studied by breaking an egg. If the omen is found favourable, then house construction work is taken up.

"While erecting the first post of a new house, a customary song known as 'Gogre' is sung with ceremony."

TAGIN

The Tagins prefer to site their villages on the slopes and under the

¹ B. K. Shukla, *The Daffas of the Subansiri Region*, (Shillong, 1965), pp. 9-14.

² Census of India 1971, Arunachal Pradesh, Part IV-A and B, p. 133.

shadow of hills so as to secure a natural protection. Some of their villages are so small as to contain a house or two dwelt by a few families. For example, a village can be as small as Mosi with only two houses or as large as Dasi or Hangan with ten to fifteen houses. A single clan village, if existed previously, is now hardly to be found.

A Tagin house is a long structure resembling in many ways that of the Nishis. The house, usually built on the slant, is thatched with leaves or the like as that of the houses of other Subansiri tribes. But a Tagin house has its own distinct features as well. It is rectangular in shape. The floor is made of split bamboo supported by wooden pillars. At one end the house rises straight from the ground and it may reach a height of about six metres, while the other end may rise up to about one metre with the eaves almost touching the ground. In marked contrast to Nishi, Apa Tani and Hill Miri houses, the entrance of which is always from the side of balconies or raised platforms at either end, a Tagin house has two or three doors along one side. The house on its three sides is provided with a veranda, which in the front is known as *pre*. One is to enter a house with the help of a log-ladder hewn into steps. A Tagin house does not have a big inner chamber, but it is divided into several apartments with a hearth in each. There are open passages from one apartment to the other. A Tagin house may have a storeroom (*ering*) as well in the corner of its one end. There is often a pigsty under the floor of the house.

APA TANI

The Village

The Apa Tani villages are remarkable from all points of view. "In a country", said Dr. Haimendorf, "where settlements are impermanent, and tribal groups seem to be in a state of continuous flux, the Apa Tanis remained concentrated in that one valley, and their seven villages, all situated within an hour's walking distance one from the other, had the stability and size of small towns".¹ Indeed, an old gazetteer published as early as 1928 reported on the Apa Tani settlements that "The people live in large villages—they may almost be called towns—as Hong, the largest village, contains 2,000 houses".² The size of the Apa Tani villages, as observed by Dr. Haimendorf in 1946, varied from 180 to over a thousand houses. The seven original villages, namely Hang, Hari, Bela, Haja, Duta, Mudang-Tage and Michi-Bamin, constituting the settlement of the Apa Tanis are connected by well-maintained paths. The villages are permanent, and though

¹ C. von Furer-Haimendorf, *The Apa Tanis and their Neighbours*, (London, 1962), p. 4.

² Assam District Gazetteers, (Vol. XI), *The Sadiya and Balipara Frontier Tract Gazetteer, Part II*, (Shillong, 1928), p. 19.

most congested and close-knit, they are not, as noted by Dr. Haimendorf, an amorphous collection of households. Each of the seven villages is divided into a number of quarters occupied by specific clans. In the large village of Bela, there are again three sub-divisions which are often referred to as 'villages' (*lemba*). Specifically named quarters or sections in a village appear to constitute separate political units, resembling in some respects the *khel* (a village quarter) of the Naga villages. The smaller villages may not be markedly divided into *khels* or clan quarters, which in fact run into one another without any perceptible demarcation.

The House

"Apatani House : The houses are raised on high piles on both sides of a narrow street in a systematic manner, leaving hardly any space between two houses. There are assembly platforms, within the village. Small narrow bye-lanes diverge from the main street and lead to the groves of the jungle. Houses may be constructed on both sides of these bye-lanes. No clanwise lane or street exists.

"However, from the standpoint of planning, no social custom or religious belief is connected. Unlike the Nishi houses, an Apatani house is not long enough to accommodate a number of households. Houses huddle close to each other, giving the roofs of the houses a view of a continuous pyramidal chain from a height. Not all houses are fenced into demarcated area of the house.

"The houses are raised on wooden piles a few feet above the ground. Both sides of the houses are extended to fenced in open verandahs. The front verandah is called 'Blago' and the back one 'Uko'. The house consists of a main hall and two verandahs. From the main hall at the front side a small portion is separated by bamboo-woven partition which is called 'Blachi'. One or two sets of mortar and pestle rest in the 'Blachi' which is mainly meant for grinding, husking and winnowing the paddy and a part of it is also used for keeping poultry. The floor of the house is reached by an upright notched tree trunk at the verandah from the ground at both sides of the house.

"The width of the house varies from 12'—18' and the length depends on the number of hearths within it. But in a Apatani house the number of hearths is limited to a maximum of three. Generally, unlike the Nishis, they are polygynous in general. However, after the son's marriage, he may have a separate establishment under the same roof of his father's house unless, either he or his father can afford to construct a new house either for the father or the son.

"The material used are crude gifts of nature growing in abundance in the

nearby jungles and groves, and apparently commonsense is applied to build a strong and durable house. Bamboo, crude wooden planks, cane, paddy straw etc. are the common raw materials.

"The roof is made of dry paddy straw, cane leaves or thatching grass growing in wasteland. Due to constant smoke inside the house and lack of ventilation the ceiling becomes black in the course of time. Below the roof, is a long ceiling made of flattened bamboo where articles of occasional use are kept. Walls are made of multiple layers of mat made of flattened bamboo, where no window exists for ventilation. The only ventilation is provided by the two doors facing each other. The doors are exits to the 'Blachi'.

"The floor is made of flattened bamboo. The fireplace is a rectangle of about 3'—4' in the middle of the house, if the number is one. Earth, filled in wooden tray is supported, on the floor, where portion of floor according to the size of the tray is detached. Stones are placed in the middle of the fireplace as tripod to be used as oven. The fireplaces run in line, in case two or three are there. On the sides of the fireplace mats are spread, leaving free passage on one side in line with the two doors. The free passage is called 'Milo Ingyo'. The front side inside the house is called 'Ago Empung' and the rear is 'Ura Empung'. The wall opposite to the free passage is called 'Empung'. Wooden trays are hung on lofts in series for drying firewood, millet etc. Utensils are mostly kept round the hearth, scattered here and there. Cane baskets, bamboo chutes, tubes, hollowed bottle gourd etc. are hung on the wall inside or on the loft over the fireplace. The house is never tidy and things are not kept in a systematic manner.

"They construct latrines called 'Nekang'. The device is functional and serves a variety of purposes. It functions as a slop basin, rubbish bucket and at the same time latrine. There are two narrow doors both at the front and back, and outside the wall runs a narrow shelf along the length of the house, below which there is a fenced in enclosure... Outside the house, a shrine is erected during 'Mlokko' festival afresh each year.

"The granary, usually lies outside the village for fear of catching fire. If the household has ample grounds, the master may choose to construct his granary behind his house".¹

HILL MIRI

The descriptions of the village and house of the Hill Miris left by the

¹ Census of India 1961, Vol. I, India, Part VI-A (III), Report on House Types and Village Settlement Patterns of India, pp. 261-268 quoted in Census of India 1971, Arunachal Pradesh, Part IV-B, Housing Tables, p. 155.

early writers and explorers give a fairly true picture of the type of houses constructed by the Hill Miris even today. Dalton wrote of the houses that they were long, and raised considerably on posts of cleft timber, constructed indiscriminately at the top or by the side of a hill. 'But the level of the flooring is tolerably well preserved by varying the heights of the supporting posts.' He further noted that each house held a group of related families comprising the parents, their married sons and their children as well as their brothers and their wives.

In his 'Descriptive Ethnology of Bengal' published in 1872, Dalton depicted a typical Hill Miri house of an influential person in the following words:

"It is 70 feet long; the flooring is of split bamboos on a very substantial framework of timber raised several feet from the ground; the roof has gable ends, and is thatched with leaves; under the gable a cross sloping roof covers an open balcony, one at each end. The interior consists of one long apartment 60 feet by 16, from which a passage at one side, extending the entire length, is partitioned off in the large apartment down the centre; four fires burn on hearths of earth."¹

The Preliminary Notes on Miris, printed in 1897, gives a similar description of the village and the house-pattern of the Hill Miris as follows:

"The villages of all the clans are very small, 18 or 20 houses being a large number, the average generally being 8 or 9; but sometimes as many as 40 people live in one house. . . The houses are from 60 to 70 feet long, built on *changs*, and thatched with leaves. . . The villages are all built on the slopes of hills, never on the summit, and are absolutely without defence, as there are no feuds between clans or villages."²

The Sadiya and Balipara Frontier Tract Gazetteer, published in 1928, further confirmed that "The Miri (Hill Miri) villages average about 20 houses, their houses are built on *changs* and closely resemble those built by the Nishis".³

"With very few exceptions, the Hill Miri villages are located at altitudes between 914 and 1,219 metres. Narrow and rough tracks, meandering up-hill and down-dale, connect the villages with each other. The Hill Miri villages are usually very small consisting sometimes of no more than one or two households, but never perhaps exceeding 20 houses. The average size of a village may safely be placed at between 8 or 9 houses. The houses are usually long-houses, accommodating several elementary families under one roof. A house may be 60 to 70 feet long, standing on stilts

¹ E. T. Dalton, Tribal History of Eastern India (Descriptive Ethnology of Bengal), (Delhi, 1973), p. 31.

² Verrier Elwin, India's North-East Frontier in the Nineteenth Century, (London, 1962), p. 163.

³ Assam District Gazetteers, (Vol. XI), The Sadiya and Balipara Frontier Tract Gazetteer, Part II, (Shillong, 1928), p. 15.

and thatched with leaves. The houses lie very close to each other whenever a village is of any size.

"The Hill Miris usually select the slopes of hills for siting their villages as a measure of natural protection. Otherwise, the villages are without any extra protective or defensive device such as some other hill tribes deliberately raise around their villages. It is the chief of a village who has to take upon himself the responsibility of looking after its safety as best he can. The Hill Miri village does not have a Morung or bachelors' dormitory such as a Naga or Adi village has. Among the Nagas, the protection or defence of a village is the primary responsibility of the youths of the village who are members of a common village Morung. The Miris are however very careful not to display their property for fear of being pillaged by neighbours. They used at one time to bury their valuables at a place thought safe from prying eyes. Their stores of grain are kept in granaries located a little distance away from the village".¹

Domestic and Other Articles

The domestic articles of an average tribal house in the district consist usually of agricultural, hunting and fishing tools and implements, a loom — particularly in an Apa Tani house, aluminium utensils, tin suitcases, earthen wares, gourd vessels and the cane and bamboo articles. Some of the common household articles of cane and bamboo are tubes and containers for water and liquor, mats, baskets, head-gear, cane-hats etc. These apart, there are a variety of tools and weapons made of cane and bamboo. Of the weapons, the most common is the bow and arrow. *Dao* is an all-purpose instrument used universally by all the tribes.

The houses are usually decorated with the heads and horns of sacrificed animals and trophies of hunt which are generally hung from the wall at a prominent place near the entrance of the house. These exhibits are symbolical of social prestige of the heads of families who take pride in these decorations.

The following is a brief account of the typical domestic articles of the Nishis.

"The household artefacts are not numerous. They include such things as gourds of various shapes and sizes, bamboo mugs, and vessels for fetching water, cane and bamboo baskets, mats and skins, earthen pots and, occasionally, iron frying pans and aluminium mugs. Articles of greater value are the weapons of chase, like daos, spears, bows and arrows, and ornaments like bead-strings and women's waist belts of

¹ J. N. Chowdhury, *The Hill Miris of Subansiri*, (Shillong), pp. 23-24.

metal discs. Their wardrobes are not particularly rich, and include a few *pudu* fibre and cotton blankets. Such valuables as *majis*, *talus* and *kojis* are buried secretly near the house and may only be taken out when occasions demand. Among the ceremonial objects are the horns of sacrificed mithuns and the skulls of pigs, which are hung as exhibits on the *nyodang* wall. The trophies of chase find a conspicuous place, while on the *koda* wall may be found the horns of mithuns that have died of sickness".¹

Among the Apa Tanis, the houses of rich men may, in addition to other things, contain cups and bowls of bell-metal. Ordinary brass-ware is, however, not very popular.

Furniture, such as chairs, tables, cupboard or 'almirah' as are commonly used by the people of the plains, are not to be generally found in a tribal house in the district except in case of a few rich and the newly educated and advanced section of the people.

Dress and Ornaments

The dress and ornaments of each of the tribes are unique in themselves, and they identify and also distinguish them markedly from one another. Under the impact of modernism and commercial developments, the traditional dress of the tribal people, particularly of men, is today at a stage of transitional changes, and these changes, though still limited to the educated and young section of the people, are remarkable.

NISHI

"The main garment of Nishi men consists of a coarse loincloth and a blanket woven from the fibres of a wild plant. It is held in front, reaching half way to the thighs, and the ends, passed below the armpits, are received crosswise over both shoulders and fastened together in front of the chest with an iron or bamboo pin. In addition to this, occasionally, a man may wear a piece of mithun hide to cover his chest. Around the neck are worn numerous strings of beads—white, red, blue, green, and grey, prized as valuables and inherited and passed down as heirlooms. With these may also be found brass chains, tushes of boars and deer, and an iron pin for cleaning the smoking pipe. The left wrist has a coil of hair strings and the right is decorated with a number of bangles. Around the waist are worn a number of cane rings woven with *tana* fibre, while below the knees are a pair of garters of woven cane, each being less than an inch broad.

¹ B. K. Shukla, *The Daflas of the Subansiri Region*, (Shillong, 1965), p. 15.

"Other articles of wear are a big dao, sometimes of Tibetan make, and a small multipurpose knife. Both are sheathed in bamboo scabbards. The larger scabbard is often wrapped in an attractive monkey skin of silver-ash colour. Its two ends are fastened to a sling which may be either of raw hide or of woven cane, the latter ornamented with neat rows of cowrie shells. The sling is passed over the right shoulder, allowing the sword to rest on the left side of the waist. Other pieces of wear are a long woven ribbon, *jusopus*, either of wool or *pudu* fibre with red and black stripes, and a pouch containing tobacco and the smoking pipe. Both of these are put on in the style of the dao sling.

"The most conspicuous, however, is the head dress. It is an admirable helmet of woven cane, surmounted by a crest of hornbill beak dyed scarlet red. It is decorated with feathers of distinction, the commonest being a white and black-barred hornbill feather. The talons of an eagle may also be seen fastened beneath the tip of the crest as additional adornments.

"The hair is plaited and done in a bun on the forehead called the *podum* which is wound with yellow thread. A brass skewer of about a foot in length is passed through it horizontally. Around the head is worn a thin band of woven cane studded with miniature solid metal bells. The perforated earlobes are decorated with bamboo plugs and earrings.

"The women do not look less attractive in their simple dress. The hair is either done in a bun at the back, or parted in the middle to be plaited around the head. The latter incidentally, is one of the commonest styles in many parts of India, and often enormously enhances a woman's charms. Neither the women, nor the men, use any fat or grease for dressing the hair. This is entirely done with bamboo combs after a simple cold or warm wash. Like men, the women wear numerous strings of multi-coloured beads. But in addition to these they also wear a number of metal bells, brass chains and not infrequently, tea-spoons which dangle from the neck over the breasts. In the earlobes they wear lead rings of large size, with or without bamboo plugs. On the hands, they may have a couple of rings of brass or silver on the fingers, while the wrists are always covered with bangles.

"The women wear a skirt of woven fibre, often with a green border and stripe designs. Over this they wrap themselves with the same type of blanket as men do, which, falling to the knees, is tucked over the right shoulder and tied at the waist with the *jusopus* ribbon. They also wear a belt of cane decorated with *hoofi* or disc-shaped metal ornaments. While cane rings are absent over wide areas as waist bands,

two other ornaments may be seen in common use. One is the *tage*, a chain of crude metal rings, and the other, a more prized piece of decoration, is the *tajing*, a chain with a number of flat square metal pieces and blue bead strings.

"On the legs no ornaments are worn except the tight fitting cane garters on the ankles which more often result in constricting the legs and causing ulcers, rather than adding to the wearer's beauty.

"The children remain naked in infancy. At the age of three or four, they put on a piece of blanket. The girls above this age invariably cover themselves in the manner of their mothers, covering their baby chests. Both boys and girls do their hair in the same way. They are shaved, save for an unruly tussock left in front. There is no prescribed age for wearing the hair in the fashion of the grown-ups though in the case of a boy it may be sixteen or so, while a girl often starts plaiting her hair as soon as the tresses are long enough to permit it.

"While this remains the general pattern of dress, variations do occur. In recent years, mill-made cloth has gained popularity. The markets of the Assam plains now attract the people from distant areas who purchase cotton blankets, black and red cloth, cheap strings of beads, and brass chains and bangles in large numbers. Ready-made shirts, blouses and woollen coats have also caught their fancy. Apart from this, however, two variations need special mention. One is in the case of Gams, or village chiefs, who, in addition to their usual dress, put on a red-coat presented by the Administration as a mark of office and the other is in the case of priests. As a mark of distinction of his office, a priest not only decorates his *podum* with soft feathers of birds or a bunch of animal hair, but also carries at his back a fan made of feathers of an eagle. Head-dresses of tiger's skins, often profusely decorated with quills, feathers and claws, porcupine quills and *tajirr* leaves, are reserved for ceremonies.

"Tattooing, as an art of decorating the face or the body, is absent among the Nishis.. There are only a few people, old men and women, in the Joram-Talo area, who have any tattoo marks. The design is a perpendicular line in the middle of the chin crossed by two horizontal lines, and one line on each cheek connecting the corners of the lips to the ear. The people have nothing to say as to how it originated, nor are they able to tell the meaning of the marks. All that they know is that these marks can conveniently be sold in Neli, the next world, after death. This appears to be a borrowing from the Apa Tanis. The idea of selling the marks in Neli, however, appears to be a device invented later to justify their existence. In the rest of

the country, there is none, living at least, who has heard of the Nishis ever having been tattooed".¹

TAGIN

The Tagins of the bygone days had little knowledge of the art of weaving, and this might be a reason for which they had been indifferent to dress. An imported Tibetan blanket or a piece of *endi* was all that a Tagin needed to cover his body. They were also partly dependent on animal skins to wrap themselves. The Tibetan blankets bartered by them were of different colours — white, maroon, grey and they were sometimes in chequered design. The exchange value of the blankets, depending on quality and durability, varied from three to five pigs. Recently, the Tagins have, however, taken to weaving.

The Tagins of the lower regions below the village of Dasi import sleeveless black coats from the neighbouring Adis of Siang. They sometimes wear a kind of white cotton blanket with stripes along both the borders. Besides the blanket, a man wears a thick coat (*jekuk*) and a strip of cloth as undergarment, and this is all for his meagre dress.

"Tagin women have no special dress but use the same woollen blanket. The white cotton blanket with stripes is often preferred due to cheapness. They, sometimes, particularly young unmarried girls, like to put on their heads Tibetan style round woollen caps of maroon colour. For lower garment, the traditional dress for women is *bekar* which is a grass skirt. The use of *bekar* of late has gone down and Tagin women are increasingly imitating their neighbours. Mill-made bazar cloths also are coming into fashion. . . Tagin taste for dress is obviously in a transitory stage.

"As headgear, Tagin men use *botung* which is cane-woven hat. Alternatively, leather hats fashioned out of mithan hide or deer skin are also common. Such a hat often protrudes at the back with a separate piece of hide attached to it to serve as an extra covering. The usefulness of such an appendage during tribal raid or feud, which was not infrequent in the past, is obvious.

"The Tagins do not like to make a knot of the hair on the forehead but, like the Pailibos and the Boris, let it grow to its full length. They apparently have not mastered the technique of caring for hair. . .

"Men and women are equally fond of beads which might be of different colours, though with a marked preference for white, blue and dark-blue. These beads at one time percolated down from Tibet.

¹ B. K. Shukla, *The Daflas of the Subansiri Region*, (Shillong, 1965), pp. 16-20.

"Young boys are in the habit of using ear-rings made of deer's hair. Women use metal rings and sometimes ear-plugs looking like a pair of miniature silver flower vases.

"Women of all ages love to put on metal bangles (bangles of silver are called *kopung*). *Kote*, which is usually a bangle of copperlike metal, is highly prized and kept for special occasions.

"Tagin stalwarts cover the forepart of their right hands with cane-woven bands about a foot long. This band is called *lagbuth* which is sometimes decorated with animal hair. This is essentially a part of warrior's dress and obviously intended as a protection against sudden thrust of the enemy's sword.

"Both Tagin men and women, as in other tribes in this region such as the Nishi, Miri and Apa Tani, wear rings of cane round the waist. In addition, belts, decorated with cowrie shells, are proud possession for men. A Tagin man is seldom without his belt when he ventures out of his village. This belt, called *tayen*, is a piece skin decorated with rows of cowrie shells with the mouths upturned. Women too have additional decorations for the waists. In their case, this piece of ornament consists of a garland of small metal plates suspended from a belt".¹

APA TANI

The Apa Tanis have a developed art of weaving, and this is one of their traits of culture which distinguishes them from their neighbouring tribes. They are not a cotton-growing people, but they possess better textiles than any of their neighbours, and they weave not only for their own consumption, but also for trade and barter with other tribes.

As early as 1845 E. T. Dalton noted, "The Auka (Apa Tani) ladies wear blue or black petticoats, and jackets of white cotton of their own manufacture; their faces are tattooed *unde nomen* Auka, which is given to them by the Assamese. They call themselves 'Tenaë'. The males do not rejoice in much drapery; they wear a girdle of cane-work painted red, which hangs down behind in a long bushy tail".²

The tail is the most distinguishing feature of the male dress of the Apa Tanis. It is an extension of his broad tight belt worn round the waist, which is made of many strands of spliced cane and dyed in vivid red. The pattern of the Apa Tani male dress today does not have this tail as

¹ J. N. Chowdhury, *Arunachal Panorama*, (Shillong, 1973), pp. 158-160.

² See Verrier Elwin, *India's North-East Frontier in the Nineteenth Century*, (London, 1962), p. 157.

an essential part of the costume of all men. The men also wear multiple rings of the same red-dyed cane.

It may be interesting to quote here a description of the Apa Tani costume as given in the Sadiya and Balipara Frontier Tract Gazetteer published in 1928:

"The clothing consists of a cloth worn round the waist and brought up and secured over the shoulders whilst over this is worn a square blanket of blue and red striped cloth fastened by with a loop and buttoned round the neck.

"Round the waist is worn a curious contrivance made of thin strips of cane dyed a bright scarlet, the cane is formed into a tail behind about 18" long. The women wear a short skirt of coloured cotton and a zouave jacket of like material. Their hair is done up in a knot on the top of their heads. In each nostril they wear a round cylinder of wood about an inch in diameter, which horribly disfigures features that would otherwise be pleasant or even comely".¹

The skirt worn by the Apa Tani women is in fact long, reaching quite below the knees.

The dress of the Apa Tani men has much resemblance to that of the Nishis. They, like the Nishis, wear cane helmet and tie their hair in a knot above the forehead, holding it in place with a long brass skewer or pin stuck horizontally through it. They, however, made a finer work of it, and tie black hair round the knot, whereas the Nishis fasten the *podum* or hair-knot with a strip of cloth.

The women gather their hair from all sides in a knot at the top of the head. They wear fewer strings of coloured beads round the neck than what the Nishis and the Hill Miris do.

While the tail is a mark of distinction of the dress of men, the nose-plugs are peculiar to the Apa Tani women. They wear black wooden round nose-plugs on each side of the nose.

"*Endi* cloths, usually of the mixed silk cotton type, are worn by all the wealthier Apa Tanis wrapped round the body and held in position by iron pins or modern safety-pins. They are softer and therefore warmer than cotton cloth, and worn under the stiff embroidered cloaks they are useful and aesthetically pleasing. . . Women, however, sometimes wear a length of light white bazaar cloth as a wrap when otherwise they would leave their breasts and shoulders bare".²

Another important distinguishing mark of the Apa Tanis is the way they, both men and women, used to tattoo their face. The men tattooed the

¹ Assam District Gazetteers, (Vol. XI), The Sadiya and Balipara Frontier Tract Gazetteer, Part II, (Shillong, 1928), p. 13.

² C. von Furer-Haimendorf, The Apa Tanis and their Neighbours, (London, 1962), p. 55.

face below the mouth. A vertical line was drawn from the underlip to the point of the chin. The women were tattooed with a broad blue line from the top of the forehead to the tip of the nose and a number of lines were drawn from the lower lip to the base of the chin. The tattooing has now been given up by the Apa Tanis.

It should be added that the male dress of the Apa Tanis is today undergoing considerable changes. The young boys have a fancy for the modern dress and many of them will be found in shorts, shirts and shoes, but the female costume has not in any way deviated from the traditional style of dress. The Apa Tanis have a distinct standard of dress. Hardly would one find people in tattered clothes. Hand-woven Apa Tani cloaks of good quality are put on by both men and women.

HILL MIRI

The Hill Miris are divided into some broad groups, formerly called the Ghyghasis, Ghasi, Panibotia etc.¹ The dress of these groups of both men and women differs.

The Ghyghasis were, as it was remarked by Dalton, lightly clad, their costume consisting only of loin cloth and a sleeveless flannel coat. Their women wear a small petticoat made of filaments of cane woven together. Dalton said of them over a century ago that they were often seen with nothing on but this singular garment. The women wear their hair long. The Ghasis of the Sew river wore only a sort of woolen mantle. Both these groups had square-cut hair.

According to Dalton, the men of the so-called Panibotia group gathered the hair to the front, where it protruded out from the forehead in a large knobs secured by a bodkin. Round the head a band of small brass or copper knobs linked together was tightly bound. Rich and influential persons wore ornaments of silver in their ears, shaped like a wine-glass and quite as large. A cap of cane or bamboo-work with a peak behind was worn when travelling, and over this cap a piece cut out of a tiger or leopard skin, including the tail, hanged down the backs. Their nether garment was a scarf between their legs fastened to a girdle of cane-work, and their upper robe a cloth wrapped round the body and pinned so as to resemble the sleeveless coat of the Adis. As a cloak and covering for their knapsack, they wore over the shoulders a half cape, made of the black hairy fibres of a palm tree, which at a distance looked like a bear skin.

The traditional dress of the so-called Panibotia women, which is rapidly going out of fashion, is 'elaborate and peculiar' as described by Dalton.

¹ See Chapter II for details.

A short petticoat extending from the loins to the knees is secured to a broad belt of leather, which is ornamented with brass bosses. Outside this they used to wear a 'singular crinoline' of cane-work, which is also often the sole garment of the Ghyghasi women, fastened so tight round the loins that they had to move with a short mincing movement from the knees. The upper garment consists of a band of plaited cane-work girding the body close under the arms, and from this in front a fragment of cloth suspends and covers the breasts. This is their travelling and working dress, but at other times they wrap themselves in a large cloth of *eri* silk of Assam, doubled over their shoulders and secured in front with a pin like a shawl.

They have bracelets of silver or copper, and anklets of finely plaited cane or bamboo. Their hair is adjusted with neatness, parted in the centre and hanging down their backs in two carefully plaited tails. In their ears they wear most fantastic ornaments of silver, which it would be difficult to describe. A simple spiral screw of this metal, winding snake-like round the extended lobe of the ear, is not uncommon amongst unmarried girls, but this is only an adjunct of the complicated ear ornaments worn by married ladies. They wear round their necks an enormous quantity of large turquoise-like beads made apparently of fine porcelain, and beads of agate, cornelian and onyx, as well as ordinary glass beads of all colours.

Dalton's above description of the male and female costume conforms largely to the present-day dress and ornaments of the Hill Miris. "Even today", said Verrier Elwin, "I have seen women wearing as many as a hundred cane bands and they are still evidently greatly attached to them, for they spend much of their time manufacturing new ones for themselves or their daughters. Formerly they wore nothing else or a skirt of grass; today they add a strip of cloth. They also have a remarkable band of woven cane and fibre which presses tightly across the breasts and entirely covers them, the only natural brassiere I have ever seen among a tribal people".¹

The Hill Miri men today wear a shawl of *endi* silk or mill-made cloth. This garment falling half-way above the thighs is tucked on the chest and fastened with a skewer or safety-pin. After the introduction of weaving among the Hill Miris the men wear plain loin-cloths woven by girls and colourful sleeveless jackets with attractive designs. Their head-dress is the same type of cap as that of the Nishis, but it is more finely woven. The cap is decorated with a buffalo horn, porcupine quills, red and yellow yarn, feathers of drongo and eagle's talon. The cap of the priest is also adorned with leaves. The metal studs are like those of the Nishis. The

¹ Verrier Elwin, A Philosophy for NEFA, (Shillong, 1964), p. 16.

hair-knot (*podum*) at the forehead is prominent, and it somewhat differs in size, curling and projection from that of the Nishis. The brass-skewers are also bigger. Moreover, the Hill Miris cover the *podum* with a piece of the hairy hide of bear, which adds to the prominence and attractiveness of the head-dress.

The hair-knot is worn only by the adult Hill Miri men. The boys do their hair in small curlings round the head until it grows long enough to be gathered in a knot. The children get their heads completely shaven except for two tufts of hair, one left on the forehead and another as a pig-tail at the back.

The men are fond of wearing necklaces and ear-rings of beads. The rich families of some villages are in possession of many silver ear-ornaments and heavy necklaces of multicoloured beads, which they wear on special occasions.

The women wear silver coins in addition to the strings of beads. In their heavy adornments one or two teaspoons are also to be found hanging from the neck, which are sometimes used in eating.

The Hill Miri women today are dressed in beautiful pieces of textiles with coloured designs. Black markin available now in the local shops and markets is commonly used by women as a lower garment, and the natural brassiere is being replaced by a tailored blouse. But the crinoline of cane-work may be still in use.

Food and Drink

The chief items of food taken by most of the people of the district are rice, meat, maize, vegetables, fish and beer. The process of preparation of food may vary with various tribes, but the basic diet with little variations is common to all of them.

Rice is the staple food. It is cooked by boiling and the excess water used is poured into a bamboo mug for drinking. A meal usually comprises the cooked rice mixed with vegetables and flavoured with chillis and salt. Chilli is a condiment indispensable for every meal.

Meat of both animals and birds of many kinds is relished by the people. Fresh meat which is a scarcity is smoked, dried and preserved. Soft meat is roasted in the fire, while smoked meat is boiled in water. Chillis and salt are added before the meat is served. Pork is usually prepared as a roast.

Maize is next to rice as a cereal. It is grinded into flour to make bread or porridge. Millet is also pounded into flour for preparation of bread. Millets, both finger millet and fox-tail millet, are used for brewing beer. Rice or maize is also used for making the liquor. Beer, locally

called *apong*, is the most favourite and delicious drink of the people, and it is an indispensable item of meal, particularly with meat.

Vegetables, roots and tubers are also commonly taken by the people. The most important of them are sweet potato, a great variety of edible arums, pumpkins and cucumbers grown in the *jhum* fields and fenced gardens. Wild roots are supplementary to the normal food.

Chillis, ginger and leaves of onion locally called *talap* are used as spices. Condiment of bamboo shoots are a delicacy. Young shoots of bamboo cut into small pieces are fermented and dried in the sun. Boiled with vegetables, it is taken regularly.

Aquatic foods are fish, frogs, crabs and certain insects found on the bank of streams and rivers. The people are fond of fish. Fresh fish is taken as boiled or roasted. Fish is smoked and dried for preservation when there is abundant supply of it. Frogs are boiled and eaten as a curry.

Tea is not a popular beverage. The people are also not yet much used to take milk. Tobacco is grown locally and smoking is common. Pipes and pouches containing dried tobacco leaves are carried by men and women wherever they go.

Dances and Festivities

The social and cultural life of the tribal people is vividly reflected in their amusements and festivities organised on communal basis, of which dances and music are important media. It is important to note that the tribal dances, through which the corporate life of the people find a spontaneous expression, are performed collectively rather than individually. The dances performed by various tribes of Subansiri on different occasions may be broadly classified as ritual, festive and recreational.¹ The ritual dances may further be divided into five categories as follows:

- (1) ritual dances performed to secure prosperity, health, happiness and well-being of the dancer, his family, village or the whole community;
- (2) ceremonial dances relating to agriculture and domestication of animals in order to secure a better harvest and good stock of domestic animals;
- (3) dances associated with the funeral;
- (4) dances performed to promote fertility, and
- (5) war dances, occasioned in the olden days due to internecine strifes, feuds and raids, which are now on the decline.

¹ The description of the dances given here is based on the excerpts taken from the book entitled 'Dances of Arunachal Pradesh' by Niranjan Sarkar, published by Arunachal Pradesh Administration.

Festive dances are amusements associated with festivals or marriages, while recreational dances are not necessarily connected with any particular ritual or festival.

Generally, the dancers do not get any formal training, nor do they have any special dancing attire. They wear their usual dress during dance except when they perform a war dance in the warrior's garb with arms in hand.

NISHI DANCES

The Nishis have four types of dances, namely *buiyasodon*, *ropsodon*, *northon* and a dance associated with the worship of a spirit called *yab*. They have no dancing costume, but they deck themselves in their best available garments and ornaments when they dance.

The *buiyasodon* dance is held on the occasion of a marriage and during the *Yulo* ceremony, generally performed after harvest in the months between January and March, for the prosperity and welfare of the performer. In the marriage ceremony, when the bride comes for the first time to her husband's place, there is much feasting and rejoicing. At night this dance is performed inside the bridegroom's house for entertainment. Only men, generally youths and adults, take part in this dance in which a number of dancers participate. Gongs are played and songs are sung in chorus to the accompaniment of the dance.

The *ropsodon* dance is a reminiscent of the old war dance associated with a ceremony called *ropi*. It was performed to prevent the spirit of the victim from taking revenge on the killers. It is still performed after killing a tiger.

The *northon* dance, performed by the women, is confined to the villages of Jorum and Talo. This dance is generally performed in the marriage ceremony for merriment when the bride comes to live with her husband. The men perform the *buiyasodon* while the women perform this dance at night inside the bridegroom's house. No musical instrument is played to the accompaniment of this dance. The dancers are girls and young married women dressed in their best garments and ornaments.

The dance connected with worship of *yab* is conducted by a priest. It is believed that *yab*, a jungle spirit, causes rheumatic pain. The afflicted person performs the dance with a bow and arrow in hand together with a companion holding a sword in his right hand and a bamboo-shield in his left.

TAGIN DANCES

The Tagins of the Tali area have two types of dances — one type

associated with the marriage ceremony and the other associated with the ceremony performed after killing an enemy or a tiger.

The dances performed in connection with a marriage ceremony are called *koinireto* and *hurrugumte*. These dances are held for merriment when the bride comes for the first time to live with her husband. When the bride's party arrives near the compound of the bridegroom's house, the male members of the party form a line, one beside another and with the bride and other female members of the party in a group at the rear of the line. The male members hold long open swords in the right hand. They take one step with the right foot to the right, flex the knees, bring the left foot beside the right one and move the swords up and down in front. They proceed to the front courtyard of the bridegroom's house dancing with this movement and singing out in chorus long-drawn out 'hi ! hi !'. Simultaneously, the adult men of the bridegroom's village dance in a group in the front courtyard of the bridegroom's house, sometimes with tripping steps and sometimes standing in a group and flexing the knees bobbing up and down. To the accompaniment of the dance, they sing out in chorus long-drawn out 'ho ! ho !' and brandish the swords in the air. The dancers of the bride's party come dancing forward, meet the dancers of the bridegroom's party when there is some jostling between the two groups and ultimately the two groups dance together with the same movement as that of the groom's party. This dance is called *koinireto*.

At night the two groups of dancers stand in the passage of the groom's house in a circle side by side, interlocking each other's arms at the elbow or holding the hands of the dancers on either side. They take one step with the right foot to the right, flex the knees and bring the left foot beside the right one. Repeating this sequence of movements they dance in the passage of the house keeping time to the beats of the gongs. To the accompaniment of the dance they sing songs. As a prelude to the songs the bride's and the groom's groups sing out long-drawn out 'hi ! hi ! hi !' and 'ho ! ho ! ho !' alternately for some time and then 'hi !' and 'ho !' alternately for some time and at last 'ho !' in chorus. Then the bride's group sings a song followed by the groom's group. The leader of one group sings a line of a song, which others of his group repeat in chorus and thus they sing the songs. This dance is called *hurrugumte*.

The war dance performed in the old days when an expeditionary party succeeded in killing an enemy is called *nibutamtu*. The dance is still performed only when a tiger is killed.

APA TANI DANCES

The Apa Tanis have three important traditional dances, of which two are

associated with their important festivals, namely *Dree* and *Morom* described in the context of 'ceremonies and festivals' in this chapter.

The *Dree* festival is celebrated in June-July for a good crop and for protection of the paddy plants from pests. In this festival the girls perform the *busidu* or *amualu* dance on a hillock at the village outskirts. The girls stand in two lines facing each other, each of them holding the hands of the dancers on either side. The dance is accompanied by a song. At first the dancers of one line start singing. One dancer sings a line and the others repeat it in chorus. When they complete the song the dancers of the other line take it up. Thus the dancers of the two lines sing alternately and dance.

During the *Morom* festival celebrated at the end of winter for communal welfare and prosperity, young Apa Tani boys perform the *taktamo*, a fertility dance held in an open space of a village. This is followed by another dance by the same young group in the house of the person who sacrifices mithuns on this occasion. This dance is called *hurukhandu* and it continues throughout the night accompanied by gongs and chorus.

The Apa Tanis perform, like the Nishis, a ceremony called *ropi*, which is also a remnant of a successful warfare of the bygone days. This ceremony is featured by a dance in which the able-bodied men of a village armed with swords, spears and shields dance round the *uago*. The ceremony is still observed when a tiger is killed.

HILL MIRI DANCES

The important dances of the Hill Miris are four, namely *boyen* or *kuba tendone*, *pojuk*, *nitin* and *ponung*.

The dance performed when the bride comes for the first time to live with her husband is known as *boyen* or *kuba tendone*. When the bride's party arrives at the outskirts of the bridegroom's village, the villagers erect an improvised gate blocking the entrance to the village. The male members of the bride's party cut down the gate and proceed to the groom's house with tripping steps in a group, brandishing the swords in the air and shouting in chorus long-drawn out 'hur-ru ! hur-ru ! hoi ! hoi !'. Simultaneously, the adult men of the bridegroom's village dance in a group in front of the bridegroom's house with tripping steps brandishing the swords in the air and shouting in chorus the long-drawn out 'hur-ru ! hur-ru ! hoi ! hoi !'. When the dancers of the bride's party meet the dancers of the bridegroom's party, there is jostling between the two groups for some time and ultimately the two groups dance together. At night the men of the bridegroom's village do a dance in the passage of the bridegroom's house each holding the hands of the other with accompanying gong-beatings and chorus.

The *pojuk* dance is a war dance of former times performed by men armed and dressed in the warrior's robe. The dancers in pair stage a series of mock fights.

The dance performed for entertainment after harvest in the winter is called *nitin*. The participants are generally girls though women of all age groups can join. The dance starts at about dusk and continues as long as the dancers like to. The dancers stand in a circle near or round a bonfire holding the hands of the dancers on either side. A dancer sings a line and the others repeat it in chorus swinging their hands back and forth, standing in one place and moving anti-clockwise alternately.

The Hill Miris have adopted the graceful *ponung* dances of their neighbours, the Gallongs. Like the Gallongs they also call these dances *ponung*. These dances are performed for merriment any time during a year. The dancers are generally girls, but the leader called *ponung nibu* may be of either sex. The leader must be someone who is able to lead the singing. When the girls are in merry mood, they may amuse themselves with these dances. They start the dances at about dusk near or round a bonfire at some open space in the village and dance as long as they like. There are many songs and the movements also vary. The dancers stand in a semicircle, shoulder to shoulder, facing the leader. The leader holds a sword upside down in the right hand. The leader sings the first line of a song which others repeat in chorus and this first line is the refrain which they go on singing after each new line sung by the leader and dance to the rhythm. To the accompaniment of the song, the leader dances with tripping steps to and fro while rattling the iron discs loosely fitted to the hilt of his sword by shaking it. The movement of the leader is the same in all the dances, only the movements of the other dancers vary.

Games and Amusements

The games played in the district of Subansiri are simple, inexpensive and vigorous, and they afford enjoyment, relaxation and recreation to the children as well as elderly people. Some of these indigenous games described in the book entitled 'Games of NEFA'¹ are as follows.

The Snake Game : The game, known in Subansiri as *Harram Pëya*, is interesting because of its uniqueness. 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,

¹ Marion D. Pugh, Games of NEFA, (Shillong, 1958).

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.

Hog's Rub : The game described as follows by J. H. Hutton in his book 'The Sema Nagas' appears to be very familiar in Subansiri :

On the border between the games and athletics is the amusement known as 'Hog's Rub', *awoli-sheshe*. One boy goes down on all fours, and two others, of more or less equal weight, lie on their backs, one on each side of him, and, putting their legs over his back, catch hold of each other's feet with their hands. The first boy raises himself and moves about with bent back, and the other two hanging on across it like paniers on a donkey.

Hunting : Mock hunting like 'mimic warfare' is a very popular form of recreation among many tribes of Arunachal Pradesh. In Subansiri, where mock hunts are known as *kirumandu*, the players divide into the 'hunters', the 'dogs', and one 'hunted'. The hunted lies hidden in its lair, usually a natural lair but, where this is lacking, and artificially constructed bush. The hunters go through a period of shouting and dancing, generally creating an atmosphere of great excitement and expectation, while the dogs (boys on all fours) sniff the ground for a trail. The dogs then lead the men in search of the game, and after a while the hunters with their dogs break up into several groups with the intention of surrounding the animal. From several directions the hunters gradually approach the animal in its lair, and then the dogs are upon him. The animal desperately fights back, but once the men get close enough to spear it, its end is inevitable. When the final death throes of the animal subside, the men hack it to pieces and jubilantly carry it home to the village amid tremendous shouts of triumph.

High Jump : In Subansiri this sport is known as *Incha Yodu*. Locally available materials, such as forked bamboo poles are used as posts, and any rough and ready method may be adopted to suspend a rope or a pole across the two posts for high jump.

Bobo : 'Bobo', which is sometimes also called Babo, a game familiar to the Apa Tanis, throughout their valley, is usually played only during the Mloko festival to prevent death through dysentery. In the Apa Tani villages each clan has its own Bobo equipment, which is fixed over the path of the clan concerned.

The Bobo equipment consists of a tall post approximately 30 feet high, a strong peg, and a cane rope. The post and peg are fixed in the ground at a distance of 40 to 50 feet apart. One end of a cane rope is tied to the top of the tall post, and the other end is secured to the peg. The whole is drawn taut, so that the rope has a springiness essential for good performance.

Bobo is generally performed by one person at a time, but he is helped by one or two others who steady the rope at appropriate moments. A player holds the rope with both hands and, with the aid of his legs and feet, climbs up towards the head of the tall post. When sufficiently high above the ground, the player sits on the rope and makes it bounce up and down. As the rope thus bobs up and down, the player tries to rotate round it. The more times at a stretch he can rotate, the greater the skill displayed. Experienced players can display many additional and varied acrobatic feats.

Stick-Wrestling : Locally known as *Niramin Sudo*, 'Stick-Wrestling' is a Nishi game played by two players at a time. The game requires a round stick roughly 7 cm in diameter and a little over one metre long.

Each player passes one end of the stick under his right armpit, and grasps the stick firmly with both hands. The object is to push the opponent backwards and drop him down if possible. The clever player times his pushes to coincide with the moment of least resistance of his opponent. In this way, the one who takes the offensive is bound to be the winner. When both players are equally strong and alert, the contest is extremely interesting to watch.

The Pig Hunt : The 'Pig Hunt', or *Sere Lasadu*, is lively game which the players enjoy immensely and which everyone enjoys watching.

The players divide into groups. One group consists of the 'hunters', and the other consists of the 'pigs'. The pigs are given time to scatter and then the hunters chase them, but the pigs do not give in easily, and fight back. An exciting game ensues as the pigs, not to be trapped, pretend to bite the hunters left and right. The game ends when all the pigs are caught and triumphantly carried off by the hunters.

The Crow Race : The game of 'Crow Race' or *Powa Padu* as it is locally known, is a simple amusement. The game may be played at any time. It is usually played by ten to twelve persons. The players must bend down, hold their ankles with their hands, and in this position jump forward as fast as they can go. The race begins from a line drawn across the field.

Three Hearth Stones : It is a rhythmical Apa Tani game locally known as *Lanko Bating* or *Chan chu*. The words '*Lanko Bating*' refer to the three hearth stones that hold the cooking pot. Any number of sets of three players each may play the game.

In each set, the three players, who pretend to be the three stones, stand facing inwards. The right hand of each player is raised and rests lightly on the right shoulder of the player next to him, and clasps the left hand of the third player. Thus the left hands clasp the right hands of the other players.

The players then move round taking side skip-like rhythmic steps, to the accompaniment of the chant 'chanchu, chanchu, lanko-bating' or to the accompaniment of the chant 'lailang-kobang, lailang-kobang'. The game continues until the players tire of it.

Lament of the Short-Tailed Bird : Locally known as *Parkhu*, it is a game wherein boys pretend to be birds whose abbreviated tails are a cause of lament. First the boys wrap their blankets round themselves and cleverly fold the bottom ends of the blankets to resemble shortened tails. Then the 'birds', standing one behind the other chant a tale of woe about their very short tails as they take a few running steps and flutter their tails with their hands, again take a few running steps and again flutter their tails and so it continues for a while.

Human See-Saw : *Muku Pitu* is a Miri game, a 'Human See-Saw', which is quite an enjoyable exercise. The players divide off into pairs, the members of any one pair being usually of similar weight and who stand back to back with arms linked together. First one partner lifts the other off the ground on to his own back where he is stretched out full length; then, as his feet touch the ground again this second boy in turn lifts the first boy off his feet. As they alternate in this position, first one up and then the other up, the continued repetition resembles a see-saw in action.

Deer Hunt by Jungle Red Dogs : This game is played by several players at a time. Some of them play the part of 'deer', and the others that of 'red dogs'. The deer are represented by players who run with bent backs, one hand on the ground and the other behind their backs. These are chased by the dogs, who run on all fours. The dogs try the deer by barking and by shrilly yapping at them. Eventually the dogs frighten the deer into a state of panic, when the dogs easily outwit and outrun the deer.

Breath and Balance Test Game : Locally known as a *Rikuri Mu*, it is quite an interesting and unique game of the Apa Tanis. Any number of players can participate in the game, but they must try their luck one at a time.

Two posts are fixed in the ground about $4\frac{1}{2}$ to 6 metres apart. The player locks his arm round one post, holds his nose with the same hand, goes round the post as many times as he can stand it, and then runs directly to the opposite post. The trick is to go round the post as many times as possible and yet retain a sufficient sense of balance to be able to reach the opposite post without swerving from the course. Players who in their eagerness to outdo the others go round the first post once too often, are likely to fall down with dizziness or go off their course completely, much to the merriment of the spectators.

Forfeit : It is an Apa Tani game wherein two culprits are punished for coming late to a feast.

A boy's game, Forfeit is best played by 10 to 14 players who hold hands to form a circle, facing inwards. Soon after the circle is formed, they break the circle and go spirally round the two boys at one end of the line, who are supposed to be the latecomers. The group weaves a very tight ball round the two, and then holding them by their waists, lifts them off their feet and drops them down repeatedly, thus punishing them for their shortcoming. The game ends when the group feels that the culprits have been given sufficient punishment.

CHAPTER IV

AGRICULTURE

Mode of Agriculture

Almost the entire working people in the district depend on agriculture. Out of the total district population of 99, 239 persons¹ the number of cultivators is 53,137. According to the 1971 Census, about 96 per cent of the 'workers' among the scheduled tribes of Subansiri, who are engaged in different occupations, are cultivators.

Evidently, agriculture is the mainstay of the people. It guides and determines their socio-economic relations and cultural life. Most of the traditional festivals of the tribal people of this district appear to have had their origin in agricultural practices and they are observed in different seasons corresponding to various phases of crop cultivation.

Shifting cultivation by slash-and-burn method called *jhum* is the type of agriculture practised by the tribes barring the Apa Tanis who are settled on permanent rice cultivation. *Jhum* 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 and environmental 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 tribes, such as the Nishis, Hill Miris and Tagins, have made use of virgin land in the forests and on the hill slopes for *jhuming* for generation after generation. Irrigated cultivation is practised by the Apa Tanis as also by a section of the Nishis of some villages adjoining the Apa Tani

¹ The 1971 Census figures quoted in this chapter exclude a population of 13,689 of a part of the Daporijo Sub-division which was included in the Siang District in that census.

valley. The Nishis and the Mikirs of a few villages in the plains along the foothills also practise methods of permanent cultivation. The Chakmas, who are resettled in the Doimukh area, are progressive farmers and they have adopted improved agricultural techniques.

As Dr. Haimendorf had observed, the agriculture practised by the Apa Tanis provides an interesting example of an elaborate and most efficient system of soil exploitation carried out within the confines of a valley lying at an altitude of about 1,524 metres and ringed by mountains rising to heights of over 2,438 metres. The methods of irrigated cultivation developed by the Apa Tanis are all the more remarkable. "Indeed, to come from the land of these cultivators of frequently shifted hill-fields, carved as it would seem haphazardly from the jungle and abandoned again after one or two years, into the Apa Tani valley with its purposeful order and evidence of the loving care bestowed on virtually every square yard of ground is like jumping thousands of years of man's development..."¹ Yet, it is paradoxical that the methods of tillage of the Apa Tanis remain primitive in that they depend entirely on human toil without the aid of a plough, and the tilling is done 'with iron hoes, digging-sticks and wooden batons', although they are highly specialized in other respects.

The Nishis by and large follow the methods of shifting cultivation. "Despite hunting, fishing, and livestock breeding, cultivation is the main activity of the Nishis. There is no dearth of land, but in so simple a culture, where ploughing and the wheel are unheard of, the tools for agricultural operations are few, and judged from the standards of developed communities, even crude. The methods are exacting, and the effort and energy spent are much greater in proportion to the outturn obtained ...

"Cultivation is a laborious process. The method followed is the usual slash-and-burn type of agriculture, ash serving as a fertilizer. When a plot has exhausted its fertility after two or three years, it is left fallow till it has recouped its fertility and is fit for use again ...

"The Nishis have only one crop during the year. The hilly terrain of the country makes irrigation very difficult except at places where people have taken to wet-rice cultivation by making terraces. However, the annual rainfall, varying from 80 to 100 inches or more is sufficient to keep the soil moist throughout the region. The raising of the bulk of the crops requires the agricultural operations to continue throughout the year. The various phases are determined ultimately by the weather and the season, but are timed with the appearance of particular types of birds and insects. Thus, with the coming of the *yaya* insect the Nishis think that it is high time to burn their jhums. When the *pako* bird sings, they sow maize.

¹ C. von Furer-Haimendorf, *The Apa Tanis and their Neighbours*, (London, 1962), pp. 13-14.

The chanting of the *chepe*, *pipi* and *pinching* is taken to be an indication that they should sow paddy in distant clearings...

"Sowing, which starts by the month of February in the nearer fields, continues up to April in distant plots. Normally in the *balus* only those crops are sown which ripen earlier. They secure people against food shortage during the period when the bulk of the crops are ripening in the *riktes*. While paddy and maize seeds are sown, light millets such as *tai* and *timi* (*Eleusine coracana*) are simply broadcast all over the field.

"The sowing is done by women who carry the seeds in a potshaped basket called *chungcha*. This is tied at the waist on the left side. The women hold the digging stick of bamboo in the right hand, and seeds in the left. They bend down and dig holes in succession. Simultaneously, they go on dropping two to three seeds of maize, or four to five seeds of paddy, in each hole. A large number of seeds are sown to allow for non-germination and damage by field-mice and cut-worms.

"Sowing is a tedious job since it requires women to remain bent for hours. Usually it is done by three or four women who, starting from one end of the field, proceed forward in a line. Each kind of seed is separately sown and the holes which receive it are spaced about a foot or so apart. After sowing, the holes are covered and the soil is made even with a broom tied to a bamboo stick. A typical Nishi field is always put to mixed cropping, a variety of crops growing together in close proximity. At several places vegetables and tubers may be seen climbing on decaying tree trunks and maize plants".¹

Land Tenures

The methods of agriculture practised by the people, depending on ecological conditions, are of three types, namely 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 three broad categories of ownership, such as individual, clan and village or community.

The ownership relates to right of use and management of land. The net cultivated area in the district is estimated at 41,283 hectares.²

In the Apa Tani valley, all cultivated land comprising the irrigated rice-fields, land suitable for dry crops, garden-plots etc is under individual ownership. Clan-land includes pastures, forest tracts, sites for public assembly inside the village and burial grounds. Village-land is limited to some grazing grounds and outlying forest tracts.

¹ B. K. Shukla, *The Daflas of the Subansiri Region*, (Shillong, 1965), pp. 36-40.

² Source: *State Report on Agricultural Census, 1976-77* by the Directorate of Agriculture and Rural Development, Government of Arunachal Pradesh.

"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 possession 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 Balipara 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 utilise 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".

The area under *jhum* in the district is approximately 22,000 hectares.

¹ According to the Jhum Land Regulation 1947, 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, pp. 263-264.

It should, however, be pointed out that no detailed survey of agricultural land has been done in Arunachal Pradesh except in some blocks, and no land ownership records are available. In the absence of land legislation, except for the Jhum Land Regulation, the land tenure system followed by different tribes is based on their different customary laws. The general pattern of land-ownership noticed is that while land under shifting cultivation is communal, those under permanent cultivation are usually private or individual.

The law of inheritance among the Apa Tanis provides for hereditary rights, whereby privately owned land under permanent cultivation is distributed more or less equally among the sons. Moreover, rich Apa Tanis may also give some of their land to their landless servants. But there is no system of renting land or share-cropping.

Among the other tribes practising shifting cultivation, the land is under communal ownership, and plots are allotted to families according to their needs and capacity to utilise them. However, private or family ownerships with hereditary rights on land occur in these tribal societies where members of community have taken to permanent cultivation.

Under the provisions of the Jhum Land Regulation of 1947, the customary rights of a village or a community to cultivate *jhum* land are respected. The ownership of individual or clan or village over land is recognised in respect of permanent cultivation, land attached to a dwelling house, pastures etc.

Land Reclamation and Utilisation

The agricultural area in the district can be broadly divided into three regions as follows :

- (i) the plain areas along the foothills where some form of permanent cultivation is practised,
- (ii) the Apa Tani valley where wet-rice cultivation is done, and
- (iii) the mountainous area spreading over the whole of the district where *jhum* or shifting cultivation is the only kind of tillage.

The area of land developed annually under permanent cultivation in the district is as follows :¹

1974-75	:	1124.77 hectares
1975-76	:	916.80 ..
1976-77	:	1293.72 ..
1977-78	:	550.71 ..
1978-79	:	770.90 ..

¹ Source: (a) Statistical Hand Books of Arunachal Pradesh, 1974-75 to 1978-79.
(b) Statistical Hand Book of Subansiri District, Arunachal Pradesh, 1976

Soil

The nature and varieties of soil vary with topography and climate of the district. Generally, soil is loose, sandy loam or sandy loam mixed with pebbles. In the region extending from the foothills up to approximately an altitude of 762 metres the soil varies from sandy to loamy, and the land is suitable for growing irrigated paddy, maize, millet, vegetables, mustard, ground-nut, and tropical and sub-tropical fruits. Rabi cereals can also be cultivated in this area.

In the upper region beyond the altitude of 762 metres the soil varies from loamy to clayey with a thick layer of humus at the top. Thick humus is found in areas which are covered with evergreen forests; whereas the areas with scanty vegetation are having only a few centimetres of top soil over pebbles or rocks.

In the Apa Tani valley humic black and reddish soil are found. The base of the valley consists of gneiss and schist overlaid on a wide area with almost horizontally disposed older alluvial deposits comprising partially consolidated beds of gravel, inter-bedded sand, grit, loam, clay and peat.

Crops and Main Crop Cultivation

Maize, rice, finger millet and fox-tail millet are the common and major crops grown in the district. Other crops are wheat, potato, mustard, pulses, vegetables etc.

The estimated irrigated and unirrigated area under different crops is shown at appendix II to this chapter.

The following is a brief account of cultivation of some of the crops in the district:

MAIZE

Maize is one of the most important crops cultivated by the people, particularly by the Nishis and the Hill Miris. It is grown along with other crops. Seeds are sown by dibbling, two to three seeds being placed in each hole at a distance of 0.60 to 1.20 metres from plant to plant. Sowing of seeds starts in April and continues till late May and June. Maize is harvested during the months from July to October-November. Maize for silage is sown in July and August, and they are collected and gathered in one place for husking when the cobs are mellowed. It is usually the women's task to remove the husk from the cobs. The cobs, when gathered, are allowed to dry for sometime on a raised bamboo platform. The dried up grains are separated from the cobs by means

of beating with wooden sticks. Put into baskets the grains are then stored in granaries.

RICE

Rice, the principal crop, is cultivated in a wide area. Rice is the staple food of the Apa Tanis as well as the Nishis. The Apa Tani system of rice cultivation is, as already stated, based on planned irrigation. Preparation of soil for cultivation starts from the end of March and continues upto May, while transplantation is done during the months from mid-April to mid-June. The Apa Tanis have their own system of manuring, and for that purpose the soil is taken every year from one corner of the field to the other and spread out evenly. This is done by dragging wooden plates tied with cane over the field. Rice fields are kept wet and the soil is worked into a thick paste for transplantation of paddy. Paddy seedlings are raised in wet plots and after germination the water is drained. As a rule, seedlings are planted each separately. Harvesting begins from the end of November.

The Nishis do not transplant paddy seedlings. They sow the seeds by digging holes with bamboo sticks and drop four or five seeds in each hole. Sowing is the work of women who carry the seeds in pot-shaped baskets called *chungla*, and it begins in the month of February and continues through March and April. Weeding is done twice or thrice in the phase when the seeds sprout and reach a height of about 12 centimetres. Knives or even bare hands are used for reaping.

The Mikirs, who live in the areas adjacent to the border of Assam, grow wet rice (*sali*). The river Dikrang and its tributaries are tapped for irrigation. Rice is cultivated by them in well-irrigated fields.

FINGER MILLET

Finger Millet is grown all over the district. In the Apa Tani valley millet seedlings are transplanted in a single row in the rice fields. In the *jhum* fields, finger millet is sown broadcast.

FOX-TAIL MILLET

Fox-tail millet is one of the main food crops of the Nishis as well as the Hill Miris, who take much care for its cultivation. It is cultivated only in the *jhum* fields. The Nishis grow a variety of crops in their corn fields. Sowing of fox-tail millet seeds is done by broadcasting, which

continues from February to May. After the seeds are sown the soil is scratched lightly to cover the seeds.

Weeding is done twice, first when the plants reach a height of about 17 centimetres, and second at the time of flowering. The tools for weeding are digging sticks and a weeder made of bamboo called *tabupe*.

The crop takes about four to five months to mature before harvesting. When the crop ripens the ears are collected by women who cut the stalks with small knives and collect them in a basket.

YAM

Yam is cultivated from January to June in the *jhum* fields. The plants are supported with poles when they grow. Yam is grown along with other crops and harvested any time according to needs. After harvesting the tops of tubers are preserved for replantation in the following season and the lower parts are used as food.

SWEET POTATO

Sweet potato is one of the major subsidiary crops. Stem cuttings are planted in suitable plots during the summer for raising this crop. Sweet potato is not cultivated together with other crops as its yield tends to decrease if grown in a field having mixed crops.

ARUM

Arum is not generally grown mixed with any other crops. It is planted during the months of April and May. The crop takes nearly four months to mature. The arum field, after plantation of seeds, is weeded once or twice but earthing is done at the growing stage of the plants. The crop is harvested when leaves are dried up.

GARDEN CROPS

Vegetables are generally grown by the people in the *jhum* fields. Vegetable gardening taken up by some farmers under the encouragement and guidance of the Agriculture Department is a new development. In these gardens are grown a variety of vegetables, such as gourd, pumpkin, melon, brinjal, chillis, potato, ginger, sesamum, cabbage etc.

The area and production of crops in the district during the year 1978-79 are shown in the following table:¹

Item	Area (hectare)	Production (ton)
Paddy	27715	38056
Maize	4650	6290
Millets	2150	1980
Potato	61	544
Mustard	200	200
Wheat	18	104
Pulses	200	160
Sweet Potato	5	6
Ginger	33	24
Tobacco	105	11
Sugarcane (Molasses)	2	8
Sesamum	50	60
Turmeric	1	2
Chilli	26	15
Vegetables	625	3156

Crop Seasons

The agricultural calendar of the Nishis is appended to this chapter.

¹ Source: Statistical Hand Book of Arunachal Pradesh, 1978-79.

It may be noted that "The Nishi agricultural year which consists of 12 months, each month roughly of 30 days, has two main season. Summer or Duri Polu, and Winter or Dra Polu. Each season has six months and is indicated by the flowering of different plants. The annual cycle of work describes the agricultural and other economic activities month by month".¹

Agricultural Tools and Implements

Until recently, the agricultural tools and implements used by the farmers were all simple and crude, such as digging sticks made of bamboo or jungle wood, weeding tools also of bamboo called *tabupe* etc. *Dao* and a type of hoe were the only iron implements used by them.

The farmers are now taking to the improved tools and implements. Various types of these implements distributed to them in this district till the month of March 1979 are as follows:²

Type of Implements	Number
1. Felling-Axe	1130
2. Pick-Axe	145
3. Jumper	985
4. Round Shovel	382
5. Square Shovel	318
6. Spade	4505
7. Crowbar	200
8. <i>Khurpi</i> (hoe)	500
9. <i>Dao</i>	100
10. Sickle	150
11. Sugarcane Crusher	1
12. Weight and Scale	6
Total	8422

The old all-purpose *dao* is still in extensive use, especially for clearance of jungle for *jhum* cultivation. A small type of *dao* is used for weeding and hoeing in millet and rice fields. Shovel serves as a tool for preparation of land as well as jungle clearance and hoe for digging purposes. Sickles are used for harvesting and grass-cutting.

In order to introduce improved methods of cultivation for more food production, the Government has also distributed some modern machines for

¹ B. K. Shukla, *The Daffas of the Subansiri Region*, (Shillong, 1965), p. 89.

² Source: Statistical Hand Book of Arunachal Pradesh, 1978-79.

agricultural farming as indicated in the following table relating to the month of March 1978 :¹

Type of Machines	Number
1. Tractor — 351 HP	5
2. Tractor — 35 HP	1
3. Power Tiller — 7.5 HP	4
4. Pumping Set — 5 Hp	10
5. Power Sprayer-cum-Duster — 1.2 HP	21
Total	41

Seeds and Manure

It is customary for the farmers to preserve seeds for the next crop season and also for subsequent years. Different kinds of seeds are kept for different uses. The seeds of irrigated paddy are different from those of unirrigated variety. The irrigated paddy seeds, in the Apa Tani valley, are of three varieties, viz. early, medium and late, whereas among the Nishis and Hill Miris these are not so. The dry land paddy seeds cultivated in *jhum* fields are a mixture of different seeds. It is interesting to note that the Apa Tanis are very keen about their own seeds which, they believe, have evolved through generations and are peculiar to the conditions obtaining in their country. They, therefore, do not normally accept any new variety of paddy seeds unless they are convinced of its efficacy.

Cultivation of improved and high-yielding varieties of seeds and use of manures are some of the important aspects of the development schemes being implemented in the agricultural sector. Some of the varieties of seeds supplied to the farmers from time to time are as follows :

- (1) sali paddy.
- (2) ahu paddy.
- (3) Shillong variety of maize.
- (4) hybrid variety of maize.
- (5) hybrid variety of millet.
- (6) gram.
- (7) groundnut.
- (8) pea.
- (9) bean.
- (10) potato, and
- (11) other vegetables.

¹ Source: Statistical Hand Book of Arunachal Pradesh, 1978-79.

Introduction of high-yielding varieties of paddy and maize seeds into agricultural fields through demonstrations and adaptive trials has been successful in some areas. In the following table is shown the area brought annually under improved and high-yielding varieties of seeds in the district:¹

Year	Area brought under improved seeds (in hectare)	Area brought under high-yielding varieties of seeds (in hectare)
1973-74	120.00	46.00
1974-75	77.30	50.20
1975-76	58.40	75.40
1976-77	102.00	440.00
1977-78	170.88	193.64
1978-79	97.51	295.87

The people have their own indigenous methods of manuring their fields, although formerly, systematic use of manure as soil fertilising agent was not quite known to them. Jhum cultivation is done by slash-and-burn method. Jungles burnt for this purpose form a layer of ash on the top-soil on which seeds are dibbled. The soil mixed with the ash serves as manure. The jhum fields are, however, left fallow for a number of years for recuperation of fertility by natural processes. In the Apa Tani valley, paddy stalks are decomposed under irrigated water which is allowed to stand in the fields for several days. At the time of puddling, these decomposed stalks are mixed with the soil to act as fertiliser. Paddy husks are also scattered over the rice fields for manuring purposes. In the millet fields weeds, gathered in heaps, are covered with earth for formation of compost. Moreover, weeds growing on hill slopes around the rice fields are burnt every year before the paddy is transplanted. As a result, during the rains the ashes are carried away to the rice fields. The fields are thus fertilised by mineral ash especially potash. The area brought under green manure in the district during 1976-77 is 80 hectares.

Importance of the use of manure and maintenance of compost pits are stressed in the programmes for agricultural development. Chemical fertilisers and organic manures are supplied to the farms. Demonstration of utilisation of manures in the fields is usually carried out in the Community Development Blocks, and the local farmers are also encouraged to use them.

¹ Source: Statistical Hand Book of Arunachal Pradesh, 1973-74 to 1978-79.

The area brought under fertilisers is as follows :¹

Year		Area (in hectare)
1973-74	...	129.00
1974-75	...	20.10
1975-76	...	34.80
1976-77	...	26.00
1977-78	...	115.06

Horticulture

Arunachal Pradesh offers ideal climatic conditions and suitable land at the higher regions for the temperate fruits, citrus and other tropical and sub-tropical fruits at the lower regions. Special emphasis has, therefore, been laid on the development of horticulture through execution of the following schemes as envisaged in the Fifth Plan :

- (1) Supply of fruit grafts/plants of improved varieties at subsidised cost to the cultivators ;
- (2) Opening of People's Horticultural Gardens on subsidy ;
- (3) Provision of horticultural hand-tools on subsidy ;
- (4) Demonstrations on planting and maintenance of fruit trees, imparting of technical know-how etc., and
- (5) Raising of nurseries for fruit plants.

A variety of temperate fruit plants procured in thousands from Himachal Pradesh and Uttar Pradesh and supplied to the local cultivators would, it is hoped, do a great deal to promote horticulture in this area. These varieties consist of delicious groups along with other pollinizer, such as royal delicious, golden delicious (pollinizer), red delicious, richared, jonathan (pollinizer), red golden etc. During the year 1978-79 there were one horticultural nursery at Yazali and 212 people's horticultural gardens in the district. Orange, apple, pear, pineapple, guava and citrus fruits are produced in the nursery and gardens. About 55,700 grafts of apple have been distributed till the year 1978-79.

Horticulture has enough possibilities for development in the district, and the people have taken it up enthusiastically. The apple, in particular, has caught the imagination of farmers for its economic importance, and the Apa Tanis, more than the others, are coming forward for apple plantation on a large scale.

¹ Source: Statistical Hand Book of Arunachal Pradesh, 1973-74 to 1977-78.

The area under different fruit plantations in the district is:

apple	—	206 hectares
nuts, pome and other temperate fruits	—	120 ..
tropical and sub-tropical fruits	—	221 ..

Agricultural Crop Diseases and Pests

Some of the common diseases that affect the crops are as follows:

Crop	Diseases
Paddy	(1) Paddy Blast (2) Bacterial Blight
Potato	Late Blight
Cucurbit	Powdery Mildew
Peas	(1) Powdery Mildew (2) Brown Rust
Cabbage and Cauliflower	Root-Knot

The main insect pests that attack the crops are grasshoppers, caterpillars and gandhi-bugs. In the vegetable gardens, the pests commonly found on crops are hairy caterpillars, mustard saw-fly, cabbage butterfly, cut and army worms, root-stem-shoot borers. Rats are also a great menace to crops. They appear in large numbers during the bamboo flowering season and cause serious damages to crops. Bamboo traps of different kinds are generally used by the people to counteract the rat menace.

The plant protection service, rendered free to the cultivators by the Government, includes application of various insecticides and fungicides, spraying and dusting with chemicals and other measures. Plant protection equipments, such as hand-operated dusters and sprayers are used.

The area brought under plant protection in the district is as follows:¹

1973-74	135.00 hectares
1974-75	572.60 -do-
1975-76	560.00 -do-
1976-77	350.00 -do-
1977-78	315.14 -do-

¹ Source: (a) Statistical Hand Book of Subansiri District, Arunachal Pradesh, 1975.
(b) Statistical Hand Books of Arunachal Pradesh, 1973-74 to 1977-78.

Animal Husbandry and Veterinary

Livestock plays a vital rôle in the socio-economic life of the people. Some of the most important domesticated animals of the people of this district are mithuns, pigs and cows, which are reared for food as well as social and religious purposes. Mithuns are usually allowed to roam freely in nearby jungles, but they are kept under watch. Sometimes, the cattle including mithuns and cows are kept confined within fenced pastures and moved to other grazing grounds when fodder is exhausted. The pigs, in numbers, are found to wander about house premises. They are kept in pigsty constructed generally under the floor of the house.

Formerly, cattle was not reared by the local people for milk. With the development of animal husbandry in the district the people have now gradually come to know and practise the art of milking. In 1957, an upgrading centre was opened at Daporijo with a bull and 15 local cows. By 1961, another such centre was established at Ziro with cross-bred cattle of foreign stock. Gradually, rural dairies had sprung up around the administrative centres. Steps were also taken to extend financial assistance to the villagers desirous of opening rural dairies. Yak bulls were supplied for multiplication of yaks and upgrading of local cows. Mithun bulls were also distributed to the villagers on subsidy to increase the number of cross-bred progeny of these animals. There are (as on March 31, 1979) three cattle and dairy farms in the district, which are situated at Soro near Ziro, Daporijo and Nirjuli near Itanagar, and eight cattle upgrading centres. The farm at Nirjuli meets the requirement of milk for the entire capital township of Itanagar. There are three fodder farms as well. The district with its large stretches of grassland offers enough scope for further development of animal husbandry. The development programmes taken up by the Government under the Plans are broadly as follows:

- | | | |
|---------------------------------|---|--|
| (1) Cattle Development | : | The programme includes the following schemes : |
| | | <ul style="list-style-type: none"> (a) Expansion of Central Livestock Farm at Nirjuli (b) Opening of Cattle Upgrading Centres (c) Strengthening of District Live-stock Farm |
| (2) Feed and Fodder Development | : | The programme includes the following schemes : |

- (a) Expansion of Central Fodder Farm at Nirjuli
 - (b) Strengthening of District Fodder Farm
 - (c) Development of Pastures
- (3) Poultry Development : The programme includes the following schemes :
- (a) Strengthening of Central Poultry Farm
 - (b) Establishment of Poultry Demonstration Farm
 - (c) Distribution of poultry birds
- (4) Piggery Development : The programme includes the following schemes :
- (a) Opening of Pig Demonstration Farms
 - (b) Distribution of crossbred pigs
 - (c) Establishment of a Central Pig Farm at Nirjuli
- (5) Animal Health and Disease Control : The programme includes the following schemes :
- (a) Establishment of more Veterinary Dispensaries
 - (b) Setting up of more Veterinary Aid Centres
 - (c) Opening of a Central Vaccine Depot at Nirjuli
- (6) Education and Training : The programme pertains to the following :
- (a) Award of stipends for B.V.Sc. and allied courses
 - (b) Conducted tours
 - (c) Farmers and Service Training
 - (d) Livestock show
- (7) Sheep, Goat and Wool Development : The programme includes a scheme for distribution of sheep and goat to farmers at subsidised rates

- (8) Dairy Development and Milk Supply : The programme includes the following schemes :
- (a) Opening of Dairy Demonstration Farms on grant of subsidy to progressive farmers
 - (b) Distribution of milch cattle

An inventory of livestock and poultry in the district owned during the year 1978-79 is as follows :¹

CATTLE AND BUFFALOES

Livestock	Males over 3 years			Females over 3 years			Young stock	Grand total (3+6+7)
	Working	Others	Total (1+2)	In Working/milk	Others	Total (4+5)		
0	1	2	3	4	5	6	7	8
Cattle	3,439	1,284	4,723	1,444	2,297	3,741	3,165	11,629
Buffaloes	37	—	37	11	21	32	10	79

OTHER LIVESTOCK AND POULTRY

Sheep		Goat		Horses & Ponies	Mules	Donkeys	Pigs		Poultry
Under 1 year	1 year & above	Under 1 year	1 year & above				Under 6 months	6 months & above	
1	2	3	4	5	6	7	8	9	10
2	51	8,529	12,959	21	3	—	29,804	32,689	1,54,268

Among all the livestock in the district the number of pigs is the highest. Indeed, pigs are the most common domestic animal of the people. Pigs can rapidly multiply their number. A sow may deliver nine or more piglets at a time. Pigs are no doubt a valuable asset of the people, but the method of rearing pigs in the villages is very crude. They are kept in unhygienic conditions and in every house they do the job of scavengers. Better type of cross-bred pigs are distributed to the people to upgrade their stock.

¹ Source: Statistical Hand Book of Arunachal Pradesh, 1978-79.

Next, in importance, to cattle and pigs are sheep and goats. The sheep and goat rearing in the district has enough possibilities for development and in appreciation of this fact a sheep breeding centre was opened in the district. There is also a goat upgrading-cum-multiplication centre at Yazali. This centre has a good number of Jamunapuri male and female goats. Another such upgrading-cum-multiplication centre has been opened at Ziro.

Poultry birds, mainly fowls, are kept in almost every house. To improve the strain of local birds, poultry upgrading centres have been opened at various places of the district.

Under the Community Development Programme executed in the district upto March 1976, eight cattle upgrading centres, five dairy units, one piggery unit and nineteen poultry farms have been established.

Animal Diseases and Veterinary Dispensaries

The diseases which are common to the livestock and poultry are rinderpest, foot and mouth, swine-fever, ranikhet, fowl pox etc. In the year 1978-79 the district had ten veterinary dispensaries and ten veterinary aid centres stationed at various places. There was also one mobile veterinary dispensary.

The number of animals and birds treated in the district is as follows:¹

Year	General Case	Innoculation/ Vaccination	Castration
1973-74	2,730	—	130
1974-75	16,400	7,200	240
1975-76	11,149	326	6,097
1976-77	16,336	5,647	655
1977-78	9,509	10,822	2,118

Fishery

Fish is an important item of food of the people. Fishing is not merely a hobby or sport, but a subsidiary occupation of the villagers. It is a means of living. It is also connected with religious activities involving taboos. According to the belief of the people, the success or failure of ceremonial fishing depends on good or bad harvest. Scientific pisciculture is, however, a recent development in this area. The fishery development programme was initiated in Arunachal Pradesh in 1958-59 on a very modest scale. With the

¹ Source: Statistical Hand Books of Arunachal Pradesh, 1973-74, to 1977-78.

passage of time and expansion of the programme, pisciculture has taken a firm root in the territory and the people are now seeking more Government assistance for this purpose.

The programme for development of pisciculture includes the following schemes :

- (1) Intensive Fish Farming,
- (2) Expansion and Improvement of the Existing Fish Seed Farms,
- (3) Paddy-cum-Fish Culture,
- (4) Reclamation of Swamps and Natural Lakes,
- (5) Trout Culture,
- (6) Supply of Fishing Gear and Tackles on 50% subsidy,
- (7) Marketing, and
- (8) Education and Training.

Under the programme, one fish seed farm at Daporijo has been improved, and another such farm at Gumto in the Doimukh area is to be expanded. Paddy-cum-fish culture has shown remarkable success in the Apa Tani valley, where the enterprising fish-farmers have taken it up as a profitable economic activity. The area under this culture is steadily expanding. The Apa Tanis are annually harvesting 125 kg of fish per hectare from their paddy fields as a subsidiary crop, and supplying about 10 to 15 thousand fingerlings of common carps. There is still more demand for fish seed from the farmers for expansion of this programme. About 50 hectares of irrigated land is reported to have been brought under paddy-cum-fish culture. The district has some natural lakes and swamps at different altitudes. One such lake in the Tale valley was surveyed for reclamation and development for fishery. Steps have been taken to supply nylon twine nets and other gears at subsidised rates to the enterprising fish farmers. Thousands of fingerlings are distributed every year.

The district has three government fish farms situated at Daporijo, Koloriang and Gumto. The farm at Daporijo is a demonstration fish farm. Besides these, there are some people fish farms. About 630 village fish ponds were dug and an area of 85 hectares of land was brought under pisciculture in the district till the month of March 1979.

FORESTRY

Forest Area

The total forest area in the district of Subansiri is estimated at about 10,201 sq. km and it contains a variety of valuable species of trees, plants and orchids. The vegetation varies from tropical evergreen to alpine.

The forest area as on March 31, 1979 is as follows:

(1) Reserved Forests	—	1643.83 sq. km
(2) Unclass State Forests	—	8556.77 ..
Total —		10,200.60 sq. km

Forest Divisions

With the bifurcation of the erstwhile Subansiri Forest Division in March 1970, two new territorial forest divisions, namely Banderdewa Forest Division and Hapoli Forest Division, have been created in the district. Besides these, there is one functional division called Silviculture Forest Division with headquarters at Banderdewa and an Wild Life Division at Itanagar. The headquarters of the Conservator of Forests, Western Circle comprising the forest divisions in this district are at Banderdewa.

Importance of Forestry in the Economy of the District

The economic importance of forestry lies in the fact that forest is the only appreciable source of revenue in the district as in other districts of Arunachal Pradesh. Although the forest revenue of this district is much less than that of the Lohit and Tirap Districts, the forest resources of Subansiri are rich enough to earn more revenue and feed a number of industries. There is a private forest-based industry, a saw mill namely NEFA Udyog at Banderdewa.

Forest Produce and its Value

Forest produces are classified into two categories—major and minor. The major produce consists mainly of timber and allied items like firewood, posts, poles etc. About 70 per cent of the forest revenue is earned from the major produces, which in 1974-75 amounted to Rs. 4,90,000.00.

The minor forest produces are cane, bamboo, boulders, shingles, gravels, sand, soil, *dhuna*, thatch, elephants, charcoal, agarwood, black pepper, various kinds of leaves etc. Nearly 30 per cent of the total forest revenue is derived from the minor forest produces.

From the commercial point of view the most important forest species are hollock (*terminalia myriocarpa*), jutule (*altingia excelsa*), bähra (*terminalia belerica*), amari (*amoora wallichie*), sam (*artocarpus chaplasi*), chapa (*michelia and mangolia species*) and blue pine (*pinus wallichiana*).

Sleepers and logs extracted from timber are supplied to the Indian

Railways, Defence and Engineering Departments. Supply of sleepers to railways is shown in the following table:¹

(In '000 Nos.)

Year	Broad Gauge	Metre Gauge	Narrow Gauge	Total
1	2	3	4	5
1973-74	13.41	12.84	—	26.25
1974-75	18.95	26.56	—	45.51
1975-76	11.91	12.58	—	24.49
1976-77	5.61	6.44	—	12.05
1977-78	1.26	5.14	—	6.40
1978-79	4.83	8.50	—	13.33

Forest Revenue

The total amount of forest revenue collected from the district from 1973-74 to 1978-79 is Rs. 52.364 lakhs. A detailed account of revenue is given in Chapter IX.

Measures to Secure Scientific Exploitation and Development of Forests

In order to secure scientific exploitation of forests the Working Plan Survey has been introduced in the district since 1957-58. Resource Survey coverage was also extended to the district in 1971-72. The forests are felled according to the Working Plan Survey. The general system of management pertains to selection with compensatory regeneration in accessible areas. Timber coupes are disposed of according to 'outright sale system'. Trees occurring near road sides, new alignments, jhum cultivation areas, plantation sites etc. are generally cleared on 'permit system', that is on royalty-cum-monopoly fees basis. Bamboos, shingles, sand, gravels, leaves, firewood, *ekra* etc. are sold out to the purchasers according to permit system. Sale of agarwood, cane and elephants is arranged according to mohal system.

The silvicultural systems pertain to (a) selection and (b) clear felling followed by artificial plantation.

Effective measures have been taken by the Forest Department towards development of forestry on scientific lines through execution of various schemes under the Plans, such as artificial plantation, aided natural regeneration, construction and development of forest roads, afforestation, raising of valuable plantations, forest research etc.

¹ Source: (a) Statistical Hand Book of Subansiri District, Arunachal Pradesh, 1978.
(b) Statistical Hand Books of Arunachal Pradesh, 1977-78 and 1978-79.

APPENDIX I

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ESTIMATED AREA UNDER DIFFERENT LAND USE IN SUBANSIRI DISTRICT

Sl. No.	Size Class (in hectare)	Total holdings		New area sown	Area under current fallow	Net cultivated area	Other uncultivated land excluding fallow land	Fallow land other than current fallow	Culturable waste land	Total uncultivated area	Land not available for cultivation	
		Number	Area									
		2	3	4	5	6	7	8	9	10	11	12
1.	Below 0.5	261	94.252	78.672	—	78.672	2.461	3.505	2.665	8.631	6.949	
2.	0.5- 1.0	972	740.888	550.813	64.630	615.443	12.566	38.326	55.152	106.044	19.401	
3.	1.0- 2.0	4053	5679.172	3710.679	381.778	4092.457	175.079	287.133	920.665	1382.877	203.838	
4.	2.0- 3.0	3292	7890.373	3846.296	620.507	4466.803	272.680	822.089	1762.294	2857.063	566.507	
5.	3.0- 4.0	2315	7882.437	3516.964	745.591	4262.555	315.453	1189.432	1509.713	3014.598	605.284	
6.	4.0- 5.0	1538	6712.651	2926.934	700.740	3627.674	303.964	1089.115	1076.233	2469.312	615.665	
7.	5.0- 7.5	1937	11624.060	4111.568	1371.055	5482.623	602.387	1915.648	2190.035	4708.070	1433.367	
8.	7.5-10.0	586	4961.429	1448.571	458.934	1907.505	247.661	1143.255	1180.857	2571.773	482.151	
9.	10.0-20.0	2672	38396.771	6602.799	3233.580	9836.379	5410.566	8374.009	12003.710	25788.285	2772.107	
10.	20.0-30.0	1134	26251.580	3039.130	2321.770	5360.900	4714.840	6391.660	7862.040	18968.540	1922.140	
11.	30.0-40.0	243	8149.500	656.100	481.500	1137.600	1981.800	2689.200	1822.500	6493.500	518.400	
12.	40.0-50.0	90	3978.000	225.900	189.000	414.900	1052.100	1370.700	792.000	3214.800	348.300	
13.	50.0 and above	—	—	—	—	—	—	—	—	—	—	
Total All Size Classes		19093	122361.113	30714.426	10569.085	41283.511	15091.557	25314.072	31177.864	71583.493	9494.109	

Source :—State Report on Agricultural Census, 1976-77.

APPENDIX II

ESTIMATED IRRIGATED AND UNIRRIGATED AREA UNDER DIFFERENT CROPS IN SUBANSIRI DISTRICT

Sl. No.	Size Class (in hectare)	Total Holdings		Gross Cropped Area			Rice				Maize			
		Number	Area	Irrigated	Unirrigated	Total	Number of holdings	Irrigated	Unirrigated	Total	Number of holdings	Irrigated	Unirrigated	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Below 0.5	261	94.252	7.056	71.616	78.672	252	7.056	41.509	48.565	132	—	10.576	10.576
2.	0.5- 1.0	972	740.888	90.533	463.280	553.813	872	90.533	220.433	310.966	606	—	71.918	71.918
3.	1.0- 2.0	4053	5679.172	702.282	3176.165	3878.447	4022	702.282	1440.022	2142.304	3408	—	719.709	719.709
4.	2.0- 3.0	3292	7890.373	736.128	3131.084	3867.212	3281	736.128	1632.788	2368.916	2947	—	485.976	485.976
5.	3.0- 4.0	2315	7882.437	675.029	2844.838	3519.867	2314	675.029	1486.353	2161.382	2099	—	395.216	395.216
6.	4.0- 5.0	1538	6712.651	534.191	2446.195	2980.386	1519	534.191	1176.491	1710.682	1331	—	329.619	329.619
7.	5.0- 7.0	1937	11624.060	765.117	3374.872	4139.989	1867	765.117	1737.109	2502.226	1715	—	470.628	470.628
8.	7.5-10.0	586	4961.429	198.683	1253.817	1452.500	549	198.683	652.236	850.919	545	—	204.102	204.102
9.	10.0-20.0	2672	38396.771	802.413	5800.386	6602.799	2644	802.413	2339.784	3142.197	2353	—	1033.837	1033.837
10.	20.0-30.0	1134	26251.580	299.700	2739.430	3039.130	1134	299.700	1123.230	142.930	1125	—	558.610	558.610
11.	30.0-40.0	243	8149.500	71.100	585.000	656.100	243	71.100	197.100	268.200	234	—	121.950	121.950
12.	40.0-50.0	90	3978.000	18.900	207.000	225.900	90	18.900	91.800	110.700	90	—	41.400	41.400
13.	50.0 & above	—	—	—	—	—	—	—	—	—	—	—	—	—
Total		19093	12361.113	4901.132	26093.683	30994.815	18787	4901.132	12138.855	17039.987	16585	—	4443.541	4443.541

AGRICULTURE

Sl. No.	Millet				Vegetables				Fruits				Other Food Crops			
	No. of holdings	Irrigated	Unirrigated	Total	Number of holdings	Irrigated	Unirrigated	Total	Number of holdings	Irrigated	Unirrigated	Total	Number of holdings	Irrigated	Unirrigated	Total
(1)	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1	182	—	16.583	16.583	10	—	0.384	0.384	—	—	—	—	—	—	—	—
2	836	—	120.651	120.651	120	—	9.399	9.399	—	—	—	—	51	—	3.822	3.822
3	3744	—	753.164	753.164	1166	—	48.124	48.124	71	—	22.094	22.094	362	—	35.319	35.319
4	3077	—	673.710	673.710	545	—	52.994	52.994	92	—	16.716	16.716	1033	—	189.236	189.236
5	1934	—	502.834	502.834	663	—	80.039	80.039	101	—	23.293	23.293	658	—	254.376	254.376
6	1333	—	397.167	397.167	352	—	44.392	44.392	101	—	46.507	46.507	524	—	375.772	375.772
7	1759	—	596.758	596.758	357	—	49.590	49.590	132	—	40.820	40.820	565	—	426.697	426.697
8	567	—	209.029	209.029	80	—	15.847	15.847	49	—	29.191	29.191	116	—	90.417	90.417
9	2634	—	1034.427	1034.427	99	—	19.432	19.432	69	—	27.764	27.764	1136	—	1290.838	1290.838
10	1116	—	579.470	579.470	42	—	1.800	1.800	—	—	—	—	558	—	463.090	463.090
11	243	—	144.000	144.000	27	—	0.990	0.990	—	—	—	—	198	—	120.240	120.240
12	90	—	61.650	61.650	27	—	1.890	1.890	—	—	—	—	72	—	6.030	6.030
13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	17515	—	5088.843	5088.843	3491	—	324.881	324.881	615	—	206.385	206.385	5273	—	3255.837	3255.837

Sl. No.	Wheat				Pulses				Sesamum				Spices and Condiments			
	No. of holdings	Irrigated	Unirrigated	Total	No. of holdings	Irrigated	Unirrigated	Total	No. of holdings	Irrigated	Unirrigated	Total	No. of holdings	Irrigated	Unirrigated	Total
(1)	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
1	9	—	1.929	1.929	10	—	0.410	0.410	10	—	0.225	0.225	—	—	—	—
2	—	—	—	—	92	—	6.654	6.654	72	—	7.387	7.387	—	—	—	—
3	—	—	—	—	224	—	9.221	9.221	123	—	6.842	6.842	132	—	3.200	3.200
4	10	—	6.264	6.264	204	—	12.583	12.583	33	—	2.735	2.735	264	—	6.278	6.278
5	10	—	2.088	2.088	406	—	33.133	33.133	63	—	6.261	6.261	345	—	14.051	14.051
6	29	—	17.092	17.092	142	—	14.601	14.601	43	—	5.446	5.446	71	—	3.403	3.403
7	68	—	33.131	33.131	51	—	5.130	5.130	43	—	9.797	9.797	20	—	1.036	1.036
8	71	—	29.163	29.163	10	—	1.026	1.026	33	—	4.014	4.014	—	—	—	—
9	—	—	—	—	121	—	48.977	48.977	33	—	4.340	4.340	10	—	0.987	0.987
10	—	—	—	—	153	—	12.510	12.510	—	—	—	—	—	—	—	—
11	—	—	—	—	36	—	0.450	0.450	—	—	—	—	—	—	—	—
12	—	—	—	—	63	—	2.790	2.790	—	—	—	—	—	—	—	—
13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	197	—	89.667	89.667	1512	—	147.485	147.485	453	—	47.047	47.047	842	—	28.955	28.955

AGRICULTURE

Sl. No.	Jute				Other Non-Food Crops				Sugarcane				Mustard			
	No. of holdings	Irrigated	Unirrigated	Total	No. of holdings	Irrigated	Unirrigated	Total	No. of holdings	Irrigated	Unirrigated	Total	No. of holdings	Irrigated	Unirrigated	Total
(1)	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2	—	—	—	—	125	—	23.616	23.616	—	—	—	—	—	—	—	—
3	—	—	—	—	499	—	138.470	138.470	—	—	—	—	—	—	—	—
4	—	—	—	—	96	—	40.320	40.320	—	—	—	—	31	—	11.484	11.484
5	—	—	—	—	19	—	13.786	13.786	—	—	—	—	41	—	33.408	33.408
6	10	—	0.835	0.835	—	—	—	—	10	—	1.462	1.462	31	—	22.968	22.968
7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	—	—	—	—	—	—	—	—	—	—	—	—	10	—	18.792	18.792
9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	10	—	0.835	0.835	739	—	216.192	216.192	10	—	1.462	1.462	113	—	86.652	86.652

Sl. No.	Wheat				Pulses				Sesamum				Spices and Condiments			
	No. of holdings	Irrigated	Unirrigated	Total	No. of holdings	Irrigated	Unirrigated	Total	No. of holdings	Irrigated	Unirrigated	Total	No. of holdings	Irrigated	Unirrigated	Total
(1)	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
1	9	—	1.929	1.929	10	—	0.410	0.410	10	—	0.225	0.225	—	—	—	—
2	—	—	—	—	92	—	6.654	6.654	72	—	7.387	7.387	—	—	—	—
3	—	—	—	—	224	—	9.221	9.221	123	—	6.842	6.842	132	—	3.200	3.200
4	10	—	6.264	6.264	204	—	12.583	12.583	33	—	2.735	2.735	264	—	6.278	6.278
5	10	—	2.088	2.088	406	—	33.133	33.133	63	—	6.261	6.261	345	—	14.051	14.051
6	29	—	17.092	17.092	142	—	14.601	14.601	43	—	5.446	5.446	71	—	3.403	3.403
7	68	—	33.131	33.131	51	—	5.130	5.130	43	—	9.797	9.797	20	—	1.036	1.036
8	71	—	29.163	29.163	10	—	1.026	1.026	33	—	4.014	4.014	—	—	—	—
9	—	—	—	—	121	—	48.977	48.977	33	—	4.340	4.340	10	—	0.987	0.987
10	—	—	—	—	153	—	12.510	12.510	—	—	—	—	—	—	—	—
11	—	—	—	—	36	—	0.450	0.450	—	—	—	—	—	—	—	—
12	—	—	—	—	63	—	2.790	2.790	—	—	—	—	—	—	—	—
13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	197	—	89.667	89.667	1512	—	147.485	147.485	453	—	47.047	47.047	842	—	28.955	28.955

* AGRICULTURE

APPENDIX III

AGRICULTURAL CALENDAR OF THE NISHIS

Seasons	Months	English Months	Activities
Duri Polu	Leking	March-April	This is the busiest month for sowing tubers such as <i>ini</i> , <i>guria</i> , <i>ninkang</i> , <i>ningryo</i> , <i>tapar</i> and <i>ninke</i> .
-do-	Lechir	April-May	Sowing of different kinds of paddy such as <i>lengbu</i> , <i>ampa</i> , <i>taba</i> , <i>amdo</i> , <i>rakhi</i> , <i>kapa</i> and <i>yayum</i> is the main activity during the month. These are mainly sown in the distant fields. Cotton may also be sown.
-do-	Yulu or Hiku	May-June	Weeding is the main activity of the month. People may also go out hunting and fishing.
-do-	Tilu	June-July	Weeding is continued in this month.
-do-	Sengo	July-August	Reaping of early paddy such as <i>teming</i> , <i>minsang</i> and <i>mingte</i> , which have been sown in <i>balu</i> , is started.
-do-	Sengte	August-September	Weeding is the main activity in the fields which are also guarded during the day. Reaping of early paddy is completed. <i>Tayak</i> , a kind of light millet is reaped and eaten.
Dra Polu	Pira or Pra	September-October	Maize is reaped and brought to the granaries. The most important activity of the month, however, is the collection of bamboo shoots. Other activities are hunting and fishing.

Seasons	Months	English Months	Activities
Dra Polu	Libi	October-November	Reaping of various kinds of paddy sown in distant fields is started during this month and the new crops are eaten. All kinds of vegetables are taken out.
-do-	Ralih	November-December	Reaping of paddy is over by the beginning of the month. This is the month for reaping <i>timi</i> , a light millet mainly useful in the preparation of beer. Digging of cultivated tubers is completed during the month.
-do-	Rajo	December-January	This is the month for selecting and cutting new jhums. Women may start clearing the undergrowth of the old plots. Other activities are bringing of the construction materials for new houses and spinning and weaving.
-do-	Rate	January-February	In this month, in addition to cutting, the burning of jhums is also an important activity. The <i>balu</i> plots are prepared and light millets like <i>mami</i> , <i>tai</i> , <i>tanam</i> and <i>timi</i> are sown. Early paddy is sown in this month along with maize.
-do-	Limi or Date	February-March	Jhum cutting and burning is more or less completed by now. Women sow maize in <i>rikte</i> . Vegetables like chillis, pumpkin and beans are sown. Tobacco of local variety is sown in <i>balu</i> .

Source : The Daflas of the Subansiri Region, (Shilling, 1965), by B. K. Shukla, p. 38.

CHAPTER V

INDUSTRIES

Subansiri, like the rest of Arunachal Pradesh, is a formidable mountainous region and the whole area is rural. The mainstay of the people is agriculture which is of subsistence nature. There is no major or medium-scale industry. For a very long time, the district remained undeveloped and industrially backward inspite of its forest and mineral resources and enormous power potentiality. A number of small-scale industries have been established in the district after independence.

The people have, however, by their own genius developed various cottage industries with the help of available resources in order to meet their basic needs. Their arts and crafts are mainly associated with weaving, blacksmithy, and cane and bamboo work. Verrier Elwin stated that "The chief art of NEFA is weaving and it is on the hand-loom that the greatest progress has been achieved. In the culturally impoverished villages of the Bangnis, Tagins and Hill Miris of eastern Kameng and northern Subansiri, this art, which had either been unknown or had weakened to the point of extinction, is now coming again into its own..."¹ The Nishis, the Apa Tanis and the Hill Miris today live in close economic and cultural association. The cotton grown by the Nishis is also used by the Apa Tanis for weaving cloth, and both the Nishis and Hill Miris buy this cloth whenever it is available. With an increase in population, however, and an easier access to the plains, many Nishis and Hill Miris have been using the black markin as a substitute for the home-made cloth of dark-blue, orange or red which was formerly popular. "The Apa Tanis on their wonderful plateau, where they have brought cultivation on irrigated fields to a high degree of efficiency, are still largely self-sufficient in cloth, which they weave in attractive pastel shades of yellow, green and red obtained from natural dyes. When H. M. Crowe visited them in 1890 he found them wearing 'dark blue cloths of the same shape and size as those worn by the Nishis, but striped yellow and red'. Furer-Haimendorf speaks of their highly developed aesthetic sense, and says that 'they show excellent taste in the colour combinations and patterns of their textiles. Their clear strong

¹ Verrier Elwin, *A Philosophy for NEFA*, (Shillong, 1964), p. 257.

dyes and their use of bright borders on white cloths, and their clever multi-coloured embroideries produce beautiful effects. The restraint in the choice of ornaments, which in both men and women are strictly limited to a few accepted types, seems also expressive of a developed aesthetic tradition....

"Formerly the Apa Tanis obtained some of their wool through the purchase of Bhutia blankets. They unravelled the yarn, dyed it in their own colours, and used it to make ceremonial shawls and coats and to embroider cotton cloth.

"The Apa Tanis also are fond of a mixed silk-cotton cloth from the plains, which they wear under the rather coarse and heavy cotton fabrics woven at home, but in the past ordinary mill-cloth was regarded as unfashionable and was rarely worn by people of good families. Most of the beads and pins, and the brass ornaments of the women, however, are now obtained from the plains. It is curious that, as long ago as 1944, Furer-Haimendorf found the large transparent or dark blue beads, probably of Tibetan or Chinese origin, going out of fashion, and small blue glass beads preferred. Already by this time cheap bracelets of white metal had ousted the wrought-iron bracelets made by the Apa Tani blacksmiths....

"The Apa Tanis are essentially agriculturalists, yet the strong vital life of their crowded villages has encouraged artistic production and good taste. The houses are pleasing to look at: their shrines are carefully built; the fabrics are charming; the cane-work is good. There is also an old tradition of pottery, and fifteen years ago Furer-Haimendorf found Apa Tani boys making attractive clay models of mithuns and other animals which, he says, 'evinced a striking ability to concentrate on essentials and were truly pieces of art...' The Hill Miris, like the Tagins who live to the north of them, have no tradition of weaving, and like them they seldom dance or sing. They buy almost all their cloth from the Assam plains or from Tibet, though they are now, as a result of official encouragement, taking to weaving with enthusiasm. They make, of course, their own fibre rain-coats, hats and plaited belts, gauntlets of bear-skin and all manner of things in cane and leather. Their craftsmanship is of high quality: the strands of cane or bamboo are fine and regular and the weaving delicate and even. It is, in fact, curious that a people so quick and expert with their hands in working the comparatively stiff and awkward cane should not have gone on to work in wool and cotton...

"The small tribe of Sulungs, which lives in scattered groups throughout eastern Kameng and Subansiri, produces good workers in iron and brass who make ornaments, pipes and imitation sacred bells, but their products lack the prestige value of the imports from Tibet."¹

¹ Verrier Elwin, *The Art of the North-East Frontier of India*, (Shillong, 1959), p. 102ff.

The Tagins do little weaving themselves. Formerly, they imported their long coats of wool from Tibet. Some women amongst them, however, make thin belts of yarn spun from the hair of monkeys.

COTTAGE INDUSTRIES

According to the 1971 Census, the district has 20 household industries and 16 unregistered workshops.¹ The following is an account of some of the cottage industries and indigenous arts and crafts.

Weaving and Dyeing

Weaving, the main industrial activity of the people of Subansiri, is an exclusive craft of women. 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 Khamptis have a slightly larger loom, though of the same general pattern, and a few Assamese looms are now used in the administrative centres."²

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 Apa Tanis are comparatively advanced in the art of weaving. They make beautiful multicoloured shawls with borders, skirts and loin-cloth. Indigenous dyes are used by them to colour yarn in yellow, red and black. Dyes are prepared from the creepers and leaves of certain trees and colours remain comparatively fast. It may be interesting to note in passing that dyeing of yarn among the Apa Tanis is a tabooed craft. The red dye made from *manjeet* must be prepared at traditional places near the village. The black dye made of *yango* leaves is usually prepared exclusively by a lower class of women. Weaving of cloth has also its own taboos. Women must not weave for sometime after an important sacrifice, a case of death or performance of community or village rites in order to avoid displeasure of the spirits.

The Nishi women also do weaving. Quite a large amount of cotton is grown, especially in the valleys of the Panior and Palin, which is mostly bartered with the Apa Tanis. The Nishi fabrics are of two kinds, of cotton and of indigenous fibre. The former are soft while the latter are coarse.

¹ Census of India 1971, Arunachal Pradesh. Part III-A & B, p. 52.

² Verrier Elwin, *The Art of the North-East Frontier of India*, (Shillong, 1959), p. 35.

The blankets, skirts, loincloths and waistbands are the fabrics the Nishi women weave.

"For the preparation of yarn for weaving, the Nishi women use a spindle called *tapo*. It is made of bamboo with a round earthen piece at one end and a notch at the other. It is rotated over a piece of earthen pot for a making of yarn. The method of preparing yarn from indigenous fibre for weaving is different. The bark of the *pudu* plant is taken out and its outer skin is removed with a knife. The fibres are then dipped in water and hammered with a wooden stick on a log of wood or stone. They are dipped again in water and cleaned thoroughly. After this, they are allowed to dry. When completely dry, beeswax is rubbed all over to make the material pliable and strong. Gathered and tied at one end, the fibres are then taken out one by one and twisted with fingers to form one single thread which is made into a ball. When sufficient yarn has been prepared, it is woven into cloth. The Nishi loom is simple. Its one end is fastened to a post and the other to the waist of the weaver. It is portable and has the advantage of being folded and used in and outside the house.

"For the purpose of borders, Nishis use coloured yarn or fibres. The dyes are native and are prepared from creepers and certain other plants growing in the jungle. The three important dyes are black, red and green. To prepare the black dye or *chakhe*, a variety of banana called *kukhi* is preferred. Its black outer coating is finely shaved with a dao. This substance is boiled in an earthen pot to yield the colour. The fibre or yarn to be dyed is put into the pot and stirred with a bamboo stick. When it gets coloured evenly, it is taken out, cooled, pressed out and dried. The red dye, or *chalang*, is prepared from the *tamin* creeper. The leaves are removed and the creeper is crushed on a stone. When it softens, the dye is obtained by boiling. If *chakhe* and *chalang* are to be prepared in the same pot, the latter is prepared first. The green colour is obtained from a plant called *ungu* which is crushed with the feet on a stone. The yarn is put with it and both are worked together till the latter is completely dyed. These dyes are effective and the colours do not fade away quickly as a result of exposure to the sun and the rain."¹

Smithery

Smithery is an ancient craft being practised traditionally by some groups of people of Subansiri. The Nishis have among them skilled craftsmen, who smelt and cast metals. Their ironsmiths make *daos*, knives and even felling axes. The silversmiths cast molten bronze and silver into traditio-

¹ B. K. Shukla, *The Daflas of the Subansiri Region*, (Shillong, 1965), p. 25 ff.

nal and artistic ornaments. They make their own brass ornaments, dishes, sacred bells and silver smoking pipe. The metals are not available locally, and these they obtain from Assam. The metals were also imported from Tibet previously. The craftsmen use simple tools, which for ironsmithy consist of hammers, chisels and tongs with cane and bamboo handles.

"In Nishi society every person works, so far as possible, to meet the needs of his daily life. The men make their own weapons, baskets, mats, cane bags, and all kinds of bamboo vessels and hide-bags they need. The women do the spinning and weaving. But there are at least two crafts, iron and silver, which are practised only by specialists whose services are as indispensable to the people as those of a priest. These professions are, however, only a secondary means of livelihood: the primary means of subsistence for them too is cultivation.

"Their professional skill gives these craftsmen a special status. They are known by name over wide areas. People come to an ironsmith's house or workshop for bartering fowls or cereals with daos and knives or, they call the silversmith to their houses to make ornaments like the *hoofi*. He is offered food, shelter and hospitality, and the people within the house attend to his needs eagerly so that he may do his best. When he has finished his work, he is paid on the spot before his departure. Payment is in the form of meat, beer, daos, beads and pigs. The articles made by a silversmith are remembered to have been made by him for years.

"The Nishi craftsmen do not form any distinct class. They do not rank high or low in society. They are, for all practical purposes, indistinguishable from other members of the society."¹

Cane and Bamboo Work

The art and industry of the people find a vivid expression through their fine works in cane and bamboo, which are of high artistic and utilitarian value. In fact, the cane and bamboo work is a remarkable distinguishing cultural trait common to the people living in the greater part of Subansiri, Siang and Lohit Districts as well as the eastern part of the Kameng District.

"Many tribesmen make their own hats which are often extremely decorative, adorned with the beaks and feathers of birds or with tufts of hair dyed red. They also make many kinds of basket, and cane-vessels, which are sometimes lined with raw rubber, are woven for carrying water. There is a wide variety of cane-belts, woven and plain, and in northern Subansiri there is even an elaborately woven brassiere of cane and fibre."²

¹ B. K. Shukla, *The Daflas of the Subansiri Region*, (Shillong, 1965), pp. 29-30.

² Verrier, Elwin, *A Philosophy for NEFA*, (Shillong, 1964), p. 99.

Some of the common household articles made of cane and bamboo are bamboo-mats, cane-baskets, containers, water-vessels, fishing-tackle, fishing-net, strainer, head-gear etc. The Apa Tanis make fine mats of cane as well as bamboo. *Chungas* or bamboo-tubes decorated with cane-bands are used all over the district. Bamboo-tubes of about 90 cm in length and 15 cm in diameter are frequently found in use as water containers. Besides these, a variety of weapons are made of cane and bamboo. *Daos* and swords are fitted with beautifully woven bamboo and cane handles. Finely-woven cane-hats worn by the Hill Miris, Nishis and Apa Tanis are elegant and attractive. The following is a detailed account of the cane and bamboo work of the Nishis:

"Cane and bamboo in the Nishi country grow in abundance. Consequently, the people make multifarious use of these in daily life. They form the chief building materials for the house, granaries, huts, temporary shelters during journeys, as well as suspension bridges. Most artefacts of the household are made of them. They are, in fact, useful both socially and ceremonially.

"Bamboos of different kinds are used for making vessels for bringing water, mugs for carrying and drinking beer, spoons and plates to eat from, tongs for holding hot things, and pipes for smoking. Their use is evident in the making of mats for sitting and sleeping and rough baskets to meet all temporary needs. They are useful in making weapons of war and chase. Dao handles, bow shafts, quivers, arrows and spears are invariably made of bamboo. Poisonous bamboo is used for making traps for large animals. In agriculture, bamboos are used for fencing and for making handles of spades, axes and dibbles.

"Cane is mainly used for tying, making of strings and ropes, decoration of gourds, making of fine mats, multipurpose baskets, bags for carrying food, and fans. The important conical baskets called *ege* and *eber* are used for carrying grains and other articles by women. *Chungcha*, a pot-shaped basket, is used for carrying grain during sowing. For men, the *nara* or bag of cane for carrying food and other articles, is indispensable. It is carried on the back, and is also an item of Nishi dress. Cane is also used to adorn the body. The women use tight ankle-bands of cane, and the men wear numerous cane rings woven with *tama* fibre. Among the bamboo ornaments are skewers, used by men in the *podum*, and earplugs. Combs of bamboo are used both by men and women to dress their hair.

"Among the ceremonial uses of cane and bamboo, the most important is the making of sacrificial structures. A variety of bamboo called *tajirr* is used by the priests in certain rituals and in the curing of sickness."

¹ B. K. Shukla, *The Daflas of the Subansiri Region*, (Shillong, 1965), pp. 22-23.

Pottery

A little pottery without the wheel is practised by the people, and the craft is exclusively in the hands of women. "Pottery is rare, partly because the clay is not suitable in most places and partly because in the past the people have been accustomed to use the very large and fine bamboos, that grow abundantly in their neighbourhood, for almost every purpose."¹

The Nishis have, however, a device of making earthen pots through a crude process of drying and baking lumps of clay. These pots are used only as cooking utensils, and bartered for cereals or fowls. Earthen-pots are good substitutes for costly aluminium or brass utensils, for most of the villagers cannot afford to purchase them.

"The Apa Tanis have a tradition of making attractive clay models of animals which are used as toys."² It is significant to note that amongst the Apa Tanis, pottery is confined to certain clans of a village. Dr. Furer-Haimendorf observed, "Among the Apa Tanis pots are made only in one village—Michi Bamin—and even there only by certain clans. Many Apa Tanis purchase therefore pots from such Nishi villages as Jorum and Talo, paying usually in rice. But as shortage of fuel limits the production of finished pots in those villages, Apa Tanis sometimes buy unburnt pots, and carry them across the country denuded of forests by the Nishis' cultivation till they reach the forest-belt which divides the Apa Tani from the Nishi country; there they build fires and bake the pots before taking them home.... Thus the only clans whose women manufacture earthen pots are four *mura* clans of the village of Michi-Bamin. Women of other villages who marry men of these potter clans may, if they like, learn pot-making, but if a girl of one of the potter clans marries a man of another village she may not continue to practise her craft, as this is a monopoly of Michi-Bamin. This does not mean, however, that all pots used by Apa Tanis are made by women of that village. Many people buy their pots from Nishis, who bring them for sale to the Apa Tani villages. The technique used by Apa Tani and Nishi potters is the same: the potter starts with a large lump of clay, hollows it out and then, holding an oval stone against the inner wall, hammers against the outside wall with a wooden baton."³

Power

Subansiri is rich in hydel potential, but it could not be explored hitherto-

¹ Verrier Elwin, *A Philosophy for NEFA*, (Shillong, 1964), p. 99.

² *Ibid.*, p. 100.

³ C. von Furer-Haimendorf, *The Apa Tanis and their Neighbours*, (London, 1962), pp. 50, 71.

fore due mainly to communication difficulties and lack of man and material resources. Two micro hydel projects were under way to harness the water power in the district, and when completed, they are likely to generate electricity adequate enough to meet the local needs as also of the adjoining areas. The installed micro hydel capacity was 2010 kw in 1978.

The district has a number of diesel power stations with a total installed capacity of 1006 kw in 1978. Up to the month of December 1978, fifty-nine places in the district were electrified.¹

DEVELOPMENT OF INDUSTRIES

Craft Centres

Since independence, it has been an important matter of policy of the Government to revive and revitalise the traditional handicrafts and handloom of the tribal people of Arunachal Pradesh in order to promote the village and cottage industries. With this aim in view, a number of craft centres and weaving units have been set up at different places in the district. These craft centres have two wings in them, namely training unit and production unit for various crafts, such as weaving, blacksmithy, cane and bamboo work, carpentry, bell metal and sawing. Training in improved methods is imparted to the local artisans, both men and women, so that their crafts are not only preserved but also developed. The total number of trainees in the craft centres in 1977-78 was 55. Fly-shuttle loom has been introduced in the craft centres. In fact, the tribal cottage industries, weaving in particular, have been facing a threatening competition from outside. It has, therefore, to be seen that they do not die out and the beautiful products of tribal craftsmanship are not lost. The object of the production unit is to manufacture articles to meet local needs, and to provide adequate jobs to the passed out trainees. Articles produced are also put on sale at the emporiums and show-rooms attached to the craft centres.

The craft centres in the district and their annual outturn during the period 1973-74 to 1978-79 are as follows :²

¹ Source: Statistical Hand Book of Arunachal Pradesh, 1978-79.

² Source: (a) Statistical Hand Books of Arunachal Pradesh, 1973-74 to 1977-78,
(b) Statistical Hand Books of Subansiri District, Arunachal Pradesh, 1978 and 1979.

(Rs. in thousand)

Sl. No.	Craft Centre	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79
1	2	3	4	5	6	7	8
1.	Ziro	35.60	38.97	30.60	50.88	32.88	209.20
2.	Doimukh	2.23	35.11	38.60	29.74	41.52	42.95
3.	Koloriang	5.34	6.32	8.41	7.08	6.90	9.90
4.	Nyapin	—	0.33	1.41	4.39	1.95	4.09
5.	Sagalee	4.54	6.23	10.71	5.63	6.89	6.08
6.	Tali	0.10	2.28	0.57	2.08	0.22	—
7.	Sarli	1.35	2.73	—	—	—	—
8.	Daporijo	22.67	39.27	43.06	76.94	59.42	115.96
Total :		71.83	131.24	133.36	176.74	149.78	388.18

Note:—Sarli Craft Centre was closed down and shifted to Nyapin.

The annual sale proceeds of the emporiums and show-rooms are as follows:¹

(Rs. in thousand)

No.	Name of Centre	1973-74	1974-75	1975-76	1976-77
1	2	3	4	5	6
1.	Ziro	36.30	39.38	42.64	33.43
2.	Koloriang	5.74	5.13	9.11	6.62
3.	Doimukh	1.95	28.81	42.35	65.85
4.	Sagalee	4.51	3.63	2.87	—
5.	Sarli	1.39	1.95	—	—
6.	Tali	—	0.14	0.57	—
7.	Nyapin	—	0.43	1.41	2.43
8.	Daporijo	10.80	42.75	45.64	57.42
Total :		60.69	122.22	144.59	165.75

In the year 1977-78, the total sale proceeds of the craft centres were Rs. 165.77 thousand.

¹ Source: (a) Statistical Hand Books of Arunachal Pradesh, 1972-73 to 1977-78.
(b) Statistical Hand Book of Subansiri District, Arunachal Pradesh, 1977.

The craft-wise annual outturn in the year 1978-79 is as follows:¹

(Rupees in thousand)							
Name of Crafts	Scheme	Ziro	Koloriang	Doimukh	Sagalee	Nyapin	Total
1	2	3	4	5	6	7	8
Carpentry	Training	4.42	4.04	—	3.09	—	11.55
	Production	161.28	—	37.88	—	0.47	199.63
Blacksmithy	Training	—	—	—	—	—	—
	Production	4.49	—	—	—	—	4.49
Weaving	Training	6.53	4.13	0.96	1.77	2.11	15.50
	Production	27.98	—	3.30	—	—	31.28
Bell Metal	Training	2.89	1.73	—	—	—	4.62
	Production	—	—	—	—	—	—
Sawing	Training	—	—	—	1.22	1.51	2.73
	Production	—	—	—	—	—	—
Knitting	Training	—	—	—	—	—	—
	Production	1.61	—	—	—	—	1.61
Cane and Bamboo	Training	—	—	—	—	—	—
	Production	—	—	0.81	—	—	0.81
Total:		209.20	9.90	42.95	6.08	4.09	272.22

The total outturn of the craft centre at Daporijo in 1978-79 was Rs. 115.96 thousand.

Small-Scale Industries

There are twentythree registered small-scale industrial units in the district as on March 31, 1979.² The details of these units are shown at the appendix to this chapter.

Sericulture

The climate and soil of Arunachal Pradesh are congenial for the growth of both mulberry and non-mulberry silk worms and their food plants. In fact, most of the people living in the lower regions of the territory are found to be silk worm rearers. Eri worm rearing is practised by the people of lower belt bordering Assam. Mulberry silk worms thrive well throughout the area. Oak trees, available in Subansiri, are suitable for rearing of oak tasar silk worms.

¹ Source: Statistical Hand Book of Subansiri District, Arunachal Pradesh, 1979.

² Source: Office of the Managing Director, Industrial Estate, Government of Arunachal Pradesh.

Sericulture was introduced in Subansiri in 1969. The district has two sericulture demonstration centres, one at Kokila and the other at Balijan. The centre at Kokila produces and supplies seeds of eri and pat to villagers for rearing silk worms. Eri and pat cocoons produced by the rearers are processed into yarns for making silk cloths and endi *chaddar*.

The progress of sericulture in the district is indicated in the following table:¹

Year	No. of Rearers	Seed supplied		Production		
		Eri	Pat	Eri Cut Cocoons (in kg)	Pat Silk (in kg)	Eri Cloth (in numbers)
1	2	3	4	5	6	7
1971-72	603	8203	210	785	4	82
1972-73	542	6506	200	658	4	85
1973-74	563	5869	195	587	4.5	60
1974-75	607	5900	220	592	4.6	58
1975-76	610	4200	150	451	3.9	46
1976-77	615	5320	160	516	3.7	52
1977-78	627	5800	150	531	3.8	67
1978-79	631	6120	170	592	4.1	42
1979-80	632	6900	200	670	5.0	71

¹ Source: The Superintendent of Sericulture, Industries Department, Government of Arunachal Pradesh.

APPENDIX

<i>Sl. No.</i>	<i>Name of Unit</i>	<i>Location</i>	<i>Type of Industry</i>
1.	The Capital Saw Mill	Itanagar	Sawn timber
2.	The Apatani Co-operative Furniture Mart	Hapoli	Wooden furniture
3.	The NEFA Udyog	Banderdewa	Sawn timber. Dehusking of paddy. Chira processing
4.	The Arunachal Furniture	Hapoli	Wooden furniture
5.	The Taso Tara Auto Works	Itanagar	Auto repairing
6.	The Arunachal Steel	Banderdewa	Steel fabrication
7.	The Padi Enterprises	Itanagar	Candle manufacturing
8.	The Bijaya Rice Mill	Daporijo	Dehusking of paddy
9.	The Hage Candle	Itanagar	Candle manufacturing
10.	The Hapoli Cane Works	Hapoli	Cane products
11.	The Token Rice Mill	Banderdewa	Dehusking of paddy
12.	The Steelage Industries Syndicate	Itanagar	Steel fabrication
13.	M/s Padi & Co.	Banderdewa	Fabrication of steel
14.	The Riba Vulcanising Unit	Itanagar	Vulcanising of tubes
15.	The Baby Work-Knitting House	Hapoli	Wool knitting
16.	The Babu Furniture	Old Ziro	Wooden furniture
17.	The Taso Yalush Paper Works	Itanagar	Paper works
18.	The Arunachal Spun Pipe Co.	Itanagar	Spun pipes
19.	The Tana Oil Mill	Itanagar	Gil expelling
20.	The Capital Wire Products	Itanagar	Page wire/
21.	The Modern Furniture Industries	Itanagar	barbed wire etc. Wooden furniture
22.	The Arunachal Printer	Itanagar	Printing press
23.	The Talloy Valley Saw Mill		Saw mill

CHAPTER VI

BANKING, TRADE AND COMMERCE

Banking

Formerly, banking was quite unknown to the people of this district. Handling of money by the local people in business transactions was negligible. The monetisation of local economy has led to accumulation of money in the hands of the tribal people through their association with public works and developmental activities. With the opening of Post Offices and three branches of the State Bank of India located at Ziro, Itanagar and Daporijo, banking facilities have now been extended to the people for savings and investment. In the co-operative sector, the Thrift and Credit Co-operative Society at Daporijo 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	1977-78	1978-79
Deposits	—	1449	4040	6871	23696
Total cash and bank					
balance	—	2	2	NA	NA
Advances/Loans granted	—	94	173	290	538

NA—not available

N.B.—The figures for the financial year of 1976-77 are not available.

Early Trade Relations

There existed an intercourse of trade between the people of Subansiri and those of Assam and Tibet from early times. With the sealing of international border, trade with Tibet has now come to a stop. Trade with the neighbouring areas of Assam was carried on through some small market centres along the foothill region. In the absence of a monetised economy in this area, the whole system of trade and commerce in the old

¹ Source: Statistical Hand Books of Arunachal Pradesh, 1975-76, 1977-78 and 1978-79.

days was based on barter. It was not money but exchange of commodities according to the bare needs of individuals, clans or villages which provided the necessary incentive to trade. The isolation of the people in their remote hill abodes and the lack of regular communication between the hills and the plains were the main deterrents to the normal growth of trade and commerce.

The early trade relations of the people of Subansiri may be categorised under three broad headings: (1) trade with Tibet, (2) trade with the plains of Assam and (3) inter-tribal trade.

Trade with Tibet

Before the imposition of restrictions in 1961-62 on the transborder movement, the people from the Upper Subansiri valley went to the neighbouring areas of Tibet across the border for trade. The articles carried by them were mainly hides, skins, musk, rice, salt, Assam silk etc. In exchange for these exports, the traders from Tibet brought down wool, blankets, bronze or brass vessels, bells and cymbals, beads, ponies, bee-wax, baskets, chillis etc. The people of the Apa Tani valley also had a old trade link with Tibet. They bartered Tibetan rock-salt, swords and other articles of Tibetan manufacture.¹

Migyitun was a small trade centre in Tibet close to the Indo-Tibetan border, where the Tagins of the Subansiri valley and also of the Selu and Hema valley went to barter their goods. The people of Mara, Agla Mara or Nime Mara in the Upper Subansiri valley were regular visitors to Tibet. The border trade between these groups of people and the Tibetans went on for generations. The following is a brief description of the merchandise.

EXPORTS

(a) *Hides, Skins and Furs*: The Tibetans were fond of the hides and skins of tigers, panthers and leopards, deer and monkeys exported by the traders of this district. These were used by the Tibetans for making caps, shoes, pouches, belts and things like that and decorating certain articles of dress.

(b) *Cane*: Loads of finely shaven cane strips were carried all the way to Tibet. Cane sticks of about 60 metres in length were also required by the Tibetans for basketry.

(c) *Red Dye, Maniheet or Tamin*: Maniheet or Tamin, as it is locally called, is a creeper which grows profusely in this district and yields a

¹ Verrier Elwin, *India's North-East Frontier in the Nineteenth Century*, (London, 1962), p. 203.

fast red dye. This dye had a good demand in Tibet for colouring woollen blankets and coats, which the Tibetans sold back to the tribesmen of this district.

(d) *Food stuffs*: Food cereals grown in the hills, such as rice, millet (*elusine coracana*), maize, *tayak* (*setarica italica*), chillis and ginger were supplied in limited quantities to cater to the needs of the Tibetans.

(e) *Bamboo-tubes*: The people also took bamboo tubes for barter with Tibetan goods.

(f) *Musk*: One of the most important articles of trade was musk obtained from the navel of the musk-deer. The Tibetans used them in perfumery and as incense for religious purposes.

IMPORTS

(a) *Dachang*: Large Tibetan vessels made of bronze or brass called *dachang* were much valued by the Tagins and they measured a person's wealth by the number of such *dachangs* he possessed. A *dachang* was exchanged for skin of a leopard or tiger with tail and claws. The value of a large *dachang* with designs on it was regarded to be equal to a mithun, or about 15 musk pods. The vessels are hollow and round in shape but they vary in size.

(b) *Tibetan Tongueless Bells or Majis*: The *majis* are the prayer bells used by the Tibetans during worship. Sometimes, a valuable *maji* was equalled to five or more mithuns.

(c) *Dingse*: Small Tibetan cymbals of metal are called *dingse* by the Tagins. To the Nishis and Hill Miris they are known as *ukhi* or *hoofi*. These cymbals or metal discs tucked to cane or leather belts are commonly worn by the women around the waist as ornaments. One set of cymbals could be obtained for one deer hide or one load of cane or of red dye.

(d) *Rokse or Tibetan daos*: Tibetan *daos* were highly prized by the people of Subansiri. The Apa Tani priests use them with scabbards on ceremonial occasions.

(e) *Ear-rings (Alung)*: These ear-rings are worn both by men and women and are fitted with cheap turquoise, jade and red stone. The spirals of the ring are made of brass or silver. One such ring could be had for a small deer-skin.

(f) *Beads (Tasang)*: The Tibetans imported beads from Kalimpong and Darjeeling. One bead necklace of glossy conch-shells about 40 in number was said to be equal in value to a mithun.

(g) *Duko or Silver Spoons*: The Tibetan tea spoons of silver were costly. The Tagins bartered a big deer-skin for one such spoon.

(h) *Woollen Cloths*: By far the most important of all the imported

articles were woollen wears manufactured in Tibet. These textiles were sold as coats and blankets. Normally, a *laglik* coat in Tibet was worth about two loads of *tamin* creeper. Hats and furcaps worn by the Mōnpas and Bhutias were also purchased by the tribesmen. Felt hats were also in use in the Subansiri valley. In the Mara and Taksing areas the rich people could be found wearing woollen coats with brocade pieces sewn in the shape of a waist coat. The Tagins, both men and women, wear long red coats of wool, which were imported from Tibet. They were coarse, and bartered for two pigs.

Trade with the Plains of Assam

The trade with the plains of Assam was mainly carried on by the Hill Miris of the Tamen and Gochham areas as well as by the Nishis of the foothills. Sometimes, the Nishis from the interior visited the plains and earned money by working as casual labourers during the winter season. The Apa Tanis too traded with the plains of Assam. But the trade routes were frequently intercepted by the Nishis of the foothill areas. The Apa Tanis, therefore, chose a different route. As late as 1944 Dr. Furer-Haimendorf was advised to follow that route to avoid being obstructed by the Nishis. The Apa Tanis usually sent their dependants to the plains for trade. This provided some opportunities to them to make a little fortune for themselves. The hillsmen visiting the plains came into close contact with the Assamese villagers, who were hospitable to them.

H. M. Crowe wrote about this trade in 1890 thus: "The frontier tribes are interested in preventing the remoter clans from visiting the plains, as they make a profit out of hillmen and plains traders by acting as intermediaries. The Apa Tanang (Apa Tanis) are dependent on the plains for their supply of salt, and the Nishis could easily deprive them of their supply. Each tribe, however, is averse to extreme measures, . . . reprisals being confined to capturing or kidnapping isolated individuals, who are detained to force on the settlement of disputes. When I passed through Takha's village, I saw an Apa Tanang woman with a log fastened to her leg, evidently a prisoner, but at the same time there were a number of Apa Tanangs bartering rice with the Nishis and apparently on the best of terms with them. The Apa Tanang is a keen trader, and, if they could come down to the plains in perfect safety, would do so in great numbers and develop considerable trade. I may mention here that since my visit to their country, they have come down to Lakhimpur in considerable numbers, though only in large parties".¹

¹ H. M. Crowe, *Account of a Journey to Apa Tanang Country*, quoted in Verrier Elwin, *India's North-East Frontier in the Nineteenth Century*, (London, 1962), pp. 196-197.

It should be noted that the trade with the plains was not a one way traffic, even though the hillsmen did not have many things to barter. They brought to the trade centres chillis, gingers, bamboo shoots and other products of the jungle, such as rubber, the red-dye called *madder* or *maniheet* etc., and in exchange took-home metal bowls, plates, spoons, beads, daos and axes, cloths—particularly endi and silk pieces, black markin and other such articles of daily use. The value of the imported articles was much more than what they exported. But they made up the deficiency by working as day labourers on wage basis. They also visited the bazars in the plains and from there purchased goats and pigs and even cows. The most important commodity purchased was salt, of which they were in much need. Loads of salt were purchased and carried by the traders to their villages in the hills for consumption and also for sale to the people of the upper regions.

Inter-Tribal Trade

Under the barter system price of an article was usually determined by its immediate necessity instead of value. Consequently, an article of higher value was sometimes exchanged for that of lower value. Economic aspects and the factors of profit and loss were often ignored in the barter transactions. Viewed from this angle, it was only the transactions of the Apa Tanis, which in a limited sense, may be regarded as falling under the category of trade. Intelligent traders as they were, the Apa Tanis excelled many other tribes in business matters. They not only imported a large number of articles from the plains of Assam, but also manufactured a variety of things by themselves. They made fine cotton textiles and sold them to the Nishis and Hill Miris. They also made, in small numbers, *daos*, axes and knives, which again were made available to the Hill Miris and the Nishis.

Normally, an Apa Tani village had friendly ties with one or more neighbouring Nishi villages. The Apa Tani women might be seen going with their menfolks to the Nishi villages after the harvesting was over to weave cloth for them, whereas the Apa Tani men would go to bring piglings for rearing and slaughter during the festivals. The Nishis supplied the Apa Tanis with strong adhesive gum and cotton. The Apa Tanis, in return, gave them paddy and manufactured clothes. At times, disputes arose on the question of paddy given as loan to the Nishis. If a loan was not returned well in time, it enabled the creditor to keep the borrower as a worker in his house until such time as he was able to fulfil the obligation.

The Apa Tanis, however, followed a code of conduct in their trade

relations with the neighbouring people. If an outsider visited his friend in the Apa Tani valley and if he had enmity with another Apa Tani, the latter could not capture him. If he did, as often happened, the Apa Tani friend might demand his release and if this was not fulfilled he might wage a raid or perform *gambu*.

Cloths, *daos*, knives, salt and cows are now the main items of inter-tribal trade. Paddy is exchanged for pigs and even mithuns. An important item of trade these days is the cow. Cows are now imported by the Apa Tani traders in large numbers. If a cow is purchased for a sum of Rs. 50 it can be sold to the needy Nishi or Hill Miri for a sum of one hundred rupees or so if it has a calf.

Barter and Values

As already stated, money was almost absent in the business transactions in this part of the country in former times. Rice and pigs in lieu of money was generally accepted as the measure of things. Indian currency was in circulation on a very limited scale, particularly among the Nishis of the lower Panior and Kiyi valleys and among the Hill Miris of the Tamen and Gochham areas. The Nishis and the Hill Miris bordering on the plains of Assam were in receipt of *posa*, that is payments from certain specified villages in the foothill areas, whereby they came to be acquainted with money as a medium of exchange. But the larger section of the people remained outside the scope of money, and they did not know how to make use of it. Barter still plays an important role in the internal economy, particularly in the remote areas, and it goes side by side with money economy.

Pigs were used as currency for generations. A female pig was regarded as the standard value for many articles of exchange. A full-grown and castrated male pig was equal in value to three female pigs. The value of a female pig differed from one tribal group to another in terms of Indian rupee. In the Subansiri valley it was worth Rs. 60/-. Therefore, the value of a grown up male pig was estimated at Rs. 180/- Male pigs were, as a rule, kept for sacrifices, but the pork was an item of dowry. Generally, they are not exchanged for other articles due to ritual taboo. The exchange value of two piglings was one grown up female pig.

Cereals were also used as measures of value. In some areas, a bamboo tube containing normally about three seers of paddy was the accepted standard measures. Dr. Furer-Haimendorf noted that "No currency is used in trade transactions between Apa Tanis and Nishis but both tribes have their systems of values, which though similar do not completely coincide.

The Apa Tani units of value, each of which is described by a separate term, can be listed as follows:

1 pachu	—	2 eggs or 1 small chicken or 1 day's wage
1 paroe	—	1 middle-sized chicken or 1 small knife or 7 lb. unhusked rice
1 soe	—	1 hen or 1 knife
1 pue	—	1 short Apa Tani <i>dao</i> or 1 cock or 1 plain white Apa Tani cloth or 13 lb. unhusked rice, such as contained in a pue yagi (basket)
1 pili	—	1 average-sized Apa Tani <i>dao</i> or 1 white Apa Tani cloth with red and blue border or 1 white bazaar cloth (worth in North Lakhimpur about Rs. 2½ in 1945) or 1 piglet
1 puhan	—	1 long Apa Tani <i>dao</i> or 1 white Apa Tani cloth with broad multi-coloured border or 1 small pig or 3 pue yagi of unhusked rice
1 pupe	—	1 small blue and red Apa Tani cloth or 1 middle-sized pig or 4 pue yagi of unhusked rice
1 pungue	—	1 normal-sized blue and red cloth or 3 white bazaar cloths or 5 pue yagi of unhusked rice
1 pukhe (or apu)	—	1 long Assamese <i>dao</i> or 1 double cloth cloak or 1 big male goat or 1 pig of the size of a dog or 6 pue yagi of unhusked rice
1 kanue	—	1 Assamese silk cloth or 1 large pig or 7 pue yagi of unhusked rice
1 pine	—	1 small Tibetan sword or 8 pue yagi of unhusked rice

- | | | |
|-----------|---|---|
| 1 kua | — | 1 large Tibetan sword
or 9 pue yagi of unhusked rice |
| 1 puliang | — | 1 new large Tibetan sword
or 10 pue yagi of unhusked rice. |

"In these standard values practically any price can be expressed; the value of irrigated land is, however, usually reckoned in mithan".¹

Dr. Furer-Haimendorf also noted on the trade and barter relations between the tribes as observed by him during his visit to the Apa Tani valley in the forties of the present century as follows:

"The trade between Apa Tanis and their Nishi and Miri neighbours is largely based on the complementary nature of their economies. The Apa Tanis are primarily agriculturists and their densely populated country offers little scope for the raising of large numbers of domestic animals. The Nishis on the other hand are... living loosely scattered over extensive areas of jungle-covered and grassy hill-slopes, they have ample opportunity and considerable aptitude for the breeding of mithan, oxen, goats and pigs.

"The exchange of surplus Apa Tani rice against Nishi or Miri animals is therefore to the advantage of both sides. Apa Tanis require mithan and pigs for sacrifice and they value meat, and particularly pork and bacon, so highly that they will go to great trouble in order to obtain animals for their own consumption. At the time of the Mloko, the principal annual festival, the demand for pigs is as great as the demand for turkeys in England at Christmas, and an Apa Tani intent on strengthening his social prestige can do no better than to sacrifice a number of mithan during the Morom festival.

"The need of the Nishis for the agricultural produce of their Apa Tani neighbours is less constant, and is not immediately connected with ritual observances. In years of a good harvest, they may be able to dispense with grain purchases altogether, while in times of scarcity, they will pay double the normal price for supplies. Rice is usually paid for in mithan, and the Apa Tanis are always willing to accept these animals which serve practically as a currency. The normal price of a full-grown female mithan expressed in rice is thirty carrying baskets of unhusked rice, but in years of food shortage among the neighbouring Nishis and Miris, it may drop to as little as fifteen carrying baskets with a capacity of sixty pounds of unhusked rice each. A Nishi or Miri in need of grain usually comes

¹ C. von Furer-Haimendorf, *The Apa Tanis and their Neighbours*, (London, 1962), pp. 51-52.

himself to the village of an Apa Tani friend, and if he succeeds in concluding a bargain he and the members of his household carry the rice back to his village, perhaps making several trips. Often the price is paid at once, and many a prospective buyer brings a mithan with him when he comes to negotiate a deal. But sometimes Apa Tanis give rice on credit...

"...the degree of the economic dependence of the two tribes (Apa Tanis and Nishis) can be gauged from the range of the usual exchange goods. Besides buying mithan and pigs for rice the Apa Tanis obtain from Nishis almost all the cotton required for their highly developed weaving industry. Though Apa Tanis, no doubt, could grow cotton, they find it more economical to use their skill for irrigation to produce rice, and then barter it for cotton which their Nishi neighbours can grow on dry hill fields. The Apa Tanis buy the raw cotton, gin it, spin and dye it and then weave it into cloth, some of which is sold to the original suppliers of the cotton. Though some Nishi women also weave, Apa Tani women—and only women engage in weaving—produce cloths of particularly good quality and attractive patterns. Sometimes raw cotton is bartered for Apa Tani swords or knives, but there is also a system by which impecunious Apa Tani women can obtain supplies of raw cotton in exchange for their services as weavers. They go to Nishi villages and undertake to weave cloth of any desired type on the understanding that during their stay they are fed and that finally they are given as wages a quantity of cotton equal to that which they utilized in weaving cloth for their clients.

"Though not a cotton-growing people, the Apa Tanis possess more and better textiles than any of their neighbours, and they weave not only for home consumption but with the definite idea of using cloth for barter transactions. Through Apa Tani traders as well as through middle-men of other tribes Apa Tani cloth reaches areas as distant as the upper Panior valley, the Khru valley, and some of the Miri villages on the upper course of the Kamla River.

"Swords (*dao*) and knives manufactured by Apa Tani smiths are also articles of trade and on their trading visits to villages of Nishis or Miris Apa Tanis usually carry with them *dao* and knives for small payments. *Dao*, knives and cloth are the main exchange goods with which they purchase pigs, dogs, fowls, tobacco, cotton, gourd vessels, dried bamboo shoots, and also such articles of dress as cane belts, cane hats, and fibre rain-cloaks. Sometimes they give in exchange also salt which they obtain from the plains of Assam. The salt extracted from the ash of certain herbaceous plants grown in the Apa Tani country is no longer an important article of trade, but it is probable that before Assamese salt became easily

available this home-made 'salt' found ready buyers among the Apa Tanis' tribal neighbours."¹

Trade Centres

North Lakhimpur in Assam was a great trade centre for various tribes of this region. The other important trading places were Charduar and Lokra in Assam. Besides these, there were marts at Doimara and Amtola in the plains area. These marts were on the route to the Udalguri fair in the Darrang District of Assam. The tribal traders attended these markets and exchanged their goods.

Itanagar, the capital of Arunachal Pradesh situated in this district, and Ziro, the headquarters of the district, have now developed into flourishing trade centres. The tribal people from far and near come to these centres for sale and purchase of goods. Markets have sprung up at various circle headquarters in addition to a number of small marts in the interior. Mention may also be made of Harmuti, a large market centre along the foothills, which is attended by the Nishis. With the extension of transport and market facilities, the people have opened their own shops, and in Subansiri today one may come across such tribal shops at various trading places.

Business Fairs—Melas and Exhibitions

Sponsored by the Government, fairs are held occasionally at Community Development Blocks. These fairs are aimed at associating the people with the trend of economic and other developments that are taking place in this region. Selected agricultural produce, textiles, livestock and specimens of cottage industry are exhibited in the fairs. These fairs do not only prove to be educative, but also they do rouse enthusiasm amongst the people for attaining better standard of living through productive activities in the commercial sector. In these fairs, prizes are awarded to the best producers for creating a spirit of healthy competition.

Development of Trade

With the extension of the administration to the whole of the district and a net-work of roads connecting the interior parts, the people of Subansiri today enjoy good market facilities necessary for development of trade. The trade divides have ended. The people from such remote

¹ C. von Furer-Haimendorf, *The Apa Tanis and their Neighbours*, (London, 1962), pp. 47-50.

village as Mengo, or from the villages of the Kamla and Khru valleys now go down frequently to the markets of the lower regions with the money they earn. They do no longer suffer from a sense of insecurity of person and property. From the plains they bring cloths, brass and bronze plates, bowls and enamelled glasses, cups, aluminium saucepans, iron frying pans, woollen blankets, sometimes endi-silk, woollen pullovers, coats, umbrellas, steel or tin boxes, shoes etc. Besides these, the Apa Tanis and the Nishis also purchase quite a good number of cows, which they either rear for future sale or slaughter during religious festivals. It is no longer necessary for the people to bring from the plains loads of salt, which is now sufficiently available in all the administrative centres at a cheap price.

Apart from the new market centres at Ziro, Itanagar and in the sub-divisional and circle headquarters, there are fair price shops at Kimin, Banderdewa, Kokila, Doimukh, Yazali, Ziro, Hapoli, Raga, Itanagar, Daporijo, Taliha and Dumporijo. The various measures taken by the Government to promote tribal economy and the policy of issuing permits and licences to the enterprising tribesmen of Arunachal in preference to others have given enough incentive to the people to undertake business ventures. Private shops like stationery, grocery, bakery, cloth and hosiery etc. are now to be found at many places. Besides these, hotels, restaurants and cinema halls under the private ownership of the tribal people have also been established at Itanagar and Ziro.

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 indigenous articles created marketing difficulties. With the monetisation of the internal economy of the district, the conditions favourable for marketing and trading facilities have been created.

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.

Trade and Business Establishments

Retail trade is carried on by a considerable number of establishments located in different administrative centres and villages especially in the Apa Tani valley. These establishments cater to the needs of the local people. The retail traders usually obtain their goods from the wholesalers of North Lakhimpur and other trade centres of Assam. Besides the private

retailers and businessmen, there are, as already mentioned, co-operative societies, running business establishments such as consumer stores, transport, and processing and marketing agricultural produce.

Retail trade may be broadly categorised as follows: (i) grocery shops selling cereals, pulses, spices, sugar, salt, oil, kerosine, ghee, tea, coffee, condiments, incense, cosmetics, household utensils of aluminium, German silver etc. Some shops are also keeping leather goods and footwear including all sorts of stationery goods, (ii) *pan-biri* and tobacco shops, which are generally one-man establishment selling *pan* (betel-leaf), *biri*, cigarettes, chewing tobacco, betel-nuts, match boxes etc., (iii) cloth and hosiery shops dealing in all kinds of textiles—cotton, woollen, silk, nylon etc., (iv) fruits and vegetables shops, (v) medicines and (vi) bakery and sweet meat.

Retail marketing centres are situated in almost all the important administrative centres. With the better communication and transport facilities in the district, retail shops have sprung up in some of the interior villages also.

According to the 1971 Census, there are 172 trade or business establishments in the district. "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".¹ The number of establishments as enumerated in the 1971 Census is as follows :²

	Number	Percentage
Government or quasi-Government	241	41.2
Private	335	57.3
Co-operative	9	1.5
Total:	585	100.0

¹ Census of India 1971, Arunachal Pradesh, Part III-A & B, p. 3.

² Ibid., p. 11.

The broad types of the establishments and their numbers as recorded in the 1971 Census are shown as follows :¹

	Manufacturing, Processing or Servicing Establishments	Trade or Business Establishments	Other Establishments	Total
Government or quasi-Government	7	38	196	241
Co-operative	—	9	—	9
Private	29	125	181	335
Total :	36	172	377	585

The 'trade or business' establishments' are as follows:

	Wholesale	Retail	Others	Total	Percentage
Government or quasi-Government	—	23	15	38	22.1
Co-operative	—	89	36	125	72.7
Private	—	9	—	9	5.2
Total :	—	121	51	172	100.0

The following is a general account of the 'Trade or Business Establishments' quoted from the 1971 Census.

"The traditional trade or business was carried out in Arunachal Pradesh by the barter system. The closest resemblance to money was provided by the semi-wild livestock called methon (*Bos frontalis*), old Tibetan metal prayer bells without handles, genuine rare stone beads, Tibetan swords, utensils and salt, Assam silk mostly *Eri*. Sufficient amount of these could buy practically everything in Arunachal Pradesh, including a wife or indemnity and settlement against criminal acts such as murder. In such a society, trading establishments were not a necessity. Everybody carried out trade or business by oneself, buyer reaching the seller in latter's house (and *vice-versa*), often driving a methon in front, or carrying prayer bells in the inside layers of the clothings or even being followed by an attendant, mostly wife, carrying a screaming pig tied like a basket on the back. With the opening of the area, trade goods started pouring in. The braves

¹ Census of India, 1971, Arunachal Pradesh, Part III A & B, pp. 12, 52.

observed the new spotless matches, torch lights and other likeables, the beauties spotted the gleaming aluminium vessels, brightly coloured yarns, mill made clothes, cosmetics and soon saw that they needed them. Tobacco, tobacco products, sea salt, matches, cheap cosmetics, soap, mill made clothes, leather goods, hurricane lamps and many other outside products were added to the list of daily necessities of the tribes. The society needed money. But their traditional wealth had no exchange value. Their agricultural products would have had a ready market, but the production was not even sufficient to feed all the mouths of the tribes. It was necessary for the Administration to import from outside all the cereals, lentils etc. required by the Government officials, often resorting to the expensive process of air dropping. At this stage, large scale alienation of land and devastating exploitation of the forests by outsiders would have taken place leading to permanent impoverisation of the Arunachal Pradesh tribes, as had happened in case of some other primitive societies of the world. But the Arunachal Pradesh administration mercifully did not permit this to happen. Therefore, the tribes had to depend upon the Government work for money supply. They carried head loads, pony loads, built bamboo huts, maintained foot tracks, cleared jungle, interpreted and served the administration in other subordinate positions. Soon they saw the value of education. The problem of inadequate supply of money became acute. The areas that had the tradition of trading with the plains of Assam, were the least affected. More remote an area was, more acute was its problem of money supply. The factors of demand and supply never displayed a more pronounced effect on price anywhere else. A chicken would cost Rs. 10/- at Pasighat, the old established trade town of the Siang district; Rs. 40/- at Koloriang, the sub-divisional headquarters of the Subansiri district at 10 days' marching distance from the nearest jeepable point; Rs. 70/- at Anini, the headquarters of the Additional Deputy Commissioner of the Dibang Valley Sub-division of the Lohit district, situated at a distance of 17 days' march from the nearest jeepable point. The inadequacy of money supply sometimes even created social problems. As for example, lure to earn money by carrying head loads by the young girls, who needed cosmetics and other luxuries, nearly ruined many marriages. The sale of the handicraft products supplied money to a limited number of persons.

"Under such a restrictive economy that has yet to strike a balance between the old values and the emerging monetisation, the growth of trade or business has to remain at a rudimentary level. But, though the level is low, the rate of growth is opined to be very high".¹

¹ Census of India, 1971, Arunachal Pradesh, Part III, A & B, p. 25.

Co-operation

The co-operative societies have been playing a very important role in the commercial sector of development and economy in this tribal area. The tribal life is corporate, where the principle of co-operation with each other for common benefit and welfare of the society is upheld. Mutual help in primary needs, which is largely eliminated in urban life, is a moral obligation with them. Although the Nishis and the Apa Tanis are said to be individualistic, their social institutions are democratic in essence. The Apa Tanis make co-operative efforts in agriculture even though most of the land is held by them under individual ownership.

In this economically backward tribal area, co-operation is essential to meet the immediate and essential requirements of the people. Keeping this fact in view, 21 co-operative societies, as existing in the district on March 31, 1979, have been functioning in various sectors, such as consumer, transport, industry, farming, thrift and credit, school etc. The co-operative societies and their achievements are shown at the appendix to this chapter.

Central Purchase Organisation

The Central Purchase Organisation, or C.P.O. in short, is a Government organisation for air supply of essential foodstuffs to the Government employees stationed at places where communication and transport facilities are lacking. It also supplies ration items to labourers engaged in construction works under the C.P.W.D. In the event of natural calamities or food shortage, rice is supplied from the C.P.O. to the local people as well. The articles are sold at Government rates and the stock includes rice, atta, salt, dal, sugar, mustard oil, kerosine oil, vegetable ghee, tea leaves etc. There are nine C.P.O. centres in the district located at Koloriang, Huri, Sarli, Sagalee, Nyapin, Tali, Limeking, Taksing and Nacho.

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.

Metric System : 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 systems of weights and measures has been successful to a great extent towards simplifying the business transactions.

There are in the district two Inspectors of Weights and Measures assisted by two manual assistants and a small staff respectively.

APPENDIX

THE CO-OPERATIVE SOCIETIES IN SUBANSIRI DISTRICT

Sl. No.	Name of Society	Date of Registration	No. of members	Working Capital	Paid up share capital (individual)	Annual turnover	Profit	Loss	Year of Audit
1	2	3	4	5	6	7	8	9	10
1.	The Apatani Multipurpose Co-operative Society, Ziro	21.1.58	213	3,60,342.00	13,210.00	23,00,217.48	1,97,146.75	—	1975-76
2.	The Nishi Mikir Co-operative General Stores, Doimukh	26.6.59	—	91,188.71	1,360.00	4,29,549.75	15,077.00	—	1976-77
3.	The Miri Co-operative General Stores, Tamen	12.2.61	186	80,547.92	8,340.00	4,82,716.52	—	7,025.55	1977-78
4.	The Balijan Co-operative General Stores, Balijan	20.12.66	133	18,490.59	3,550.00	1,462.85	—	618.64	1976-77
5.	The Nishi Co-operative General Stores, Sagalee	7.1.71	206	18,668.94	9,490.00	27,394.30	—	12,222.47	1975-76
6.	The Ziro Transport Co-operative Society, Ziro	10.2.62	26	—	10,300.00	—	—	2,140.00	1976-77
7.	The Nishi Kerbi Industrial Co-operative Society, Doimukh	29.3.67	56	92,012.00	5,820.00	No business	—	10,831.03	1976-77
8.	The Subansiri Multipurpose Co-operative Society, Ziro	10.2.62	78	52,652.00	2,070.00	1,95,730.09	—	6,317.34	1977-78
9.	The Student Co-operative Stores Ltd., Ziro	25.3.64	119	765.51	283.00	1,140.91	56.07	—	1977-78
10.	The Nishi Student Welfare Multipurpose Co-operative Society, Yazali	13.7.70	14	217.00	2,062.00	No business	—	—	1975-76
11.	The Koloriang Co-operative General Stores, Koloriang	23.12.67	77	66,023.10	1,340.00	1,70,430.12	12,740.18	—	1977-78
12.	The Government Employees' Co-operative General Stores, Itanagar	29.7.75	—	Newly registered	—	—	—	—	—
13.	The Daporijo Co-operative General Stores, Daporijo	19.2.58	128	49,957.72	3,330.00	13,18,942.91	46,931.08	—	1977-78
14.	The Rizo Transport Co-operative Society, Daporijo	15.9.65	24	86,719.98	20,660.00	—	—	2,661.13	1977-78

1	2	3	4	5	6	7	8	9	10
15.	The Daporijo Thrift and Credit Co-operative Society, Daporijo	4.12.64	604	1,68,147.39	13,790.00	91,150.00	10,491.24	—	1976-77
16.	The Sebar Co-operative General Stores, Siyum	1.8.66	42	8,955.09	1,160.00	15,388.10	542.68	—	1977-78
17.	The Na Co-operative General Stores, Taksing	11.9.66	152	24,880.96	3,580.00	47,440.45	7,153.36	—	1976-77
18.	The Limeking Co-operative General Stores Limeking	24.4.69	20	6,324.00	550.00	6,667.20	3,285.33	—	1973-74
19.	The Student Consumers Co-operative Society, Daporijo	17.8.66	80	2,000.00	207.00	—	476.17	—	1976-77
20.	The Chikom Bango Farming Co-operative Society, Daporijo	27.7.66	48	16,130.00	5,060.00	1,875.00	1,074.81	—	1973-74
21.	The Sigin Bango Service Co-operative Society, Daporijo	11.2.69	73	27,414.89	21,530.00	3,005.00	—	2,481.60	1977-78
22.	The Taliha Co-operative General Stores, Taliha	20.12.66	88	41,169.69	5,760.00	1,31,755.70	—	63.48	1977-78

CHAPTER VII

COMMUNICATIONS

Old-time Trade Routes

Before 1947 there was no motorable road in the district. Foot-tracks were the only means of inter-village communications, and they were used for trade with the plains of Assam and Tibet.

Trade Routes to Tibet: There were a number of trade routes to Tibet. Some routes originated from lower Na settlements of Taksing led to several Tibetan villages. An important trade route leading from Mara in the Limeking area followed the course of the Tsari Chu (the Gelen river). There were two other routes along the Meni and Kodup rivers which were used by the traders. Regular trade routes also existed from the Kamla and Khru valleys, of which one was from Ruba. Ruba is a Bangni village situated down the confluence of the Kamla and the Tapa. There was another route along the head-waters of the Khru river from the village of Pisa.

Internal Trade Routes: The lower Na-Kamla valley route was the most important of all the internal trade routes. It was a regular track passing through Furak and Ruba to the villages of the middle Kamla valley. The traders from the Tali area followed this route to reach Taksing. This route remained open from May to September. During the winter months it was covered by snow. From the Tali area there was another route to Mara in Limeking which was used during the months from April to October. It took about four days for the people of Soreng Lippu of the Selu and Hema valleys to reach Mara by this route. One could also reach Soreng Lippu by a route following the course of the Kojir river. This route was through from March to September. The people around Taliha and of the Sipi valley sometimes used a route leading up the Menga river in order to reach Gadu.

Communications in the British Days

During the British rule, no regular road communication to connect the interior parts of the district was built up, nor was there any road good enough for vehicular traffic. The British travellers and administrators, how-

ever, penetrated far into the district, following the existing tracks and exploring new routes. Notes¹ on some of the routes used in the British days are as follows.

"Route to Northern Daphla Villages and to the Villages of the Ranga Valley—From Silonibari, a stockade near Lakhimpur, Lieutenant Harman marched by the sandy bed of the Pans river. The river has a breadth of 40 feet of water in January, and flows with a swift current between steep banks; the depth 1 to 2 feet. A short distance beyond the old Daphlagarh the river opens out to 100 yards from bank to bank and is called the Digol Daroli. Lieutenant Harman appears to have camped near here; distance of march about 7 miles.

"Entered the outlying low sandstone hills through a gorge, on the western side of which is a cliff (Hatimuta of the Daphlas). From this point the river is tortuous and traverses low sandstone hills covered with dense forest. The river, shortly after entering the hills, receives a small stream from the north called the Gordoloni, and then rises rapidly. At the junction of the rivers there is an isolated rock, with a Daphla hut built upon it; a short distance beyond this point the Henko river flows into the Pans from the west and is equal to the Pans at the point of junction, and the path goes up the latter until its junction with a small river called the Bat.

"Ascended the Bat a short distance, then crossed over a low ridge down into the Lotia river, and after marching up its course some way an excellent path leading up the hill-side is met with, and after an ascent of 500 feet the Kesuri-gauch-purbat is reached. At this point an excellent path comes in from Aohat; said to be practicable all the year round. Aohat is about 8 miles distant as the crow flies, and is close to Lallukdoloni on the trunk road. From the Kesuri-gauch-purbat the path continues up the ridge and over the Jaboripita, Ratsal and Moru ridges on to the 'Katusal' mountain, passing through magnificent forest. From Katusal the path goes to the 'Tekara-guri-parbat', then along a flat broad ridge to the 'Galo Pokri', a circular depression in the hill top full of water and 30 yards across. From this there is a steep ascent up to the pass of the Sikoti Dhura (about 3,500 feet above the sea level). From Kesuri-gauch-parbat the northern Daphla villages of the Dikrang valley can be reached in two days' march.

"From the 'Sikoti Dhura' the path descends to the Ranga (Hunderi of the Daphlas). On the path down there is a large rock jutting out from the hill-side called 'Sitaimura mellaur'. At the bottom of the descent the Ranga is reached, a fine torrent of greater volume than the Dikrang, not fordable, and with an average width of water 60 yards across. Tadas village

¹ John F. Michell, *The North-East Frontier of India*, (Delhi, Reprint 1973), pp. 340-341, 345-347.

is an easy march of 5 miles from this point, and the other villages are all easily reached by good paths".

"Major Cory's Route in February 1874 to the Northern Daphla Villages — From Hurmuttee to Borpani Mukh the distance is 8 miles. — From Hurmuttee are visible the 'jooms', or clearings, in the forests on the hill sides of the Daphla villages belonging to Hasing Tasing and Tapoo west-north-west, the peak known as the Misr Parbat bearing nearly west.

"The Daphla path to Hurmuttee is along the river bed itself, and is therefore only passable when the river is low. In the rains the river is a deep and swift torrent; and as neither Daphlas nor Abors construct nor can manage boats, this communication is absolutely cut off. Leaving Hurmuttee in a north-westerly direction the path lies up the bed of the stream, crossing it often by pebbly shallows. After about $2\frac{1}{2}$ miles a long reach changes direction to the south-west for a mile. Then, again, resuming course to the north-west is passed a conspicuous cliff of conglomerite on the left hand, which make the entry of a small stream flowing from the south. Half a mile farther on another small tributary joins from the south, and at about 8 miles from Hurmuttee the confluence of the Borpani river, flowing from west-north-west, is reached. Between the Rivers Borpani and Dikrang a rather dangerous and troublesome quicksand has been thrown up as a bar, with only an inch or two of water above it.

"On the high ground, in the angle between these two streams, is a thick forest of lofty trees. The plateau on which they stand is about 20 feet from the surface of the water, and offers a good site for a camp when the jungle undergrowth is cleared.

"From this point ready access can be had to Hasing Tasing's village, up the course of the Borpani, for about 8 or 9 miles, to the point where the Daphla hill path descends to the river, from which the village is said to be distant but 1 mile.

"From Borpani Mukh to the Daphla Fishing Weir the distance is 5 miles 6 furlongs: — The path leads up the main stream of the Dikrang north-north-west about 100 yards broad. Water averaging between 2 and 3 feet deep, swift current over shingle, deep pools at foot of rapids not infrequent. A great deal of wading is necessary on this march, for the banks are often high on either side, and sometimes exceedingly thickly wooded, not only with forest, but with undergrowth impracticable for men. It should be remarked that while the interior of large forests is generally very readily traversable the skirts of them are not so. This is attributable in great measure to the effect of lights, the sunshine never penetrating the interior of these vast evergreen woods, so that scarcely any undergrowth can thrive there, whereas at the edges the reverse is the case, where

cane brake and every variety of creeper abound, and it is often so matted as to be practically impenetrable.

"At 4 miles from camp at Borpani Mukh another dangerous quicksand occupied the bed of the river; and on attempting to pass along the forest a track was found which, though not recently used, was distinctly marked, and which appeared at first to lead northward along our course, but changed its direction to the east-south-east, and was therefore abandoned.

"The fishing weir, much resorted to by the hill tribes in the winter, and constructed on a very large scale, occurs at a point where the river alters its character, and becomes a mere mountain torrent; the bed piled-up masses of rock; the stream a series of falls and deep pools.

"It is a place remarkable for its picturesque beauty, and meetings of the tribes and the plains people take place here for purposes of exchange and barter. The English horse chestnut tree, flourishes here, marking a modification of the tropical climate of Assam.

"We found traces of a path running due north up a ravine, which, we were informed, communicates with the Daphla Alli, or hill road said to lie along the ridges of the hills between Hasing Tasing's villages and the Chang of Nana Pakfis and Haching.

"We saw no human being the whole distance from Hurmuttee to this place, and only in the ravine found the print of a human foot, probably that of some scout deputed to watch us".

Porterage

From the inception of the administration into the interior of the district, porterage has been introduced as a means of transport. With the construction of a network of vehicular roads connecting different administrative centres, dependence on porters for carriage of goods is now decreasing in some areas. But in other areas porters are still indispensable for touring officers as well as travellers.

Development of Road Communications

The need for construction and improvement of roads for administrative as well as developmental purposes assumed ever increasing importance since independence. Communication was the basic factor of development and welfare of this tribal area. Development of road communications in this difficult mountainous region is, however, not as easy as it may be in the plains. At the initial stage, therefore, the existing routes were taken up for improvement. These routes have come to be known as porter tracks and mule paths as they are used both for journeys and transportation of goods.

In order to keep pace with the extension and establishment of regular administration over the whole of the district and the needs for development, a network of roads connecting the important places in the district has been constructed.

The length of roads in the district:¹

(1) CPWD Roads (on March 31, 1978)	—	424.48 km
(2) Forest Roads (on March 31, 1979)	—	236.59 ..
Total:		661.07 km

The following is the type-wise length of CPWD roads:

			(in kilometre)
Type of Roads			Total
Black-top	Unsurfaced	Katcha	
188.00	24.24	212.24	424.48

Under the Community Development Blocks there was a total length of 1701 km of unsurfaced roads in the district upto the month of March 1975, of which 5 km was motorable.

Air Transport

Some mountainous areas of the district can only be reached either on foot or by air. There are some places which depend largely on air supply of food and other essential commodities. The district has a number of landing grounds and dropping zones to meet the requirements of air transport.

Travel Facilities

Under the Inner Line Regulation enforced from 1873, travelling in the district is restricted. One can, however, enter the district and visit places only on obtaining an Inner Line pass from the Government.

In the old days, travelling in this tribal area was difficult due mainly to lack of road communications. Now the district has a good number of roads and bus services are available on some specified routes for travel.

¹ Source: Statistical Hand Books of Arunachal Pradesh, 1977-78 and 1978-79.

There are Inspection Bungalows at important places such as Itanagar, Ziro, Daporijo, Doimukh, Koloriang, Nacho and Taliha. Ziro and Daporijo have also a Circuit House in each. Rest Houses are also located at some places. To facilitate travelling in the interior of the district, the Government further maintains some Rest Houses along the foot tracks in addition to Staging Huts installed at regular intervals for halt at night. For journeys on foot porters are available.

Posts, Telegraphs and Telephones

Before any Post Office was opened in the district, there was a mail system working through Dak Runners. Mail for the district was delivered at the base office at Kimin by the Post Office at North Lakhimpur. The mail was despatched to different places in the interior of the district through the runners appointed for the purpose. The first Post Office in Subansiri was opened at Ziro in 1959. The runner system is still operating in areas which are outside the lines of road and other means of communications.

Twentyeight Post Offices were established in the district till the month of March 1979, out of which seven Post Offices stationed at Ziro, Old Itanagar, New Itanagar, Kimin, Doimukh, Daporijo and Banderdewa provide telegraph facilities. The Post Offices at Ziro, Old Itanagar, New Itanagar and Daporijo have telephone exchanges as well.

A list of Post Offices is appended to this chapter.

APPENDIX

POST OFFICES IN SUBANSIRI DISTRICT
(Position as on March 31, 1979)

<i>Type of Post Office</i>	<i>Location</i>
Sub-Post Office	(1) Daporijo (2) Kimin (3) New Itanagar (4) Old Itanagar (5) Ziro
Branch Post Office	(1) Banderdewa (2) Damin (3) Doimukh (4) Dumporijo (5) Howa Camp (6) Koloriang (7) Limeking (8) Maro (9) Muri (10) Nacho (11) Nirjuli (12) Nyapin (13) Palin (14) Raga (15) Sagalee (16) Sarli (17) Siyum (18) Sonajuli (19) Sangram (20) Taksing (21) Tali (22) Taliha (23) Yazali

Source: Statistical Hand Book of Arunachal Pradesh, 1978-79.

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 and keeping pace with the fast-changing socio-economic conditions. The old-time 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 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 percentage¹ of the total population and the Scheduled Tribe population being 6.89 and 3.16 respectively according to the 1971 Census, the number of tribal youths going for Government service and various other professions is in the increase. It is the avowed policy of the Government to employ 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, drivers, 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. Learned professions like medical, engineering, legal, educational etc. are yet to assume numerical significance.

¹ See Chapter XIII for details.

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 group of families, 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 it. Some of these supplementary occupations are weaving, cane and bamboo work, smithery, 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 living in 20,653 households (number of occupied residential houses is 11,427 according to the 1971 Census)¹ is rural. Most of the people, except the Apa Tanis, make their living by shifting or jhum cultivation, and they are still at a very low level of economic development. For example, the Sulungs, who were semi-nomadic in their ways of living, have now learnt some method of jhum cultivation from the neighbouring tribes. But, they are said to be still attached to a life based on food-gathering and hunting in the wild forests.

Industrial activities in the district are limited to cottage and small-scale industries. There are a few industrial units and workshops.

EMPLOYMENT IN DIFFERENT OCCUPATIONS

According to the 1971 Census, the worker categories and their numbers in the Subansiri District are as follows:

	Persons	Males	Females
<i>Total Population</i>	99,239	51,397	47,842
<i>Workers</i>	60,649	32,162	28,487
<i>Non-workers</i>	38,590	19,235	19,355

Category of Workers

1. Cultivators	53,137	25,128	28,009
2. Agricultural Labourers	422	234	188

¹ In the 1971 Census figures quoted in this chapter, the population of 13,689 persons living in that part of the Daporijo Sub-division which was in the Siang District at the time of census is excluded.

	Persons	Males	Females
3. Livestock, Forestry, Fishing, Hunting, Plantations and Orchards and Allied Activities	25	25	—
4. Mining and Quarrying	2	1	1
5. Household Industry	61	45	16
6. Other than Household Industry	6	5	1
7. Constructions	98	94	4
8. Trade and Commerce	344	328	16
9. Other Services	6,554	6,302	252
Total	60,649	32,162	28,487
<i>Total Scheduled Tribe Population</i>	90,242	44,785	45,457
Workers	54,725	26,767	27,958
Non-workers	35,517	18,018	17,499

Category of Workers among Scheduled Tribes

1. Cultivators	52,540	24,822	27,718
2. Agricultural Labourers	380	202	178
3. Livestock, Forestry, Fishing, Hunting, Plantations and Orchards and Allied Activities	1	1	—
4. Mining and Quarrying	1	—	1
5. Household Industry	26	14	12
6. Other than Household Industry	6	5	1
7. Constructions	29	28	1
8. Trade and Commerce	249	235	14
9. Other Services	1,493	1,460	33
Total	54,725	26,767	27,958

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, "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 worker¹.

Occupational Pattern

Agriculture is evidently the main occupation of the people. The 1971 Census reveals that the percentage of workers relating to the total population is 61.10. The cultivators constitute 88 per cent of the workers in the total population and about 96 per cent of the workers in the Scheduled Tribe population. Among the 53,137 cultivators in the district, 52,540 persons belong to the Scheduled Tribes. A notable feature of occupations is that the number of female cultivators is more than that of the males. In the Scheduled Tribe population, the total number of female workers also exceeds that of male workers. But shifting or *jhum* cultivation, which is mainly practised, is seasonal, and normally this occupation cannot keep the cultivators engaged all the year round. Most of the agricultural labourers are from the indigenous people. Next to cultivators the category under 'other services' constitutes the highest percentage of workers. The other categories of workers except under 'trade and commerce' are numerically insignificant.

The crafts and trades of the people have been described at length in the foregoing chapters IV, V and VI. 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.

As in the districts of Lohit and Siang, weaving and work in cane and bamboo are the most important handicrafts of the people, and in these two subsidiary occupations are engaged many tribesmen and women of Subansiri. The Apa Tanis are expert weavers, weaving for themselves as well as for their neighbours—the Nishis and Hill Miris of whom the former also weave cloths. Work in cane and bamboo is common to all these three tribal societies, and their craftsmen are skilled at making various useful and marvellous articles. The Nishis have among them good ironsmiths and silversmiths. The Sulungs also produce a variety of articles of iron and brass.

¹ Census of India 1971, Arunachal Pradesh, Part II-A, p. 66.

Other seasonal and minor occupations are as follows :

Hunting, Food-Gathering and Fishing : Expeditions for food are a part of life in some tribal societies in this district.

"The Nishis are expert hunters and none will be found abroad without his set of bow and arrows . . . Hunting, as such, is a useful occupation for it adds to the meat supply of the household. But it is much more than that. It is a way of life that brings excitement into the monotonous routine work of agriculture. No moment could be as thrilling as when a team of hunters kill a tiger or a wild boar.

"Hunting is an individual as well as a group undertaking. The game forest in its entirety belongs to the village as a whole. No family or household may claim any part of it as its own game-reserve. Thus, any person from the village is theoretically free to hunt in any part of the forest he likes; but he is forbidden to disturb the traps already laid. This prerogative is so strictly adhered to that any infringement leads to an open quarrel and abuse which can only end when the offender has paid the traditional fine of a pig...

"In community hunting, the game is equally divided among the hunters. The head and skin of the animal are given to the successful hunter who has shot it. The arrow that killed the game is taken out and preserved in the house as a token of success. The skull of a boar is kept among other trophies, but that of a monkey is hung near the door opening on the *tumko* to keep off evil spirits.

"Apart from the community hunting, which may be organized once or twice a month, individual enterprises are equally significant. A man may go to the jungle any day in search of small game and return by evening with the day's bag. However, it is from the hidden traps which he lays that he expects a good catch. A number of these traps are in common use and are worked on the principle of lever release. Widely used is the trap called *kuma*. This is an indigenous device by which an animal, while passing by, dislodges a lever held by a cane string resulting in the release of a poisonous bamboo spear which kills it.

"Birds, rats and squirrels are caught and killed in smaller traps. Many of these follow the lever principle while some others are noose-and-spring traps. In the latter kind of traps, a sapling is bent down with an attached noose held insecurely by a holder. The animal caught in the snare in its attempt to free itself, releases the holder thus causing the sapling to spring back with its body or neck tightly noosed. In catching birds, people make use of a kind of gum called *tachur*¹.

The Sulungs roam about for hunting. But their hunting expeditions have

¹ B. K. Shukla, 'The Daflas of the Subansiri Region', (Shillong, 1965) pp. 30-32.

now become a very tame affair due to the scarcity of big game in the hills around. The Sulungs have often to remain content with no larger animals than squirrel, frog, mice and even insects for supply of animo-protein¹

The Hill Miris are inveterate hunters. Long ago Dalton wrote about their occupation that "The time of the men is chiefly occupied in journeys to the plains with loads of (munjista) munjit or other produce, or in hunting. They have various methods for entrapping animals of all kinds, from an elephant to a mouse and all is fish that comes to their net ... Not less than two-thirds of the population spend several months of the year in the plains, and their main occupation whilst there is to procure meat and fish, dry it, and carry it back to their hills"² Dr. Furer-Haimendorf also observed that 'they cultivated in the hills during the spring, rains and autumn and spent the coolest months in their hunting and fishing grounds in the plains'.

The Tagins are also said to be expert hunters. Hunting of wild games is for them a means to procure supplementary food. In hunting they use poisoned arrows. The poison produced by them from the nuts of a tree called *amyoh*.

The Sulungs had hardly any knowledge of agriculture until recently, and were often characterised as food-gatherers and hunters for their semi-nomadic habits. C. R. Stonor, who studied the Sulungs closely and visited them on a number of occasions during the years 1945-1948 wrote that 'the Sulungs are at heart food-gatherers and hunters. The food-gathering is of a highly specialized type, in that it consists almost entirely in collection of wild sago. The main source of supply is a dwarf palm which is common throughout this region. Although the bulk of the supply is obtained from the forest direct, the Sulungs also cultivate Sago palms to some extent, and most of their settlements have a small patch of the trees near them. In the populated areas primary forest needed for the palms is very limited and the Sulungs often have to go two or more days' journey from their homes to find sago'.³

The Sulungs even now instinctively lead a semi-nomadic life in quest of food. They would set out periodically on food-gathering expeditions even if they have cultivable land. Indeed, the food-gathering is still a norm of their life.

The Hill Miris, as already mentioned, go for fishing. They fish in streams and fords with their basket traps. The months between April and June are the fishing season. Drying of fish is also largely practised by the Hill Miris. The dried fish is stored as a reserve-stock for lean months.

¹ J. N. Chowdhury, Arunachal Panorama, (Shillong, 1973), p. 129.

² E. T. Dalton, Tribal History of Eastern India, (Descriptive Ethnology of Bengal), (Delhi, 1973), pp. 33-34.

³ See the article 'The Sulung Tribe of the Assam Himalayas' by C. R. Stonor, published in the Arunachal Research Bulletin, August, 1972, pp. 14-15.

The Nishis have a common method of constructing dams across streams and rivers for catching fish. The dams called *sepa* are made of wood and bamboo and tied with cane. In shallow water, they use poison for fishing. Conical baskets are used for trapping the fish. Small fishing nets made of fibre strings are also used.

Raising of Livestock and Poultry

The mithun (an animal of the bovine species) is extremely important and coveted animal for most of the tribes of Subansiri. Its importance lies in its use for payment of the bride-price and as an object of sacrifice. The mithun is also acceptable as compensation for any crime committed. It is regarded as a measure of riches that a person may possess. Indeed, the mithun symbolizes wealth and prosperity. But only the rich can afford to possess it, and the others cherish it. Even after the monetisation of economy, it may still serve as a medium of exchange in some remote areas. Valued highly for its importance in socio-religious matters, it is killed only on occasions of special feasts and sacrifices. Yet, surprisingly enough, the mithun, considered to be so precious, is generally set free to move about in nearby forests.

Next to the mithun, the pig is the most valuable possession for both the rich and the poor. Almost every family rears a number of pigs. The under-part of the stilthouses is generally used for pigsty. Flock of pigs roam about the village, and they are village scavengers *par excellence*. Pigs are used in various sacrifices as a form of currency and also for payment of the bride-price. Pork, both fresh and dried, is the principal meat of the people.

Besides the mithun and pig, cows and goats are reared for meat. But, they are few in number and allowed to graze around the village. Dogs are also a pet animal.

Fowls are an important possession of the people. Fowls are indispensable in the Nishi houses for sacrifice and exchange. 'They rarely kill a fowl for the sake of its meat. It is only when sacrifices are made that they roast and eat it'. Among the Hill Miris, every house own a few fowls. Eggs are regarded by both the Nishis and the Hill Miris as essential for religious purposes.

ECONOMIC TRENDS

In the pre-independence days the tribal people of Arunachal Pradesh lived within the confines of their hills in long isolation due mainly to geographical reason. There was no regular road communication to allow access to the

interior areas of this difficult mountainous terrain. Although some marts sprang up in the lower recesses along the foothills through which the people of the hills and plains traded and bartered their goods, the tribal economy remained unchanged. Moreover, the policy of the foreign rulers was not conducive to welfare of the people, nor was it concerned with economic development of the area. As a result, isolation 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 Subansiri 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 Subansiri about 96% 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 marked the beginning of manifold economic progress and development. 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 hill area, 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 limit and hinder mobility and the 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 development of agriculture and communications received increasingly greater emphasis in the Five Year Plans. During the second, third and fourth Plans, priorities were laid on agriculture for increased production. Highest priorities were given to construction of roads and buildings followed by social services including education and medical. Agriculture was raised to second priority level in the Fourth Plan. 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 of cultivation in place of the old indigenous methods, which were found not 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 were laid down for this 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, and
- (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. 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. Public investments have created employment opportunities in many fields of economic activities. It may also be noted that increase of money income of the people has brought about a relative change in the consumption pattern.

The achievements made in various sectors of development have been indicated at length under relevant chapter-heads of this gazetteer. There is now in the district a net-work of roads connecting the district and sub-divisional headquarters as also the capital of Arunachal Pradesh at Itanagar. The district has 23 small-scale industrial units, 225 educational institutions and 27 hospitals and dispensaries. Besides these, 59 places have been electrified and electrification of other places is under way. Harnessing of water-power potential taken up in the Ziro, Taksing, Yazali, Kimin and in other areas is likely to make a great headway towards supply of power to wider regions and development of industries. Twentyeight Post Offices including seven with telegraph facilities have been functioning in the district. The State Bank of India has opened its branches at Itanagar, Ziro and Daporijo. Regular markets have sprung up at various administrative centres and along the foothills belt. A good amount of revenue is

derived annually from the district through scientific exploitation and development of its forests.

Agriculture

Except in the Apa Tani valley where irrigated rice cultivation is practised, agriculture in other areas is predominantly of a shifting type pursued through the ages, and it still continues to be the basic factor of tribal economy in this district. Life of the people in this area is a struggle with the extremities of nature, 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. Consequently, 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. As a result of repeated jhum cultivation in fixed available lands, the productivity of jhum fields may diminish to a point below the subsistence level of a growing population, and this probability may in turn retard the growth of economy in this tribal area unless a gradual shift from the old methods to more productive methods of agriculture takes place. 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;
- (5) Supply of fertilizers and improved seeds;
- (6) Agricultural demonstrations;
- (7) Multiple cropping;
- (8) Farmers' training, and
- (9) Training of personnel in specialised branches of agricultural science, soil conservation etc.

There is no financial institution except the State Bank of India to give assistance to farmers. In the co-operative sector, there is, however, a thrift and credit society at Daporijo. The Government provides financial aid to the farmers for purchase of agricultural tools and implements, construction of rural godowns and warehouses, development of horticulture and pisciculture and for irrigation and other purposes. Fertilisers and improved seeds

are also supplied to the farmers. With a view to augmenting food production, the Government has taken effective steps to bring larger areas under permanent cultivation through land development for wet-rice and terrace-rice as suitable to local conditions. Methods of multiple cropping and sowing of high-yielding varieties of seeds have also been adopted.

The district has three agricultural farms in Ziro and Daporijo besides one seed multiplication farm at Sonajuli. During the period of five years from 1974-75 to 1978-79 an area of 4657 hectares of land in aggregate was developed in annual phases under permanent cultivation. A cropped area of about 4901 hectares was brought under irrigation in the district till the month of March 1977. Under the Rural Water Supply schemes implemented upto the month of March 1979, about 306 villages have been supplied with water.

As pressure on land in this area does not pose any serious problem, the diminishing return of *jhum* land may not become much evident for quite some time to come. But, since agriculture is the mainstay of the people, it is imperative that the methods of cultivation are improved for more productivity and economic progress. The need for a change from shifting (*jhum*) to sedentary cultivation is, therefore, emphasised in the Government plans. In fact, significant steps have been taken towards switching over to methods of permanent agriculture. The extension of urban market facilities has also led to an expansion of the commercial sector of crop production.

It may also be noted in this context that agriculture in this tribal area is still comparatively free from the problems of land ceilings, landless labour and rural indebtedness. Here the land is held and cultivated either individually or collectively.

Co-operation

The co-operative movement in the district has gained an appreciable momentum. 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.

Twentyone co-operative societies with a total number of about 2,367 members are functioning in the district. The types of the societies as on March 31, 1979 are as follows:

Type	Number
1. Consumers Co-operative	10
2. Multipurpose Co-operative	2
3. Transport Co-operative	2
4. School Co-operative	3
5. Thrift and Credit Co-operative	1
6. Farming Co-operative	1
7. Industrial Co-operative	1
8. Service Co-operative	1
Total	21

Community Development

The Community Development Programme, introduced in the district since 1954-55, is being carried out through fourteen Development Blocks, of which eleven blocks are at the Post Stage-II, one at the Stage-II and two at Stage-I phases.

The Community Development Blocks existing in the district in March 1979 as shown in detail in the appendix to this chapter had covered 1040 villages with a population of 1,05,000 persons.

The schemes taken up under the Community Development Programme aiming at development of villages through self-help, and the achievements made since the inception of the blocks till March 1976 are as follows¹:

Sl. No.	Schemes	Physical Achievements
1.	Distribution of Improved Seeds	960 qtls
2.	Distribution of Seedlings and fruit grafts	30,000 nos
3.	Opening of Private Fruit Garden/ Vegetable Garden	82 nos
4.	Supply of Work Animals	100 pairs
5.	Land Development for Permanent Cultivation:—	
	(i) Wet-rice cultivation	100 hect
	(ii) Terrace-rice cultivation	340 „
6.	Minor Irrigation	260 „
7.	Distribution of Improved Animals :—	
	(a) Bulls	10 nos
	(b) Cows	32 „
	(c) Goats	155 „

¹ Source: Directorate of Agriculture and Community Development, Government of Arunachal Pradesh.

Sl. No.	Schemes	Physical Achievements
	(d) Pigs	250 nos
	(e) Sheep	20 „
8.	Distribution of Improved Poultry Birds :—	
	(i) Poultry	815 nos
	(ii) Ducks	150 „
9.	Opening of Cattle Up-grading Centres	8 „
10.	Establishment of Private Poultry Farms	19 „
11.	Setting up of Private Piggery Units.	1 unit
12.	Setting up of Private Dairy Units	5 units
13.	Distribution of Fertilizer/Manure	5 m/tons
14.	Opening of Horticulture Demonstration Plots	5 plots
15.	Establishment of Private Sewing/ Weaving Units	4 units
16.	Supply of Yarn and Weaving Materials	1300 kg
17.	Opening of Panchayat Ghar/Community Recreation Centre/Youth Club	30 nos
18.	Organisation of Farmer's Training Camp/ Village Leader Camp/Youth Camp	20 camps
19.	Conducted Tours	8 parties
20.	Children Part/Play Ground	4 nos
21.	Roads and Tracks Constructed	1701 km
22.	Construction of Suspension Bridges:—	
	(i) Wire-rope	45 nos
	(ii) Cane	41 „
23.	Opening of Veterinary Dispensary/ Aid Centre	10 „
24.	Utilisation of Plant-Protection Chemicals on Crops and Plants	60 tons
25.	Housing:—	
	(a) Staff Quarters	68 nos
	(b) Office Building	8 „
	(c) Godown	5 „
26.	Establishment of Blacksmithy Units (private units)	8 units
27.	Establishment of Carpentry Units (private units)	2 „
28.	Water Supply	2 „
29.	Organisation of Mela and Exhibition/ Crops Competitions	8 nos

The table below, based on the census categories of establishments, also indicates the economic and developmental activities and achievements in various sectors :

Sectors	Manufacturing, Processing or Servicing Establishments			Trade or Business Establishments			Other Establishments			Total
	Registered Factories	Un-registered workshop	Household Industries	Whole Sale	Retail	Others	Educational Institution	Public Health Institution	Others	
1	2	3	4	5	6	7	8	9	10	11
1. Government or Quasi-Government	—	7	—	—	23	15	90	20	86	241
2. Private	—	9	20	—	89	36	1	—	180	335
3. Co-operative	—	—	—	—	9	—	—	—	—	9
Total	—	16	20	—	121	51	91	20	266	585

Source : Census of India, 1971, Arunachal Pradesh, Part IIIA & B, p. 52.

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 enforced under the Regulation I of 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 engaged in 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 being formed in the tribal societies.

In view of the changing circumstances and the tribal societies gradually adapting themselves to these changes, it is apparent that a economic transition towards progress and development is now taking place in the district of Subansiri.

APPENDIX

Sl. No.	Name of Blocks	Block Headquarters	Year of Opening	No. of villages covered	Population (in'000)	Type of Blocks
A. Post Stage II Phase						
1.	Ziro-I CD Block	Ziro	1954-55	15	15	A
2.	Ziro-II CD Block	Ziro	1958-59	81	11	A
3.	Daporijo CD Block	Daporijo	1955-56	68	6	A
4.	Kimin-Doimukh CD Block	Doimukh	1959-60	84	6	A
5.	Dumporijo CD Block	Dumporijo	1960-61	18	7	A
6.	Sagalee CD Block	Sagalee	1961-62	109	8	A
7.	Palin CD Block	Palin	1962-63	77	7	A
8.	Taliha CD Block	Taliha	1962-63	90	7	A
9.	Koloriang CD Block	Koloriang	1964-65	99	6	A
10.	Tali CD Block	Tali	1964-65	82	7	A
11.	Tamen CD Block	Raga	1964-65	99	7	A
B. Stage II Post Intensive Phase						
1.	Huri CD Block	Damin	1968-69	67	3	B
C. Stage I Intensive Phase						
1.	Nacho-Siyum CD Block	Nacho	1977-78	79	6	A
2.	Nyapin CD Block	Nyapin	1977-78	72	9	A
Total				1040	105	

N.B. 1. Blocks having population above 5,000 are categorised as type A and those with population below 5,000 as type B.

2. Block phases are defined as: Stage I-5 years
 Stage II-5 "
 Post Stage II-Blocks which are to continue indefinitely.

Source: Statistical Hand Book of Arunachal Pradesh, 1978-79.

CHAPTER IX

GENERAL AND REVENUE ADMINISTRATION

Organisational Set-up of the Government

Under the provisions of the North-Eastern Areas (Reorganisation) Act of 1971 the erstwhile North-East Frontier Agency administered by the Governor of Assam as the agent of the President of India 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 the 15 August, 1975.

The Chief Minister and the other Ministers of his cabinet 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 in the pattern of what is called the 'Single Line Administration' 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 Subansiri are, among others, 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 and also the Executive Engineers belonging to the Central Public Works Department. These officers are responsible to the Deputy Commissioner for all developmental works done and implementation of schemes 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 importance of Arunachal Pradesh bounded by international borders can hardly be emphasised. The territory is inhabited by a large number of scheduled tribes who are at a low level of economic development. The whole area is ruggedly mountainous where communication difficulties are a veritable problem. All these factors 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 functions of the Circle Officers, Extra Assistant Commissioners etc. embraced a multi-purpose list in that they acted as local heads for all subjects affecting their jurisdictions such as development work, maintenance of law and order, revenue work, community development schemes, socio-

cultural affairs of the people and the exercise of authority over the various installations and schemes of various technical departments such as schools, hospitals, roads, agriculture and so on. This last function enables the executive functionaries to maintain an overall integrated outlook in their jurisdictions in various spheres. It also suits the convenience of the people in that they can appeal to a single authority on any subject. The prime position accorded to the Circle Officers, Extra Assistant Commissioners etc., in respect of their jurisdictions has come to be known as the Single Line Administration. This pattern has been in existence for a number of years and it has proved suitable both for the people and the Administration. It enables the simple folk to take their complaints and difficulties to the highest authority in their area in an attitude of trust and inner certitude that they would be heard. From the Administration point of view, the overall head provides a single authority to help resolve inter-departmental differences, to co-ordinate inter-departmental plans for the area and generally to develop an overall integrated approach in each administrative jurisdiction."¹

For administrative purposes, the district of Subansiri is divided into five sub-divisions—Ziro, Sagalee, Koloriang, Daporijo and Nacho, which are again divided into twenty circles altogether. The first three sub-divisions are administered by the Deputy Commissioner of the district with headquarters at Ziro and the last two by the Additional Deputy Commissioner with headquarters at Daporijo. The Deputy Commissioner is assisted by some Extra Assistant Commissioners of whom one is Additional Deputy Commissioner (Development) and Circle Officers at the district headquarters at Ziro. The sub-divisions are each in charge of an Extra Assistant Commissioner, and the circles are each under a Circle Officer.

Position of Administrative Officers
(provisional)

Sl. No.	Sub-division	Circle	Deputy Commissioner	Additional Deputy Commissioner	Extra Assistant Commissioner	Circle Officers
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Ziro	(1) Ziro	1	—	3	4
		(2) Palin	—	—	—	1
		(3) Raga	—	—	—	1

¹ P. N. Luthra, Constitutional and Administrative Growth of the North-East Frontier Agency, (Shillong, 1971), pp. 21-22.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
		(4) Tali	—	—	—	1
		(5) Chambang	—	—	—	1
2.	Sagalee	(1) Sagalee	—	—	1	1
		(2) Doimukh	—	—	—	1
		(3) Mengio	—	—	—	1
3.	Koloriang	(1) Koloriang	—	—	1	1
		(2) Sarli	—	—	—	1
		(3) Huri	—	—	—	1
		(4) Nyapin	—	—	—	1
4.	Daporijo	(1) Daporijo	—	1	2	2
		(2) Dumporijo	—	—	—	1
		(3) Taliha	—	—	—	1
		(4) Giba	—	—	—	1
5.	Nacho	(1) Nacho	—	—	1	1
		(2) Taksing	—	—	—	1
		(3) Limeking	—	—	—	1
		(4) Siyum	—	—	—	1
Total			1	1	8	24

An Additional Deputy Commissioner, an Extra Assistant Commissioner and a Circle Officer are stationed at the Itanagar Capital Complex. A Circle Officer is also posted to Balijan in the Sagalee Sub-division.

Local Self-Government

At the village level there exists in the district a regular system of self-government constituted by the tribal village councils. These councils are composed of village elders, and they traditionally enjoy a good deal of autonomy in judicial, administrative and developmental matters. All of these councils work under the provisions of the Assam Frontier (Administration of Justice) Regulation of 1945 (Regulation 1 of 1945) which confers on them such powers as are necessary to function as autonomous bodies. The Gaon Burah 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 Burah, a team of

political interpreters are employed by the administration for maintaining intimate relations with the village people. The Gaon Burah and the interpreters assist the government officials to perform their duties and to implement government decisions. They render valuable services in settling 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 Regulation 1 of 1945 also confers powers on the statutory 'village authorities' in civil and criminal matters.¹

Panchayat Raj

In harmony with the democratic self-governing traditions of the tribal people as manifested in the village and the inter-village 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 envisages for the districts a three tier structure of self-governing bodies, namely Gram Panchayat at the village level, Anchal Samiti at the block level and Zilla Parishad at the district level, and they have been duly empowered to formulate and execute minor development plans, and to implement various welfare schemes. The 1967 Regulation also provided for constitution of an Agency Council in the North-East Frontier Agency.²

REVENUE ADMINISTRATION

Revenue from the district is derived from a few sources of Government receipts. Most of the revenue is collected from forests. Other sources of revenue are State excise, stamps and registration fees, various licence fees, taxes and duties on electricity, taxes on vehicles, and revenue from industries, agriculture, animal husbandry and veterinary, public works, fishery etc.

Land

Land is held by the people under three broad categories of ownership, namely individual-land, clan-land and community or village-land.³ Clan-land is generally conterminous with village-land, but it may extend beyond the village. There may also exist a mixed type of holding—partly individual and partly communal. In fact, the land tenure system based on customary

¹ A detailed account of the local self-government has been given in Chapter XII.

² The Panchayat system has been described in detail in Chapter XII.

³ See Chapter IV for a detailed account of land tenures.

laws varies from tribe to tribe. The Apa Tanis, for example, are highly individualistic in their relations to land. Almost the whole stretch of cultivated land comprising the irrigated rice-fields in the Apa Tani valley is owned by individuals, a fact which distinguishes the Apa Tanis from their neighbours—the Nishis and the Hill Miris, who generally hold land under communal ownership. It may, however, be noted that no cadastral survey has been carried out in this area, and preparation of land records on the basis of such survey is a prerequisite for collection of any land revenue.

Except in the Apa Tani valley, *jhum* or shifting cultivation on hill sides, as already stated, is the prevalent mode of agriculture followed by most of the people in the district. Government's attitude to the settlement of land is formulated in the Balipara Frontier Tract Jhum Land Regulation, 1947. The Regulation provides customary rights to *jhum* land in favour of a village or a community which is in a permanent location and has enjoyed the right to cultivate or utilise such *jhum* land for not less than five years prior to the making of this Regulation. It may be reiterated that under the Jhum Land Regulation a village or a community is considered to be in a 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. 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 prior to the making of this Regulation in accordance with local custom; or if he, as a resident of a permanent village, has brought the land under cultivation which had not been cultivated at any time within the preceding thirty years, provided that such land is within cultivable reach of his own village. The Regulation further confers an individual cultivator the customary right to *jhum* land '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.

Jhum land for public purposes is acquired by negotiation with those having rights in the land on payment of suitable compensation wherever necessary. Procedures laid down in the Land Acquisition Act, 1894 (1 of 1894) are also followed in case of a land to be acquired by the Government. 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 from exploitation by outsiders.

"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 that it 'must be conditioned by the direct interests of the people.'² The Government policy in regard to tribal rights in forests has been indicated in the Jhum Land Regulations of 1947. 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.

Various forest codes, regulations and rules operating in Assam have a relevance to the forests in Arunachal Pradesh.³ Relevant Central Rules are also followed.

The Jhum Land Regulation of 1947 provides that "Subject to any orders that may be made under this Regulation, persons having customary rights to any *jhum* land shall be entitled to forest produce from such land for their own use or for the use of members of their own village or community but shall not, without the permission of the Land Conservator, be entitled to sell or transfer otherwise such produce to any other person." The Regulation further stipulates that "Where a Tribal Council approved by

¹ Verrier Elwin, A Philosophy for NEFA, p. 66.

² (a) Dr. Verrier Elwin, B. Shastri and I Simon edited, Important Directives on Administration of NEFA, p. 14.

(b) Verrier Elwin, A Philosophy for NEFA, p. 67.

³ Vide the Assam Gazette Notification No. FOR, 4/48/7 dated 1st May, 1948.

the Governor in this behalf has been set up in any area, any or all of the powers granted to the Land Conservator under the provisions of this Regulation may be vested by the Governor in that Tribal Council in respect of such area and the Land Conservator shall not exercise any powers so vested."

Under the provisions of the Arunachal Pradesh Anchal Forest Reserve (Constitution and Maintenance) Act, 1975 (Act No. 1 of 1976), an Anchal Forest Reserve constituted with an area of an Anchal Samity will be managed by the Forest Department for the purpose of improving the quality of timber by raising valuable plantations so as to bring progressively increasing returns from the forest produce for welfare of the local people. The Forest Department shall have an annual share of 50% of the net revenue derived from the Anchal Forest Reserve and the other 50% of the net revenue shall be disbursed by the Government equally to the concerned Anchal Samity and Zilla Parishad after annual recovery of 10% of capital expenditure borne initially by the Forest Department till such time as the amount is completely recovered. The Anchal Samity and Zilla Parishad will utilise their shares of revenue for developmental and other works assigned to them.

Revenue

Forest, as already stated, is the major source of revenue. The district has two territorial forest divisions, namely Banderdewa and Hapoli divisions. The revenue derived annually from these forest divisions for a period of six years is as follows:¹

Year	Revenue
	(Rs. in lakhs)
1973-74	5.526
1974-75	7.188
1975-76	8.967
1976-77	7.611
1977-78	7.943
1978-79	15.129
Total	52.364

¹ Source: (a) Office of the Chief Conservator of Forests, Government of Arunachal Pradesh.

(b) Statistical Hand Books of Arunachal Pradesh, 1975-76 to 1978-79.

The revenue earned from the two forest divisions are shown separately in the following table :¹

(Rs. in lakhs)

Year	Banderdewa Forest Division	Hapoli Forest Division	Total
1973-74	5.35	0.17	5.52
1974-75	7.13	0.05	7.18
1975-76	8.35	0.61	8.96
1976-77	7.04	0.57	7.61
1977-78	6.78	1.16	7.94
1978-79	12.57	2.55	15.12

As for the other sources of revenue, mention may also be made of rent on land for opening of shops, excise-realisation of vend fees on the sale of liquor and fees on canteen (tenant licence leviable under Rule 251 of the Assam Excise Rules) etc.

¹ Source: (a) Statistical Hand Book of Subansiri District, Arunachal Pradesh, 1978.
(b) Statistical Hand Book of Arunachal Pradesh, 1978-79.

CHAPTER X

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 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 resident within their jurisdiction:

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 jurisdiction. 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

The law and order situation in the district has been normal and satisfactory as borne out by the small number of crime incidences. The nature and

number of crimes reported to the police authorities during the period of five years from 1974 to 1978 is as follows :¹

Sl. No.	Nature of Crimes	Number of Crimes				
		1974	1975	1976	1977	1978
1.	Murder	2	3	4	3	1
2.	Culpable homicide not amounting to murder	1	1	—	—	—
3.	Rape	—	2	—	—	—
4.	Kidnapping and abduction	—	1	3	—	—
5.	Dacoity	—	1	—	—	—
6.	Burglary	6	8	11	13	16
7.	Theft	6	11	31	24	10
8.	Rioting	1	1	—	—	3
9.	Criminal breach of trust	1	1	3	1	—
10.	Cheating	1	—	—	1	—
11.	Motor accident	—	4	—	—	—
12.	Violation of Arms Act	—	1	—	9	—
13.	Other offences/ cognisable crimes	9	24	107	117	32
Total		27	58	159	168	62

Organisation of Police Force

The Assam Frontier (Administration of Justice) Regulation, 1945 (Regulation 1 of 1945) extended to the whole of the erstwhile North-East Frontier Tracts provides the following for police duties.

"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

¹ Source: Office of the Inspector General of Police, Government of Arunachal Pradesh.

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."¹

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 a police force. The Police Department is headed by an Inspector General of Police assisted at the headquarters by an Assistant Inspector General of Police.

The Civil Police Force was raised in Arunachal Pradesh in the year 1971-72. There were in the Subansiri District two Police Stations, one Police Outpost and one Police Training Centre. Their position was as follows (as on March 10, 1976):

Name and Location	Personnel					
	Assistant					Head Constable
	District Inspector	Inspector	Sub-Inspector	Sub-Inspector	Constable	
1. Police Station, Ziro	1	—	4	1	—	12
2. Police Station, Itanagar	—	1	3	2	1	41
3. Police Outpost, Daporijo	—	—	1	—	—	4
4. Police Training Centre, Banderdewa	—	1	2	1	4	10

¹ See P. N. Luthra, Constitutional and Administrative Growth of the North-East Frontier Agency (Shillong, 1971), p. 85.

In addition to the above, there was an Armed Branch and a Special Branch of the Police Force at Ziro. One Fire Service Station manned by police personnel has been functioning at Itanagar since 1975.

During the year 1978-79 there were four Police Stations, located at Ziro, Itanagar, New Itanagar and Daporijo, and three Police Outposts stationed at Nyapin, Balijan and Nacho. In that year the strength of police personnel in the district was as follows:

1. Deputy Superintendent of Police	—	1
2. Inspectors	—	2
3. Sub-Inspectors	—	8
4. Assistant Sub-Inspectors	—	6
5. Head Constable	—	17
6. Constable	—	180
<hr/>		
Total		214

Jails and Lock-ups

There is no jail in the district. Police lock-ups are parts of the Police Stations wherever they exist. There are Police lock-ups at Ziro, Itanagar, Daporijo and Sagalee. Besides these, the quarter guards of the Central Reserve Police Force are utilised as judicial lock-ups as well as police lock-ups 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 Association

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 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 administration of justice in some of the tribal societies is carried out by the tribal or village councils in accordance with their own tribal customary laws. An account of the tribal councils has been given in chapter XII. Although the customary laws and mode of punishment differ from tribe to tribe, settlement of cases by payment of compensation is the general principle adopted by all of them. The following is a description of the judicial functions of some of the tribal councils :

Nishi

The Nishis settle many of their disputes through their peculiar institution of Gingdungs or intermediaries.

Often the intricacies of a case call for many days of debate, before unanimous agreement is reached. Penalties decided upon and agreed to by the offender are then paid by the latter to the injured party. In all serious cases, the rival parties stop eating and drinking with each other. To establish normal relations, therefore, an offender has to kill a pig or a mithun. If a pig is to be killed, its neck is tied with a rope and placed over a forked post, about two and a half feet in height, fixed to the ground. It is embellished with *kra* leaves. One or two men hold the hind legs of the pig. With its belly and snout upwards, its neck is held between the forks by a pull on the neck-rope. A priest invokes *Poter Met Wiyu* to witness the ceremony. In the meantime, a person kills the pig with a single stroke of a *dao*, and then the parties partake of this meat together. This is called the *pahi* ceremony, and its performance marks the resumption of friendship. However, in the case of certain past vendettas which were long and which involved the loss of many men, the parties also pledged to bind themselves in a perpetual treaty called *dapo*. These were treaties of mutual non-aggression celebrated with solemnities and witnessed by *Poter Met Wiyu*. They involved sacrifices of mithun or pigs and, once performed, have never been known to be violated. In a few cases, *dapos* are still performed.

"Nishi customary law prescribes standardized compensations for various crimes, though realizing the fine depends upon the status and ability of the offender to pay. However, there is no wrong which cannot be compensated for by the payment of fines. Essentially, therefore, most of the Nishi laws

are laws of 'torts' rather than 'crimes'. With this in view, we consider a few important crimes.

"*Yosinee*. It literally means sexual gratification by stealth and includes all sorts of relations, conducts and intercourses between the opposite sexes which are contrary to traditional customs. It is a term of wider significance than adultery and embraces all types of sexual misbehaviour according to their standard.

"This offence is frequent among the Nishis and there are a number of reasons for it. Pre-marital freedom is allowed and no stigma is attached to the children born of such unions. This freedom may grow into a habit and continue after marriage. The polygyny practised by the people also encourages this looseness. . . Disparity in age between a married couple is another cause. Thus, if a girl is mature and the husband adolescent, she may take a fancy to a young man of her age. Likewise, if the husband is old and his wife young, she may not wish to sleep with her husband. Over and above all these, there is the passion for sexual variety.

"*Yosinee* is not a matter of public concern. As indicated earlier, a wife is customarily the property of the husband. Since she and her services are paid for, he has the sole right over her. If, therefore, he chastises her for *yosinee*, no one interferes or questions his conduct. In principle, at least, he has the right even to kill her, though he seldom does so, as he would thereby gain nothing. He would usually therefore, punish her. . . If she becomes abusive, she may be put into stockades.

"The extent of punishment to the offender depends upon the influence exerted by the aggrieved person. There are many persons guilty of this crime who remain unpunished; but the husband feels ashamed and hurt. When caught, a person guilty of *yosinee* feels foolish not because he feels he has committed any wrong, but because he has been detected and may be required to pay the fine. If the aggrieved husband is a man of power and position, he may make the offender who is too poor to pay the fine his slave. In such a case, the woman may be given to the slave who then lives with the master. In a case where a girl runs away with her lover, the latter may choose to pay the bride-price to the husband and keep the girl for himself. There are, however, cases where the girl is recovered by the husband. When this happens, a wealthy culprit may defy all attempts to punish him by asking 'why so and so should not pay him a fine for *hanyang*'. This means that the culprit claims that the restoration in itself has meant a loss of prestige to him by implying his inability to pay for his beloved, and he can lawfully claim compensation for this humiliation. This is possible only when the girl goes to her lover of her own accord.

"*Yosinee* within the clan is rare, though not absent. Clan members are regarded as brothers and sisters, and any such affair between them is con-

sidered incestuous and disgraceful. Nevertheless, in the two cases where *yosinee* within the clan occurred, the couples, both of whom are still living, were married with the usual formalities.

"The traditional fines for *yosinee* are one mithun for sexual congress, . . . and one pig for the *pahi* ceremony. *Yosinee* is not a matter for anxiety unless it is detected.

"*Thefts and Murders.* Theft or *ducho* is not infrequent, and thefts of mithuns are common occurrences. The thief, if caught, may pretend that the mithun of a particular colour, size, and ear-mark is his own. The traditional fine for such thefts is a mithun in addition to the restoration of the original mithun to the owner, and a pig for the *pahi* ceremony. Generally, the grievance is ended with the payment. If, however, the original mithun is killed, it has to be replaced by another. When theft in the granaries occurs and the thief is caught *flagrante delicto*, he may be speared while trying to escape. The fines for stealing are a Tibetan dao for cutting the cane rope of the granary, a string of *dukh* beads for opening the door, plus a pig for the *pahi* ceremony. The punishment of undetected thieves is entrusted to the spirit to whom sacrifices are offered. In certain cases, a shaman may be requested to detect the thief. Formerly, thieves unable to pay the compensations were made slaves.

"Compensation for murder is more elaborate. Each part of the body has its own specific price. The compensations for the head and the thighs were a slave each; a *maji* each for the face, heart and the eyes; a Tibetan dao for the ribs, and a *tal* for the chest. In addition to this, a fine of two mithuns was imposed for a feast to all the kinsmen of the deceased and for the *pahi* ceremony. If the slaves were not available, the offender was required to give six to eight mithuns in lieu of each slave.¹ With changing times, however, the fines for murder as well as other crimes have changed to realistic terms. In the case of old murders, the compensation in reality has been reduced to one to two mithuns and a few valuables only.

"*Oaths and Ordeals.* An important feature of the Nishi legal system is the exact determination of guilt. In most cases, the evidence is not lacking and it is always possible to charge the offender. But there are cases where it is not possible to ascertain the guilt. Thus in *yosinee*, theft and witchcraft, if the offender escapes detection, or protests to the contrary, the truth of the accusation is ascertained by magico-religious methods or, in other words, by oaths and ordeals. It is believed that Poter Met Wiyu witnesses the ordeals and oaths and punishes the offender for his falsehood.

"Among the important oaths are the eating of earth and taking of certain articles between the teeth. Such articles are : *omyo* or poison, a dao, a

¹ This scale of fines was common in the villages around Nyapin till recent times. It varies elsewhere.

poisonous bamboo, an elephant's tusk, a tiger's jaw-bone or skin, and the head of a poisonous snake. An ordeal practised over a wide area is to dip the right hand in boiling water contained in a bamboo tube, keep it there for some time, and pick up a stone from the bottom. Before the suspected offender does so, the priest recites incantations to the effect that if the person be guilty, Poter Met Wiyu may burn his hand and cause his death. As a final proof of his innocence, the offender is required to scratch his palm with a dao. If the skin does not peel off, his innocence is proved and the plaintiff is required to give a mithun as a fine.

"Ordeals are always dangerous. If a person is guilty, he invariably prefers paying the fine to going through the ordeal which would in any case result in loss of property, moral degradation and death. When oaths are taken, obviously, there is no immediate decision. The plaintiff waits till the oath-taker meets some serious accident or death, and then infers that he has perjured himself."¹

Apa Tani

The following account of the legal system in the Apa Tani society has been gleaned from the works of Dr. C. von Furer-Haimendorf, who visited the Apa Tani valley in 1944-45 and repeatedly again in 1962, 1970 and 1978. The conditions have greatly changed since his first visit, and with the extension of the administration over the whole valley, the law and order situation is now peaceful.

"Internal disputes occasionally do disrupt the harmony of the Apa Tani community but the manner in which they are settled differs fundamentally from that prevalent among Nishis. While these rely entirely on the principle of retaliation and lack any machinery for the application of legal sanctions,² Apa Tani society provides for the enforcement of laws through the *buliang* acting as the representatives of public opinion. The power of the *buliang*, no doubt, is limited and they neither constitute a tribal government nor do they function in the manner of judges in a court of law. The limitations of the authority become obvious when large parts of the community are ranged against each other in support of conflicting claims, but even in such cases there is provision for a strict limitation of the use of force.

"The Apa Tanis know very well that their complex economy and their whole pattern of living can be maintained only if peace reigns in the valley, and peace is assured by formal treaties of friendship between the individual villages. Such treaties are known as *dapo* and Nishis, too, often

¹ B. K. Shukla, *The Daflas of the Subansiri Region*, (Shillong, 1965), pp. 78-82.

² This is no longer the case.

conclude *dapo* pacts when a feud has been settled or become too burdensome to the opponents. But whereas Nishi *dapo* pacts bind usually only individual households, and are — as it seems — only too frequently broken, the *dapo* pacts between all the villages of the Apa Tani valley are fundamental parts of the political system, and their conclusion lies in so distant a past that no one remembers the circumstances which led to their formulation. But all Apa Tanis assume that there is a permanent non-aggression pact between all villages, and those who told me that without these *dapo* treaties, the Apa Tanis 'could not live even for a month', were no doubt quite sincere in their belief in the absolute indispensability of the assurance of peace within the valley.

"The *dapo* pacts designed to assure peace between the seven Apa Tani villages do not prevent all individual acts of violence, and allow even for organized armed demonstrations of a formal character of one village against the other. But the existence of the *dapo* treaties helps to keep such demonstrations within fairly narrow limits, and it is unusual for such a demonstration to result in a loss of lives.

"While uncontrolled violence on a large scale would spell disaster to a community living in closely packed villages and concentrated on so narrow a space that those engaged in a feud could not draw away from each other, the controlled use of force against criminal and anti-social characters is necessary if the society is to be saved from serious disorders. Yet, there is no formal administration of justice and no institution comparable to the *panchayat* of Indian villages. Unlike these bodies, which meet in public, cross-examine witnesses and defendants, and pronounce a verdict supposed to have validity throughout the tribal community, the councils of Apa Tani *buliang* meet informally and tend to take action without arranging for a formal hearing and trial. The punishments inflicted on those guilty of serious crimes is often drastic...

"Within the Apa Tani community... a serious view is taken of crimes violating rights to property. A first offender may not be dealt with severely, but may be tied up for some days beside a *lapang*, being both uncomfortable with his leg fastened in a heavy log of wood, and exposed to ridicule. Subsequent offences may be expiated by the payment of compensation, but the punishment of habitual theft is death."¹

Hill Miri

- The Hill Miris do not have a tribal council constituted for administering justice. Their *Lopu* is an occasional assembly of villagers for settlement

¹ C. von Furer-Haimendorf, *The Apa Tanis and their Neighbours*, (London, 1962), pp. 100-102 & 106.

of disputes. "Both in war and peace the *Lopu* sessions aim at practical solution. Mostly the cases of disputes come to the *Lopu* when the disputing parties have reached the limits of their endurance. They are more easily amenable to a workable compromise. The customary laws are also concerned with realities and not with abstractions. Their aim is to repair breach of peace and harmony. The accused even if their commission is established are not guilty in the sense of the term. They have done something for which they are not ashamed for they had to do it under special circumstances. They have lost the game and so have to pay for their failure"¹.

¹ B. B. Pandey, *Lopu, Resarun*, Vol. 2, No. 2.

CHAPTER XI

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 officer 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 Rural Development Department

The district organisation of the Agriculture and Rural Development Department headed by a Director at the Union Territory level is in the charge of a District Agriculture Officer with his headquarters at Ziro. 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 Rural Development in the district is responsible for the implementation of agricultural programmes concerning improvement of agriculture under permanent cultivation, integrated rural development and various other allied sectors of development, such as

multiple cropping, cash and commercial crops, fertilisers, fishery, agricultural census etc. The District Agriculture Officer also acts as a technical adviser to the Deputy Commissioner in agricultural matters.

Rural Works Department

The departmental head of the Rural Works Department at the Union Territory level is the *Superintending Engineer*. The department in the district is in charge of an *Executive Engineer*, who is assisted by a number of *Assistant Engineers* and *Junior Engineers* deployed at various places. Besides them, the district organisation of the department is staffed among others by subject-matter specialists, *Technical Assistants*, *Surveyors*, *Draughtsmen* etc.

The department works for implementation of various schemes relating to minor irrigation, rural water supply, ground water survey, integrated soil and water conservation; introduction, popularisation and custom hiring of agricultural implements and machines etc.

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 Veterinary Officer*. There are ten *Veterinary Surgeons* as well as a number of *Supervisory Veterinary Field Assistants* and *Assistant Farm Managers*. The department is concerned with improvement of the breed of cattle and pigs, protection of cattle against contagious diseases, treatment of sick animals in the veterinary dispensaries, castration of scrub animals and dairy framing.

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 headquarters of the engineering divisions in the Subansiri District under the Circles I and II are at Ziro, Daporijo, Itanagar and Doimukh.

Working under the technical guidance of the Chief Engineer and Superintending Engineer of the circles, 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 Ziro. He exercises control over all subordinate Medical Officers in the district and is responsible for execution of health schemes. He also supervises the function 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. Various medical teams, such as NSEP and NMEP, work under the guidance of the District Medical Officer.

Education Department

The Education Department at the district level is in charge of the District Education Officer with his headquarters at Ziro. 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. There are two more Assistant District Education Officers stationed respectively at the sub-divisional headquarters of Koloriang and Daporijo. The management of the Higher Secondary Schools is the direct responsibility of the Principals.

Forest Department

The Chief Conservator of Forests, who is also the ex-officio Secretary

(Forests), is the departmental head at the Union Territory level. He is assisted by one Conservator of Forests (Planning and Development) and one Deputy Conservator of Forests at the headquarters.

The forests in the Subansiri District fall under the jurisdiction of the Conservator of Forests, Western Circle. There are two forest divisions in the district, namely Banderdewa Forest Division with its headquarters at Banderdewa and Hapoli Forest Division with its headquarters at Ziro. These divisions are each in charge of a Deputy Conservator of Forests. An Assistant Conservator of Forests is also posted at the headquarters of the Banderdewa Forest Division. There is also a Silviculture Forest Division stationed at Banderdewa.

The number of forest ranges and beats are as follows (as on March 31, 1979):

<i>Forest Divisions</i>	<i>Ranges</i>	<i>Beats</i>
1. Banderdewa Forest Division	5	15
2. Hapoli Forest Division	3	5
3. Silviculture Forest Division	3	—
Total	11	20

Industries Department

The Industries Department at the Union Territory level is headed by the Director of Industries, who directs and guides the industrial activities. The district organisation of the department is in charge of the District Industries Officer with his headquarters at Ziro. He is assisted by one Extension Officer, a number of Supervisor of Crafts and Instructors attached to various craft centres. The District Industries Officer is responsible for implementation of the industrial programmes at the district level for promotion of tribal arts and crafts and development of industries. He also acts as a technical adviser to the Deputy Commissioner in industrial matters.

The District Emporium of the Industries Department at Ziro is a storehouse of articles produced by the local artisans as well as trainees and craftsmen of the training and production wings of the craft centres. Sale, distribution and marketing of the finished products are arranged through the emporium.

Co-operative Department

The Registrar of Co-operative Societies, who is the departmental head at the Union Territory level, guides, controls and directs the co-operative

movement in the district. An Assistant Registrar of Co-operative Societies with his headquarters at Ziro is the district head of the department. He is assisted by a Senior Inspector posted at Daporijo. Besides them, one Assistant Registrar of Co-operative Societies is also stationed at Itanagar, for procurement and marketing. He is in charge of the General Co-operative Stores at that place.

The activities of the department are aimed at organisation of co-operative movement in various sectors of development for economic growth and progress, and for that matter the Assistant Registrar of Co-operative Societies acts as a technical adviser to the Deputy Commissioner of the district.

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 Ziro, where he is assisted by a Research Assistant. 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 a adviser to the Deputy Commissioner on the questions of tribal culture and welfare. Assisted by a Keeper, the District Research Officer is also in overall 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 Ziro. There are three Inspectors and several Sub-Inspectors of Statistics stationed at various places. The district officers are responsible for collection and processing of the basic statistics and preparation of District and Sub-divisional Statistical Hand Books. The statistical reports which are sent by them to the directorate are processed and compiled for the purpose of Annual Statistical Hand Book of Arunachal Pradesh. The District Statistical Officer is concerned with various statistical surveys, studies and census operations. He also acts as an adviser in economic and statistical matters.

Information and Public Relations Department

The District Information and Public Relations Officer with his head-

quarters at Ziro is the district head of the department. He is responsible for carrying out all works relating to information, publicity and mass-communication in the district under the technical guidance of the Director of *Information and Public Relations*, who is the departmental head at the Union Territory level. A number of Radio Mechanics and Operators are also stationed at various places of the district to execute the programmes of the department.

CHAPTER XII

LOCAL SELF-GOVERNMENT

History of Local Self-Government

The traditional village or tribal councils of the people constitute a system of local self-government in Arunachal Pradesh. These councils may vary from tribe to tribe in composition, powers and privileges, but they have certain features in common. They are all time-honoured institutions deriving their authority from traditions. They function as village governments, expressing the will and power of all members of the society. All the councils are informal in character, and they are 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. All the tribal councils function within the general frame-work of the Assam Frontier (Administration of Justice) Regulation, 1945 (Regulation 1 of 1945), which confers on them considerable powers. The functions of the village council are three fold — judicial, administrative and developmental. On the judicial side which is in effect the most important function, the councils settle all 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 maintenance 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.

SELF-GOVERNING INSTITUTIONS OF THE TRIBES OF SUBANSIRI

As in many other tribal societies of Arunachal Pradesh, the tribes of Subansiri have some forms of self-governing bodies for settlement of disputes and maintenance of peace in the society, but they do not have regular, well-defined and highly organised tribal councils like those of the Monpas of Kameng, Adis of Siang or Idus of Lohit exercising a central authority over all members of the society.

The Nishi Gingdungs

"The Nishis are basically individualistic. The only source of cohesion among them is their feeling of oneness through blood and the clan spirit. The same religious beliefs and the same pattern of life lend it a veneer of oneness. Beyond this allegiance to these bonds of unity, a Nishi accepts no authority. He may do as he pleases, if he thinks himself capable of doing it, irrespective of any consideration whether it is social or anti-social. There are the traditional laws of conduct to which he also subscribes, but, if his personal inclinations prompt him to break them, he will not hesitate in the least to do so. Wrongs are considered to be personal rather than social matters, and the wrong-doers and the wronged are left to themselves without the interference of the society. The community merely expresses its disapprobation in the form of idle gossips which affect the wrong-doer according to his power and mentality. If he is a rich and a powerful person, he does not care about such talks in the village. Generally scandals are hushed into oblivion in such cases. If the culprit is a brazen reprobate, he makes no secret about his transgressions and may laugh the community in the face. Justice, however, is administered within certain limitations, and there is a system of fines and punishments which is followed where the parties concerned agree to submit their cases to the decisions of others. . . .

"The theoretical anarchy that can be inferred from the absence of chiefs

and Councils of Elders does not exist among the Nishis for two important reasons. Firstly, the co-existence of the several clans and groups of people in the same area compels them to conform to a certain peaceful standard, and social sanctions, such as public opinion, aid in this. Secondly, the services of go-betweens (known as *gingdungs*) are universally recognized and accepted. Undoubtedly, they have no political power, nor can they enforce their decisions, but their success lies in a free and serious discussion with persuasion, resulting in unanimous agreements or decisions. What is reasonable and just is normally accepted. Go-betweens must not be guided by motives of self-interest, but by the traditional norms of justice. They are people well-versed in the tribe's jurisprudence, and some of them succeed in establishing a reputation over wide areas. Their services are paid for by the parties concerned.¹

"Dr. C. von Furer-Haimendorf, who visited the Nishis in 1945, also emphasises their individualistic character combined, however, with a sense of morality and a willingness to make peace if it can be done without loss of face.

"In Nishi society there is outside the household no individual or group of privileged individuals possessing the authority to impose sanctions, enforce conformance with custom or redress the grievances of the victims of violence. Yet, there are certain conventions which regulate the conduct of feuds, of negotiations and finally of peace-settlements, and these conventions are generally recognized even though there is no authority above the parties in the dispute which could enforce their observance or punish their breach.

"Although there is no administration of justice in any sense of the word," continues Furer-Haimendorf, "questions of right and wrong are continuously discussed in the course of a dispute. In the mind of the Nishi there is a great difference between justified retaliation and unprovoked robbery, and when hostile parties meet to discuss the settlement of a feud, both harp on details of custom, each trying to prove that their own actions were justified and those of their opponents were a breach of custom.

"There are certain customs which we might almost describe as laws but even their breach does not set in action a legal machinery. It is generally recognized, for example, that a man sheltering another man's runaway slave² should either restore him to his owner, or, if unwilling to do so, pay the owner the slave's market price. If he takes neither of these two courses, the slave-owner is deemed justified in recouping his loss by an act of self-help. He may attach one of the offender's mithuns or kidnap a mem-

¹ B. K. Shukla, *The Daffas of the Subansiri Region*, (Shillong, 1965), pp. 77-78.

² It should be noted in this context that the system of slavery mentioned in this old report does no longer exist in the district.

ber of his family. But unless he takes action himself, nobody will do anything about this breach of custom. Yet, there are certain limits to repeated breaches of custom. If a man makes too many enemies they are likely to combine in an act of revenge, and his persistent defiance of accepted standards of behaviour may alienate his kinsmen and friends whose help he would require for retaliatory action.

The fact, for instance, that the person in the position of a go-between is treated as sacrosanct by all parties involved in a feud proves the existence of a code of behaviour which even the most high-handed and powerful will hesitate to infringe. Another example of the acceptance of certain standards is the rule that captives and prisoners of war held to ransom ought to be well treated and, above all, well fed. A deviation from this expected conduct arouses indignation and is detrimental to a man's prestige.

"Even in 1945, the Nishis had a sort of council. 'The Nishis most effective mechanism for re-establishing friendly relations between hostile parties is the *mel* or tribal council, and informal gathering attended by the two disputing parties and a number of mediators and spectators. Usually such *mels* are held with the object of settling one specific dispute and are preceded by the long drawn out negotiations of go-betweens; but it should be possible to institute periodical *mels* where prominent men enjoying the confidence of both their fellow-tribesmen and of Government can meet regularly to discuss current affairs and such disputes as may have occurred in their area. Not every dispute brought before such a regional council will necessarily be settled, but the opportunity of personal contact, in an atmosphere of temporary security may help many opponents to come to terms.'"¹

The Apa Tani Buliang

Dr. Furer-Haimendorf described the Apa Tani council known as *buliang* as follows :

"Apa Tani villages lack of centralized authority, wielding power over all the inhabitants, but village affairs are managed in a somewhat informal manner by a council of clan representatives (*buliang*). These *buliang* are men of character and ability, drawn from among the members of a lineage which, owing to its wealth and status, always furnishes one or two *buliang*, or chosen on account of their personal standing in the community. There are three types of *buliang*: The *akha buliang* are the principal leaders of the villages, who even when too old to take a very active part in the life of the community must be consulted on all important matters. The

¹ C. von Furer-Haimendorf, *Ethnographic Notes on the Tribes of Subansiri Region* (Shillong, 1947), p. 54, quoted in Verrier Elwin, *Democracy in NEFA*, (Shillong, 1965), pp. 89-91.

yapa buliang are middle-aged men who carry on the day-to-day conduct of village affairs, settle disputes and keep the *akha buliang* informed of developments. The *ajang buliang*, finally, are young men who act as messengers and assistants of the *yapa buliang* and function in some respects as the leaders and spokesmen of the younger generation. In practice this division of duties is not always clear-cut, and some of the older *ajang buliang* assume gradually the functions of *yapa buliang*. The *akha buliang* appoint the *ajang buliang* from amongst the rank of eligible young men, and in making this selection an *akha buliang* does not necessarily give preference to members of his own clan, but sees to it that his clan-group (i.e. the clans using a common *nago*) is represented by men of talent and efficiency. A *yapa buliang* usually does not become an *akha buliang* until the death of the *akha buliang* representing his group of clans.

"Though the *buliang* are collectively the upholders of tribal law, they act primarily as the spokesmen of their own clan or clan-group and not as village-headmen invested with absolute authority. Their duties are those of arbiters rather than of judges, and they usually do not take action unless a dispute has become a public issue which must be dealt with by the community as a whole, be it by mediation or the use of force.

"For their services to the community the *buliang* are rewarded by ceremonial gifts of beer and meat on the occasion of village feasts. Moreover, during the Mloko, an annual festival celebrated by the three groups of villages in rotation, every *buliang* receives gifts from his opposite number in the village standing to his own village or quarter in a relationship of ceremonial reciprocity."

The Hill Miri Lopu

The Hill Miris have a political and judicial system very similar to that of the Nishis, and like them, rely considerably on *ginezdune* intermediaries. It was reported earlier that the Hill Miris were moving towards organising a *hango* or council of elders of allied villages on the model of a similar institution among the Adis of Siang. The *hango* may prove an improvement upon the traditional way of settling disputes. Although the Hill Miri society lack a central authority, they have a central place or venue for temporary conferences of elders and influential persons for settlement of disputes. The venue is called *Lopu*.

"Among the Hill Miris all functions peaceful and warlike require a central place where the participants assemble to discuss. This is done in the *Lopu*, which is a bare open platform supported by wooden poles. Its purpose

¹ C. von Furer-Haimendorf, *The Apa Tanis and their Neighbours*, (London, 1962), pp. 67-68.

and function is of great importance to the villagers. It serves the purpose of a council hall for all serious matters, affecting the welfare and security of the village. All deliberations, preparations and religious performances are held here. The captives of raids are also kept there. As a taboo, the warriors returning from raids have to pass three nights in the *Lopu*. Organized hunts are also planned by the parties. The *pinkus* (arbitrators) in inter-village disputes take their seats there and listen to the deliberations.

"On such occasions, the *Lopu* presents a very animated scene. The leading people, the *pinkus*, the heads of families and other influential persons invited, assemble on it and take part in the deliberations while the women keep them in spirit with a plentiful supply of *opo* (country beer). If the session continues till night, as often they do, fires are lit for warmth and light.

"The sitting continues till some settlement is arrived at. Charges and counter-charges are made and all probabilities and eventualities are enumerated and discussed. All who are willing can take part in the deliberation and give evidence and they are generally allowed to speak as long as they like and the sitting is thus very long."¹

It should, however, be noted that the *Lopu* has no administrative function in the village.

PANCHAYAT RAJ

The tribal councils are self-governing institutions in character and functions, and recognised by the Government as such. 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 (Regulation 4 of 1971) defines 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 as the Deputy Commissioner may specify." The Regulation 3 of 1967 aims at establishing the panchayat system of local self-government and 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 part in administration and development. The 1967 Regulation provides for a three tier structure of self-governing bodies, namely Gram Panchayat, Anchal Samiti and Zilla Parishad. As said before², 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. Under the provi-

¹ B. B. Pandey, *Lopu*, Resarun, Vol. 2, No. 2.

² See Chapter IX.

sions 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 Amendment Act, 1975 and the Government of Union Territories (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.

The introduction of the Panchayat Raj was based on the report of the Ering Committee appointed by the Government of India. The Committee was headed by late D. Ering, formerly Union Deputy Minister for Food and Agriculture, whose contributions and special efforts for implementation of panchayat system in Arunachal Pradesh merit particular mention in this context.

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 about twenty five Gram Panchayats;
- (2) One representative from the co-operative societies situated within the block, 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 conterminous 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 hospital 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, marriage 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) 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 Chief Commissioner 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 co-ordinating body. It advises the Chief Commissioner on all matters concerning the activities of the Gram Panchayats and Anchal Samitis situated within the district. It makes recommendations to the Chief Commissioner 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 co-ordination and consolidation of the plan proposed by the Anchal Samitis and drawing up of the District Plan ;
- (4) the co-ordination of the work of the Gram Panchayats and Anchal Samitis ; and
- (5) land settlement and raising of revenues for the Anchal Samitis.

The Zilla Parishad also makes a review of the working of the Anchal Samitis from time to time, and advises on such other matters as may be referred to it by the Administrator.

There are 198 Gram Panchayats, 13 Anchal Samitis and one Zilla Parishad functioning in the district of Subansiri.

CHAPTER XIII

EDUCATION AND CULTURE

Historical Background

If literacy is the criterion of education, then it may be said that the district of Subansiri remained as an 'area of darkness' till 1947. Almost the entire population was illiterate and there was not a single educational institution. Only a few Nishis living along the foothill areas received little primary education at some school in North Lakhimpur in Assam. The educational activities of the Baptist Mission were confined to small areas of Upper Assam. In fact, home was the only centre of learning for local children, where they were brought up and taught the traditional ways of tribal life and crafts by their parents, where the legends and tales were transmitted orally from generation to generation.

The British administration left the tribal people of these frontier tracts more or less to themselves. The policy of the foreign rulers had nothing to do with the spread of education in the area. The historical circumstances and geographical factors had compelled the people to live within the confines of their hill abodes in a state of isolation and negligence. No welfare and development was brought about in the area. The age-old alienation had its effects on the psychology and outlook of the people. They were somewhat suspicious of outsiders and they resented their entrance into their territory. They were reluctant at first to accept new ideas and they clung to their own beliefs and practices.

With the attainment of independence in 1947 there began a new era of educational progress and development in the area. Article 46 of the Constitution, as stated earlier, declares, "The State shall promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the Scheduled Castes and the Scheduled Tribes, and shall protect them from social injustice and all forms of exploitation". There can, therefore, be no question of remaining indifferent to the needs of education of the people in a free Welfare State. But the problems facing the introduction of modern methods of education in this area were a great

challenge to the new administration. The people were ignorant, and in the beginning they were to be constantly persuaded to accept the new ideas of education. They were also averse to female education. Most of them were poor and the living standard was low. The interior of the district was not easy of access due to lack of communications, and the administrative centres were yet to be opened in many places. Nevertheless, the task to overcome the initial problems and difficulties was undertaken with great zeal, and a group of dedicated teachers were sent to the interior areas. These teachers were not only the torch-bearers of education in Arunachal Pradesh, but they were also the forerunners of administration in some parts of the territory.

In the month of September 1947, the 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 and for spread of education in the interior areas. The trained teachers from this institute were sent for opening of new schools. The great flood of 1952 caused serious damages to the town 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.

Educational Institutions

The first important step taken towards educational progress in Subansiri was the establishment of two Lower Primary Schools at Kore and Pap (Ziro) in 1948-49, opened respectively by Kandarpa Nath Ojha and Probhat Chandra Saikia who were the first two school teachers in the district. Ojha died of malaria in July 1949 and the school at Kore was closed. The other school at Pap was gutted by fire on the 11th June, 1949. The school was not reopened and the teacher was transferred to Doimukh to start a new Lower Primary School there in the month of August 1949. Another new school was subsequently established at Ziro with the opening of an administrative centre at that place.

At that time, there was little response from the local people to receive

education and attendance in schools was poor. To intensify the educational activities, an organisational set-up of the Education Department was established in the district in 1949. More avenues for educational development were explored during the First Five Year Plan. In 1952-53, there were only three Lower Primary Schools, one each at Ziro, Pitpool and Doimukh. The total number of students in these schools was 60 only. But at the end of the First Plan, eight new schools were opened at various places and the number of students had increased to 223. During the Second Five Year Plan 1956-61, more stress was laid on consolidation than expansion of educational activities, and only two new schools were opened. Programme of educational expansion was again taken up during the Third Five Year Plan period 1961-66. According to the Annual Plans, a number of new schools including inter-village schools were established at various places of this district, and some of the old Lower Primary and Middle Schools were upgraded to Middle Schools and High Schools respectively. The inter-village schools were organised on the line of residential schools, where the teachers and the students lived together and education was imparted in an at home atmosphere. During the Third Five Year Plan some 29 new schools were opened, and the process continued in the following years. In this period a number of schools were established in the border areas, where very little developments took place previously. By 1966-67, the district had 56 schools comprising one Higher Secondary, three Middle Schools and 52 Lower Primary Schools. In 1968-69, one Lower Primary School and one Middle School were upgraded to Middle and High Schools respectively. By the end of the Fourth Five Year Plan in 1973-74, the number of schools in the district were 90, of which 78 were Primary Schools, nine Middle Schools and three Higher Secondary Schools.

Daporijo Sub-division: In 1957, a Lower Primary School was for the first time established at Daporijo with V. K. Tewari as its first teacher. Till the end of the Second Five Year Plan in 1960-61 there were only two schools in this sub-division. During the Third Five Year Plan ending in 1965-66, 12 new schools were opened and the two existing Primary Schools were upgraded to Middle and High School standards respectively.

In the year 1968-69 there were 19 educational institutions including one High School, which is now upgraded to Higher Secondary School, one Middle School and 17 Lower Primary Schools in the sub-division. By the end of the Fourth Five Year Plan in 1973-74, the total number of schools rose to 25 comprising one Higher Secondary, two Middle and 22 Lower Primary Schools.

The number of educational institutions and students in the district during the years 1972-73 to 1978-79 is as follows:¹

Year	Number of Educational Institutions					Number of Students		
	Higher Secondary School/ Secondary School	Middle School	Junior Basic/ Primary School	Nursery/ Pre-Primary School	Total	Boys	Girls	Total
1972-73	3	9	78	—	90	5141	1039	6180
1973-74	3	9	78	—	90	5496	1348	6844
1974-75	4	14	88	1	107	6595	1841	8438
1975-76	4	19	103	2	128	5990	1459	7449
1976-77	4	18	129	2	153	6668	1941	8609
1977-78	5	21	153	4	183	9049	2648	11697
1978-79	5	26	167	8	206	8236	2981	11217

The following table shows the position of schools in the district as standing in the month of March 1980:

School	Number
Pre-Primary	10
Junior Basic	178
Middle	27
Secondary	3
Higher Secondary	4
Total	222

Besides these educational institutions, the district has a Central School at Old Itanagar and two Vivekananda Kendra Primary Schools.

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 by 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 department. He controls, guides and directs all the educational activities in Arunachal Pradesh at present. The education department in the district is under the administrative control of the Deputy Commissioner. The District Education Officer, Principals and

¹ Source: Statistical Hand Books of Arunachal Pradesh, 1972-73 to 1978-79.

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 and X
Higher Secondary	— Classes XI and XII

The District Education Officer, who is in charge of all Primary, Middle and Secondary Schools in the district, has his headquarters at Ziro. He is assisted by an Assistant District Education Officer at the headquarters. 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. Two Assistant District Education Officers have been posted respectively to the sub-divisional headquarters at Koloriang and Daporijo for inspection and supervision of the educational institutions.

All the educational institutions in the district are managed, aided 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 1971 Census Reports,¹ the percentage and growth of literacy in relation to the total population and the Scheduled Tribe population in the district are as follows:

	Number of Persons		Number of Literate and Educated Persons		Literacy Percentage		Decadal Growths of Literacy Percentage from 1961 to 1971
	1961	1971	1961	1971	1961	1971	
Total Population	75,495	99,239	3,203	6,836	4.24	6.89	2.65
Scheduled Tribe Population	70,852	90,242	611	2,853	0.86	3.16	2.30

¹ In the 1971 Census figures quoted in this chapter, the population of 13,689 persons living in that part of the Daporijo Sub-division which was in the Siang District at the time of census is excluded.

The following table shows the male and female literacy percentage :

Total Population				Scheduled Tribe Population			
1961		1971		1961		1971	
Males	Females	Males	Females	Males	Females	Males	Females
7.73	0.43	11.58	1.85	1.66	0.08	3.64	0.72

The decadal growth of literacy is also indicated in the number of literate and educated persons amongst males and females as follows:

Total Population

Census Year	Males	Females	Total
1971	5,950	886	6,836
1961	3,048	155	3,203
Decadal growth of literacy in number of persons	2,902	731	3,633

Scheduled Tribe Population

Census Year	Males	Females	Total
1971	2,526	327	2,853
1961	582	29	611
Decadal growth of literacy in number of persons.	1,944	298	2,242

According to the 1971 Census, the percentage of literacy in the Subansiri District is 6.89 as compared to 11.29 in Arunachal Pradesh as a whole. In fact, Subansiri has the lowest literacy rate compared to all other districts of Arunachal Pradesh in respect of both male and female literacy. The literacy rate among the Scheduled Tribe population of the district is still lower. The 1971 Census also reveals that out of the total population of 99,239 persons in the district, the number of literate persons is 6,836 only.

GENERAL EDUCATION

Basic and Primary Education

The stage of primary education is from Class I to Class 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 the Hindustani Tamili Sangh, Sevagram and Jamia Millia 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

According to the 1971 Census, the entire district of Subansiri is rural. Out of 960 inhabited villages in the district, 886 villages are diminutive, that is the population of each of these villages is less than 200 persons. The villages are scattered over wide areas and the density of population is only 6.71 persons per sq. km. In appreciation of this fact, a scheme for opening of inter-village residential schools was taken up in 1964-65. It was envisaged that in place of many scattered schools, it would be worthwhile to have a few centrally situated residential inter-village schools.

Accordingly, 13 schools have been organised as inter-village schools, and they are as follows:

Location of Inter-Village Schools

Higher Secondary	Middle	Primary
Ziro	Raga	Huri
Doimukh	Sarli	Polosang
Nyapin	Sagalee	
	Koloriang	
	Palin	
	Yazali	
	Boa Simla	
	Tali	

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 from IX to XII. All the High Schools in the district have been upgraded to Higher Secondary Schools. 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. Text-books 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.

All the Higher Secondary Schools are residential for Arunachal tribal students living beyond 6 km distance from the school.

Higher Education

The Jawaharlal Nehru College at Pasighat in the Siang District was established in 1965 for higher education upto degree standard. The students from this district are sent to this college or to some other colleges in the country outside Arunachal Pradesh for prosecution of higher studies, and the deserving students among them are awarded necessary stipends.

The JN College at Pasighat was the only college in Arunachal Pradesh till 1979-80, in which year another college was established at New Itanagar.

Technical Education

There is no institution in the district for technical education. 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 Centre at Ziro and Daporijo have training units for courses in weaving, smithery, cane and bamboo works 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 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 also taken up as the medium in the Higher Secondary Schools for Classes VIII to XI.

Thus there were three media of instructions in the schools of the district as follows:

1. Assamese in all stages of school education,
2. Hindi in the border area schools, and
3. English at the secondary stage.

Eventually, since 1972 English has been accepted as the medium of instruction at all stages of school education. Besides English, Hindi is taught as the second language from Class I to Class X and Assamese or Sanskrit as the third language from Class VI to Class VIII.

Female Literacy

As already indicated the rate of female literacy is extremely low in the Subansiri District. Among the Scheduled Tribe population of the dis-

trict, the female literacy percentage is only 0.72 as enumerated in the 1971 Census. "The low female rates of literacy is attributable to the peculiar way of life of the Arunachal Pradesh people and particularly to the orthodox standards they hold regarding status of women in the society. In Subansiri District, the low rate of female literacy may perhaps be traced to be the lack of exclusive educational institutions set up for teaching of the girls. The girls of this district are given into marriage very early in their lives, and the parents and the parent-in-laws usually harbour deep prejudice against sending of their daughters and the daughter-in-laws to the co-educational institutions, the only ones to be found around".¹

There is no separate school for girls in the district. However, the Higher Secondary Schools at Ziro, Daporijo and Doimukh have attached girls' hostels. Co-education has been introduced in all the schools from Primary to Higher Secondary. The number of girl students in the district was 2648 as against 9049 boy students during the year 1977-78. Although the number of school-going girls are much less than that of the boys, the female education is progressing slowly and gradually. The decadal increase in the rate of female literacy among the Scheduled Tribe population in the district from 0.08 per cent in 1961 to 0.72 per cent in 1971 is 0.64 per cent. With the opening of schools with better educational facilities and the developments that are taking place throughout the district, the people are now becoming more and more conscious through their own experiences of the value of education for males as well as females. In some areas, the people are coming forward to send girls to schools and their earlier aversion to female literacy is on the wane.

Adult Literacy

The campaign for adult literacy has not received so far a spontaneous response from the people of Subansiri due to absence of compact villages, hard struggle for livelihood, low living standard and indifference of the adults towards the art of reading and writing. A few reading rooms and libraries have however been opened in the Community Development Blocks under the social education programme in order to promote adult literacy.

Teachers' 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

¹ Census of India, 1971, Arunachal Pradesh, Part-IA, General Report, p. 119.

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 Teaching (B.T.). The science graduate teachers and science senior teachers are deputed annually to Bhubaneswar in Orissa for training in the course of Bachelor of Education (B.Ed.).

'The Teachers' 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 a part of the training course in the Buniadi Siksha Bhavan and the teachers are fully equipped to organize social education activities in the interior villages.'

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 produced a number of batches of trained under-Matric tribal teachers and there are many 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 the territory.

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 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 batches 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.) has been raised in the Higher Secondary Schools at Ziro, Doimukh and Daporijo as an extra-curricular activity of the students. Camping is organised from time to time, where the selected cadets and teachers are sent for training.

Scout Companies and Girls' Guides

The scout and guide movement, introduced some years ago in the educational institutions of Subansiri, has become popular with the boys and girls. Scout companies have been formed at the schools at Ziro and Doimukh. The Ziro Higher Secondary School has also a Girls' Guide Unit. A student from this school participated in the Seventh Australian Scout Jamboree. He was awarded a 'cross' for all-round good performance. Another student from the same school was sent to Japan in 1971 to attend a scout jamboree.

Libraries

There are three public libraries in the district, which are at Ziro, Koloriang and Daporijo. The stock of books in these libraries is shown at the appendix to this chapter.

Besides these libraries, there is the State Central Library at New Itanagar.

Museum

The District Museum at Ziro is a treasure-house of rare and valuable specimens of traditional and indigenous arts and crafts, particularly of the tribes of this district. The artefacts are preserved and exhibited in the museum in a scientific manner, and they are of the following various types:¹

¹ Source: The District Research Officer, Subansiri District, Ziro.

Type	Number
	(as in March 1980)
(1) Cane and bamboo	157
(2) Textile and dress of cotton and silk	125
(3) Ornaments of brass and silver	89
(4) Wood-carving	51
(5) Toy and other specimens	49
(6) Household articles of brass and silver	31
(7) Iron material	23
(8) Articles of skin	13
(9) Ivory	8
(10) Pottery/Neolithic celts	7
(11) Woolen fabric	5
Total	558

The museum contains, among other things of significance, specimens which bear material evidence to the cultural heritage of the tribal people of Subansiri—the Apa Tanis, Nishis, Hill Miris, Tagins, Sulungs and Mikirs.

The museum is looked after by a Keeper working under the direct supervision of the District Research Officer.

APPENDIX
LIBRARIES
As on March 31, 1979

Name of Library	NUMBER OF BOOKS									Total
	English	Hindi	Bengali	Assamese	Malayalam	Urdu	Tamil	Telegu	Nepali	
1. District Library, Ziro	5968	4480	5286	6170	1000	200	206	215	215	23740
2. Sub-divisional Library, Daporijo	4090	4132	4510	5021	604	142	105	149	165	18918
3. Sub-divisional Library, Koloriang	2800	2900	2920	2988	—	—	—	—	15	11623
Total	12858	11512	12716	14179	1604	342	311	364	395	54281

Source: Statistical Hand Book of Arunachal Pradesh, 1978-79.

CHAPTER XIV

MEDICAL AND PUBLIC HEALTH SERVICES

Survey of Public Health and Medical Facilities in Early Times

During the pre-independence days no regular survey of public health was undertaken in this district. Medical aids were too inadequate to mitigate the sufferings of the people, and they were limited only to a few places in the foothill areas, such as Kimin and Doimukh. The people in the interior villages lived and died without medical care. The Political Officer of the district accompanied by a medical officer undertook occasional column tours to the interior areas, and these tours provided some opportunities to the people to get medical aids casually. Medical relief was also to some extent available at the administrative centres, where contingents of Assam Rifles were stationed for maintenance of law and order.

Before 1947, the administration in this area was more concerned with the questions of law and order than welfare of the people. Most of the people living in the deep interior areas of the district remained without the benefits of modern medical care. The limitations of medical coverage were due to other reasons too. Besides the dearth of medical personnel, the district had no road communications, rendering it difficult to extend medical services to the villages. Moreover, the people were not accustomed to use the modern medicines. They depended on their indigenous drugs and on their own tribal medicine-men.

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.

During the British rule, the medical services in this area were under the overall control and supervision of the Inspector General of Civil Hospital, Assam, who was later redesignated as Director of Health Services, Assam. The Civil Surgeon of Sadiya was in charge of the medical administration of the territory now known as Arunachal Pradesh.

In 1948, an Assistant Civil Surgeon in charge of the medical services

in the Subansiri District (then called Subansiri Area) was appointed with his headquarters at North Lakhimpur in Assam. The first hospital was opened in this district at Kimin in 1949. In the same year, a hospital at Yachuli was also opened with Dr. K. K. Goswami as the officer-in-charge. At first, the local people were reluctant to accept the new methods of treatment, and continued to depend on their indigenous medicines.

Dr. Elwin observed, "In some of the lonely valleys of northern Subansiri, the entire population is affected by a distressing and disfiguring skin disease, *tinea imbricata*, for which it has taken years to find a remedy. The discovery of the vector species of mosquito at the end of 1955 marked an important step forward in the battle against malaria.

"The lack of medical facilities in the past has meant that there have been hundreds, thousands of unrecorded tragedies, the sick living out their days in pain and misery, unnoticed in their little huts. I think of the children with sore and inflamed eyes, their little limbs distorted by rickets, their stomachs grossly swollen with enlarged spleens. I have seen many people shockingly disfigured by untreated burns."

As already stated, the administration and direction of medical activities were carried on from Sadiya. With the extension of medical coverage to a greater section of people desirous of having more benefits of modern medicines, the need for a separate health organisation was considered imperative. In 1951, the Medical Department came into existence with a Chief Medical Officer (now redesignated as Director of Health Services) as its head with his headquarters at Pasighat, which was later shifted to Shillong. The headquarters of the Political Officer of the Subansiri Area were shifted from North Lakhimpur to Kimin in 1950 and from Kimin to Ziro in 1952. The headquarters of the District Medical Officer were also shifted at about the same time. With this shifting of headquarters to the heart of the district, vigorous steps were taken to popularise modern medicines and extend medical facilities to the wider part of the district. New hospitals were opened in different parts of the district. During the period from 1947 to 1959 health units were opened at various places as shown in the following table:¹

Sl. No.	Name of Places of Health Unit	Year of opening
1.	Kimin	1947
2.	Doimukh	1949
3.	Sagalee	1949
4.	Ziro (Hapoli)	1952

¹ Verrier Elwin, *A Philosophy for NEFA*, (Shillong, 1964), pp. 89, 90.

² District Statistical Abstract, 1971. Subansiri District.

Sl. No.	Name of Places of Health Unit	Year of opening
5.	Nyapin	1953
6.	Raga (Tamen)	1955
7.	Palin	1957
8.	Tail	1957
9.	Koloriang	1959
10.	Sarli	1959
11.	Huri	1959

Vital Statistics

Collection of vital statistics relating to deaths and births is a programme taken up in Arunachal Pradesh recently. There is no earlier record of births and deaths in the district. Initial attempts were made to collect data on birth and death rates through medical personnel, local teachers, village level workers and Gaon Burahs (village elders), but this was not very successful due mainly to the unwillingness of the villagers to disclose information about birth and death. Besides this, the women were reluctant to divulge facts about births for certain superstitious beliefs.

Under the Registration of Births and Deaths Act, 1969, enforced in Arunachal Pradesh in October 1973, the Gaon Burahs of each village and the members of Gram Panchayat have been appointed as Informants and Notifiers of births and deaths respectively.

The Gaon Burahs have been entrusted with the task of giving information of births and deaths in their villages, while the members of Gram Panchayat are to notify births and deaths and also to certify cause of deaths. For the purpose of registration of births and deaths, Village Level Workers and primary school teachers are functioning as Sub-Registrars, Circle Officers and Extra Assistant Commissioners as Registrars, and Sub-Divisional Medical Officers and District Medical Officer as Additional District Registrars. The Deputy Commissioner is the District Registrar.

The following information about death cases in dispensaries and hospitals in the district, gleaned from an old record, suggests, although vaguely, a general trend of mortality among hospital patients.

Year	No. of Deaths	Total No. of Patients Admitted
1953	3	223
1954	3	388
1955	7	415

Year	No. of Deaths	Total No. of Patients Admitted
1956	2	348
1957	11	348
1958	—	674
1959	5	838
1960	10	936
1961	17	1328

It may, however, be noted that formerly, in this tribal area patients whose conditions were alarming and who were declared incurable by their own medicine-men, were generally brought to hospital for treatment.

The living standard of the people is low. The unhygienic and insanitary conditions in which a large section of the people were compelled to live or are still living in some villages must have had an adverse effect on their health. With the extension of public health and medical facilities to the remote areas, the general standard of health is apparently improving today, although an on the spot study of health conditions and birth and death rates is yet to be made.

The diseases which are common causes of mortality in the district are mainly stomach and intestinal diseases, diarrhoea and dysentery. Epidemics are rare occurrences. Effective measures are taken to hold epidemics in check, but blood dysentery in epidemic form breaks out now and then. Malaria took a heavy toll of lives until remedial steps were taken under the National Malaria Eradication Programme.

No statistics are available to indicate the rate of child mortality, but it is certainly not higher than what it was before. It may be mentioned incidentally that according to the Census Reports the decadal growth of Scheduled Tribes population in the district from 1961 to 1971 is 27.37 per cent.

Common Diseases

The diseases prevalent in the district are mostly those which are common to other parts of the country. The diseases which afflict large numbers of people are diarrhoea and dysentery, stomach and intestinal diseases, skin diseases, respiratory diseases and malaria. It may be noted that in Subansiri few cases of leprosy were detected in 1977-78, but the number of T.B. patients was in the increase. Cases of cholera and small-pox are rare.

Diarrhoea, Dysentery, Stomach and Intestinal Diseases: These very common diseases are probably due to the use of stagnant and polluted

water for drinking and cooking and lack of nutritious food. In only one year of 1974-75, about 22,000 patients suffering from diarrhoea, dysentery, stomach and intestinal diseases were treated in the district. But, it is remarkable that in the next year 1975-76 the number of patients decreased to a little over 4,000 and then again increased in the subsequent years.

Respiratory Diseases: Bronchitis, broncho-pneumonia and cough with cold are common particularly among the children. These are also to a great extent attributable to the lack of fresh air inside the houses, which are extremely congested and suffocating because of the heavy smoke rising from fireplaces in the rooms. The condition is aggravated by the negligence of people who unwisely expose themselves to the severe cold of the winter. The number of patients in 1975-76 was only 433, while in 1977-78 it was 25,276.

Skin Diseases: Scabies, ringworm and eczema are very common in this district. The skin diseases are more prevalent in the upper belt of the district than in the lower. Tinea is also very commonly found amongst the people of Daporijo and Taliha areas. The skin diseases are endemic in these hilly areas and they are due mainly to the hard life of the people, insect infested jungles, personal uncleanness and unhygienic conditions of living. Adequate measures have been taken by the Government for specialised treatment of skin diseases.

Goitre: Goitre is also endemic in this region. It is prevalent particularly amongst the people of the upper valleys of Subansiri, Kamla and Khru rivers, where common salt was scarce. The root cause of this disease is the deficiency of iodine in water. In order to control this disease, steps have been taken to supply iodised salt to these areas. It was also arranged that the Salt Commissioner, India would supply the iodised salt from the iodised salt production centre of the Sambhar Lake. Salt is now supplied regularly to this region.

Tuberculosis: Cases of T.B. patients, as already stated, show an upward trend. A number of some cases of pulmonary tuberculosis cases were detected in the foothill areas. Preventive as well as curative measures are taken against spread of tuberculosis.

Eye Diseases: Ulcerative blepharitis and chronic conjunctivitis are very common in this district. Constant exposure of the eyes to the smoke inside dwelling houses coupled with an utter disregard of hygienic principles is the main cause of eye diseases.

Leprosy: In 1957, a survey of leprosy was conducted in the Doimukh area, and about 25 cases of leprosy were detected amongst the Mikirs, who were migrants from Assam. As already stated, some cases of leprosy among the local tribal people of this district were reported in 1977-78.

Venereal Diseases: A considerable number of cases of venereal disease in the district, particularly in the Apa Tani valley and Nyapin, Joram and Palin, was recorded in previous years. Syphilis and gonorrhoea are now under medical control and the number of patients is considerably less than what it was before.

Gum Diseases: Gingivitis, gum sepsis and pyorrhoea are also commonly found amongst the people. Gum and tooth diseases are obviously due to a general ignorance of oral hygiene.

The number of patients treated against various diseases is shown in the following charts:¹

Chart I

	1971-72	1972-73	1973-74
Indoor Patients	3,290	3,240	2,820
Outdoor Patients	95,850	88,200	81,500
Total:	99,140	91,440	84,320

Chart II

Sl. No.	Name of Disease	Number of Patients						
		1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
1.	Diarrhoea/Dysentery	9,800	8,520	7,430	10,354	986	11,605	13,505
2.	Stomach and Intestinal Diseases	12,600	7,450	6,440	11,664	3,086	5,572	5,859
3.	Respiratory Diseases	18,080	13,950	12,840	2,629	433	6,354	25,276
4.	Malaria	1,480	N.A.	N.A.	1,949	1,456	1,775	2,438
5.	Syphilis	280	230	220	175	90	58	114
6.	Gonorrhoea	360	90	80	112			
7.	Scabies	2,700	2,110	2,100	1,552		2,548	10,637
8.	Other Skin Diseases	6,730	5,320	4,310	1,827	1,369	2,713	6,425
9.	Goitre	210	490	480	363	198	115	1,010
10.	Leprosy	—	—	—	—	—	—	18
11.	T.B.	N.A.	80	60	74	70	842	878
12.	All Other Diseases	46,900	52,360	50,360	35,752	59,904	2,49,444	1,43,474
Total		99,140	90,600	84,320	66,451	67,592	2,81,026	2,09,634

N.A. = not available

¹ Statistical Hand Books of Arunachal Pradesh, 1971-72 to 1978-79.

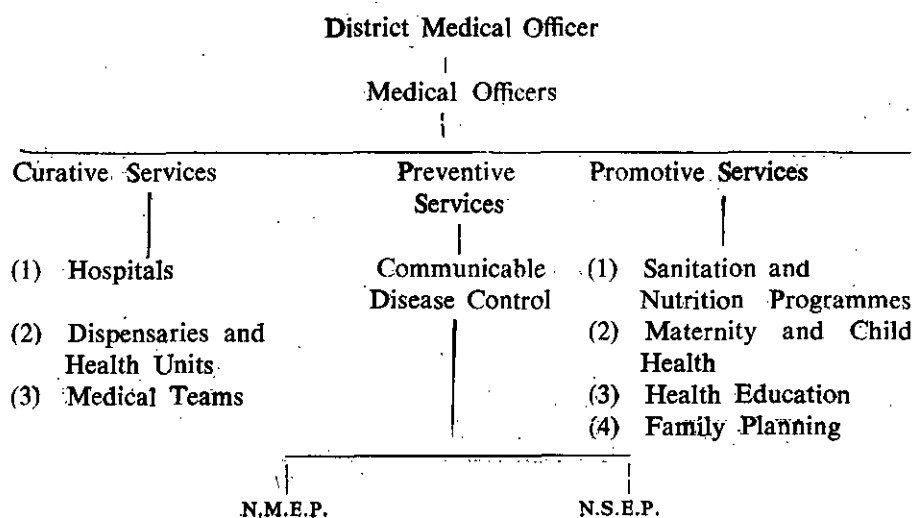
Epidemics and their Control

Blood Dysentery: Blood dysentery is a menacing disease in the district in that it breaks out in epidemic form in some area or the other almost every year. Generally, it occurs during the monsoon, when water-sources become polluted and contaminated. At this time, a large number of people run short of their provisions and eat decomposed meat, jungle roots and tubers, which are difficult to digest and further aggravate the disease.

Preventive measures to check the disease are taken through distribution of medicines liberally to the people, particularly of those villages which were affected earlier. The tribal custom prohibiting visits from one village to another during an epidemic also helps prevent the disease from spreading out.

Medical Organisation

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 medical department works under his guidance and direction. The organisation of the medical department in the district is shown in the following chart:



Hospitals and Dispensaries

In the year 1952, there were only four health units in the district. In view of the expansion of administrative activities and opening up of new administrative centres into the interior areas, new dispensaries and health units were opened according to the necessity of the people. Two general hospitals and 25 dispensaries and health units were established in the district till March 31, 1979 with altogether 206 authorised beds in them including 78 beds for T.B. patients. Besides these, four medical teams have been functioning. There is also an ayurvedic dispensary in Daporijo.

A dispensary at Kimin was opened in 1947 with 8 beds. The health units at Doimukh and Sagalee were established in the year 1949 with 8 beds each.

The 40 bedded general hospital at Ziro, opened in the year 1952, is under the charge of District Medical Officer, who is assisted by a number of doctors and medical staff. The hospital is equipped with modern medical apparatus including X-ray. It also provides pathological and laboratory services.

No medical coverage could be extended to the Daporijo Sub-division till 1955. The first health unit was opened at Daporijo in 1955. By the year 1959 medical coverage was extended upto the border areas.

Among other places in the district at which dispensaries and health units are situated are Yazali, Raga (Tamen), Nyapin, Palin, Koloriang, Sarli, Huri, Tali, Dimporijo, Taliha, Nacho, Siyum, Taksing, Limeking, Balijan, Deed, Sangram and Basarnala.

A general hospital with modern medical facilities was also opened at Old Itanagar in the year 1974. It provides medical aids for general and surgical treatment of indoor as well as outdoor patients.

In March 1979, the sanctioned strength of medical staff in the district was 50 doctors, 34 pharmacists, 11 staff nurses, 12 auxiliary nurses and 3 sisters.

Although the district has no T.B. hospital, 78 beds, as already mentioned, are authorised for T.B. patients in the hospitals and health units. There is a Regional Research Centre for ayurvedic treatment at New Itanagar.

The newly built Ramakrishna Mission Hospital at New Itanagar is a model institution in the most modern sense. It provides medical services to both indoor and outdoor patients.

Mobile Medical Cover

Four medical teams are working in the district and these teams provide extensive medical aids to the people. The preventive aspects of health services, such as improvement of environmental sanitation with special

emphasis on fresh water supply and cleanliness, are stressed by the medical officers and staff of health units during their scheduled tours in all parts of the district.

Maternity and Child Welfare

Maternity and child welfare are carried out with special care through the hospitals, dispensaries and health units in the district. Serious cases are referred to the hospital at Ziro, where a Maternity and Child Health Centre is functioning, and to other general hospitals.

The National Family Welfare Planning has been introduced in Arunachal Pradesh, where the population is extremely sparse, on a very limited scale.

School Health Programme

Under the School Health Programme, medical check up of the students is done from time to time and medical aids are provided to them when an epidemic disease breaks out. Medical and hygienic teachings are also imparted to the students so as to help them grow healthy.

National Small-Pox Eradication Programme (NSEP)

Work under National Small-Pox Eradication Programme was started in the district in 1963-64. Fourteen NSEP teams consisting of Inspectors and Health Assistants have been functioning in the district to take preventive measures against small-pox. The achievements made under the programme are as follows:¹

Year	No. of Primary Vaccination (PV) given	No. of Re- Vaccination (RV) given	Total Number
1971	6,040	20,920	26,960
1972	6,180	14,680	20,860
1973	4,570	11,580	16,150
1974-75	3,950	23,010	26,960
1975-76	3,080	18,040	21,120
1976-77	3,276	7,677	10,953
1977-78	1,913	2,807	4,720
1978-79	1,081	1,409	2,490

¹ Statistical Hand Book of Arunachal Pradesh, 1971-72 to 1978-79.

It may be noted that outbreak of small-pox in epidemic form in the district has not been reported.

National Malaria Eradication Programme (NMEP)

In the old days, malaria was an awful disease, particularly in the foothill areas of Kimin and Doimukh. Hundreds of people fell victims to this disease every year, and many of them succumbed to it. With the opening of an anti-malaria unit at Kimin in 1951, first steps were taken to keep malaria in check. To extend the anti-malarial activities to other parts of the district, more units came up in 1957. The anti-malaria organisation was brought under the NMEP in 1958.

The territory of Arunachal Pradesh is divided into four zones for execution of the National Malaria Eradication Programme. For this purpose, the district of Subansiri falls under the West NMEP zone. A Zonal Malaria Officer is responsible for carrying out the anti-malarial programme. He is assisted by a number of unit officers and entomologists. The programme includes active surveillance and Dichloro-Diphenyl-Trichloroethane (D.D.T.) spray.

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 activities and the achievements under the NMEP in the Subansiri District are indicated in the following tables.¹

Table No. 1

Year	Number of Spraying Team	Spraying Coverage Village/ Camps	Number of Rooms/Camps		Population Covered (in thousand)
			Rooms	Camps	
1973	20	1190	23631	—	89.92
1974	22	1009	22852	—	93.23
1975	19	631	17173	—	61.61
1976	19	1259	27477	—	101.19
1977	18	651	23133	3888	42.02

¹ Source: Statistical Hand Book of Subansiri District, Arunachal Pradesh, 1978.

Table No. 2

Year	Number of Blood Slides Collected	Number of Blood Slides Examined	Number of Blood Slides Found Positive	Species				Number of Cases Radically Treated
				P.v.	P.f.	P.m.	Mixed	
1974	12208	12161	1304	1085	201	—	18	1359
1975	9888	9743	1211	805	295	—	11	360
1976	16257	16257	1779	1450	319	—	10	54
1977	13043	13043	1729	1573	148	—	8	1375

N.B.: P.v.—*Plasmodium vivax*; P.f.—*Plasmodium falciparum*; P.m.—*Plasmodium malariae*

The Table No. 2 shows that during the period of four years from 1974 to 1977, the incidents of malaria positive were not numerically very high.

Urban Sanitation

There is no declared urban area in the district. The district headquarters at Ziro with a population of 2,990 persons according to the 1971 Census, has its natural sewerage system. The sanitation and water supply of the townships at Ziro and Itanagar are looked after by the Central Public Works Department (CPWD). Recently, a town committee has been formed at Itanagar for proper maintenance of sanitation and sewerage system of the capital. The committee is empowered to appoint sweepers to keep the roads and drains clean.

Of late, a sanitary team comprising a number of health assistants is posted to each district and sub-divisional headquarters of Arunachal Pradesh. The main function of this team is to maintain cleanliness and to ensure regular spraying on drains and public lavatory with deodorants, bleaching powder, phenyle etc.

Rural Sanitation

Sanitation in the rural areas of this mountainous region is an uphill task, and the sanitary conditions at many villages are deplorable. Most of the villagers are uneducated, and they are indifferent to sanitation and hygiene. The people live in pile houses which are often of great length accommodating a number of related families. The houses are stuffy and dark. A fire place is kept in the centre of every room with fire smouldering or burning perpetually. As a result, the interior of the house remains

smoky, and the worst of it is that there is no proper ventilation for quick emission of smoke from the rooms. The stifling atmosphere causes chronic conjunctivitis and other ailments. Used water is poured through the openings between the bamboo splits of the floor and refuses are thrown scatteredly outside. Art of drainage is unknown to most of the villagers and dirty water and garbages make filthy pool under the floor of the house.

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 fresh water.

In order to meet the need of the people for a regular supply of fresh water, a number of rural water supply schemes have been taken up and implemented. Out of 960 inhabited villages (according to the 1971 Census) in Subansiri, about 306 villages have been provided with water supply till March 31, 1979. Steps have also been taken for drainage and for laying down pipe-lines in the villages to fetch water from perennial sources.

The general unhygienic and insanitary way of living of the people are due mainly to illiteracy and poverty. The Government has been making constant efforts through its various agencies like agricultural engineers, medical officers, teachers, village level workers and other field staff to educate the people to maintain environmental sanitation in their respective areas and also to protect the sources of drinking water from pollution. Drive for village cleanliness has been undertaken on co-operative level by both Government employees and local people. Village level workers are urged to lay special emphasis on the need for cleanliness and sanitation. Audio-visual aids are displayed among the villagers. Posters in tribal dialects are hung in the medical institutions and the patients are advised to take hygienic and sanitary measures to avert diseases. School children are taught hygiene regularly. All these and other measures receive special emphasis in both curative and preventive programme of public health.

Nutrition

The staple food of the people of this district consists of rice, maize, vegetables, meat and fish. The people also drink regularly the indigenous

beer called *apong* as an item of their diet. Milk is not generally taken, for milking of cows is not commonly practised. It is, however, presumed that the diet of the local people contains more food value than that of the average Indian peasants. The indigenous food is rich with protein and minerals due largely to local *apong*. A dietary survey carried out by the Medical Department suggests that the food of the tribal people of this district is not devoid of the necessary ingredients of a balanced diet of nutritious value as borne out by the fact that the deficiency diseases, such as beriberi, rickets, scurvy, pellagra or xerophthalmia do not affect the people seriously on a large scale. Malnutrition is caused due to scarcity of food during the lean months, when the people in some areas fall back on jungle roots, leaves of wild trees and plants. The Fifth Five Year Plan of the territory includes a scheme for giving nutritious food supplement to children and pregnant and lactating mothers. The scheme is under way.

Old Beliefs and Treatment

The people have their own traditional methods of diagnosis and cure, and they have faith in their own medicine-men and priests. According to their old belief, 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. The village physicians have in their possessions some really effective local herbs for the treatment of patients.

CHAPTER XV

PUBLIC LIFE AND VOLUNTARY SOCIAL SERVICE ORGANISATIONS

Representation of the District in the State and the Union Legislatures

Under the provisions of the North-East Frontier Agency Panchayat Raj Regulation, 1967 as amended by the North-East Frontier Agency (Administration) Supplementary Regulation, 1971, a Pradesh Council was constituted in place of the Agency Council for the erstwhile North-East Frontier Agency (NEFA). The Pradesh Council consisted of:

- (a) the member of the House of the People representing the North-East Frontier Agency,
- (b) the Vice-Presidents of all the Zilla Parishads, operating at the district level,
- (c) three representatives from each of the Zilla Parishads elected by the members thereof from amongst themselves, and
- (d) three persons nominated by the Administrator to provide representation for such tribes or communities as have not obtained any representation in the Council.

The Pradesh Council had, *inter alia*, the function of discussing and making recommendation to the Administrator on proposals for undertaking legislation for the North-East Frontier Agency with respect to any of the matters enumerated in the State List or in the Concurrent List in the Seventh Schedule to the Constitution.

With the promulgation of the North-Eastern Areas (Reorganisation) Act, 1971, the North-East Frontier Agency has been constituted as an Union Territory and renamed as Arunachal Pradesh from January 21, 1972. The Pradesh Council continued to function till the enforcement of the Constitution 37th Amendment Act, 1975 from the 15th August, 1975 which provides for a Legislative Assembly with a Council of Ministers for the Union Territory of Arunachal Pradesh with 30 elected members. The Pradesh Council was dissolved and replaced by the Legislative Assembly, which started functioning from the 15th August, 1975 with the existing members of the Pradesh Council. 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 also from the 15th

August, 1975 provides two seats in the House of the People, i.e. Lok Sabha for Arunachal Pradesh.

According to the provisions of the said Acts and the Order of the Election Commission made in respect of the delimitation of Parliamentary and Assembly constituencies, the district of Subansiri is represented in the State Legislature by seven members elected from the following single member territorial constituencies:¹

<i>Name of Constituency</i>	<i>Extent of Constituency</i>
(1) Koloriang	Koloriang, Sarli and Damin (Huri) Circles in Koloriang Sub-division.
(2) Nyapin-Palin	Nyapin circle in Koloriang Sub-division and Palin circle in Ziro Sub-division.
(3) Doimukh-Sagalee	Doimukh and Sagalee circles in Sagalee Sub-division.
(4) Ziro	Ziro circle in Ziro Sub-division.
(5) Raga-Tali	Raga and Tali circles in Ziro Sub-division.
(6) Daporijo	Daporijo and Dumporijo circles in Daporijo Sub-division.
(7) Taksing-Taliha	Taksing, Limeking, Nacho and Siyum circles in Nacho Sub-division and Taliha circle in Daporijo Sub-division.

The two parliamentary constituencies into which the Union Territory of Arunachal Pradesh has been divided for the purpose of elections are (1) Arunachal West and (2) Arunachal East. The entire Subansiri District is included in the Arunachal West constituency.

Political Parties

The political parties having hold in the area at different times as reflected in the last elections are the three all-India parties — the Indian National

¹ The Arunachal Pradesh Gazette, Extraordinary Issue No. 42, Itanagar, dated November, 5, 1975.

Congress, the Indian National Congress (I) and the Janata Party. Besides them, the People's Party of Arunachal is a strong regional party. In the General Election to the Lok Sabha, held for the first time in Arunachal Pradesh in the month of March 1977, Shri Rinchin Khandu Khrame, a Congress candidate was elected uncontested from the Arunachal West parliamentary constituency. In the first General Election to the Legislative Assembly of Arunachal Pradesh, held in the month of February 1978, there were mainly two political parties, the Janata Party and the People's Party of Arunachal contesting for seven assembly seats of the district. The Janata Party had put up candidates for all the seats, while the People's Party contested for six seats. A straight contest between these two parties was held in four constituencies, namely Koloriang, Nyapin-Palin, Raga-Tali and Daporijo. The results of the election were as follows:¹

<i>Parties</i>	<i>Number of Seats Won</i>	<i>Name of Candidates Elected</i>	<i>Name of Constituencies</i>
Janata Party	6	Shri Chera Talo Shri Tadar Tang Shri Tara Sinda Shri Padi Yubbe Shri Nido Tech Shri Tadak Dulom	Koloriang Nyapin-Palin Doimukh-Sagalee Ziro Raga-Tali Daporijo
People's Party	1	Shri Tara Payeng	Taksing-Taliha

The total number of electorate of the seven constituencies was 64,468 and the percentage of poll was 74.55.

In September 1979, political changes due to defection of the members of the Legislative Assembly led to the dissolution of the Janata Ministry of Arunachal Pradesh, and Shri P. K. Thungon, Chief Minister resigned on September 6, 1979. A new Ministry formed by the United People's Party of Arunachal under the Chief Ministership of Shri Tomo Riba was sworn in on September 18, 1979. But after about one and a half months it stepped down following defections and floor-crossing of the legislators. As a result, the Assembly was dissolved and the President's rule was imposed in Arunachal Pradesh on November 3, 1979.

In the mid-term poll to the Assembly held on January 3, 1980 three political parties, namely the Indian National Congress (I), the Indian National

¹ Source: (1) The Arunachal Pradesh Gazette, Extraordinary Issue No. 61, Itanagar, dated March 9, 1978.

(2) Arunachal News (Shillong, February-March, 1978), Vol. No. 7, No. 1, pp. 1-2.

Congress and the People's Party of Arunachal were in the election fray. The Indian National Congress (I) fielded their candidates for all the seven assembly seats, the Indian National Congress contested for two seats and the People's Party for six seats. The Congress(I) and the People's Party were in straight contest for two constituencies, namely Doimukh-Sagalee and Taksing-Taliha. The results of the election are as follows:¹

<i>Parties</i>	<i>Number of Seats Won</i>	<i>Name of Candidates Elected</i>	<i>Name of Constituencies</i>
Indian National Congress (I)	5	Shri Lokam Tado Shri Tadar Tang Shri Techhi Takar Shri Tadak Dulom Shri Punji Mara	Koloriang Nyapin-Palin Doimukh-Sagalee Daporijo Taksing-Taliha
People's Party	1	Shri Boa Tamo	Raga-Tali
Independent	1	Shri Padi Yubbe	Ziro

The total number of electorate of the seven constituencies of the district in the 1980 assembly election was 72,835 and the percentage of poll was 65.71.

In the parliamentary election to the Seventh Lok Sabha held in Arunachal Pradesh simultaneously with the assembly election on January 3, 1980, Shri P. K. Thungon, the former Chief Minister of Arunachal Pradesh, was elected as a Congress (I) candidate from the Arunachal West Constituency. The total number of electorate of this parliamentary constituency was 1,51,450 and the percentage of votes polled was 69.

VOLUNTARY SOCIAL SERVICE ORGANISATIONS

The voluntary social service organisations functioning in the Subansiri District may be classified under three broad categories, namely (a) social and cultural development organisations, (b) social welfare organisation for women and children and (c) organisations for tribal welfare.

Social and Cultural Development Organisations

District Social and Cultural Society, Ziro: In order to preserve and promote the cultural heritage of the people and to bring about social development,

¹ Source: Arunachal News, Republic Day Issue 1980, Vol. No. 8, No. 9, pp. 9-12.

a number of cultural societies have been working in different areas and at various levels. The District Social and Cultural Society, Ziro, an important organisation at the district level, has been functioning regularly with an office of its own. The society receives grant-in-aid from the Government. Besides this, there are two other cultural societies at Ziro : the Apa Tani Cultural Society and the Ziro Nishi Cultural Society.

Government help is also rendered to the people for construction of their traditional cultural centres and institutions.

Social Welfare Organisation for Women and Children

Arunachal Pradesh 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 Welfare Extension Project Centres under the Project Implementing Committees. In the Subansiri District, two Project Implementing Committees are functioning, one at Ziro and the other at Daporijo. Each of these committees has a Chairman and Vice-Chairman, who are women social workers rendering services without remuneration. Under these Committees, there are four Welfare Extension Project Centres located at Ziro, Joram, Ligu and Dolum. The Welfare Extension Project Centres are staffed by *Mukhya Sevika*, trained *Gramsevikas* and *Dais*, and other helpers, who are all paid for their services. The accounts of the centres are maintained by accounts clerks appointed and paid on part-time basis. The organisation receives aids from the Government of Arunachal Pradesh as well as Government of India to defray its expenditure.

The welfare programmes undertaken for implementation by the W.E.P. Centres are as follows :

(1) *Balwadis (Pre-Basic Schools) for Children :* The Balwadi provides to the children elementary education through recitation of nursery rhymes and English alphabet, demonstration of toys and numerical blocks etc. The Balwadi also gives nutritious food to the children once a day. Special care is taken by the *Gramsevikas* for the well-being of children. They also look after the bathing, cleaning and clothing of the children.

(2) *Nutrition Programme :* 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 Welfare Extension Project Centres.

(3) *Free Medical Aid to the Villagers :* Medicines are distributed freely.

by the trained *Dais* to patients in villages and W.E.P. Centres. Maternity services, pre-natal and post-natal, are also rendered by the *Dais*.

(4) *Social Education*: It is the duty of the *Gramsevikas* to deliver lectures to the villagers in a regular manner on personal hygiene, child-care, sanitation etc. Dramas of educative value are organised and staged.

(5) *Adult Education*: The *Gramsevikas* hold evening classes for education of adult women.

(6) *Craft Classes*: Various arts and crafts, such as weaving, sewing, tailoring, knitting etc. are taught to the village women by the *Gramsevikas*. Besides these, the women are also given instructions in culinary and household matters concerning preparation of nutritious food, preservation of food, kitchen gardening, flower gardening etc.

(7) *Cultural and Recreational Activities*: The W.E.P. Centres pay due attention to the cultural and recreational activities. Folk music and dance, sports and games are organised by the *Gramsevikas*. Besides these, important occasions, such as Republic Day, Independence Day, Children's Day and Vanamahotsava, are celebrated in the centres.

Organisations for Tribal Welfare

Subansiri Seva Samity: This samity is running a Government aided Lower Primary School and a hostel for both boy and girl students at North Lakhimpur in Assam. Students from different parts of Arunachal Pradesh are admitted to this school, and each of them receives from the Government a monthly stipend of Rs. 75.

Gharmora Model Satra: This Satra or religious centre of North Lakhimpur is a very old Vaishnavite institution. From early times, this institution has been doing welfare work for the Nishis of Subansiri. The school and the attached hostel established by the Satra has on its roll a good number of students, both boys and girls, coming from all the districts of Arunachal Pradesh. Apart from general education, training in classical music and dance is also imparted in this institution. Government assistance is given in the shape of monthly stipend of Rs. 75 per student.

Prantiya Samaj Kalyan Ashram: Situated near Kimin this Ashram also maintains a school as well as a hostel. Apart from stipends being given to fifty students of this school at the rate of Rs. 75 per month per student, an additional amount is also spent by the Government for the welfare of students.

Kasturba Gandhi National Memorial Trust : This institution, situated at Ziro, has a girls' hostel where training in weaving is imparted to ten girls every year, and for this purpose it receives Government aids. The social service activities of the institution also include cleaning work in villages.

CHAPTER XVI

PLACES OF INTEREST

Introductory

Subansiri, the "hidden land", was little known to the outside world till the end of 1890, when H. M. Crowe, an adventurous tea planter first visited the Apa Tani valley to spend Christmas there. "He was the first, as far as we know, to penetrate so far into the interior. He was charmed and astonished, as all subsequent travellers have been, by what he found. For here in a remote, well-watered valley lived a society of highly organized, industrious people who had developed an extensive system of irrigated fields and, though ignorant of the plough, succeeded with their hoes in raising two annual crops for themselves and their neighbours. But they had no contact with the outside world ...".¹ Another early visitor, R. B. McCabe reporting on the Apa Tani valley in 1897, wrote that, "The sight is one I shall never forget, as we suddenly emerged on a magnificent plateau some ten miles in length, laid out in highly cultivated and artificially irrigated terraces well watered by the Kali river, a sluggish stream some 45 to 60 feet in breadth, with low alluvial banks. The valley was dotted with isolated hillocks, and low pine-clad spurs ran here and there into the valley from the Eastern ranges. No crops were on the ground, but the stalks gave ample evidence of the beautiful character of the recent paddy harvest. Our hearts warmed at the sight of primroses, violets, wild currants, strawberries and raspberries, and I felt disposed to almost believe some of the wonderful stories we had heard of the fabulous wealth of this country."²

Dr. Furer-Haimendorf travelled through the Subansiri region in 1944-45 and went deep into the interior areas to reach the Apa Tani valley. He revisited the valley in 1962, 1970 and 1978. The wealth of topographical and ethnological material which he brought from there is recorded, as mentioned earlier, in his famous works — *Ethnographic Notes on the Tribes of the Subansiri Region, Himalayan Barbary, The Apa Tanis and their Neighbours and A Himalayan Tribe — From Cattle to Cash*.

¹ Verrier Elwin, *A Philosophy for NEFA*, (Shillong, 1964), p. 14.

² Verrier Elwin, *India's North-East Frontier in the Nineteenth Century*, (London, 1962), p. 191.

Ursula Graham Bower visited Subansiri about thirty years ago. The tract appeared to her to be a hidden land veiled in mysteries. "It was weird and unexplored, a strange and uncharted world. Its tribes came from no one knew where, its hinterland held no one knew what, and in it was a fantastic enclave, the Apa Tani Valley; this was a marvellously cultivated bowl populated by a bizarre people, planted with an alien flora brought from an unknown home and visited every year by mysterious white cranes which appeared each winter and vanished mysteriously in the spring. The Area lay in the foothills belt which runs between the plains of Assam and the Great Himalayan Range on the southern borders of Tibet. The map showed it as a blank, a vast, virginal space, broken only by the conjectural courses of the three major rivers, the Subansiri, Kamla and Khru. The Subansiri had its source in Tibet and pierced the snow-ranges by a tremendous gorge; its tributaries the Khru and Kamla rose in the Himalayas, merged far down to the south and joined the Subansiri not far from the edge of the plains. The rest of the enormous tract was a mountain labyrinth of unbelievable difficulty, a terrain which had kept the Area largely inviolate. The hills were folded and knotted, peaked and rent; ridge was crammed against ridge, soaring and sheer, the valleys between were gigantic gashes four, five and six thousand feet deep, and the whole country was up on end. Except in the Apa Tani Valley the villages were small and scattered and the cultivation primitive; over most of what was known the tribes were unsettled and warlike and nobody knew what lay further in at the foot of the snow-ranges. Paths were steep and few, the wide strong rivers were unfordable, bridges were frail and rare, and from one end of the Area to the other there was nothing but cliff and torrent, harshness and savagery. It was wild, sinister and unbelievably beautiful."¹

The early reports and books written about Subansiri are, no doubt, extremely important to all those who would seek a knowledge of the land and its people as they were in the old days. They give an admirable account of the topography and the old routes, and the ways of living of the people. But the situation today is basically different. Subansiri is no longer the "hidden land". Lines of road communications have opened up its interior areas and connected the district headquarters and a number of administrative centres. The erstwhile "hidden land" is with all its scenic beauties and natural grandeur, its vigorous and colourful tribes is now open to view.

PLACES OF HISTORICAL AND TOURIST INTEREST

Ita Fort

At New Itanagar, about 11 km west of the present temporary capital of

¹ Ursula Graham Bower, *The Hidden Land*, (London, 1953), pp. 3-4.

Arunachal Pradesh at Old Itanagar, there exist the archaeological ruins of the Ita Fort, a place in the lower hills fortified by brick ramparts and gates. Among the other relics exhumed from this place are potsherds, carved stones in bas-relief with floral and animal designs, decorative bricks, irons clamps and nails.

Archaeological excavations of the Ita Fort are under way, and at the present stage of our knowledge derived from the finds, literary sources and legends current among the local Nishis, it may be surmised that the ruins of Ita Fort are probably the remnants of Mayapur, the capital of Ramachandra (later part of 13th century) also known as Mayamatta, the father of Arimatta, of the Jitari dynasty of Assam.

The Ita Fort is approachable by road from Old Itanagar.

PILGRIM CENTRES

Menga Temple

Near the confluence of the Subansiri and Menga, there exists a rock-cave with two tunnels — one at the back and the other towards the left. The first one starts from the back wall of the cave at a place about 1.80 metres high from the platform reached by stairs. The opening of the tunnel is big enough to allow one to enter up to about 9 metres. The tunnel, as one proceeds, becomes gradually so narrow as to prevent further entry except by crawling. The interior of the tunnel is extremely dark, and in the passage there are three niches, where three or four persons can stand together. The second tunnel on the left appears to be an extension of the cave. The ceiling of this tunnel is about 0.90 metres from the floor of the cave, and on the floor there is a small *linga* (phallic) like object of black stone. Water drips on the *linga* from the ceiling above.

The cave is known as the Menga Temple, and it has been renovated with installation of the images of Radha and Krishna as well.

The cave is 22 km north of Daporijo towards Taliha.

OTHER IMPORTANT PLACES

Banderdewa

Situated close to the Assam-Arunachal border along the North Trunk Road between Tezpur and North Lakhimpur, Banderdewa is the gateway to Itanagar, the capital of Arunachal Pradesh. It connects Nahar-lagun, the temporary site of the capital by a 19 km road.

Banderdewa is an important centre of the Forest Department. It is the headquarters of the Conservator of Forests, Western Circle; the Deputy Conservator of Forests, Banderdewa Forest Division and of the Silviculture Forest Division. The Police Training Centre of Arunachal Pradesh is also situated at this place.

Banderdewa is a beautiful place by the river Dikrang, where one can see the stretch of the Assam plains meeting the lower hills of Arunachal Pradesh. Several small-scale industrial units have been established here. There is a 'deer park' near this place.

The railway station at Harmuti in Assam is only about 3 km from Banderdewa.

Daporijo

Daporijo, a sub-divisional headquarters, lies to the east of the district along the Subansiri river. The Tagins, Hill Miris, Gallongs and others constitute its mixed population of 2,024 persons.*

Situated at a comparatively low altitude, Daporijo has a salubrious climate, pleasant during the winter and hot and humid in the summer. The average annual rainfall is 172 cm.

With electrification and road links with Ziro and also Likabali in the Siang District, Daporijo is developing as a township. It has a Higher Secondary School, a hospital, a craft centre, a Government agricultural farm, a sub-divisional library, a circuit house and an inspection bungalow. The local market with co-operative stores and a number of shops is flourishing.

Daporijo is connected with the rest of the country by road, air, postal and telegraphic communications.

Doimukh

Situated at the foothills on the west bank of the river Dikrang, Doimukh is a circle headquarters. It is an old established administrative centre connected by road with the adjoining Harmuti Tea Estate of Assam as well as Itanagar. It has a mixed population of about 500 persons. The local people are the Nishis.

The climate of Doimukh is typical of the foothill areas. The annual average rainfall is 296 cm.

Doimukh is an electrified place, and it has a Higher Secondary School, a dispensary, a craft centre, a Post Office and an inspection bungalow. A market with a co-operative stores has also sprung up here.

* The population figures of places shown in this chapter are based on the Census of 1971.

Itanagar

Itanagar, the temporary capital of Arunachal Pradesh, is situated in the lower region of Subansiri District adjoining the border of Assam. It is connected with Banderdewa, which is situated close to the Assam-Arunachal border, by a 19 km road. There is also an alternative route across the Dikrang river connecting Itanagar with Harmuti in Assam via Doimukh.

The temporary capital stands on the bank of the river Pachin (also called Barpani) in the Nahar-lagun area of Itanagar. Shri V. V. Giri, the then President of India, inaugurated the temporary capital at this place on the 20th April, 1974. The offices of the then Chief Commissioner of Arunachal Pradesh and the Chief Secretary were shifted from Shillong to Itanagar during April-May 1974. The shifting of the Arunachal Pradesh Secretariat from Shillong to this place also began at the same time.

The temporary capital now known as Old Itanagar has been built up as an integral part of the plan for Itanagar Capital Project. The plan envisages construction of a permanent capital at an upper elevation of the hill around the ruins of the historic Ita Fort about 11 km west of Old Itanagar. Construction of the permanent capital named as New Itanagar at an altitude of about 500 metres is now under way. A road has been built to link both Old and New Itanagar. Shri B. K. Nehru, formerly the Governor of Assam, laid the foundation of this new capital on the 7th May, 1973.

Itanagar, the temporary capital, has taken rise from the depth of the foothill forests into an ideal headquarters town, where there was no known human settlement formerly. The town planning and the execution, the building up of road, air, post and telegraphic communications were all done at a unique speed, and the capital now enjoys all the ancillary facilities of a modern town. It spreads out over an area of about five sq. km and is divided into a number of sectors. The credit for this remarkable achievement must go to Shri K. A. A. Raja, the then Chief Commissioner and later the Lt. Governor of Arunachal Pradesh under whose direction and guidance the Itanagar Capital Complex has come into being within the shortest possible time.

Besides the Legislative Assembly and the Secretariat of Arunachal Pradesh, other departments and offices, the temporary capital has a Civil Hospital, a Central School, a branch of the State Bank of India, a newly constructed market with co-operative and other private shops, a cinema hall, a beautiful park and a playground, a circuit house, a MLA Hostel, an inspection bungalow etc. A net work of beautifully surfaced roads connect all the sectors of the capital, which with its newly constructed buildings and residential quarters illumined with electric lights at night looks extremely wonderful.

Kimin

Kimin is adjacent to the boundary of Assam. It was at first the base camp of the Political Officer of the erstwhile Subansiri Area and subsequently his headquarters till it was shifted to Ziro in March 1952. It is situated at a vital point of the road connecting Ziro.

The local Nishis and the Mikirs form a good number of its total population of 1,336 persons.

It enjoys the moderate climate of the foothill region. The average annual rainfall is approximately 350 cm.

Kimin has a health unit, a Primary School and a Post Office. The place has been electrified.

Koloriang

Koloriang is the headquarters of the Koloriang Sub-division in the north-western part of the district. Situated at an altitude of 1000 metres, its climate is cool and salubrious.

Koloriang is connected with Ziro by road and tracks through Palin and Nyapin. The Nishis form the bulk of its total population of 358 persons.

There are a Middle School, a health unit, a craft centre, a Post Office, a sub-divisional library and an inspection bungalow. Electricity has been extended to this place. It has also a mart with a co-operative stores.

Nacho

Nacho, the headquarters of Nacho Sub-division, is situated to the north of the district. The climate is moderate in the summer but extremely cold in the winter. The place is inhabited by the Tagins, and the population is about 400 persons.

Nacho has a Middle School, a health unit, a Post Office and an inspection bungalow.

Nirjuli

Nirjuli is situated along the road between Banderdewa and Itanagar. It is important for its cattle farm, which is one of the model and biggest such farms in Arunachal Pradesh. The whole capital township of Itanagar is supplied with milk from this single farm. Nirjuli has been electrified.

Nyapin

Nyapin, a circle headquarters in the Koloriang Sub-division, is situated at an altitude of 1000 metres on the north-west of Ziro, and is connected

with it as also Koloriang by road and track. Its population of 230 persons is constituted predominantly by the Nishis. It has an average annual rainfall of 158 cm.

Nyapin has a Higher Secondary School, a health unit, a Post Office and a craft centre. Electricity has been extended to this place.

Palin

Palin in the Ziro Sub-division is situated at an altitude of 1220 metres on the bank of the river Palin. The place is connected by road with Ziro. It has a population of 176 persons, and the local people are the Nishis. The headquarters of the Palin circle have been shifted to New Palin.

The climate of Palin is cool and pleasant. The average annual rainfall is 182 cm.

Palin has a Middle School, a health unit and a Post Office.

Sagalee

Sagalee, the headquarters of Sagalee Sub-division, lies in the south-western part of the district. The place is connected by road and track with Itanagar through Doimukh.

Situated at an altitude of 1070 metres, Sagalee enjoys the cool and salubrious climate of a hill station.

The place is inhabited by the Nishis, and its population is 223 persons.

Sagalee has a Middle School, a health unit, a Post Office and a craft centre.

Sero

Sero is a beautiful small village in the Apa Tani valley at a distance of about 5 km. from Ziro. Its landscape with attractive and charming pine groves is picturesque. The place is also renowned for its cattle farm.

Taksing

Taksing, a circle headquarters in the Nacho Sub-division, is situated at a high altitude of 2400 metres to the north of the district close to the international border. It has a population of 238 persons, and the local people are the Tagins.

The climate is extremely cold in the winter and the annual average rainfall of the place is 82 cm.

Taksing is an electrified place with a Primary School and a health unit.

Yazali

Yazali is situated between Kimin and Ziro. The local inhabitants are the Nishis. A flourishing business centre with a number of shops, restaurants and hotels, it is a station on the Kimin-Ziro road.

The climate of Yazali is pleasant and salubrious. The average annual rainfall is 133 cm. It is a beautiful place surrounded by high hills decked with evergreen forests.

It has a Government agricultural farm, horticultural nurseries, a Middle School and a health unit. Electricity has been extended to this place.

Ziro

Ziro, the district-headquarters, also known as Hapoli, lies at the heart of the Apa Tani valley. An aspect of the beautiful landscape of the valley as described by Dr. Furer-Haimendorf is as follows:

"As suddenly as we had come upon this flowery enclave as suddenly we found ourselves in forest of quite a different character: we trod on pine-needles and walked through colonnades of blue weeping pine. The Apa Tanis explained, like eager children showing off some cherished possession, that this pine was peculiar to the Apa Tani country, for, they said, their ancestors had brought the seeds with them when years and years ago they had come to the valley from lands in the far north-east.

"Once we had entered the pine forest, we dropped steadily along a well-trodden path and within half an hour came out into open country. On the edge of the forest we were halted by a scene of extraordinary beauty. An upland of flower-studded meadows and treeless hillocks extended into the dim, misty distance. The day had turned dull, but in the hazy atmosphere this particular landscape appeared all the more dreamlike and unreal."¹

Situated at a high altitude of 1572 metres, Ziro is fringed by lofty mountains receding as far away as one can get a glimpse of. The climate of Ziro is salubrious, but it becomes extremely cold when the winter sets in. The average annual rainfall is 211 cm.

Ziro has a mixed population of 2,990 persons. The local people are the Apa Tanis.

Ziro is one of the most beautiful hill stations in Arunachal Pradesh. It is flourishing with all facilities of a modern township, such as electric lights, automatic telephone system, a net-work of beautifully surfaced roads, a cinema hall, hospital, Higher Secondary School and a market with a good number of shops, co-operative stores, restaurants, book stalls, photo studio etc.

¹ C. von Furer-Haimendorf, *Himalayan Barbary*, pp. 18-19.

Besides these, there are a district museum and a library, a craft centre with emporium, a Government horticultural garden, a dairy farm, a beautiful children's park, a branch of the State Bank of India, a circuit house and an inspection bungalow.

Ziro is well connected with the rest of the country by road, air, postal and telegraphic communications.



Section of a road winding through the hills



The Ramakrishna Mission Hospital at New Itanagar



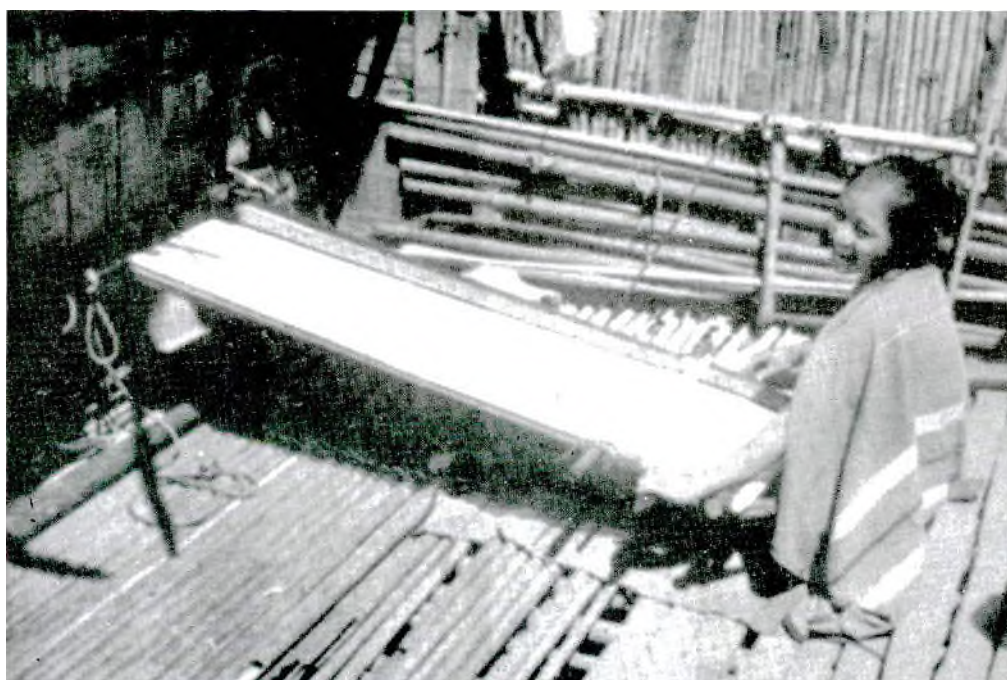
A water pipe-line for irrigation



A cane suspension bridge



Spinning is a household craft of the Nishis



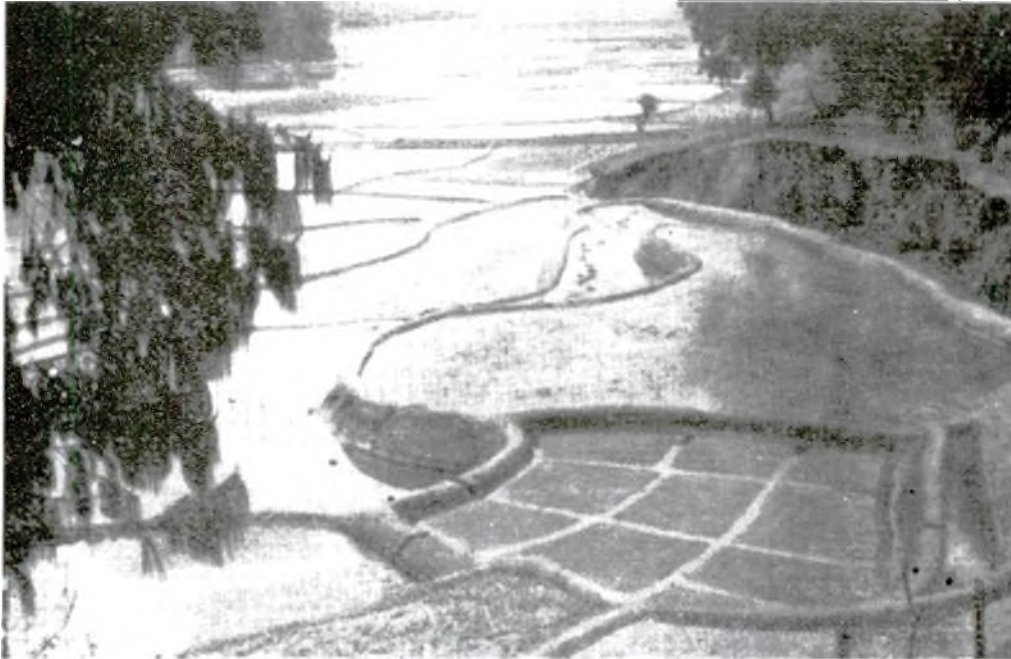
An Apa Tani woman at her loin-loon



Apa Tanis in their irrigated rice-field



Apa Tani women transplanting paddy-seedlings



The Apa Tani valley



'The old order changeth, yielding place to new' —
Modern farming near Ziro



Typical Hill Miri villages





A Tagin village in a glen



An Apa Tani village



A typical long-house of the Nishis



Platform at one end of the Nishi house



Hill Miri girls with rice-plates on their head during the celebrations of the Boori Boot festival



Girls in chorus celebrating the Boori Boot festival



Babo-bodu – a game of acrobatics held during the Mloko festival of the Apa Tanis



'Snake-game' of the Apa Tanis



On way to the Si-Donyi festival ground



A woman on her weary way



Scenes of Si-Donyi — a festival of the Tagins





Nishi belles on a festive occasion



The Nishi Nyokum festival—a dance



A Nishi girl adorned with necklaces of multi-coloured beads



A Tagin girl in ceremonial dress



A Hill Miri



A young Hill Miri hunter



A group of the Tagins



Lapang — a sitting-platform, where members of Apa Tani clans gather for social and religious purposes



A Nishi wearing a fibre rain-coat



Nishis and their pet dog the man smoking a silver tobacco pipe



Ruins of Ita Fort





White-browed gibbon (*Hyalobates hoolock*)



Musk-deer (*Moschus moschiferus*)



A snow-capped mountain



A hamlet perched on a hillside



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