MAP OF NORTH EAST INDIA SHOWING ARUNACHAL PRADESH

MAP: 1
Arunachal Pradesh, the land of the rising sun, is situated on the North-Eastern extremity of the Indian continent, the boundary of which is demarcated by the No-Mohan line and the Inner-line. The territory covers an area of 83,578 sq.km. of lofty mountainous terrains that rest roughly between the latitudes 25°28'N. and 29°30'N. and longitudes 91°30'E. and 97°30'E. Prior to the attainment of the status of a Union territory with a new name on 20th January, 1972, the area was known as North-East Frontier Agency or NEFA in short.

A land of difficult terrains and varied ecological conditions, Arunachal Pradesh is inhabited by 6,28,050 odd persons as per 1981 (provisional) census with a decadal (1971-81) growth of 34.34 per cent, that spread over some 2500 villages. The major contributors to the great association of tribes of the territory are:
A. The Monpas, Sherdukpens, Akas, Khowas, Mijis,
Bangins and Salungs of East and West Kameng,
and Tawang districts,
B. The Mishis, Apatanis, Hill Miris, Tagins, and
Nas of Upper and Lower Subansiri districts
C. The Adi groups, viz. Gallongs, Miniyongs,
Padams, Pasis, Boris, Bokers, Ramos, Pailibos,
Ashings, Shimongs, Tangas, etc., and Mebas
and Khambas of East and West Siang districts,
D. The Mishmis, viz. Idus or Chulikatas, Digarue
or Tarasews, and Mijus or Kamens, Khantis,
Singphos, and Zakherings or Mayors of Lohit
and Dibang Valley districts,
E. The Nocites, Wanchos, Tangas and Lisus of
Tirap district.

Each of the tribes have their own style of living,
socio-cultural and socio-economic pattern, religious beliefs
and practices, and distinctive language; yet there are some
features common to all of them. Moreover, they unitedly
enjoy the benefits of different developmental activities
and march ahead to merge with the main stream of Indian
society and culture.
MAP OF ARUNACHAL PRADESH
SHOWING: MONPA AREA
PLACE OF DATA COLLECTION

MAP: 2
THE DISTRICTS: WEST KAMENG AND TAWANG:

The habitation of the Monpas are scattered over exclusively in two districts, viz, the West Kameng and the Tawang. These two districts are situated on the western part of Arunachal Pradesh, bounded by the high peaks of the Himalayas that stand as the boundary between India and Tibet on the North. It is bounded by the Darrang and Sonitpur districts of Assam on the South, the East Kameng district on the East and the Bhutan on the West (Map 1). These districts cover an area of 7,837 sq.km of high hills that criss-cross and drain the water through a number of rivers and rivulets. The main river is Kameng from which the name of the erstwhile Kameng district was derived. The Tawang district is named after the Tawang Monastery - the biggest and the highest Buddhist Monastery in India.

GEOLOGY AND MINERALS:

Geologically the districts may be divided into two groups, viz, Sela group and Bomdila group. In general, the rocks of the two groups, viz, quartzite, silexiliicates, amphibolite, mica schists, marbel etc; are similar to the Siwaliks range.
In occurrence of the minerals both the districts are very rich. The coal, copper ore, dolomite, glass sand, iron ore, limestone and marble are some of the important minerals available in the area.

**FLORA AND FAUNA:**

Both the districts are very rich in occurrence of varieties of flora and fauna. The distribution of flora are chiefly influenced by altitude. In the foot hills deciduous to semi-evergreen forests are grown and gradually these yield to broad leaved evergreen forests. The forests consist of numerous species of trees chiefly belonging to the families - *Magnoliaceae*, *Clusiaceae*, *Anacardiaceae*, *Tussock*, *Trochodendraceae*, *Laureaceae*, *Rubiaceae*, and *Moraceae*. Every tree is a host to several kinds of epiphytes and climbers, flowering plants as well as ferns. The various species of orchids are also found in abundance and as many as one hundred species of orchids have so far been discovered. Numerous species of *Rhododendron* with riot colour of hues of red, yellow and white are found gregariously on the slopes of the mountains. There is practically no plant except perpetual covering of snow on the loftier mountain peaks.
Of the fauna, various kinds of mammals, birds, reptiles, amphibia and common fishes are found. The leopard (Panthera Pardus) and the jungle cat (Felis Chaus Guldentaedt) are very common. The most abundant mammals are large Indian civet (Viverra Zibetha Linnaeus), the spotted linsang (Prionodon Pardicolour Hodgson). The elephant (Elephas Maximus Linnaeus) and the jackal (Canis aureus Linnaeus) are found in foot hills area. The wild boar (Sus scrofa Linnaeus), the sambar (Cervus Unicolor Kerr) and the Barking deer (Muntiacus Muntjak) are found in and around cultivable land covered by the grassy and bushy jungles.

The birds of different types, viz., species of babblers, warblers and chats are found in the lowland alluvial grassy and marshy areas. Some game birds such as the jungle fowl, black breasted kite, hornbills and imperial pigeons are commonly found on fruiting groves.

The reptiles belonging to the family of Agamidae (Japalura anahydonian and Miotopholis susteniana), Colubridae (Boiga multifasciata, Natrix himalayana, Bibronophis Collaris) and Viperidae (Trimeresurus munticola), and amphibians both aquatic or semi aquatic, arboreal and terrestrial are available.
Almost all types of common species of fishes, viz., carps, snow trout, leaches, climbing perch and snakehead types are found in the rivers and rivulets.

CLIMATOLOGY:

The climate of the districts is influenced to a large extent by the terrain which consists of high ranges and mountainous regions along the southern slopes of the Eastern Himalayas, cut across by long, deep and narrow valleys through which the Kameng and most of its tributaries flow southwards. Variation of temperature from place to place is considerable and depends upon the elevation and exposure to the sun. The Tawang area is experienced with extreme cold. During winter season there are heavy snow fall in and around Tawang area. Humidities generally high throughout the year, the winter months being less humid. The annual rainfall is between 150 to 200 cms.

COMMUNICATION:

Almost all the administrative centres of both the districts are well communicated by all-weather motorable roads. The principal road of the districts originated from the Bhalukpong at the foot hills and runs up to Tawang via Bomdila, headquarters of West Kameng district. Road communication in the districts was improving since after
Chinese aggression in 1962. The state transport buses and other private buses and commercial transports are regularly plying, besides the Army vehicles, from Tezpur, the headquarters of the Sunitpur district of Assam, to Bomdila and Tawang. Similarly, inter-districts and inter-administrative centres transport facilities are also there. The distance between Tezpur and Bomdila is 163 kms. and between Bomdila and Tawang 133 kms, while Dirang and Kalaktang are situated 45 km and 90 km away from Bomdila towards north and south direction respectively (Map 2).

HISTORY AND ARCHAEOLOGY:

There are a few sites and ruins of historical and archaeological importance in these districts. The presence of megaliths in Jamiri of West Kameng is one of important prehistoric remains in the district. There are also a few very old Buddhist Monasteries of Gompas, viz., Tawang Monastery and Gorchham Chorten which indicate a very long tradition of Buddhism in the area. The Tawang Monastery is dated back to the 17th century A.D. (Baiker and Chatterjee, 1981) which preserves old scriptures and records of antiquarian value. This Monastery is the biggest in India and the oldest in Asia. The Gorchham Chorten is one of the largest Chorten in Asia and is said
to be earlier than the Tawang Monastery. The only historical fort, so far discovered, is the Bhalukpong fort which is situated in the foothills of West Kameng district and just near the inter-state boundary with Assam. The fort has been dated back to 10th to 12th century A.D. (Allen, 1905).

INHABITANTS:

The principal inhabitants of the districts are the Monpas and the Sherdukpenas — both belonging to the Mahayana Sect of Buddhism. The Monpas are divided into three groups, viz., Dirang or Central, Tawang or Northern and Kalaktang or Southern, that are named after the geographical locations of their concentration. The Tawang Monpas solely occupy the Tawang district, while the Dirang and Kalaktang Monpas along with the Sherdukpenas spread over the West Kameng district.

PEOPLE: THE MONPAS:

The Monpas belong to the Tibeto-Mongoloid racial stock. About their behaviour, Elwin (1959) writes "These Monpa people are singularly courteous, gentle and friendly. They take off their hats and holding them between their hands, make a little bow at every word they speak."
Apart from the three geographical divisions of the Monpas, namely, Dirang or Central, Tawang or Northern and Kalaktang or Southern; they may further be divided into two groups, namely, Tsangla and Brahmi according to their most ancient traditions and sub-cultures. The Dirang and Kalaktang Monpas are Christened as Tsangla and the Tawang Monpas as Brahmi (Dhar, 1982). However, their traditional cultures are widely influenced by the new religion accepted by them.

ORIGIN OF THE NAME:

The name Monpa has been originally coined by the Tibetans to address the inhabitants of the region south of Tibet. In the Tibetan dialect the words Mon and Pa signify the "man of the lower country" and mean those people living in the coolest Himalayan region.

POPULATION:

The population of the Monpas according to the 1971 census report was 28,209, of which 14,309 were males and 13,900 females. The sex ratio is 972 females per 1000 males. The Monpas contribution towards the total population of Arunachal Pradesh was 5.90 per cent. The population of Arunachal Pradesh, according to the 1981 (Provisional)
The Monpas are at present not in a position to offer any explanation of their migration to the present areas. They have been living in this hilly terrain since time immemorial and are on the path of progress and development under the influence of greater Indian culture. However, it may be stated that following the persecution by the Chinese the adventurous section of the people from Eastern Bhutan and Monyal in the neighbourhood of Tawang immigrated about 200 years ago and these were then called by different names, viz, Monkas or Drukpas. Chakraborty (1979) noted that the Tawang Monpas migrated to the present habitat from Sikkim and Phari.

Kennedy (1914) recorded that a group of Monpas and a tribe called Lopa amicably lived in the Dirang valley and eventually a serious dispute arose between them and the Lopas were forced out, and the Monpas then built the Zang or fort at Dirang as a means of defence. Regarding the migration of the Kalaktang Monpas, Kennedy (1914) stated that this group show affinities with the
racial group to their west and across the northern border. Some of the elderly people, however, are of the opinion that the people of Tsangla sub-culture, as they heard from their forefathers, migrated from Eastern Bhutan. All the three groups are united by the bond of Buddhist religion since the establishment of the Tawang Monastery sometimes in the 17th century A.D. (Raikar and Chatterjee, 1981).

LANGUAGE:

In the Gerrieson's survey all the dialects of Arunachal Pradesh except that of the Khamti – a Buddhist tribe of Mahayana sect, have been classified under the North Assam or Assam Burman group of the Tibeto-Burman family of languages (Dasgupta, 1977). As such, the dialects spoken by the Monpas also came under broad group of Tibeto-Burman branch. There are, however, some linguistic variation among the three groups.

SETTLEMENTS AND DWELLINGS:

The settlement of the Monpas are of permanent nature. The villages are situated on the slopes of the hills, while some are extended along the side of the streams. The situation of villages and pattern of the house vary with difference of altitude. The significant
features of the Monpa villages are presence of a Kompa (village Buddhist monastery) situated on the hill top and surrounded by numbers of prayer flags (Phan), curious stone shrines (Nama) of different sizes and stupa shaped structure called Chortens on road and lane side, and water driven prayer wheels etc. Each village has well demarcated boundaries.

The number of households in a village varies from 50 to 200 or so. The houses are built mainly with stone and timbers and are double storied. The household activities are centered round the hearth (Medrang) situated at the centre of an elongated house and the family chapel (Chessa) is located at the rear end, just opposite to the main entrance of the house.

MATERIAL CULTURE:

The Monpas are good artists and designers. Most of their household goods and decorated items are produced by themselves. The males among them are good wood-curers and the women are experts in their looms especially in carpet-making. Status of Lord Buddha, other religious figures and symbols, masks, writing and printing of prayer flags and thankas are some of the items favourite to the wood-curers and printers. Spinning and weaving of
woolen garments, making of skull cap (Chitpaless) from the yak's hair etc. are done by the women.

FOOD HABIT:

A typical Monpa dish consists of rice or a paste of maize and millet powder, and a curry of boiled vegetables and cereals. The milk and milk-made products like butter, ghee, cheese etc form an integral part of their diet. Meat and fish though form a part of their diet these are dependent upon availability. The edible meats are provided by the yak, mithun, cattle, sheep, fowl, and wild deer, boars, etc. Almost all kinds of fishes are taken by them. It may be mentioned that the lamas (priests) are purely vegetarian and the common people have no restriction in taking of non-vegetarian items. The Monpas are an exception in milking of cow and dsupa - a crossed bred animal of yak and cattle, and taking of milk and milk products among the tribal populations of Arunachal Pradesh. They take usually three meals a day, once in the early morning at home, at noon in the field and the third meal is taken in the evening. A part of their morning meal is carried in a tiffin box made either of bamboo or wood which they take at noon time. In the intervening period between the two meals, they usually take snacks prepared
from maize and barley, roasted maize, fruits etc.

Home brew liquor also forms an integral part of their food habit. The drinks are prepared from rice, maize, millet, and buckwheat. The best quality liquor is called are and the common variety is known as bangohen. Taking of cold tea prepared with salt and butter is one of their favourite items.

Food prepared in a house is shared by the adults and children. Although, they do not prepare separate recipes for the children normally, they take special care for them. Breast milk, milk and milk products are given to the child regularly, and soft food and drinks are gradually introduced in the children's diet.

COSTUMES AND ADORNMENTS:

The costumes and adornments of the Monpas are many and varied. Besides the usual costumes and applique, they have special dresses for festivals, religious dances and other ceremonial occasions. The dresses of the lamas and the nuns are different from those of the commoners. The whole body is covered with a coarse variety cotton and woolen garments. The head and foot are covered with a dome shaped skull cap and a pair of boots respectively. Ornaments made of silver are very much popular among them.
The costumes of the lamas are varied according to their status, but colour of the garments should always be of red and saffron hues.

ENTERTAINMENT AND REFRESHMENT:

The songs and dances, games and sports are some of the media for entertainments and refreshments in the society. The Mampa society is very much rich in traditional songs and dances. They are also rich in the treasure of colourful mask dances and pantomimes. Magnificent and multicoloured masks made by them are worn by the dancers. The dances are accompanied by drums and symbols. The popular pantomimes are ajilemu, yak, and deer dances, each of which depict some legendary stories and events. The religious dances are performed during the festivals mainly in the Torgya, celebrated in the Tawang Monastery. The monastic dances are performed by the menfolk.

The different kinds of games and sports also form an integral part of refreshments. The common games are - wrestling, the bull fight, target shooting, tug of war, the tiger and the bulls etc.
SOCIAL STRUCTURE :

Family Pattern :

The family is the smallest social unit of the society. Among the Monpas, the number of nuclear family consisting of married couple and their unmarried children is most common compared to the joint family. The family is patriarchoal, patrilineal and patrilocal. In case of joint families the members are usually the brothers and their families. The owner of the house is usually the executive head of the family. As per their customs, as soon the eldest son marries, the parents and other offsprings should vacate the main house and reside in the out house situated nearby.

Clan Organization :

Haimendorf (1982) noted that "among the Monpas the unilineal clans are not clearly visible, though there are in some villages clan like groups which may be described as pseudo clans - as they trace their descent from a man whose origin in specific locality has given the whole descent group a name derived from that locality."
Marriage System:

Monogamy is the common norm in marriage, however, polygamy is also permitted. Now-a-days, polyandrous marriages are unknown and was practised in olden days. It was then usually confined to the brothers. It was known as adelphic polyandry. Polygyny is popular and in most cases it is of sororal variety. It has become a fashion, at present, for the wealthy persons to go for a second marriage. In general, the second marriage is performed only when the first wife is barren or dead. The status enjoyed by the first wife is always higher than the second and subsequent wives. Both negotiated as well as love marriage are prevalent. The lamas are not allowed to marry and in case a lama marries, he should leave lamahood. Such a lama is often demoted to the lowest rank of priesthood and is not allowed to stay in the gompa.

A system of payment of bride price is in vogue. Normally it is paid in kind, consisting of yak, sheep, horse, cow and clothes etc. The quantum of bride price to be paid are fixed at the time of negotiation and the amount depends on the status and economic position of the families. The parents of the bride complements the bride price by giving cloths and ornaments, household goods and
utensils etc. Some of the wealthy persons may even give land and cattle as a token of love to the daughter.

The Mompas do not have any preferential type of marriage even though there is a predilection for a cross-cousin marriage (MBD). Parallel cousin marriage is, however, strictly prohibited. Marriage between the three groups of the Mompas, viz, Dirang, Tawang and Kalaktang is though socially sanctioned; marriages between the Tawang and other two groups are comparatively less in number and the main factor is their isolated habitation. Tribal endogamy is strictly maintained.

Divorce, though permitted, its number is much less in their society. After divorce a woman can go for remarriage. Widow remarriage is permitted and in such case the unmarried younger brother inherits her as a wife. This is what they call junior levirate.

Birth and Death:

Birth of a child is always welcomed with gaiety. On the third day of birth, a lama is invited to perform appropriate rituals to purify the house, the mother and the child. The lama also consults the almanac and cast the horoscope duly taking into account the time, day, month and year of birth according to their traditional
lunar calendar. A name of the child is also given on that
day by the lama. Proper care of the child is taken and fed
with breast-milk. No further rituals are attached with
child birth, except performance of services, if any,
prescribed in the horoscope as safeguards against calam­
ities in store.

With death, a lot of rites and rituals are
attached. A lama is invited to determine the day and
nature for disposal of the corpse.

Regarding disposal of the dead body, Kennedy
(1914) noted "They burn the corpses of the rich, those of
poor people they bury in winter and throw into the rivers
in the rainy season". The common method of disposal of
corpse is either cremation or burial. Often the corpse of
the common man is taken out to the nearest river, cut into
108 pieces and then thrown into the water (Chowdhury, 1982).
The dead body of lama is invariably cremated. A number of
rituals is performed for ensuring good rebirth of the
soul of the deceased.

Inheritance :

As a patrilocal society, the Monpas follow the
tradition of inheritance of parental property by the sons.
Generally, a larger share of land and the residential house goes to the eldest son and the remaining parts are equally shared by other sons. Women have no right over the land. However, the traditional rules of inheritance are subjected to adjustment to the actual situation in the family at the time of division or partition of the parental properties.

ECONOMIC PATTERN:

Traditionally, the economy of the people by and large is regulated by agriculture and animal husbandry, though trade and barter play a vital role. They are quite industrious. At present, new innovations like horticulture, commercial enterprise and services play significant roles in strengthening their economy. The economy of the Monpa have been discussed under the following heads.

Agriculture and Horticulture:

With the variation of altitude of the villages, the nature of cultivation and crops varies. In Dirang and Kalakteng area, the people largely grow rice in the irrigated fields and also maize, millet, wheat and barley on hill slopes. In Tawang area rice is grown only in the lower regions of the valleys, whereas on the high hills they grow mainly wheat, barley and oflate potatoes.
Majority of the agricultural lands are under permanent tillage and irrigated properly. They use very large and heavy wooden plough drawn with a pair of bullocks (a crossbreed between mithun and cattle). Simultaneous with the wet rice cultivation and terrace rice cultivation they also practise slash and burn (jhuming) cultivation using old implements like hatchet for production of maize, millet etc. The jhum cycle varies from 3 to 5 years. Both men and women equally participate in the agricultural operations.

Horticultural farming was introduced among them sometimes in 1963-64 and seedlings planted during that period are now producing fruits, the cash earning of which enter their economy in a significant way. The fruit trees are apple, peaches, plums, pears, walnuts and almonds etc. Most of the permanently owned jhum fields were replaced with fruit gardens. The Dirang area is more rich in production of apple and other fruits.

Animal Husbandry:

Animal husbandry form an integral part of the Monpa economy. They have tamed large numbers of mithun and they rear cattle and yak which they keep on high pastures. The sheep serves with meat as well as a source
of wool. They have also crossbred animals between mithun and cattle, and the resulting animals is again crossed with yak. The crossed varieties of animals have a high demand for ploughing. They also rear horses, as a means of transport for carrying goods and thereby earn a substantial cash amount. All the animals, other than yak are grazed in and around their village settlement. But for the yaks the owner or employed herdsman may have to proceed to high altitude and stay there during the summer months. The other domesticated animals are common pigs, asses, fowls, etc.

Industry:

The people are industrious by nature. The professional cottage industrial units are confined to carpet making. The carpets are well designed and the favourite design is the dragon. These carpets are being sold in national and international markets through different agencies. The menfolk are wood curvers and good printers. Impacts of Buddhist culture are generally reflected on their finished products. Making of paper by indigenous method exists in Tawang region. These papers are used for writing and printing of religious scripts and for allied purposes.
Trade:

Since long the Monpas have maintained a well-developed system of barter trade with their neighbouring countrymen. The items of trades are foodgrains, livestock, deer skin, medicinal herbs, incense, woolen garments, ghee and drinks etc. With the influx of cash transaction, the nature of trade and trade items are varied. The traditional well-organised caravans of horses are gradually being replaced by vehicles.

Thus, the traditional economic pattern has gradually been moving towards a new arena of development. However, about eighty percent of people live on agriculture and allied means; and the rest are dependent on trade and commerce, services etc. The traditional land holding pattern is also gradually changing and percentage of individually owned private land increases with the rapid development of agriculture and horticulture. The Monastery and the gompas also own land which are given on lease for cultivation and for use as grazing land at nominal rents.

Political Organisation:

The traditional political institution for administering the village emerged along with the introduction of Buddhism (Pillai, 1972). The elected village headman
is known as *tsaible*, who was vested with the responsibility of supervision and maintenance of various religious shrines. Later the institution of *tsaible* was replaced by *tsaorgon* and he was guided and supported by a elected council called *de-de-tsang*. The tsergen is empowered with civil administration of the village and to a limited extent in judicial matters, besides collection of revenue introduced by the Tawang Monastery on the villages. The traditional authority of the tsergen has been complicated with the appointment of *gau-buru* (village headman) by the Government. However, the traditional system has still retained its status and powers.

RELIGION AND RELIGIOUS PRACTICES:

The religion of the Monpas at present, solely rests upon the Buddhism and they are followers of the Mahayana section. Their religious life centers round the Tawang Monastery situated at an elevation of more than 3000 meters above sea level depicting a rich cultural heritage. Before the advent of Buddhism their religion was based on the cult of local spirits and deities.

The Buddhism was introduced among them sometimes in 747 A.D. with the visit of Lopan Rimpoche, the local name of the famous Indian monk Padmasambhava to Tawang
(Sarkar, 1980). Of the three Buddhist sects, viz, Nying-ma-pa, Kagyu and Gelugpa, though once simultaneously operative, the last sect gained supremacy with the establishment of the Tawang Monastery. The arrival of Buddhism in Dirang and Kalaktang areas was, however, much later in time scale than at Tawang.

The spread of Buddhism in the Monpa area was marked with construction of different Gompas and tha-khan (God's house). Moreover, the dedication of the people to their religion is signified by the wide-spread construction of religious structures. It is a part of their tradition to depute the second son of a family, mainly in the Tawang area to accept lamahood. The present abbot (spiritual head) of the Tawang Monastery is a Monpa. In addition to a large number of Gompa spread over in Monpa area, there are two numeries (Ane Gompa) at Tawang, and one Gompa. All the nuns are of Monpa origin.

The impact of Buddhism on the traditional culture can easily be noticed. Counting of beads of the necklace, whirling of prayer wheel, burning of lamp and incense at the family chapel, visits to the gompa, walk on the right side of the mane etc. are some of the common features. In addition, a good number of rituals and ceremonies is performed individually or collectively in
a year for the welfare and prosperity of all. The lamas residing in the village gompas are generally engaged in performing the seasonal public ceremonies and individual rites. Depending upon the nature of rites and rituals, the lama recites the prescribed sacred text in front of the altar. Besides the rituals, the festivals are also observed at appropriate season with enthusiasm and gaiety as per prescription. The Tawang Monastery being the centre of their religion rituals and festivals are organized in a year for the welfare of the people.

Like the other religious activities, pilgrimage to the holy places is believed to help in the building up of religious merit. Everyone eagerly awaits the day when they would be able to go on a pilgrimage. The lamas used to go on pilgrimage to some of the sacred rites and prominent Gompas of Tibet.

EPILOGUE : THE MARCH OF TIME :

With the march over the time since India's Independence, and more particularly after Constitutional and administrative development of Arunachal Pradesh in 1972, the Monpas are marching towards the path of development in the fields of education, economic progress and political participation. The religious beliefs and
practices of the Monpas, by and large, have remained unchanged so far. Education has spread over the whole Monpa area rapidly.

Likewise, development projects such as introduction of high-yielding varieties of agricultural crops, modern agricultural tools and implements, horticultural gardens, animal husbandry etc., push the people in general towards better economic conditions. The Government services, small scale industries, commercial entrepreneurship etc., have caused a radical change in the traditional economy.

A lot of developments have also taken place in health, hygiene and nutritional patterns. Medical facilities are widespread over the area. Mini hydral projects have been generating electricity and all the administrative centres and nearby villages are under the coverage of electric supply. Drinking water are also provided to the villages. Inter village roads are developed and minor irrigation projects are implemented throughout the area. Nutritional habits have changed with production of fruits and readily available grocery items.

With all these changes and developments the Monpas have still preserved their rich traditional culture.
The physical anthropological investigation of the people of North-East India, which comprises five states, namely, Assam, Meghalaya, Manipur, Nagaland and Tripura, and two union territories - Arunachal Pradesh and Mizoram was initiated by the western scholars as they did in the rest of our country. Waddel (1901) first undertook anthropometric study in this region, in the beginning of this century. He measured some individuals belonging to different castes and tribes. After Waddel, some physical anthropological investigations were carried out by different Western and Indian Scholars, Brown and Kemp (1915), Hutton (1921), Dixon (1922), Haddon (1924), Buxton (1925), Shaw (1929), Guha and Basu (1931), Guha (1935), Roy Choudhury (1935), Singh (1935), Das (1945). Their findings are at present form first hand reference data for further intensive and indepth studies.

Apart from the individual efforts of interested and specialised scholars, collective works from the institutions, like the Department of Anthropology of the Universities of this region, and Anthropological Survey of India have done a lot of studies since India's Independence. The findings of the early studies were published
either in the form of reports or as research papers, while some of the recent investigations are on the process of publication and others are still continuing. Among the prominent investigators on physical anthropological studies of the present time in North East India, Prof. B.M. Das (1960, 1978, 1981) has done some pioneering works. Moreover, many of the young scholars of this region have completed and some have taken up projects with different objectives for preparation of reports etc.

The growth study is, however, very new in this region. Das (1967) initiated the study of growth in respect of some somatometric characters of children between 6 and 21 years of age, belonging to a caste population, the Kalitas of Assam. She was followed by other investigators, covering other castes and tribal populations of North East India and Assam in particular. Das and Das (1969-71) studied growth pattern of school boys from 6 to 16 years of age of the Assamese community in Guwahati. Das (1973) studied growth of Kaibarta boys between 6 and 16 years in respect of height and weight. Das (1974) made a comparative study of growth of height, weight and chest circumference of the boys of four caste groups, namely, the Brahmin, Kalita, Baishya and Kaibarta of Assam. Das (1972) studied the growth pattern of foot of

In Arunachal Pradesh, various aspects of anthropological study was though initiated sometimes in the mid of nineteenth century, yet intensive physical anthropological survey of the people is very much limited. Arunachal Pradesh is described as the paradise for the anthropologists, and may also be referred to as an open air ethnographic museum.

After Independence, the Department of Research was set up in 1951 and a team of young anthropologists started investigations under the able guidance of late Verrier Elwin. Till 1984, as many as 65 research publications on various aspects, mainly on cultural, philological and history and archaeology were published. Number of research projects under the supervision of Dr. P.C. Dutta, the Director of Research, Govt. of Arunachal Pradesh are continuing.

A review of the works done so far in physical anthropological studies of the people of Arunachal Pradesh has been given below -

Rev. N. M. Krick undertook an expedition among the Abors (now called as Adis) in 1855 and recorded the physical features of the Padams, a sub-tribe of the Adis in his report.

G. D. S. Dunbar (1913-17) who visited the Adis made some somatonomic observations, specially on Padam, Panggis, Pagis and Miniyong sub-tribes of the Adis.

L. A. Weddel (1901) was the first to take somatometric measurements of the Adis. He had measured 7 Adi males, who came down to Dibrugarh in Assam.
In the year 1912, J.Ogggin Brown and S.W.Kemp, as members of the expeditionary party, under the General Officer Commanding, Assam Brigade, Major General H.Bower, visited Adi hills and they took somatometric measurements of 84 Adi males and 10 Adi females.

Among the Indian Anthropologists, Guha (1935) was the first investigator who undertook an anthropometric survey of various groups of the Adis. First serological survey was initiated by Bhattacharjee (1954) and Kumar (1954) among the Noces. Roy (1966) made a systematic study on anthropometry of both the sexes of different sub-tribes of the Adis of Siang district. His work may be considered to be a great contribution to the field of physical anthropological research among the Arunachal people.

Goswami and Das (1982) conducted an intensive survey on 17 major tribal groups inhabiting different districts of Arunachal Pradesh, in respect of four parameters, viz, Anthropometry, ABO blood groups, PTC taste sensitivity and Finger and Palmar Dermatoglyphics. Virtually, this is the first systematic investigation undertaken so far in this formidable terrain. This physical anthropological project entitled 'Biogenetic...
Survey of the Arunachal People was sponsored by the Directorate of Research, Government of Arunachal Pradesh and conducted by the Department of Anthropology, University of Guwahati. The findings of the investigation are in the process of publication.

In addition to these reports, some research papers have been published by various investigators (Buragohain, 1972; Das, 1976; Choudhury, 1979; Duarah, 1978, 1979, 1980, 1982; Joswal and Joswal, 1983; Joswal and Padmanabham, 1983; Sengupta, 1984) on different aspects of physical anthropological study among some populations of Arunachal Pradesh.

The growth study in Arunachal Pradesh is, however, new. The first study of growth was carried out by Duarah and Das among the Khari boys of Lohit district, in respect of 28 somatometric characters. The findings on four characters, viz, stature, sitting height vertex, height minus sitting height and girth of thorax have been published recently (Duarah and Das, 1984).

Arunachal Pradesh is still a fertile field to the physical anthropologists. Systematic indepth physical anthropological study is necessary to know the biological composition of the different tribal groups inhabiting
this picturesque hilly territory of Arunachal Pradesh.

iii. AIMS AND OBJECTIVES OF THE STUDY :

The physical anthropological study among the populations of Arunachal Pradesh is very scanty and so far no such investigation was undertaken among the Monpas. It has already been mentioned that the Monpas were named after their places of habitation in the erstwhile Kameng district, as Dirang or Central Monpa, Tawang or Northern Monpa and Kalaktang or Southern Monpa. The Monpa area is spread over high hills and snow-capped mountainous peaks. The altitude of their country varies from about 1000 to 5500 meters. The altitude of Tawang, Dirrang and Kalaktang administrative headquarters are 2947, 1950 and 1113 meters respectively above mean sea level. The Tawang area is separated from other two areas by a mountain peak known as Sala peak, altitude of which is 5020 meters. It is covered by the snow throughout the year. The Tawang area remains cut off from the rest of the country due to land slides following torrential rains during summer.

The main purpose of the present study is to give a picture of physical anthropological characters of the Monpas of Arunachal Pradesh. As the Monpas inhabit three
different geographical areas, it is also intended to find out if there exist any territorial variations in physical anthropological characters, so as to establish whether these three divisions diverge from each other or all these divisions can be placed together in a single broad cultural group of people - the Monpas as a whole.

Another objective of the present study is to provide the growth pattern in respect of some anthropometric characters, of the three groups of the Monpa boys who inhabit in three different geographical localities of varying altitudes. Although the Tawang is situated at an altitude of 2947 meters, an altitudinal growth study including some more metric traits, skin-fold, physiological characters etc., required for such studies could not be done due to some technical difficulties. We have presented only a comparative study of the growth trend and rate of growth of head, face and body dimensions in respect of some selected metric characters of the three groups of the Monpa boys, as such data on growth are completely non-existent.