The present work is the first detailed account of the medicinal plants and the impact of wild plants in the conservative tribal society of the Lohit district of Arunachal Pradesh which has remained isolated from the direct influence of the modern culture and civilization. An attempt has been made to analyse the Taxonomy of the available medicinal plants with methods of their uses and impact of plants in socio-cultural life of the tribals. This study is based on repeated on the spot survey and study of the plant species in the Lohit district of Arunachal Pradesh.

Population of the area are chiefly tribal, the main tribes being Khampti, Mishmi, Singphow, Nocte etc and the society has remained comparatively static and primitive. The tribal of this area came in contact with the Britishers in the early part of the 19th century which, however, remained isolated from the influence of western culture due to various policies adapted by the British for their administration. But the ancient tradition and culture of these so called primitive tribal societies have now undergone gradual changes.
The people of this area in general, and that of Lohit district in particular, have been adopting various methods for curing of their ailments. These methods are indigenous because of various reasons viz due to their constant contact with the surroundings including plants for their day to day needs and as they have also to depend upon plant species for their medicines. These medicines are, however, folk medicines and no written account of these medicines are available. Non availability of present day doctors, costly modern medicine and financial background of the families are also contributing factors for their depending upon own system of folk medicine for curing patients. The nature with its surroundings being the sole source for their food, shelter, clothing and even for amusement in their festivals, naturally they also go for natural sources at times of their distress and ailments.

There is no such type of study from this district. There are many books on medicinal plants from various parts of the World but very little work has so far been done in ethnobotanical lore of the North-Eastern region of India in general and Arunachal Pradesh in particular. The present study was, therefore, aimed at studying the plants scientifically from following aspects:
(i) Exploration of local medicinal plants of the district.

(ii) Other ethnobotanical uses of plants available in the district.

(iii) Identification of the plants medicinal and others which are useful to the tribal people in various ways and to know their specific uses.

(iv) Promotion of scientific awareness among the people about the use of the plants and to stop their wanton destruction leading to consciousness among the people for plant conservation.

(v) To throw some light on the understanding of some hitherto unknown facts about these plants which will attract further researchers in this line bringing to light more knowledge about these plants as a result of which some of the plants would prove to be more useful and valuable to mankind. Due to the lack of literature many of the information are not known from many people belonging to a particular caste or tribe.
Arunachal Pradesh is potentially very rich in medicinal flora on the one hand and so many tribal groups each with individual system of medicine reside in one area or the other. So is the case with Lohit district also. The area falls under tropical and sub-tropical zone and remain dense and green throughout the year. According to Russian Scientist Vavilov (1975) North East India is the foremost centre of origin of some species of cultivated plants.

Plants are important from the points of view of agriculture, forestry, pharmacology etc etc. Therefore, the position of the plants in a society, irrespective of premitive or modern, is very high. This is more so in areas and societies where modern way of life has not been able to prove its way. This is because the plants furnish almost every need of tribal people. A considerable number of plants have ethnobotanical importance as they furnish food, clothing and other essential commodities like house building materials, fuels besides medicines.

Traditional and indigenous system of medicine persists in developing as well as developed countries. In 1974, UNICEF and WHO after a joint survey of
traditional medicine recommended mobilization and training for traditional practitioners. In 1916, WHO in its technical discussion on traditional medicine and its role in the health services of Africa has called for promotion of traditional medicine.

Zhang (1976) Deputy Director of the Institute of Materia Medica in Shanghai has claimed that 5,000 species of medicinal plants are available in China which include 1,000 plants having other uses. Traditional medicine is not so widely used in any country of the world as is used in China.

Ethnobotanical studies including folk medicine of the primitive tribes have gained popularity in the world over. The ethnobotanical works in India is sporadic and mostly limited to foreigners only. Jain et al (1976); Rao (1977) have thrown some light in this line. They conducted certain study on Adivasis. They discussed about the aboriginals plants used by the Adivasis for fooded medicine. Tiwari et al (1979), Gogoi et al (1979), Boissya and Mazumdar (1980) have done some similar works on the Tribes of Assam.
Recently in Assam, Boissya et al (1983); Gogoi and Boissya (1984); Boissya, 1985, 1986 have done some commendable works in this line.

But it is a matter of great concern that even after more than 40 years of independence no such work has been done systematically on the indigenous or herbal drugs used by the tribals of Arunachal Pradesh has chiefly engaged on anthropological study of the State. Recently Das (1984), has done a commendable and pioneer research work on the ethnobotany of East Siang District of Arunachal Pradesh. He has also given a descriptive account of the medicinal plants available in that district along with the details of preparation of herbal drug and their uses. The Gazetteer of the forest department of Arunachal Pradesh has engaged on the study of forest plants and products which have commercial use only. However, nobody has given a keen look on the folk or herbal drugs available in the Lohit district of Arunachal Pradesh. The importance and the use of medicinal plants are gradually increasing along with other amenities. A continuous search for medicinal plants, their identification, cultivation and conservation are of
utmost importance as some of these useful plants are facing extinction due to merciless cutting down of plants for clearing of jungles for cultivation and use of trees for firewood. The tribals of Lohit district as the tribals of other districts of Arunachal Pradesh believed that diseases are inflicted on them by different evil spirits. Therefore, to propitiate the evil spirits the tribal people offer sacrifice in their traditional way and then take recourse to herbal drugs which are easily available around them. In this way many roots, leaves, stems, flowers, seeds and even fruits have been used in various diseases, some of them as the tribals believe, are very effective in curing disease. Investigation on the efficacy of these local herbs used as medicines and aromatic plants is likely to enrich our knowledge of medicine, if these plants actually contains some active factor or factors to control or cure disease. A thorough analysis of the chemicals of such plants followed by identification of active factor or factors, if any, which may be responsible for controlling and curing disease may be of immense help in the understanding of hitherto unknown facts about medical science in relation to medicine for certain so called incurable disease.
*Coptis teeta* (Mishmi teeta) has been found only in the Lohit district. There are numerous wild plants, at least some of which can probably be used in preparation of effective allopathic drugs might have lost by now due to their devastation by man. It is a matter of great regret that there is no such institution in the entire area not to speak of the district alone to study these plants and their contents scientifically.

There are about 5 (five) lakhs of Ayurvedic practitioners in India alone but only a small fraction of these practitioners collect plants for medicine by themselves. The rest of the practitioners depend on dried plant specimens for medicine from the market. Various agencies collect plants and supply the plants to the market through contractors. While collecting such plants through unskilled contractors, who do not have the minimum knowledge about scientific collection of plants, collect the plants mostly by uprooting them. This procedure of indiscriminate uprooting process had to extinction of valuable plant specimens. Therefore, Governmental regulation should be framed to avoid such indiscriminate collection of plants.
Further, regulations should be so framed that only genuine parties with skilled personnel can collect plant species with prior permission from the Government. In doing so, two great purposes will be served:

(1) The threat to important plant specimen will be removed and

(2) the essential plant only will be collected and thereby the quality of the medicine prepared from these plants will be maintained.

India earns a lot of foreign exchange by exporting medicinal plants. In 1974-75, India earned about 145 million dollars foreign exchange by exporting medicinal herbs. So, it is of utmost importance to preserve the flora in general and medicinal flora in particular. In doing so modern scientific knowledge should be utilised. So, developmental schemes should be immediately implemented by the Government in the district for uplifting the economic status of the local people and for serving the mankind, by producing better quality medicine, at large.
In doing so the following points need to be considered with care:

(1) Identification of plants should be made by personnel expert in the line without which substitute will be used resulting in fall of quality of medicine will occur. Awareness should be created among the local people about the usefulness of these plants, so that they may be interested about in preservation of the flora. If this could be done then the people will raise their voices against the unscrupulous drug contractors.

(2) Produce raw drugs of quality of sizable quality only using plants in required amount so that the standard percentage of active principles like alkaloids, glyceroids, essential oils, resin, mucilage and steroids etc are contained in the prepared medicine, thereby the efficacy of the medicine is retained. As the traditional medicines have no side affect, being produced from natural organic substances, are accepted by the body tissue easily and passes through the membranes readily so the risk of side affects are also minimised.
At least Crude Drug Research Laboratory should be established either in the district or in the State to study the quality of drugs prepared from plants so that their qualities are maintained and efforts for further improvement of the plant-based medicine can be taken up.

Medicinal plant-gardens should be raised to cultivate and identify the plants in this natural habitats.

Establishment of tissue culture laboratory and germ plasm laboratory should be taken up for preserving and multiplying the endangered species for a future use. As a result of rough handling and continuous collection, the useful plants are facing extinction. Moreover, Jhum or shifting cultivation is another contributing factor for endangering some plant species.
(6) Seed collection and germination centres should be established in the district to produce and distribute quality seed and sapling of medicinal plants. Preference should be given to the distribution of seeds and sapling of the following important plants as they are native plants of the Lohit district of Arunachal Pradesh containing ingredients of valuable drugs:

- *Abutilon indicum*, *Amóora rohithuka*,
- *Acacia arabica*, *Alstonia scholaris*,
- *Anona squamosa*, *Argemone mexicana*,
- *Aegle marmelos*, *Asperagus racemosus*,
- *Alpinia allughas*, *Bauhinia sps*,
- *Biophylum sensitivum*, *Butea monosperma*,
- *Cassia alata*, *Caesalpinia cristaña*,
- *Cinnamomum sps*, *Erythrina sps*,
- *Gardenia cowa*, *Gloriosa superba*,
- *Jatropha curcus*, *Mesua ferra*,
- *Murraya koeninghii*,
- *Papaver somniferum*, *Plumbago zeylanica*,
- *Rauwolfia serpentina*, *Saraka indica*,
- *Terminalia chebula*, *Ambelica officinalis* etc.
These medicinal plants can be raised from seeds and can be easily cultivated and grown leading to quick production of medicinal plants.

(7) The local people should be motivated for cultivation and conservation of the medicinal as well as other useful plants to achieve this end in view.

(8) The Government should come forward with liberal grants or soft loans entirely for raising medicinal plants. Further, the Government should make provision for purchasing the raw materials so that the poor cultivators get the actual value for their product and need not fall prey of uncropulous business men.

(9) Reserve should be created to protect plant species from human destruction.

These aspects, if taken care of, will open opportunities for employment to the local people.
It has been seen that the forest is the richest of all biological resources. Further, over millions of years the plants have evolved in its highly complex ecosystem providing a stable environment to the diversity of life. Forests are all important in maintaining environmental and climatic stability. They reduce soil erosion prevent silting flood and loss of valuable soil nutrients. Therefore, plants have been very very useful to mankind besides being simple source for food, medicines and other valuable materials. They, therefore, demand more and more care for their existence and continuity on earth. Even with the advancement of science and up to date technological know-how, the need of forest produce has increased at an unprecedented rate and resultant deforestation along with rapid urbanisation of the forest areas in quest of modern civilization have perpetuated untold miseries for the people specially in the third World.

So the plants should be handled with interest and care.