INTRODUCTION

Ethnobotany is the study of how the people of a particular culture and religion making the use of plants products and indigenous plants growing around them. While the ethno botanist explores how plants are used for food, shelter, medicine, clothing hunting and religious ceremonies. It is the relationship between a given society or community and its environment and in particular the plant world.

Since the last quarter of 20\textsuperscript{th} Century most of the bioscience researchers are working on ethnobotanical investigations to fulfill the increasing demand of plant artifacts and herbal products. Indian subcontinent is virtually excels with the diverse flora having number of plants with ethnobotanical and ethnomedicinal importance. It has been reported that about 20,000 plant species are found in Indian flora having different medicinal properties and more than this have other ethnobotanical importance. Of which about 7\% are on the verge of extinction. According to the recent findings of Botanical Survey of India (BSI) over 300 species of angiosperms are under threat of extinction. Therefore it is essential to investigate such plants from
different unexplored regions and collect the indigenous knowledge regarding their utilities.

Indigenous knowledge is as old as human civilization but the term Ethnobotany was first coined by an American botanist, John Harshburger (1896), to study the plants used by the primitive and aboriginal people. Since then it has been defined as the traditional knowledge on indigenous communities, about surrounding plant diversity and as the study of how the people of particular culture and region make use of indigenous plants. Ethnobotany has its roots in Botany. Botany in turn originates in part from an interest in finding plants to help fight illness. In fact, medicine and botany have close ties. Many of today’s drugs have been derived from plant resources.

Ethnomedicine is defined as branch of science in which plant based formulations known to tribals since ancient days are used to alleviate the diseases. Now a days it is also known botanical medicine or phytomedicine. Lately phytotherapy has been introduced as more accurate synonym of plant based medicine. Herbal medicines are prepared from a variety of plant materials as leaves, stems, roots, bark etc. They usually contain may be biologically active ingredients and are used primarily for treating mild or chronic ailments. It is generally estimated that over 6000 plants in India are in use in traditional, folk and herbal medicine, representing about 75% of the medicinal needs of the Third World countries.
Ethnomedicine is a routine tribal health care system and has been practiced since historical times and traces its roots to ancient civilizations. Although, we define alternative systems of healing as subjects that are not taught in medical schools, it is worthwhile to mention that before the availability of synthetic drug, plant-based remedies formed the basis of primary healthcare system. Herbal infusion, decoction and tinctures were house-hold remedies for common ailments. In the Indian context, the house hold remedies are better known as dadi ma ke nuskhe (elderly formulations).

Ethnobotany deals with the study of total natural and traditional interrelationships between man and plants, and man's domesticated animals. Gathering jungle fruits or tubers, or hunting animals for food by the earliest man on this earth was the birth of ethnobotany and ethnozoology. The journey of ethnobotany from those early beginnings through ages has been long. This discipline became established as a genuine academic and research activity in the second half of the twentieth century. Until recently it was not appreciated that sustainable development could be achieved only through full understanding and integration of cultural aspects of biological diversity and participation of the indigenous people of any region. The interrelationships between man and plants can be first divided into material, and cultural (or spiritual) relationships, and then placed in one or more of the following four categories: (a) relationships useful both to man and plants, (b) relationships useful to man but harmful to plants, (c) relationships useful to plants but harmful to man, (d) relationships harmful both to man and plants. Some interdisciplinary topics, or subdisciplines of ethnobotany are:
ethnoagriculture, ethnoarchaeobotany, ethnoecology, ethnogastrology, ethnohorticulture, ethnomedicobotany, ethnomusicology, ethnopharmacology, ethnopharmacognosy, ethnophytotaxonomy, ethnopteridology, ethnobryology, ethnoalgology, ethnolichenology and ethnoveterinary. Methods of ethnobotanical research depend on the objective or end product in mind. They are various, but can be put in two broad categories, viz. field research and literary research. For collecting large number of plants for biological screening, three broad approaches are possible, viz. random collection, collection of plants of families rich in active principles, or collections based on ethnomedicinal data. Results in India and other countries have shown that percentage of positive results is much more in ethnobotanically selected species. A review of recent work shows that over 30 books have been published with the term ethnobotany or tribal medicine in their title in the last two decades. Over 275 papers have been published on specific ethnic groups. A majority of papers deal with dozens of families and hundreds of species of ethnobotanical significance in any area. About 150 papers deal with only one or two particular species in detail. Most traditional practices help in sustainable use of bioresources. Faith and traditional practices also help in lesser damage to and better preservation of individual species and/or habitats, and thus of biodiversity in general. Traditional knowledge about those land races or wild relatives of crop plants and other economic species, which are more suited to local conditions and microclimates, is useful in agricultural and horticultural programs. Identification of new or prospective herbal remedies on the basis of traditional knowledge helps in healthcare programs. There is also prospect of socioeconomic uplift of the indigenous communities through
promotion of cottage industries based on their traditional unique tools, gadgets, arts, and crafts

Early in the twenty century herbal medicine was a prime healthcare system as antibiotics or analgesics were not available. With the development of allopathic systems of medicine, herbal medicine gradually lost its popularity among people and it was based on the fast therapeutic action of synthetic drugs. Almost a century has passed and we have witnessed limitations of allopathic systems of medicine. Lately herbal medicine has gained momentum and it is evident from the fact that certain herbal remedies peaked at par with synthetic drugs.

Ethnobotanical studies typically focus on recording the knowledge of traditional societies in remote places (Hodges and Bennett, 2006). Indigenous people of different parts of the world have a vast knowledge of, and capacity for, developing innovative practices and products from their environment. Indigenous knowledge grows from close interdependence between knowledge, land, environment and other aspects of culture in indigenous societies, and the oral transmission of knowledge in accordance with well understood cultural principles and rules regarding secrecy and sacredness that govern the management of knowledge (Tripathi et al., 2000).

Recently, there was explosive growth of plant based herbal drug industry. Data and meta-analysis have shown that more and more people are consulting herbal practitioners. It is cheering that the WHO has also identified
importance of herbal medicine. According to a study from U.S., 60-70% patients living in rural areas are dependent on herbal medicine for their day to day diseases (WHO, 2000 and Singh, 2008).

In India, several steps have been taken to improve quality of Ayurvedic medicines. Medicinal plant boards have been constituted at state and center level to inspire people, particularly the farmers for adopting cultivation of medicinal plants. Herbal gardens have been developed to make the common man conversant with the rich heritage of Indian system of medicine. Various institutes like NIPER, NBRI, CIMAP and CDRI are playing pivotal role in laying down standards for Ayurvedic system of medicine.

Traditional medicine includes certain health approaches and practices incorporating the use of herbs, metals or diet restrictions or life style changes, with a view to diagnose, prevent or treat diseases. Recently, the World Health Organization (W.H.O.) introduced CAM (Complementary and Alternative) health practices in various parts of the world (WHO, 1993 and 2000). Broadly speaking, all systems defined under CAM come under Traditional Medicine. In other words, complementary and alternative systems are an off shoot of traditional medicine. Alternative medicine includes replacement of one system with another. Complementary health practices include adding one system of medicine as adjunct to another.

Ayurveda, Siddha, Yunani, Homeopathy, Naturopathy, Reflexology, Aromatherapy, Alexander’s technique, Western Medical Herbalism and
Traditional Chinese Medicine (T.C.M.) represent some popular traditional systems of medicine. All these systems have been practiced in the past with considerable success. T.C.M. has made tremendous advances in terms of modern scientific research, and according to latest studies it contributes 80% of the annual turnover of the total herbal drug industry. All these alternative therapies are largely dependent on medicinal plants for preparing formulations. In our view, herbal medicine is a broad term covering all traditional, alternative and complementary systems of medicine utilizing plants (McGinnis, 1991 and Mamtani, 2005).

At the same time, it must be argues that old sayings like ‘plant based drugs are safe and can be consumed over a period of time without side-effects boast of any scientific proof. Herbal-synthetic drug interactions are major challenge for practitioners. Hepatotoxicity and nephrotoxicity associated with certain medicinal herbs pose major health problem. Post-operative bleeding associated with herbal remedies is another cause of concern (Mc Ginnis, 1991; Rutten, 2004). Extracts/drugs prepared from medicinal plants having definite mechanism of action are respected among allopathic physicians. Herbal drugs are of much value in chronic and degenerative ailments of the body. There are many reports that some patients, after utilizing herbal formulations over a period of time feel that they are therapeutically useless. In our view, there is an obvious difference between rigorously researched product and cheaply/unethically promoted product.
Ethnobiological studies including traditional ethnobotany and ethnomedicine, is making a dramatic comeback. Studies done across the world have demonstrated increasing awareness about herbal medicine among the general population. According to WHO, majority of the people living in rural belt are dependent on medicinal plants for curing common diseases. Further, the importance of herbal medicine can be assessed by the fact that 60% of synthetic drugs have roots in medicinal plants. Several factors are responsible for the comeback of herbal medicine. Drug resistance seems to be the prime cause. Cost- effectiveness is another factor where herbal drugs score over synthetic drugs. The efficacy of some herbal products is beyond doubt, the most recent examples being Artemisia annua (i.e. artemisinin: wormwood derivative used to target cancers), Silybum marianum (i.e., silymarin: seeds of the milk thistle effective in treating diseases of the liver) and Taxus brevifolia (i.e. taxols: pacific yew derivative that exhibits antimitotic activity and is used for treating refractory tumors) (Martinez et al., 1994; Jesperse et al., 1993; Cowan, 1999; Singh, 2008).

On the other hand, there is increasing demand of plant based drugs and to meet this demand, there is tremendous clearing of the forest held in last two decades. This must be balanced to maintain the equilibrium between our health and environment. Therefore it is essential to record the existing plant wealth and conserve the threatened species by applying proper techniques of ethnobotanical research, biodiversity conservation etc. (Elen and Roy, 1991; Baulan Smith, 1992; Bernard and Russell, 1994; Alexiades et al., 1996; Cotton et al., 1996).
India harbors about 427 tribal communities, all differing in their social and cultural traditions. Each one of them had their own system of traditional health care. But, this indigenous knowledge is on the verge of extinction in many tribes. This must have to extract and use for the benefit of human society. Many biologists are working in this field and trying to save this knowledge. Several steps have been taken to improve quality of Ayurvedic medicines. ‘Medicinal Plant Boards’ have been constituted at state and center level to inspire people, particularly the farmers for adopting cultivation of medicinal plants. Herbal gardens have been developed to make the common man conversant with the rich heritage of Indian system of medicine. Various institutes like NIPER, NBRI, CIMAP and CDRI are playing pivotal role in laying down standards for Ayurvedic system of medicine.

Akola is an important district of the state Maharashtra and rich in ethnomedicinal plants and cultural diversity. The district is located in the Vidarbha region in central India. It has an area of around 543.1 square kilometers situated 20.42° N and 77.02° E. Some population of this District is aboriginal. The tribal populations and their cultural heritage offer enormous scope for ethnobotanical inventors. The Akola Tahsil is located in the center of the District and encircled by other tahasils namely Balapur, Akot, Murtizapur, Patur and Barshitakli. The climate is typically subtropical type hence the most vegetation here is dry deciduous type. However, Akola tahsil is having significant forest area especially around river sides. The forests of Akola Tahsil is grouped into four major areas –

1) Chikhalwal, Medshi, Pangra, Patur forest (3.66.5 Sq. Km)
2) Katepurna, Palodi and Sendona forest (25.64 sq.km).
3) Narnala forest range (19.42 sq.km.)
4) Babul-ban forest (38.5 Sq. Km)

Akola District harbour several ethnic communities since the beginning of seventeenth century. The most common ethnic communities includes the tribal peoples of the communities like Korku, Gond, Rajgond, Bhill, Pradhan and other communities like Aandh, Banjara. Off these Aandh and Banjara are not considered as tribals but they are the backward peoples residing here in the Akola District since long back and showed significant intimacy with the nature and environment found in the ethnic tribal communities. All these communities are found in patches mostly in the vicinity of nature at the base of hilly tracks.

Several workers like Jain, 1963; Bhatnagar et al., 1973; Ambasta, 1986; Jain, 1991; Bhalla et al., 1992; Bajpai and Mitra, 1997 and Dubey et al., 2004, have been investigated the ethnobotany of northern, southern and central India. India, a mosaic of great cultures and religious sects, is enriched by the diversity of about 500 tribes. It is Jain (1963) who first enthused botanist to find out ways by which plants were named by tribal Indian societies. Manilal (1980) explained the role of vernacular Malayalam names as the bases of scientific names of plants. Recently Patil (1999) and Pawar and Patil (2000) worked on similar lines in northern part of Maharashtra. Similarly Kamble and Pradhan, 1980; Naik, 1998; Bhogaokar and Devkule, 2002 and Rothe et al.,
2004 and investigated the ethnomedicinal plants from Satpuda ranges and its remote tribal area of Melghat. Korpenwar (2010) and Bhadange (2011) have also contributed in the ethnobotanical studies of Buldhana, Washim and Akola District. However, the focal point ethnobotanical and ethnomedicinal study of Akola district remains neglected and remains largely untapped, even though it has numerous plants with enormous ethnobotanical and ethnomedicinal values, which the villagers and local medicine men (Vaidoos) use routinely. Therefore, this study is aimed to investigate the ethnobotanically and ethnomedicinally important plants from this area.

AIMS AND OBJECTIVES

- To survey the forest area and collect ethnobotanically important plants.
- Local names of the plants and their parts along with their important practices will be noted with their uses.
- To visit villagers and medicine men/vaidoos of these areas to collect the information about how they use the plants for preparing artifacts and medicines.
- To prepare herbarium of collected plants species.
- Photography of different articles prepared by villagers with the help of various plants.
- To analyze and interpret the information gained from the villagers and medicine men with standard data.