

ETHNOBOTANY

Introduction:

People from all culture have always depended on plants for their primary needs viz. food, shelter, cloth, medicine etc., and have naturally learned diverse application of plants. In the course of nomadic roaming, this knowledge was exchanged with neighboring tribes, friends and foe, and was gradually expanded upon. Thus plant knowledge has been passed around the world since the beginning of time, and frequently, the actual plants themselves have spread along as well. the investigation of plants and their uses is one of the most primary human concerns and has been practiced by all cultures since generations, though it was not called 'Ethnobotany'.

The term 'ETHNOBOTANY' was coined by US botanist John William Harshberger in 1895. Ethnobotany is coined with two terms, i.e., "ethno" –study of people and "botany" –study of plants; per se it is the study of the relationship between plants and people. It is considered as a branch of Ethnobiology and it is a multidisciplinary science defined as the interaction between plant and people. The relationship between plants and human cultures is not limited to the use of plant for food, clothing and shelter but also includes their use for religious ceremonies, ornamentation and health care (Schultes, 1992).

the focus of Ethnobotany is on how plants have been or are used, managed and perceived in human societies and includes plants used for food, medicine, divination, cosmetics, dying, textiles, for building, tools, currency, clothing, ritual, social life and music. the relationship between people and plants has always been profoundly important. plants play an important role in every aspect of our live and without them life is not possible. Plants not only regulate the concentration of gases in the air, but also the only organism capable of transforming sunlight into food energy on which other forms of life depend upon. Given their extensive range of knowledge of medicinal plants, indigenous people the ultimate resource for retrieving this information for the purpose of application, particularly in modern medicine.

Ethnobotany can be categorized in two major groups-

First is basic Ethnobotany that includes compilation and organization of information about biota obtained from indigenous and other peoples, such as

obtaining data about useful plants and animals, understanding how peoples manage their environments and learning about their lexicons and classifications. These results are then organized in many ways once species determinations are completed. they may be basic quantitative and experimental botany includes basic documentation, quantitative evaluation of use and management and experimental assessment.







The Kolli Hills region of the **Eastern Ghats** is a biodiversity-rich area with a number of species reportedly used as treatment for poisonous animal bites and stings.



The Irula people of Tamil Nadu are found in the Javadhu hills region of the Eastern Ghats. At least 57 medicinal plants species are used by the Irulas for medicinal purposes.



The Toda people of the Nilgiri sub range (Tamil Nadu) create traditional huts out of bamboo and rattan. The Toda use liverworts in the treatment of skin infections, including *Marchantia* and *Lunularia* species.



The Dzüko Valley on the border of Nagaland and Manipur.



Rainforest ecosystem in Assam (at the Hollongapar Gibbon Sanctuary)



A euphorb plant venerated in the worship of Shiva (state of Assam). This plant is considered holy by the **Boro people**, the largest scheduled tribe of NER.



The **Indo-Gangetic plain** is a flat arc dominating much of Northern India as well as Bangladesh. More than 400 million people live in an area of 700,000 km², making it one of the most densely population regions on earth.



Andamanese family

History:

The use of historical documents is of utmost importance for the accession of information that highlights the past relationships between human beings and their environment. Discovering or obtaining information that is found in manuscripts, books or other sources promotes a chronological view of evolving plant uses, for example, on the question of the concepts of diseases and forms of cultivation. The chronological analysis of all disease concepts throughout history can help to clarify our current conceptions. However, extracting, analysing and interpreting these types of data represents a challenge, as it requires itself knowledge from different areas, such as History, Anthropology and Biology.

The scientific field that addresses these different aspects and that is responsible for understanding part of these interrelationships by focusing on the dynamics established between humans and plants is called Ethnobotany. Within this field, one of the research approaches concerning the past interrelationships through the use of written records and iconography is known as Historical Ethnobotany (Medeiros et al. 2010). Historical Ethnobotany differs from Paleoethnobotany or Archeobotany by including archaeological records and aims to understand the interrelationships between humans and plants (Ford 1979). Despite having similar subjects of study, the differences between Paleoethnobotany and Historical Ethnobotany are based on methodology. Such research is of great relevance because it aids in the reconstruction of historical facts that guide future studies aimed at novel plant-derived discoveries (Giorgetti and Rodrigues 2007; Burns 2008) to verify changes in vegetation cover and species distribution (Oudijk and Jansen 2000; Smith et al. 2003), to assist in understanding the process of plant species domestication (Raghavan and Baruah 1958; Negbi 1992; Prohens et al. 1996), to show temporal changes in plant use and to describe the history of cultivation and the economic importance of certain plants (Goor 1965; Porterfield 2008).

In addition, it should be noted that this scientific field allows for the reconstruction of cultural identities, from small human groups to large civilizations, through the retrospective review of different historical plant uses, such as food, wood, magical/religious purposes and medicinal and fibre applications (Norton 1981; Leal and Amaya 1991; Bedigian 2004; De Natale et al 2009).

➤ **History of Ethnobotany in India:**

Scope of and Objectives of Ethnobotany: The Scope of Ethnobotany in recent times has been established with the problems of-

- Rural Health,
- Drugs,
- Social costumes,
- Cottage Industries,
- Conservation of Ecosystem,
- Nutrition,
- Energy,

Scope of Ethnobotany:

- Botany,
- Anthropology,
- Ecology,
- Medicine,
- Chemistry,
- Agriculture,
- Horticulture,
- Forestry,
- Agroforestry,
- Economics,
- Linguistics

MULTI-DIMENSIONAL SCOPE

Ethno-medicine	Ethno-veterinary
Ethno-pharmacology	Etho-phytotechnology
Ethnotoxicology	Ethnoecology
Ethnocosmetics	Ethnoalgology
Ethnomycology	Ethnolichenology
Ethnobryology	Ethnopteridology
Ethnoagriculture	Ethnohorticulture

Multi-dimensional Scope of Ethnobotany

Objectives of Ethnobotany:

The aims and Objectives of Ethnobotany are as follows:

- Proper documentation of indigenous knowledge about medicinal plants;
- Preservation of unwritten traditional knowledge about herbal plants;
- conservation of national heritage before its extinction;
- To create awareness about its role in cultural, social and health of people;
- To train people for utilization and conservation of medicinal plants.

ETHNOBOTANY AS AN INTERDISCIPLINARY SCIENCE

Ethnobotany as an interdisciplinary science is, therefore, in a position to contribute to development of the wealth of traditional knowledge of the indigenous people concerning their natural systems and Environment, their knowledge on utilization and maintenance of plant resources on a long term basis without damaging or destroying their habitats.

Ethnomedical data can be utilized by Economic Botanists to provide a new plant resources, to provide fresh ideas for environment planners, as a tool for basic selection of plant species for the development of drugs by pharmacologists, phytochemists and clinicals, as a new source of history through the study of plant names by linguists, as a source for locating new germplasm for agriculturists, etc.

Major Tribes of India:

As of the census of 2011, India has a total of 705 tribes. These tribes include both large and small tribes.

India is home to over hundreds of tribes situated in the States and Union Territories of the country that separates them from other tribes making India a country of diversity and culture. Schedule 5 of the Indian Constitution has recognized the tribal community of Scheduled Tribes (STs) in India.

Types of Tribes in India

The tribes in India are segregated into two types.

One is based on permanent traits, and the other one is based on acquired traits.

Types of Tribes - Based on Permanent Traits

The permanent traits which are used to classify the tribal people are language, ecological habitat, region, and physical characteristics.

Types of Tribes - Based on Acquired Traits

The types of tribes based on acquired traits are divided based on livelihood and based on incorporation into Hindu Society.

- **Based on Livelihood** - The tribes that are into the plantation and industrial workers, hunters, fishermen, shifting cultivation, food gatherers, and peasants are categorized as tribals based on livelihood.
- **Based on Incorporation into Hindu Society** - This is the dominant classification of tribes based on the degree of assimilation into Hindu society, such as public affairs, politics, and academics.

Tribal Population in India As per the Census of India 2011, the total population of Scheduled Tribes (ST) in India is 104.49 million.

STs constitute 8.6% of the total population of India.

Rural areas constitute 11.3% of the tribal population, while urban areas constitute only 2.8%.

Male ST has a population of 52.5 million, while ST female has a population of 52 million.

Bhil Tribe

Bhil is one of the major tribes of India that constitute 40% of the total population. Bhil Tribe is found in Chhattisgarh, Madhya Pradesh, Karnataka, Gujarat, Andhra Pradesh, and Maharashtra. 'Bhil' word is derived from the Vil or Bil, which means bow. This tribe was highly valuable as fighters against the Mughals, Britishers and Marathas. However, in the present scenario, the Bhil tribe is employed as sculptors, agricultural labourers and farmers.

Gond Tribe

The Gond tribe is one of the important tribal groups in India, often known for its bravery and is found in Central India in the Chhindwara district of Madhya Pradesh. However, it is also found in the Bastar district of Chhattisgarh, the Chhindwara district of Madhya Pradesh, Maharashtra, and many other states of India. Their staple food is Kodo and Kutki, which are two types of millet. Apart from this, they are to cultivate tobacco for smoking and produce liquor for the Mahua Tree.

Munda Tribe

Munda tribe has its habitat in Jharkhand, but it is also found in other Indian states such as Chhattisgarh, Madhya Pradesh, Odisha, Tripura, and West Bengal. Munda tribe is one of the oldest South Asian tribes that is known. They also existed during the pre-British era but got recognition only between 1857-1928 due to a freedom fighter Birsa Munda who played an important role in India's freedom struggle. Their most important festival is Magha or Ba. They are fond of music and dance. their main language is Killi.

Santhal Tribe

Santhal Tribe is mainly found in West Bengal, Jharkhand, West Bengal, Assam, and Odisha and is densely populated in Bihar. This tribe loves music and dance and speaks the Santhali language. Their form of governance is known as Manjhi Paragana.

Toto Tribe

Toto is one of the endangered but important tribes of India. It is found in the Totopur region of West Bengal. This tribe is found to be in isolation as it remains disconnected from the world. It is found that it does not have a population of more than 1500; therefore, the Toto tribe is an endogamous group. Furthermore, their literacy rate is also very low. Anthropologists refer to this tribe as a 'vanishing tribe' as they are fewer in number. They were almost on the verge of extinction in the 1950s.

Important Tribes of India

State wise list of Tribes in India

Tribal population is spread across the country.

Some of the major tribes of India, such as Gond, Santhal, Bhil, Toda, etc, are found in more than one state due to their proximity to the neighboring states.

Andhra Pradesh

Kondareddis, Sadhu Andh, Savaras, Yenadis, Bhil, Nakkala, Gadabas, Jatapus, Banjara, Kattunayakan, Pardhan, Kolam, Konda, Kolawar, Koya, Rona, Andh, Dabba Yerukula, Dhulia, Kammara, Thoti, Sugalis, Valmiki, Goundu, Sugalis, Manna Dhora, Lambadis, Bhagata, Gond, Mukha Dhora Chenchus (Chenchawar)

Assam

Chakma, Dimasa, Rabha, Miri, Hajong, Borokachari, Garos, Karbi, Kachari, Garo, Gangte, Chutiya, Boro, Sonwal, Khasis.

Arunachal Pradesh

Abor, Adi, Taroan, Dafla, Momba, Singpho, Apatanis, Wancho, Mishmi, Idu, Tagin, Monpa, Nyishi, Sherdukpen, Galong Bihar Asur, Chero, Gond, Birhor, Savar, Parhaiya, Birjia, Santal, Banjara, Baiga, Tharu, Santhals, Kharwar, Oraon

Chhattisgarh

Nagasia, Bhattra, Khond, Sawar, Mawasi, Gond, Halbi, Biar, Kavar, Bhaina, Halba, Binjhar, Agariya

Goa

Naikda, Dubia, Varli, Dhodia, Gawda, Siddi

Gujarat

Bhil, Dhanka, Talavia, Dhodia, Siddi, Patelia, Barda, Kokna, Bamcha, Charan, Gamta, Halpati, Patelia, Dubla, Naikda, Rathawa, Paradhi

Jammu and Kashmir

Balti, Beda, Mon, Gaddi, Purigpa, Changpa, Bakarwal, Garra, Sippi, Gujjar

Jharkhand

Mundas, Gonds, Kharia, Birhors, Kharwar, Banjara, Bhumij, Santal, Mahli, Santhals, Ho, Lohra, Savar, Bedia, Parhaiya, Kol

Himachal Pradesh

Khas, Swangla, Gujjars, Bhot, Lamba, Beta, Gaddis, Pangwala, Lahaulas, Beda Bodh

Karnataka

Patelia, Barda, Koraga, Gond, Naikda, Marati, Iruliga, Bhil, Hasalaru, Yerava, Meda, Soligaru, Koli Dhor, Adiyen

Kerala

Adiyen, Kattunayakan, Kurichchan, Kurumbas, Eravallan, Moplahs, Irular, Malai arayan, Uralis, Kanikaran, Arandan, Muthuvan

Maharashtra

Bhunjia, Bhaina, Dhodia, Katkari, Kokna, Warlis, Kathodi, Rathawa, Khond, Koli, Halba, Thakur, Dhanka, Mahadev, Pardhi

Madhya Pradesh

Bhils, Birhors, Pardhan, Bharia, Mawasi, Sahariya, Korku, Khond, Baigas, Katkari, kharia, Kol, Murias, Gonds

Manipur

Anal, Naga, Maram, Chiru, Meitei, Thadou, Paite, Monsang, Thadou, Tangkhul, Mao, Aimol, Angami, Kuki, Purum, Poumai Naga

Mizoram

Chakma, Kuki, Pawi, Lushai, Khasi, Raba, Lakher, Dimasa, Synteng

Meghalaya

Garos, Lakher, Chakma, Pawai, Raba, Hajong, Mikir, Jaintias Khasis

Nagaland

Ao, Angami, Kachari, Lotha, Kuki, Chakhesang, Mikir, Rengma, Garo, Nagas, Sema, Konyak, Phom, Sangtam

Odisha

Ghara, Khond, Bhumij, Khayara, Bhottada, Koya, Kora, Rajuar, Oraons, Bathuri, Gadaba, Paroja, Juang, Santhals, Kharia, Bathudi, Gond, Shabar, Kisan, Kolha, Munda, Matya, Saora, Lodha

Rajasthan

Nayaka, Bhils, Meenas(Minas), Sahariya, Naikda, Damaria, Dhanka, Patelia, Kathodi

Sikkim

Lepchas, Khas, Limboo, Bhutia, Tamang

Tamil Nadu

Kanikar, Aranadan, Irular, Kadar, Eravallan, Kurumans, Adiyan, Kanikar, Kotas, Malayali, Todas

Tripura

Bhil, Chaimal, Chakma, Khasia, Mizel, Bhutia, Lushai, Halam, Namte, Munda, Mag, Rieng

Telangana

Chenchus

Uttarakhand

Buksa, Bhotias, Khas, Tharu, Jannasari, Raji

Uttar Pradesh

Buksa, Kharwar, Saharya, Jaunsari, Chero, Kol, Baiga, Tharu, Bhotia, Raji, Agariya, Gond, Parahiya

West Bengal

Parhaiya, Ho, Mal, Rabha, Asur, Savar, Chik Baraik, Hajong, Lodha, Khond, Santhals, Bhumij, Kora, Kheria, Parhaiya Khariam, Bhutia, Kisan, Pahariya, Mahali, Oraon

Punjab, Haryana, Delhi, Pondicherry, and Chandigarh have no tribal population living.

Issues faced by Tribes in India:

Some of the major issues faced by the tribal groups in India are as follows:

- **Land Alienation:** Tribal population mainly depend on natural resources for their livelihood. However, during the colonial rule after the discovery of minerals and other resources in the tribal regions, they were forcefully displaced. After independence, these regions came under state control, which negatively impacted the tribal way of life. They lost their forest rights, which resulted in tribal people trapped in the hands of moneylenders and landlords. Indebtedness increased, and their livelihood lost.
- **Identity Crisis:** Displacement of these tribes from the mining areas and for development of industries in these regions has forced them to live either on the periphery of these industrial pockets or to move to urban centers in search of livelihood. Disconnect from their homeland and unawareness and unpreparedness to the urban lifestyle have led to an identity crisis for these people. This gave birth

to various psychological issues like depression, low self-esteem, low confidence, a feeling of un-belongingness, etc.

- **Illiteracy:** According to the Population Census of India, 2011 the literacy rate for ST is 58.96 per cent (literacy rate for the male is 68.53 per cent and for female is 49.35 per cent) which is lower than the national average of 74.04 per cent (for male 82.14 per cent and female 65.46 per cent).

Their traditions and customs, prevailing poverty, the tendency of isolation, nomadic lifestyle, and lack of necessary infrastructure and teachers suitable for their needs.

- **Gender Issues:** Despite better sex ratio of 990 females per 1000 males of the Scheduled tribes in India, women of the community also have to face various challenges. Due to their sudden exposure to the urban lifestyle and their inability to adapt to the changes that occurred as a result of their forced displacement post-independence, women of society became more vulnerable. Consumerism and commoditization of women have weakened their position in society.

- **Issues with Health:** Prevailing poverty, financial insecurity along with illiteracy has resulted in various health problems among the tribal population. They generally reside in slums and live under unhygienic conditions, which make them prone to diseases. Their inability to purchase and consume healthy food products and buy supplements to fulfill the nutrient requirement, they are likely to malnutrition and associated challenges including anemia, high infant mortality rates, etc.

Literacy Rate of Tribal Groups in India The overall literacy rate is a key socio-economic indicator of a country's progress. In order to improve the literacy rate of the major tribes in India, the government of India has introduced several schemes. As per the Census figures, there has been an increase in the literacy rate of tribes in India from 47.1 per cent in 2001 to 59 per cent in 2011.

- **National Commission for Scheduled Tribes (NCST)**

- **National Commission for Scheduled Castes (NCSC) (NCST)**

1st Tribal President of India Droupadi Murmu is the first tribal president of India. She belongs to an important tribe in India which is the Santhal tribe. She is the 15th President of India and the 2nd female President of India after Smt.

Pratibha Patil. She hails from Uparbeda village of Mayurbhanj district in Odisha in a Santhali tribal family to Biranchi Narayan Tudu. She was married to Sri. Shyam Charan Murmu, a banker by profession but passed away in 2014. Smt. Murmu was a schoolteacher before she entered politics.

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