



## A brief overview of the origins of ethnobotany and India's indigenous culture

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### Abstract

Ethnobotany, a relatively new field, examines the various factors that regulate such relationships between humans and plants. The ethnobotanical studies encompass all types of human-plant relationships, including their medicinal, religious, indigenous, and utilitarian significance. The sources of this science are contemporary Indian scripture, including Rigveda, Atharvaveda, and sacred writings. In addition, the scope of ethnobotany in recent years and into the future has included nutrition, life-supporting species, rural health, drug use, social customs, bungalow industries, system conservation, and energy. Relationship of Ethnobotany to other disciplines such as Ethnomusicology, Ethno husbandry, Ethnolinguistic, Ethnometrics, Ethno ecology, Ethno Cosmetics, etc. This paper focuses on ethnobotany, its introduction, Historical Background, Scope of Ethnobotany, Approach to Ethnobotany, Importance of Ethnobotany, function of Ethnobotany within plant conservation, and Ethno medicinal of the route seasoning Vendors for medicinal plants. It also focused on historical and newly created methods for the protection of endemic information on plants used by ancient healers and ancient aid by ancient people.

**Key Words:** ethnobotany, indigenous people, plants, indigenous culture, medicinal

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### Introduction

Ethnobotany is also a combination of the terms "ethano," which refers to the study of plant culture, and "botany," which refers to the study of plant species. Ethnobotany is an area of study that examines the relationship between plants and human culture (Birhana *et al.*, 2015).

During a lecture in an urban centre in 1895, Dr. J. W. Harshberger first coined the word "Ethnobotany to define his field of study, which he outlined as a result of the study of Plants used by primitive and aboriginal peoples." Ethnobotany is the scientific study of human knowledge and practises regarding the medicinal, spiritual, and other uses of plants. Historically, humans have utilised a variety of plants for their daily needs. Ethnobotany, a relatively young field of study, examines the different factors that regulate such human-plant connections. In other words, Ethnobotany is the study of the origins of the world's plants as well as the other species that inhabit the planet. The plant supports humanity by providing food, shelter, clean water, air, and medicines, with the exception of selecting "roots, tubers, creepers, fruits, and leaves from the forest" for consumption.

### Historically Speaking

In 1895, J. W. Harshberger invented the term 'ethnobotany' for the first time. The origins of ethno medicine can be traced back to ancient India. This science originated in an Asian nation. In addition to the Rigveda and Atharvaveda, religious writings also serve as sources for this discipline. These ancient texts provide information about ethno medicinal plants.

In two Vedic periods, Rigveda and Atharvaveda, 148 medicinal plants are provided together with a list of some of the most famous Indian treatises. In the Charak Vedic literature, between 400 and 450 therapeutic plants are described. In trendy times Indian medicinal plants by Kartika and Basu (1935). Chopra's overview of Indian medicinal plants includes 1775 plants, but a few other authors have included over "3500 medicinal plants". Thus, our most recent present day data on Indian pharmacological medicine accounts for around 3,500 types of crude medicine of endemic and alien provenance. The first book on Indian ethnobotany is A Glimpse of Indian Ethnobotany by Jain (1981). "Even from the ruins of monhe-jo-daro and Harappa, flavouring medicine fossils have been discovered." The Vedas are the source of all of the Asian nation's sciences. In the Atharvaveda, flavouring medicines are employed. Subsequently, inside the sub ved of the Rigveda, a detailed scientific account is recorded in writing. The sacred text science of the Asian people takes into consideration a written work.

The first book written by Sir Villium Johns was titled "Botanical observation on selected plant." John Fleming published "Catalog of therapeutic plants" in 1810. Against published "Materia Medica of Hindustan" in 1813. In 1820, Roxburgh published Flora Indica. Dr. Dimak published the book "Materia Medica of Western India" in 1863. In 1868, Carrying published "Farmacopoea India." Dr. Mohiuddin Sarif published "Supplement to the Farmacopoea of Indica" in 1869. Sir Joyerg Wott (British) wrote and published "Dictionary of economic output of India" in 1895. From then on, "indigenous medicine of India" by Kneyala. Since the beginning of time, man

has relied on Mother Nature to satisfy his most fundamental needs. His curiosity was continually piqued by the abundance of flora surrounding him. The domestication and widespread cultivation of plants resulted from the discovery of their vast potential use. It was also a result of the continuous human population growth in the past. (Pie *et al.*, 1995).

In India, a small known history of the restorative properties of 99 plants dates back to the "Vedic period, which lasted from 3500 to 1800 B.C.". In the Atharva holy scripture, 288 medicinal plants are discussed in further detail. The oldest is Parasar's "Vruksha Ayurveda" complaint. The sacred Vedas, specifically the Rig Veda (1400–1800 BCE). The Atharvaveda (4500-2500 BC). Regarding the Vedas, there are no records of the development of this science in Asia prior to one thousand years ago. Prior to the middle of the nineteenth century, plants were the most important therapeutic agents utilised by humans, and their significance in modern medicine is still significant. In the middle of the nineteenth century, eubacteria, the well-known causative organisms of the disease also known as Hansen's disease or Hansen's disease, decimated the population of the earth. (Norton *et al.*, 1981) <sup>[19]</sup>.

### **Indo-India Subcontinent**

Materia Medica is the study of the healing properties of plants, minerals, and other substances and dates back to the period of human settlement in the Indian subcontinent. The Indian subcontinent seems to have been the site of medical operations like trepanation and dental care as early as 7000 BCE. Plants utilised in Ayurvedic medicine today were first employed in the middle Gangetic area as early as the second millennium BCE, according to recent archaeological botanic digs. Some of the individuals who call the Republic of India home may be members of a culturally and linguistically separate population with their own unique religion, set of beliefs, culture, and set of languages. In this area, several successful programmes have been established. Republic of India adopts and improves several international best health practises. The people of India have been using the country's standard medical system from ancient times. The widespread decline of Indian traditional medicine is attributable to the arrival of allopathic treatment during the British period and the neglect of Indian traditional medicine by British rulers. Traditional medicine faces opposition from cutting-edge scientific advances in allopathic medicine and state-of-the-art facilities. Even yet, around 70% of India's rural population still places their trust in traditional medicine as a viable option for primary healthcare. According to research (Saikat *et al.*, 2016).

### **British Dominance (1755-1947)**

The eighteenth century was marked by some of the most significant contributions to contemporary research, which laid a solid foundation for later years of study. May also be credited with producing the most important works among those listed. As the eighteenth century came to a close, scholars in India published two seminal works on Asian traditional medicine (Dutta, 1870) and Hindu medicine. Soma, a plant used by Indo-Aryans, is a healthy plant, as evidenced by its inclusion in the earliest Native American chronicle; however, the precise identify of the plant among the present is a matter of confusion and conjecture, as it is referred to in literature by their widespread names and some twenty completely completely different plants. It has been applied to a wide variety of plant species, including the seed plant *Sarco stemma* and the plant genus *Mushaira*; however, some experts now consider this group to be a pachyclade of woody plants. The discipline of ethnobotany began to spread across the nation-states. Survival of feral and domesticated plants may be a subject of their studies in floristic biology. Grosi and Shahzad investigated the medicinal herbs used by the people of Dhirkot. They discovered forty-three musing plant species belonging to sixteen families that were employed alone or in combination by indigenous people. (Grosi, *et al.*, 2002).

### **Ayurveda**

The Indian medicinal tradition known as Ayurveda is based on thousands of years of scientific research. The Indo-Aryan roots of the word "writing" are the words "Ayu" (Life) and "Veda," which together mean "life information" (info of science). The Four Vedas, which date back to between 5000 and 1000 BCE, are widely recognised as India's oldest literary works, and also include information regarding alternative medical practises. A new standard was set for writing as a sophisticated form of introspection. Both the books of Charaka (on internal medicine) and Sushruta (on surgery) from the Vedic period are recognised as literary classics. *Astanga Sangraha* and *Astanga Hridaya* are two texts that compile and update crucial facts from the Vedic writings of Charaka and Sushruta. *Madhava Nidana* (which identifies diseases), *Bhava Prakash* (which provides further details on plants and diet), and the *Sarngadhara Vedic literature* are other old masterpieces (that concentrate on formulation and measure from). This includes the specialties of *Kayacikitsa* (internal medicine), *Shalya Tantra* (surgery), *Salakya* (illness of supraclavicular origin), *Kaumarabhrtya* (paediatric medicine, obstetrics and gynaecology), *Bhuta Vidya* (psychiatry), *Agada Tantra* (toxicology), *Rasayana Tantra* (rejuvenation and geriatrics), and *Vajikarana* (aphrodisiac dazed and eugenics).

### **Siddha**

The Siddha medical practise is a hallmark of Tamil culture, which has its roots in the southern parts of India. Siddha medicine was established during the Indus Valley Depression, although its roots may be traced back to ancient Dravidian civilization. Siddha alchemy is often acknowledged as having drawn heavily from Chinese

alchemy, Taoism, and Taoist geophysics. Ancient texts attribute the system's creation to a group of 18 sages known as siddhar (a class of Tamil sages). It's true that the Siddha medical system borrows ideas and concepts from the written word, but it also has its own holistic approach and inward-focused lifestyle practises.

### **Unani**

Ancient medicinal practises from Egypt, Syria, Iran, China, India, and other east Asian countries formed the basis for the Unani medical system. Its birthplace was a Balkan country, but it found great success in the Middle East. Unani medicine was first brought to India by Arab and Persian conquerors in the eleventh century, and it flourished during Mughul rule.

### **Amchi**

Another well-documented ancient medicinal system, Amchi or Sowa- Rigpa was widely practised across Asia, Mongolia, Nepal, Bhutan, the Bharat geographical formation area, parts of China, and the former Soviet Union. Some people place the beginnings of Amchi medicine in India, while others say the Tibetan area, and yet others say China. Because of the impact of Chinese traditional medicine and Tibetan literature discovered via this approach, amchi closely resembles writing.

### **Human medication**

For many rural indigenous ethnic groups, uncodified for medicine plays an important role in illness prevention and treatment in addition to documented old medical systems. This information is not written down but rather is handed down orally from generation to generation. In India, about 25,000 plant-based remedies are eaten by agricultural and ethnic tribes, and almost 8,000 plant species are used in human medicine.

### **Ethnobotany**

Plants' conservation statuses, such as "vulnerable," "vulnerably endangered," "critically endangered," "inclined," "rare," and "invasive weeds," are all included in the ethnobotanical research. Nutrition, life-supporting plants, rural health, drug use, abuse, social customs, home industries, system conservation, and energy are just few of the many areas that ethnobotany has grown to cover in recent years and will continue to do so in the foreseeable future. When seen through the eyes of the plant population, our relationship with plants may be broken down into its component parts, such as selective exploitation, reproductive biology, species competition, and ultimately survival.

The protection of natural resources and cultural heritage are intertwined with the hunt for new medicinal components, precious germplasm, new food and fodder, economic development tools, and so on. Botanists, phytochemists, pharmacologists, anthropologists, written communication experts, and Unani doctors are just few of the many scientists and students that are now engaged in furthering the study of ethnomedicine and its allied areas. New in the field of medicine is the practise of "ethnomedicinal," in which knowledge about a plant's multiple applications against different ailments is gleaned from the locals of a nation. Ethnomedicine is the medical system that provides the first speculative data on a variety of specific plant clinically there therapeutic properties of similar speculative characteristics are even by screening the plant with totally different medicinal features.

### **Ethnobotany: Science or Art**

The topic of whether or not ethnobotany may be classified as a science or an art is an obvious one to raise. Our first step in addressing this problem should be to try a workable definition of the difference between science and art. Science is knowledge, whereas art is action. The art of ethnobotany is found in the practical application of the scientific understanding of the different principles that govern the workings of nature.

Although it may seem somewhat bizarre that we may mix science and art in one career, it is true because ethnobotany is art when we employ plants for decorative and recreational purposes, as well as for unique preparation of garden, garden, cosmetics, and woodwork in toys and other wood items. It's the study of the relationships between seemingly unrelated fields, such as ethnomusicology, ethnohusbandry, ethnolinguistics, ethnometrics, ecology, and ethnocosmetics. When people turn to plants and the chemicals inside them for treatment of illness, they are engaging in the scientific practise of ethnobotany. It has connections to several fields, such as ethnopharmacy, ethnopharmacology, ethnophytochemistry, ethnomedicine, etc.

### **Approach to Ethnobotany**

According on the preceding approaches, the subsequent major subtype of ethnobotany may develop.

Ethno bryology is the ethnobotanical investigation of bryophytes.

1. **Ethno Cosmetics:** Material utilised by an ethnic group, folk, people, or rare for the care, transformation, or embellishment of the body, particularly the skin and hair.
2. **Ethno Dietetics:** This aspect of ethno gastrology refers to the selection, composition, frequency, and nutritional value of food.

3. **Ethnoecology:** Examines all indigenous beliefs, ideas, and activities regarding the interaction between man and his surrounding environment, including conservation practises for species, community, and nature in general.
4. **Ethno Gastrology:** Examines all facets of consumption and drinking, including the type, source, frequency, quantity, and method of the material utilised by any ethics cluster, people, or face to fulfil hunger and thirst, including emergency, famine, or subsistence food.
5. **Ethno Gynecology:** Deals with indigenous beliefs, knowledge, concepts, and practises for the treatment of issues related to female fertility, family planning, pregnancy, and parenting.
6. **Ethno Horticulture:** the indigenous ideas, concepts, and activities linked with the cultivation of agricultural plants within a group, people, or people. Fruit, vegetable, ornamental, and recreational plants are distinctive in a given community.
7. **Ethnomedicine:** indigenous beliefs, ideas, and practises among a group, folk, people, or race for avoiding, modifying, or treating illness, pain, and folk medicine.
8. **Ethno Medicinal Botany:** The study of plants utilised as medicine by any ethics cluster Delaware, people, or race.
9. **Ethnomusicology** is the study of all aspects of a group's vocal and musical traditions, including their origin, evolution, themes, and materials.
10. **Ethno Narcotics:** The study of narcotics among any ethical group, people, or race.
11. **Ethno Ophthalmology:** indigenous beliefs, knowledge, and methods for healing eye diseases, eye damage, and visual impairment.
12. **Ethno Orthopedics:** indigenous beliefs, information concepts, and bone healing procedures.
13. **Ethno paediatrics:** indigenous knowledge concepts and practises pertaining to the care of children with disease, intestinal colic symptoms, and pain.
14. **Ethno Paleobotany:** Ethnobotanical facets of fossilised matter.
15. **Ethno pharmacology:** indigenous knowledge Concerns the specific beliefs, knowledge concepts, and associated activities of a group, folk, people, or race about the gathering, preparation, protection, and distribution of medicines.
16. **Ethno pharmacology:** the pharmacologic study of biological components connected with an ethnic group's people or race's indigenous concepts and methods of observation and experimentation with drugs.
17. **Ethno Toxicology:** The study of substances considered or used as dangerous nontoxic intoxicants by any ethical cluster or ethnicity.
18. **Ethno veterinary:** The study of the distinctive beliefs, information concepts, abilities, and behaviours of people regarding animal health.
19. **Ethnobiology:** The study of all direct relationships between humans and animals.

### **The Indigenous Culture of Indian country**

Experts in the study of human diversity estimate that six main ethnic groups have established in the United States. The Negrito is one of these groups, along with the earliest Australoids, Mongoloids, Mediterraneans, Western Brachycephals, and Northern Europeans. In this state, the native peoples are officially classified as tribes. There are about 227 distinct ethnic groups and 573 distinct indigenous communities residing on the Indian subcontinent. Around 20% of the world's population is made up of them. The state's 5,000 villagers are spread out among its central, earthy, and northeastern regions, as well as the North Western plains, the range, the fierce South, and the Andaman & Nicobar Islands. Many of the most primitive tribes in India are worried that they may be wiped out if you don't take care of them. The constitution of the state guarantees special protections for the community.

### **Genetic Resources by Native American Tribes**

Asia is the birthplace of numerous crop plants. Others, however, have a more variable distribution across the wide range of agroecological zones where indigenous peoples are found. Examples include rice in northeastern

Asia, millets, bifoliate vegetables, temperate fruits, and pseudo cereals in the Himalayas, to name just a few. Some peoples' way of life is inextricably linked to farming because of where they live. Many variations in landraces are under the group's control because of the various cultural uses of the crops that have developed since antiquity. Several different cultural groups all grow their most popular landraces there. The process of social group selection has taken a path distinct from that which is traditionally assumed, drawing on the richness of the natural world as a resource. Locally adapted cultivars for the improvement and development of indigenous crops have evolved under the influence of social group choice in addition to edaphic, cultural, and phylogenetic factors.

### **Ethnobotany's contribution to the protection of plants**

The ethnobotanical research may illustrate the local cultures in a passing community or residence, as well as the various beneficial creatures that exist in this environment. Most ethnobotanists make it their business to learn about traditional uses of plants, particularly those with medical or spiritual significance, since they see this information as a potentially priceless ecological resource. This native content is often lost swiftly owing to people's modernising practises. Loss of biodiversity and damage to the natural system have been hastened by human activities including population increase, deforestation, and other environmental problems. As a result, preserving large swaths of tropical forest and other natural systems will ensure the continued availability of potentially useful foods, medicines, and materials generated from plant variety. Supporting the autonomy of indigenous autochthonous peoples is essential. Using an approach that is both immensely dynamic and continually developing, the research counted the identifications and documentations of endangered and vulnerable species, with an emphasis on the careful usage of plants. New information is regularly gathered and may be seen to be linked to past practises, in light of the focus on the potential economic advantages of the prudent use of tropical forest product as compared to solid wood product. All parts of the plant—leaves, roots, stems, fruits, and seeds—carry healing properties that may improve people's lives. The products of the forest that aren't trees are medicine for a healthy country.

### **Traditional Use and Conservation of Biodiversity**

Farmers in North East Central Asia and dry land Asia use shifting cultivation. When trees are cut down to make way for crops, the biomass is burnt, and the resulting ash is then scattered throughout the ground. After a year of farming, the soil is let to recover its natural fertility before the farmer returns to it. In contrast to contemporary agriculture, which destroys whole forests in the name of crop production, indigenous peoples that practise shifting agriculture keep trees like jackfruit, mango, mahua, and myrobalan in their new homes, so enhancing the biodiversity of the area.

### **Ethnomedicinal expertise of Street Herb Vendors**

#### **Importance of Ethnobotany**

People presently live in cities because of population growth and technological advancements. Large-scale logging operations, increased economic activity, unchecked urbanisation, unsustainable farming methods, increased grazing, and other human activities all contribute to the degradation of the natural environment. The decline of inherited knowledge, practises, and beliefs from previous generations persists, despite the fact that modernization may improve people's level of life. It has been noticed that traditional knowledge of plant applications among indigenous peoples is vanishing as a result of the influence of contemporary ideas and values.

The biggest danger is the possible loss of irreplaceable indigenous knowledge about plants and their uses. There is a decline in cultural diversity and a loss of knowledge about the cultivation, dispersal, and extraction of plants and their components. Ethnobotanical research has been recognised as priceless in its potential to conserve the knowledge and beliefs of indigenous communities in the face of imminent extinction. Scientific research helps back up ethnobotany by documenting and using resources like dormant, spiritual, and holy plants both within and outside of a certain society. Identification of plants and plant components utilised for medical purposes is another possible outcome of an ethnobotanical investigation.

### **Conclusion**

The ethnobotany and history of different cultures are well-known all throughout the globe. Gathering diverse plants with medicinal and religious beliefs, for the goal of treating different ailments and performing various indigenous practises and ceremonies, is central to the scope, technique, and aim of ethnobotany. There is a close connection between the autochthonous peoples' relationship with plants and their religious and practical worldviews. Since it piqued the interest of ethnobotanists and native peoples, it paved the way for further study of these medicinal plants' spices from an ethnobotanical and ethno medical perspective. The indigenous population has a wealth of experience and expertise in medicine and healing. Information on the plants used to treat illnesses that were formerly common in a certain region. Some ethnobotanists focus on the functional uses of plants, conducting interviews and surveys with members of communities and indigenous people to gather this tacit knowledge. Before it is lost forever, it is important to record the efforts of native and social group members who are keeping this knowledge alive. Documentation, identification, and data collection related to these

medicinally valuable species must be documented in the right method and under the necessary direction to conserve them since traditional knowledge is transferred orally from one generation to the next.

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