INTERNATIONAL ASSOCIATION OF BIOLOGICALS AND COMPUTATIONAL DIGEST
International & Peer-Reviewed Journal
E-ISSN: 2583-3995

THE REVIEW ON ETHNO-BOTANICAL CONCEPT, HISTORY AND TRADITIONAL KNOWLEDGE OF INDIGENOUS COMMUNITIES OF INDIA AND ITS THREATS

[1]Kajal Katara, [2]Kruti Chaudhari, [3]Himanshu Pandya, [4]Bharat Maitreya

Email – kajalkatara404@gmail.com
Department of Botany, Bioinformatics and Climate Change Impacts Management, Gujarat University, Ahmedabad

ABSTRACT

Comparatively a newer discipline, ethnobotany examines the various rules that govern interactions between people and plant. People have been associated with plants since time immemorial and dependent for their various uses such as food, fodder, and medicine. Ethnobotany is the study of the utilitarian relationship between people and plant in their surroundings, as well as medicinal uses. This ethnobotanical study is providing the information of ethnobotany, concept, Historical background, traditional knowledge and threats of ethnobotany. This paper focuses on the ethnobotanical researches of India and Gujarat. In India, 500 networks with 227 different Ethnic groups were home to about 7500 different kinds of ethnomedicinal plants. Gujarat has a variety of vegetation in ethnobotany. This paper rise concern on loses of Traditional knowledge and plants varieties are destroyed by the knowledge loss and development of tribal human life.

Keywords: Ethnobotany, Traditional Knowledge, Tribal Communities, ethnomedicinal plants

ETHNOBOTANY CONCEPT

Both Ethno and botany are studies of human and plants respectively (Chaudhary et al., 2008). A area of study called ethnobotany examine how people and plants interact (Birhana et al.,2015). The study of how people engage with plants falls under the scientific field of ethnobotany. It primarily concentrates on the study of those plants with the aid of local's traditional knowledge and cultural practises.

Ethnobotany as an interdisciplinary science is, therefore in position to contribute to development of the wealth of traditional knowledge of the indigenous people concerning their natural systems and environment, their knowledge on utilisation and maintenance of plants resources on a long – term basis without damaging or destroying their habitats. Ethnobotany, the foundation of useful information about Roselle's connection with customary or regional flora uses (Carvajal– zarrabal et al., 2021). Generally, the term "Ethno-botanical uses" describes the utilisation of plants for purposes other than pharmaceutical (Ahmad, Ahmad, and Naqvi, 2017).

HISTORY OF ETHNOBOTANY

Ethno botany was defined by Harshberger in 1895 as "the study of the utilitarian relationship between people and vegetation in their surroundings, as well as medicinal uses." (Harshberger, 1896). In AD 77, the Greek expert Discords released "De Materiaedica," a list of about 600 plants in the Mediterranean. Leonhart Fuchs, a renaissance artist paved the path back in the field in 1542. In his "De Historiatirpium," he compiled a list of 400 Native plants to Germany and Austria. John Ray (1686 -1704) provided the first definition of "species": a spices is a group of individuals that reproduce to produce new individuals that are comparable to themselves in his "Historiaplantarum".

Two Vedic eras – the Rigveda and the Atharvaveda, present a summary of some of the significant Indian treatises along with 148 medicinal plants. 400-500 medicinal plants are contained in charak-vedic literature Indian medicinal herbs by kartika and Basu during

fashionable reads (1935). A gloss of Indian medicinal plant written by Chopra contains 1775 plants, and about 3500 medicinal plants have been contained by a few others. The first publication on Indian Ethnobotany was a Glimpse of India Ethnobotany (Jain 1981).
As the 18th century gave way to the 19th, ethnobotany witnessed expeditions conducted with more colonial goals than trade economics, which documented both the plants and the ways in which the peoples they met used them. From the 1860s to the 1890s Edward palmer gathered botanical specimens and artefacts from people in Mexico and the North American West Great basin). Numerous works on ethnobotany have been written by Mark Plotkin, who attended Harvard University, the Yale school of forestry, and Tufts University. Begging in the 20th century the disciple of Ethnobotany experienced a transition from rudimentary information gathering to a more noticeable systemic and applied reorientation. Additionally, scholarly Ethnobotany has now begun. Richard Evans Schultes is credited as being the discipline's founder (San 1983, Choudhary et at., 2008) Ancient India is where ethno-botanical science has its origins. This discipline was developed in an Asian country.

ETHNOBOTANY IN INDIA

India is very rich in ethnobotanical information (Patel et al.,2015). In India, 500 networks with 227 different Ethnic groups were home to about 7500 different kinds of medicinal plants. The planned number of clans in India in 2011 was 10,4,54,576 or about 8.6 percent of the total population. Brief relevant documented information about the curative properties of 99 plants can be found in India dating back to the Vedic period between 3500 and 1800 BC. The two most important texts of the Indian medical system – Charak and Susurk'swritings Charak and Sushruta Vedic literature – appeared. The presence of 20,000 different angiosperms species and numerous social Groups with historical links Alone places India among the nations with the most abundant ethnobotanical data.
Although powers (1874) and Harshberger (1895) classified the idea and definition of ethnobotany, respectively, the components of this discipline were present in India even earlier. Dr. S.K Janaki Aromal started organised field work and other Ethnobotany research at the BSI (Botanical Survey of India).The founder of ethnobotany, Dr.S.k.jainka, began conducting extensive field research among the tribal populations in central India. He developed ethnobotany methods, especially for the Indian context. Within India in 1956, janakiammqal, who was working the Indian Botanical census, began the world on ethnobotany.
Approximately 28, 000 plant species are used in human medicine, and about 25,000 of those produce plant – based formulations that are used by the agricultural and ethnic group in India (Pandey et al., 2013). The Jantia community in India used musing plants in high – quality ways, according to sajem and Gosia's research (sajem, et al., 2006). There are claimed to be 39 different medicinal plants species, which are divided into 27 different families. India is one of the 12 biodiversity hotspots in the globe, home to more than 45000 plant species, making it a significant biodiversity hotspot. The primary source of a significant number of medicinal and aromatic plants is India's jungle. More than 20,000 plants are thought to have medicinal worth, but only 7,000–7,500 species are used by traditional communities. (Matthews 2005; Mao et al. 2009).

ETHNO BOTANY OF GUJARAT

The Indian state of Gujarat has a variety of vegetation, including the pavagadh mountain, Girnar mountain, Runn of Kachchh, and 1600 km of seashore, which provides the best opportunity to research plants in various habitats. About 2300 species of vascular seed plants, including four lakhs' gymnosperms, belonging to 921 genera under 162 families make up the state of Gujarat's vegetation. These species are both Native to the region and have become naturalised or more widely cultivated (Chaudhari arth Suresh Kumar, kheemSingh Dahiya).
According to research, plants of North Gujarat (Saxton and Sedgwick, 1918), addition to Gujarat flora (Ahuja and pataskar, 1970) and North Gujarat flora and Ethnobotany (Yogi 1970; Patel 1971 and Reddy 1987; Patel, 2002) Numerous taxonomists and Ethno – botanists have continued to survey many areas of North – Gujarat in length and breadth. There are roughly 600 scientific contributions in the form of regional and state – level floras (Bole et al ., 1988), research papers published in taxonomic journals, and PhD theses submitted to various universities (Patel, 1971 and shah, 1978).With a total of 47 publications , North

Gujarat regions have received the most attention, followed by South Gujarat (39) and Saurashtra (27) writings (v.v .Damor, et al). There were total of (37) documented investigations between 1960 and 1980. From 1981 to 2000, there were (49), then (86) publications, from 2001 to 2015.

TRADITIONAL KNOWLEDGE AND SCIENCE BEHIND

People have been associated with plants since time immemorial and dependent for their various uses such as food, fodder, and medicine. Two Vedic eras – the Rigveda and the Atharvaveda, present a summary of some of the significant Indian treatises along with 148 medicinal plants. 400-500 medicinal plants are contained in charak-vedic literature People have been associated with plants since time immemorial and dependent for their various uses such as food, fodder, and medicine. About 65% total global population remains dependent on traditional medicine for their health care system.

Their instincts, observations, trial-and-error learning, and extensive experience served as the foundation for this customary knowledge. An essential part of such indigenous information is the medicinal applications of plant and animal products. Over time, some of this knowledge was thoroughly examined and approved, and it was incorporated into the recognized or regulated indigenous systems of medicine (ISM), such as Ayurveda, Siddha, and Yamani in India. Researchers are constantly putting this knowledge through a variety of tests through field, laboratory, or clinical study in order to make it more widely applicable, more trustworthy, and scientifically sound.

THREATS ON ETHNOBOTANY

Knowledge loss:

Time is erasing many of the conventional techniques and common understanding of medicinal flora. The wisdom of healers and tribal elders is lost as they get older and pass away. Due to lack of documentation and the newer generation's declining interest, traditional knowledge is rapidly disappearing with time (majumdar and data 2007,).

Effect of development:

Forests and plant varieties are being destroyed by industrial pollution. Tribal people's traditional sensations progressively deteriorate as a result of rapidly changing lifestyles brought on by civilization. As a result, recording is necessary to preserve and research the therapeutic activity of traditional medicinal plants. Although the potential of medicinal plants is still untapped, excessive woodland clearing has led to the extinction of undiscovered medicinal plant. Impact of environmental and biodiversity of tribal human life, lost of their traditional knowledge of medicinal plants.

As Per this paper the traditional knowledge is very important; it must be preserved and passed on the next generation; it is very important in ayurvedic science, and it is useful in drug preparation.

REFERENCE

1) Hussain, S., Hamid, A., Ahmad, K. S., Mehmood, A., Nawaz, F., & Ahmed, H. (2019). Quantitative ethnopharmacological profiling of medicinal shrubs used by indigenous communities of Rawalakot, District
2) Rahman, Inayat Ur, et al. "Historical perspectives of ethnobotany." Clinics in dermatology 37.4 (2019): 382-388.Poonch, Azad Jammu and Kashmir, Pakistan. Revista Brasileira de Farmacognosia, 29, 665-676.
3) Rahman, Inayat Ur, et al. "Historical perspectives of ethnobotany." Clinics in dermatology 37.4 (2019):
4) Sen, Saikat, et al. "An ethnobotanical survey of medicinal plants used by ethnic people in West and South district of Tripura, India." Journal of Forestry Research 22.3 (2011): 417.382-388.
5) Chabra, Aroona, et al. "Ethnopharmacology of Cuscuta epithymum: A comprehensive review on ethnobotany, phytochemistry, pharmacology and toxicity." Journal of ethnopharmacology 231 (2019):

6) 555-569. Choudhary, K., Singh, M., & Pillai, U. (2008). Ethnobotanical survey of Rajasthan-An update. American-Eurasian Journal of Botany, 1(2), 38-45.
7) Patel Hitesh, R., and R. S. Patel. "Ethnobotanical plants used by the tribes of RDF Poshina Forest Range, of Sabarkantha District, North Gujarat India." International Journal of Scientific and Research Publications 3.2(2013):
8) 1 Bhagat, Arati, Khyati Patel, and M. S. Jangid. "FLORISTIC DIVERSITY STUDY OF DHANSURA TALUKA, DISTRICT ARAVALLI, GUJARAT, INDIA." LIFE SCIENCES LEAFLETS 138 (2021): 13-20.8.
9) Singh, Harsh, et al. "An ethnobotanical study of medicinal plants used in sacred groves of Kumaon Himalaya, Uttarakhand, India." Journal of Ethnopharmacology 154.1 (2014): 98-108.
10) Chauhan, Kanica. "Role of ethnobotany on Indian society: a review." Journal of Arts, Culture, Philosophy, Religion, Language and Literature 4.2 (2020): 109-111.
11) Bhodiwal, S., Pathan, S., & Barupal, T. (2022). A Review: Ethnobotany of Various Plants in Respect to Health. Journal of Botany, 1(2), 38-45.
12) Jain, S. K. "Ethnobotany and research on medicinal plants in India." In Ciba Foundation Symposium 185-Ethnobotany and the Search for New Drugs: Ethnobotany and the Search for New Drugs: Ciba Foundation Symposium 185, pp. 153-168. Chichester, UK: John Wiley & Sons, Ltd., 2007.
13) Majumdar, K., & Datta, B. K. (2007). A study on ethnomedicinal usage of plants among the folklore herbalists and Tripuri medical practitioners: Part-II.
14) Jain, S. K. "Ethnobotany, its scope and various sub-disciplines." A manual of ethnobotany (1987): 1-11.
15) Ibrar, M., Rauf, A., Hadda, T. B., Mubarak, M. S., & Patel, S. (2015). Quantitative ethnobotanical survey of medicinal flora thriving in Malakand Pass Hills, Khyber Pakhtunkhwa, Pakistan. Journal of ethnopharmacology, 169, 335-346.
16) Pradhan, S. P., Chaudhary, R. P., Sigdel, S., & Pandey, B. P. (2020). Ethnobotanical knowledge of Khandadevi and Gokulganga rural municipality of Ramechhap district of Nepal. Ethnobotany Research and Applications, 20, 1-32.
17) Sajem, A. L., Rout, J., & Nath, M. (2008). Traditional tribal knowledge and status of some rare and endemic medicinal plants of North Cachar Hills district of Assam, Northeast India. Ethnobotanical Leaflets, 2008(1), 31
18) Sen, S., Chakraborty, R., De, B., & Devanna, N. (2011). An ethnobotanical survey of medicinal plants used by ethnic people in West and South district of Tripura, India. Journal of Forestry Research, 22(3), 417.
19) District, North Gujarat India. International Journal of Scientific and Research Publications, 3(2), 1-8. Patel Hitesh, R., & Patel, R. S. (2013). Ethnobotanical plants used by the tribes of RDF Poshina Forest Range, of Sabarkantha
20) Gohil, D. (2013). In Depth studies on some of the floristic components of Baroda and Panchmahal districts with reference to bioprospecting and speciation (Doctoral dissertation, The Maharaja Sayajirao University of Baroda).
21) Majumdar, K., & Datta, B. K. (2007). A study on ethnomedicinal usage of plants among the folklore herbalists and Tripuri medical practitioners: Part-II.