

A REVIEW ON CURRENT SCENARIO OF ETHNOMEDICINAL PLANTS IN JHARKHAND, INDIA

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ABSTRACT

Ethonemedicinal practises are on the decline as a consequence of scientific and technological progress. Pharmaceutical therapies are gradually replacing herbal ones. Many of indigenous communities still use traditional medicine, and their interest in the practise extends back millennia. In order to cure small wounds and a wide range of chronic ailments with minimum side effects, medicinal preparations are made using the plant's roots, leaves, bark, fruits, seeds, and stems, as well as extracted chemicals or the entire plant. Forty species of climbers are discussed, all of which have Ethonemedicinal benefits. Information includes common names, scientific names, and references.

Keywords: Ethonemedicinal, Traditional, Medicine, Species.

INTRODUCTION

Throughout the beginning of time, people everywhere have turned to nature for healing in the form of medicinal plants. Natural goods having therapeutic characteristics have been linked to the widespread usage of herbal treatments and healthcare preparations, such as those documented in ancient scriptures like the Vedas and the Bible, and produced from frequently used traditional herbs and medicinal plants. More than 35,000 plant species are utilised as medicines in various parts of the globe (Sukumaran & ADS, 2010). When it comes to treating illness, traditional medicine often turns to plants as a rich resource (Bako et al., 2005). Table 1 displays the total number of medicinal plant species utilised by various countries.

Although just 20.68 percent of India is covered by forests, an additional 9.99 million hectares (4.04 percent) of other tree cover brings the country's total forest and other tree cover (FSI, 2003) up to 77.82 million hectares, or 23.68 percent of its landmass. Another 25.72 M hectares is utilised for tree plantings such agro-forestry, social forestry, and agricultural forestry. Indian culture has a long history of using herbal remedies to treat human sickness. The vast majority of Americans still reside in rural and indigenous communities, where they rely on traditional medicine made from plants. The lifestyle, beliefs, and practises of indigenous peoples have altered little throughout the centuries. Knowledge of forest resources has been handed down down the generations among the tribal people, demonstrating their deep acquaintance with these resources (Choudhary et.al, 2011). The Indian subcontinent is home to many different types of vegetation and ecosystems. Over eight thousand of the Indian subcontinent's native species are used in human and veterinary medicine by rural populations and traditional medicinal systems like Ayurveda (Pei, 2001).

Jharkhand, a state in India, has an abundance of natural resources. Throughout ancient times, the people of the world have looked to the Indian state of Jharkhand, the home of Lord Baidynath, as a safe haven of spiritual, cultural, and herbal heritage. The Indian state of Jharkhand may be located between the latitudes of 22 degrees north and 24 degrees south, and the longitudes of 83 degrees east and 87 degrees west, and is well-known for its large population of tribal people, mineral richness, and tropical dry deciduous woodlands. According to satellite images captured in the state between October and December of 2006, trees cover 28.72 percent of the land area. The annual precipitation in Jharkhand is around 900 millimetres, and the temperatures vary from about 4 degrees Celsius to over 47 degrees Celsius. There are a total of 26.91 million residents in the state, with 77.80% of them residing in rural areas and 22.50% belonging to the Schedule Tribe. As of 2012 (Kaushal & Abbas). Jharkhand is home to several different types of medicinal and forest-based goods. Traditional remedies may be successfully cultivated there due to the favourable agroclimatic conditions. Humans have been using forms of "ethnomedicinal" for aeons. Due to the abundance of useful plants in the state, traditional medicine is quickly becoming a viable alternative to conventional pharmaceuticals. In Jharkhand, there are over 1500 plants that are utilised for traditional medicine. (Barla 2006)

RESULT & DISCUSSION

Table.1. No. of species of medicinal plants used by different nations

S. No.	Country	No. of Species of Medicinal Plants	Total No of Species In Flora	% of Flora Used as Medicinal	References
1.	World	52 885	297 000–510 000	10–18	Schippmann et al. (2002)
2.	India	7500	17 000	44	Shiva (1996)
3.	China	11 146	27 100	41	Pei (2001)
4.	North America	2572	20 000	13	Moerman(1998)
5.	Mexico	2237	30 000	7	Toledo (1995)

MEDICINAL PLANTS, HERBS AND SHRUBS DOMINANT IN JHARKHAND

Medicinal plants such as *Mucuna monosperma*, *Argemone mexicana*, *Acalypha indica*, *Datura metel*, *Fritillaria cirrhosa* and *Hyoscyamus niger* used for asthma were reported by Jha (2001), available at Chhotanagpur, Jharkhand. Bondya and Sharma (2005) reported that many medicinal plants were depleted and 4 plants had completely lost in the region of Bharagora block of Jharkhand and its adjoining border areas of West Bengal and Orissa. Suresh and Kujur (2009) studied the therapeutic use of some medicinal plants of Jamshedpur, Jharkhand, India such as *Abutilon indicum* for fever, *Oxalis corniculata* for indigestion, *Clitoria ternatea* for constipation, *Rauwolfia serpentina* for blood pressure, *Tinospora cordifolia* for cancer and *Commelina benghalensis* for leprosy. Mondal and Rahaman, (2012) has recorded a total of 28 ethno-medicinal plants and their formulation pattern for curing 10 types of different diseases in Birbhum district of West Bengal and Dumka district of Jharkhand in India by tribal people. Table 2 gives the plants along with their use by the tribals of wildlife sanctuary Topchanchi, Dhanbad. Table 3 list out 23 medicinal plants, herbs and shrubs that are dominant in the state of Jharkhand along with their varied uses.

Table 2: Usage of Ethnomedicinal Plants by local tribes in Jharkhand.

Sl. No	Botanical Name	Family	Local Name	Parts Used	Uses
1.	<i>Abrus precatorius</i>	Fabaceae	Karjani	Seed, Root	Cough, cold, skin condition, and shoulder swellings are all treated using a paste made from the leaves. Eye infections, diabetes, diarrhoea, jaundice, headache, menstruation issues, leucorrhoea, stomach discomfort, and sexual abnormalities are all treated with the root paste and powder. Seeds used for treating CNS diseases and as an antibacterial agent [7-14]; plant used to treat asthma, vasoconstrictor, and anti-pregnancy agent.
2.	<i>Asparagus racemosus</i>	Asparagaceae	Satawar	Root, Tuber	Used for curing erectile dysfunction, arthritic pain, gastrointestinal distress, high body temperature, anaemia, leukopenia, and to boost the immune system. The decoction of the tuber is used to treat breastfeeding, diabetes, and menstrual issues, while the paste and decoction of the root are used to treat diarrhoea and urinary ailments [15-22].
3.	<i>Bauhinia vahlii</i>	Fabaceae	Gungu	Leaf, Bark, Root	Root are used in treatment of snake bite [27].
4.	<i>Barleria prionitis</i>	Acanthaceae	Bergeria kanda	Tuber, Root, Leaves	Leaves are used to treat a variety of medical conditions, including gastrointestinal issues, fever, toothache, urinary issues, and acne. A mouthwash made from a root decoction is effective against bad breath [23].
5.	<i>Barleria prionitis</i>	Acanthaceae	Bergeria kanda	Tuber, Root, Leaves	Leaves are used to treat a variety of medical conditions, including gastrointestinal issues, fever, toothache, urinary issues, and acne. A mouthwash made from a root decoction is effective against bad breath [23].
6.	<i>Butea superba</i>	Fabaceae	Lata Palash	Root	Because of its antibacterial and antifungal properties, it is used to treat sexual problems, leucorrhoea, arthritis, and filariasis [30].
7.	<i>Bryonopsis laciniosa</i>	Cucurbitaceae	Toktoyan Sag	Tender leaves, Seed	Menstrual issues, snake bites, and fever may all be treated with the right seeds [28, 29].
8.	<i>Cissus quadrangularis</i>	Vitaceae	Hadjod	Bark, stem	Asthma, wounds, and bone issues including fractures and osteoarthritis are all treated with bark [49-51].
9.	<i>Cissampelos pareira</i>	Menispermaceae	Patha	Whole Plant	Fever, snake bite, stomach issues, jaundice, respiratory issues, malaria, heart illness, epilepsy, and neurological disorders [46-48] are all treated with the roots.
10.	<i>Centella asiatica</i>	Apiaceae	Brahmi	Aerial part, Seed	<i>Diarrhea and jaundice may be treated with seed oil. Weakness, vision difficulties, stomach disorders, and postpartum issues may all be cured with the use of leaves. Leprosy and TB are treated with a decoction, while other bodily ailments and jaundice are alleviated by using the entire plant [37-45].</i>
11.	<i>Coccinia</i>	Cucurbitaceae	Kundri	Whole Plant	Anemia may be treated using fruit and

	<i>grandis</i>	ae			leaf juices.
12.	<i>Cuscuta reflexa</i>	Convolvulaceae	Amarbel	Whole plant	It has anti-cancerous and anti-inflammatory characteristics and is used to treat skin illnesses, diarrhoea, hair difficulties, respiratory disorders, cough, liver disorders, and more [55-57].
13.	<i>Coccinia indica</i>	Cucurbitaceae	Kundururu	Leaves, roots,	Leucorrhoea, skin ailments, and respiratory illnesses are all treated with the root. It helps relieve discomfort associated with labour and childbirth [53].
14.	<i>Cocculus hirsutus</i>	Menispermaceae	Chilinhin	Leaves, Root	Sunburn and snake bite may be treated with root syrup. Eye problems, fever, skin ailments, and erection problems are all treated using a syrup made from leaves [54].
15.	<i>Clitoria ternatea</i>	Fabaceae	Aprajita	Flower, fruit	Diseases of the eyes, skin, lungs, and bronchial tubes may all be remedied by using the leaves [52].
16.	<i>Cyphostemma auriculatum</i>	Vitaceae	Amad simad	Bark	Snake bites may be treated with bark. bite [58].
17.	<i>Dioscorea daemona</i>	Dioscoreaceae	Kulu kanda	Stem	Effective in healing wounds and ulcers.
18.	<i>Dioscorea bulbifera</i>	Dioscoreaceae	Karukand	Leaves, Tuber, Root, seeds	Ulcers, wounds, discomfort in the throat, swellings, heart problems, conjunctivitis, and dysentery are all treated with this. Jaundice, piles, and other stomach issues are treated using a decoction made from the seeds. A skin infection may be treated using a leaf paste. Diarrhea may be treated using a powder made from tubers. Coughs and other respiratory conditions may be alleviated using a paste made from the roots.
19.	<i>Dioscorea alata</i>	Dioscoreaceae	Aru kanda	Root	You can kill worms with certain roots. Anemia, heat stroke, sexual dysfunction, jaundice, and fever may all be treated with this [59].
20.	<i>Dioscorea pentaphylla</i>	Dioscoreaceae	Nakwa kanda	Tuber	The immune system is boosted by tubers, which are also used to treat stomachaches, swellings, and general malaise [60].
21.	<i>Gloriosa superba</i>	Colchicaceae	Kalihari/ Kankasani/ Jagrahi/Sundarpahari	Tuber	Gout, skin infections, dysentery, diarrhoea, delivery, and pregnancy prevention are all helped by the leaves. Abortion, fever, and wounds are treated with the root. Respiratory problems and tumours are treated using the leaves [61-63].
22.	<i>Gymnema sylvestre</i>	Apocynaceae	Gudnar	Leaves, Bark	Effective against malaria and snakebites. In cases of diabetes, leaves are employed [64, 65].
23.	<i>Hemidesmus indicus</i>	Asclepiadaceae	Anantamul/ Anant bel	Root, Leaves	Root is used in cases of high temperature, nausea, skin problems, and even polio. It's used to cure a wide variety of ailments, including the common cold, diarrhoea,

					gynaecological issues, cough, jaundice, weakness, and stomach pain. In addition to aiding in mammary breastfeeding, it is employed as a blood cleanser and anticancer agent [66–68].
24.	<i>Lygodium flexuosum</i>	Lygodiaceae	Bhutraj	Leaves	Applicable in cases of diarrhoea, vomiting, nausea, abdominal pain, bloating, fever, edoema, wound, jaundice, cough, liver illness, ulcer, and skin issue. Plant inhibits the growth of bacteria [69].
25.	<i>Melilotus indicus</i>	Fabaceae	Banmethi	Leaves, seed	Treatment of sexual dysfunction.
26.	<i>Melothria heterophylla</i>	Cucurbitaceae	Ban kundari	Leaves	It is an antifertility drug that is also used to treat sexual dysfunction.
27.	<i>Momordica dioica</i>	Cucurbitaceae	Kheksa	Stem	Elephantiasis, leprosy, respiratory difficulties, and fever are some of the more common indications for its use [70, 71].
28.	<i>Mucuna pruriens</i>	Fabaceae	Alkusi	Leaves, Root	In cases of leprosy and high temperatures, the root may be taken internally. It is prescribed for a wide variety of diseases and conditions, including sex and nerve problems, digestive issues, PMS, stomach ulcers, and TB..
29.	<i>Paederia foetida</i>	Rubiaceae	Gandhi genhari	Bark, Fruit, Root	Malaria, piles, and polio may all be treated with this [72–74].
30.	<i>Pergularia daemia</i>	Apocynaceae	Mausi sag	Leaves, Bark.	Used for a variety of gynaecological, urological, and pulmonary issues [75].
31.	<i>Rivea hypocrateriformis</i>	Convolvulaceae	Phanji	Leaves, Tubers	For the treatment of snake bites.
32.	<i>Solena amplexicaulis</i>	Cucurbitaceae	Van Kakri	Leaves	It has antimicrobial properties..
33.	<i>Smilax zeylanica</i>	Smilacaceae	Raipan	Root, Leaves	Dysentery and skin diseases are treated with leaves. Decoction of roots is used to piles..
34.	<i>Smilax macrophylla</i>	Smilacaceae	Ramdatun	Root	Root is used to treat sexual dysfunction and urinary tract infections.
35.	<i>Teramnus labialis</i>	Fabaceae	Vanurad	Seed	Some people have success using the seeds to treat neurological diseases, diabetes, stomach ulcers, and even cancer.
36.	<i>Tinospora cordifolia</i>	Menispermaceae	Giloy	Whole Plant	Gout, liver disease, urinary tract disease, elephantiasis, and arthritis are just some of the conditions that it is used to treat. Root powders are used to treat sexual abnormalities and latex from stems is used to treat malaria. It also has the ability to fight cancer.

37.	<i>Vitis repanda</i>	Vitaceae	Pani Bel	Fruits, Leaves	Used to alleviate the discomfort of arthritis, piles, and erectile dysfunction.
38.	<i>Ventilago denticulata</i>	Rhamnaceae	Keoti	Bark, Root Flower	The root is used to treat headaches and ear infections [76].

In-depth discussion of climbing's potential as a therapeutic therapy is included in the aforementioned review. Medical studies on climbers have shown that the whole plant may be put to use, not only the parts that are easily accessible. The most common and productive climbers were members of the families Cucurbitaceae and Fabaceae. There has to be extensive study of the safety and efficacy of traditional climbing treatments before they can be employed in the medical field. Thus, there has to be much more study and documentation of mountaineers. This will aid in the production of cost-effective medical research and treatment and the preservation of climbing plants, which are threatened by oblivion due to a lack of knowledge.

CONCLUSION

Researchers in the domains of ethno-botany and ethno-pharmacology will find this article interesting, as it will stimulate their interest in performing more, critical study on medicinal plants found in Jharkhand state, India. More care has to be taken to ensure the longevity of such vital drugs. The aforementioned medical plants, herbs, and shrubs may also be the progenitors of the observed plant variety. Given the gravity of the issue, more extensive study is needed to identify effective strategies for protecting the medicinal plant and the forest and ecosystem as a whole. One approach to protecting medicinal plants is to increase the cultivation of rare and useful species via the responsible use of biodiversity.

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