



Exploring A Cross-Cultural Analysis of Ethnomedicinal Plants and Health Practices in East and West Singhbhum of Jharkhand

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Abstract - This study provides a detailed exploration of the diverse medicinal plant biodiversity in the region of Jharkhand, characterized by its varied landscapes encompassing hills, forests and plateaus. Traditional medicine, deeply rooted in ancient healing practices, proves vital in addressing diverse health issues specific to the region. Fieldwork, including surveys and interviews in tribal localities, engaged with knowledgeable individuals like Manjhis, Janguru, Bonga doctors, local vaidyas, medicine men and women. Semi-structured surveys, interviews, and firsthand observations gathered information while incorporating local perspectives. The study identified over 100 medicinal plant species across 45 families, each utilized for various ailments. The research underscores the cultural richness and significance of conventional medicine, advocating for the preservation and integration of traditional practices into broader healthcare frameworks.

Keywords - Ethnomedicinal plants; Indigenous Communities; Health Practices; East Singhbhum; West Singhbhum.

I. Introduction

Indigenous healing stands as a crucial healthcare resource, often serving as the sole source of assistance for many ethnic, rural, and backward populations. India boasts a profound heritage of plant-based healthcare wisdom. Numerous indigenous communities, particularly tribal groups, have harnessed the therapeutic potential of various plants and animal products, crafting what we refer to as ethnomedicines.

The relationships between plants and traditional people are profound and multifaceted, weaving through the very fabric of cultural, spiritual, and practical dimensions. Culturally, certain plants hold symbolic significance, embodying meanings associated with life, fertility, or purification in rituals and ceremonies. Medicinally, traditional communities rely on specific plants passed down through generations for remedies, reflecting a comprehensive strategy for health that takes into account mental, emotional, and spiritual well-being.

Jharkhand, a state endowed with abundant natural resources and a wealth of plant and animal species, is predominantly inhabited by tribal groups, making up 28% of its population. The local tribal community and other communities depend heavily on this



diversity to ensure their access to food and nourishment. 32 distinct tribal groups live in the state; the largest tribal groupings are the Santhal, Munda, Ho, Oraons, Kharia, and Bhumij (Kulkarni P et al., 2014). These tribes primarily rely on plant resources for food, fiber, forage, herbal remedies, building materials for their homes, and household tools.

In the state of Jharkhand, East and West Singhbhum districts hold a prominent status in terms of medicinal plants, tribes, mining and various industrial endeavors. Ethnobotanically, this research area in the East and West Singhbhum districts of Jharkhand is one of the least studied regions. Due to its specific geographical position and the limited healthcare facilities available in the district, the local population heavily relies on indigenous healthcare systems.

II. Materials and Methodology

Description of the study area and people

The word 'Jhar-khand' means the 'land' of 'forests' or the 'forested area'. Jharkhand experiences a tropical monsoon climate characterized by humidity, ranging from humid to sub-humid conditions. East Singhbhum and West Singhbhum are adjacent districts in the Singhbhum region of Jharkhand. Both districts are characterized by a mix of urban and rural communities and play a crucial role in Jharkhand's cultural and economic diversity. The location map of the study area is shown in Figure 1.

The undulating terrain of plateaus and hills, interspersed with dense forests, shapes the region's character. The Sal forests, dominated by the majestic *Shorea robusta* trees, thrive in this environment, fostering a unique ecosystem. The red and laterite soils, prevalent in these parts of Jharkhand, reflect the geological diversity that influences local agriculture. Alluvial soils along riverbanks and shallow, rocky soils in hilly areas further contribute to the mosaic of landscapes. The geography not only dictates the agricultural practices but also influences the cultivation of medicinal plants. The state's varied geography, therefore, serves as the canvas upon which the intricate tapestry of its biodiversity, agriculture, and traditional healthcare practices is woven (Mehta et al., 2008).

Jharkhand is renowned for its substantial tribal population and is undeniably one of the world's most biodiverse regions. This distinction can be attributed to the deep and harmonious connection that the tribal communities share with the natural environment, leading a coexisting and mutually dependent life with nature (Singh & Pandey, 2019).



Figure 1 Location map of East and West Singhbhum

The Santhal tribe, a major indigenous group in India, holds a significant presence in Jharkhand's East and West Singhbhum districts. Plants have historically and now influenced many facets of their culture, including language, art, literature, performing arts, and politics. Their significance was further enhanced by their use as symbols at holidays, marriages, and funerals, among other celebrations and rites.

The Munda tribe is one of the major tribal communities in India, and they have a significant presence in the Singhbhum districts of Jharkhand. The Mundas follow their traditional religion, which involves the worship of nature, ancestors, and spirits. Their religious practices are deeply connected to agriculture and the natural environment.

Traditionally, the Oraon tribe has been primarily engaged in agriculture. They practice shifting cultivation, also known as "dahiya" or "bewar." The Oraon tribe contributes significantly to the cultural diversity of Jharkhand, and their traditional way of life reflects a close connection to nature, community, and ancestral beliefs.

The Ho people follow their traditional religion, which involves animistic and ancestor worship. They have a strong connection to nature and believe in spirits associated with natural elements. Various rituals and festivals are observed to seek blessings from spirits for a good harvest and well-being.

The Sabar community is one of the ancient tribes of Jharkhand, primarily resides in the East and West Singhbhum Districts. They are classified as a Particularly Vulnerable Tribal Group (PVTG) due to their socioeconomic backwardness and distinct cultural practices. The Sabar population is relatively small, with scattered settlements in remote forested regions and hilly terrains relying on natural resources for sustenance. Their belief system is deeply rooted in animism, worshiping nature and ancestral spirits.

Collection of ethnobotanical information

In the pursuit of understanding traditional knowledge concerning medicinal plants, a meticulous approach was adopted during the empirical fieldwork within the study area. A standardized questionnaire was formulated, drawing inspiration from guidelines provided by Martin (1995) and Shrestha et al. (1998).

The fieldwork encompassed two primary methodologies: the survey technique which included interviews, group discussions and interactions with stakeholders like local plant users, community members, faith healers, and village leaders and the inventory



technique involved the systematic collection of plant specimens from the study area. Local names, parts used, and the intended purpose of usage were meticulously recorded as delineated by Martin (1995) and Cunningham (2001).

To establish contact with the settlements, mediators with established rapport within the tribal communities, such as forest officials, tribal chiefs, and local grocers, were instrumental for this study. A participant-observer approach was embraced, wherein daily activities were closely monitored, and interpersonal connections were forged by actively engaging in social and religious ceremonies like marriages, rituals, and curing sessions.

The study's planning and execution were thoughtfully crafted, considering factors such as the number of participants, group compositions, and overall engagement strategies. A semi-structured questionnaire was utilized during both informal and formal interviews with locals in each studied area. The questionnaire featured two distinct parts: the first focused on garnering general socioeconomic and demographic characteristics, while the second delved into the intricacies of ethnomedicine knowledge, encompassing the acquisition, utilization, and dosage of medicinal plants.

Field visits

The research spanned various villages, conducting visits at regular intervals from 2021 to 2023 within the designated study area. Focusing on the Santhal, Munda, Ho, and Oraon communities, the study extensively interviewed one hundred informants, ranging from 25 to 80 years, actively engaged in herbal medicine practices in the investigated villages.

The field visits were made to gather essential information, with the initial exploration taking place in October 2021. A general survey of the study area was conducted, facilitated by local key informants. This initial phase aimed to acquire primary information on plant diversity, concurrently collecting plant specimens and ethnobotanical knowledge from the local population.

Subsequent field visits were conducted between March and October 2022 in East Singhbhum villages and from November 2022 to June 2023. These visits prioritized the collection of plants and information from local healers, including Manjhis, Janguru, Bonga doctors, local vaidyas, medicine men, women, and elderly individuals. The focus extended to documenting the manifold uses of plants, accompanied by the systematic collection of plant specimens.

Primary data collection

The primary data collection process employed interviews and focus group discussions, engaging various ethnic groups. Active participation from healers, including Manjhis, Janguru, Bonga doctors, local vaidyas, medicine men and women, knowledgeable villagers, heads of households, and elderly individuals, enriched the data collection. These informants, possessing profound knowledge and experience with medicinal plants, contributed insights into vernacular names, plant parts used, purposes of use, modes of preparation, and methods of administration for medicinal and other applications.



Preparation of specimen

The collection of plant specimens, crucial for documenting the ethnobotanical knowledge, followed a meticulous process. Plants in flowering and fruiting stages were targeted, ensuring representation through at least three duplicates for each species. A systematic numbering system was employed, with specimen and voucher numbers assigned to facilitate identification. Detailed information, encompassing habit, habitat, exact locality, and a simple plant description, including flower color, was recorded for each species. Comprehensive field documentation extended to photographic records, capturing leaves, stems, flowers, and fruits.

Pressing and Drying of Specimens

Pressing, a key step in specimen preparation, involved placing specimens between absorbents under substantial pressure. Herbaceous plants underwent a washing process to remove mud, with leaves and flowers carefully spread. Strategic positioning during pressing aimed to capture both leaf surfaces. Tight strap maintenance and daily blotter changes over 5 days to two weeks, weather-dependent, facilitated gradual moisture loss until the specimens achieved complete dryness.

Poisoning of Specimens

Specimens were promptly poisoned in the field or upon returning to the accommodation. Immediate poisoning aimed to prevent the formation of an abscission layer. A solution comprising 750ml of 70% alcohol, 150ml of acetic acid, 100ml of formaldehyde, and 2gm of mercuric chloride was prepared. Whole plant parts were dipped in this solution, ensuring thorough poisoning. Subsequent drying and pressing completed the preservation process. Duplicate specimens were utilized when detachment of flowers, fruits, seeds, or young leaves occurred during pressing.

Data analysis and identification of Specimens

Authentic identification of plants collected during guided field walks with herbal healers relied on standard floras, including Flora of British India (Hooker, 1998), Flora of Presidency of Bombay (Cooke, 1967) and Flora of Presidency of Madras (Gamble, 1984). The information regarding the medicinal values was compared with other available literature like “Indian medicinal plants” (Kritikar KK, 1981). Voucher specimens, created subsequently, found their place in the Department of Botany Herbarium, Mansarovar Global University, each assigned unique accession numbers for reference and future study.

Secondary Data

The secondary data collection process involved a thorough examination of published works, journals, and newspaper articles housed in the repositories of various institutions. Notable repositories included the libraries of governmental offices, NGOs, and INGOs.

III. Results and Discussion



The study involved interviewing fifty informants from the Santhal, Munda, Ho, and Oraon communities, aged between 25 and 80 years, who actively practiced herbal medicine in the villages under investigation. These informants possessed a comprehensive knowledge base, encompassing over 100 species of medicinal plants derived from across 45 families, employed in the treatment of several ailments and illnesses, as outlined in Table 1. The medicinal plants included 41 trees, 19 shrubs, 33 herbs, 1 grasses, 1 creeper and 5 climbers. The collated information is presented in alphabetical order, incorporating botanical names, family classifications, type of plant, local and common names, along with details on the utilized plant parts for treating various ailments and illness, as outlined in Table 1.

Table 1 Plants used in the treatment of various diseases

Sl. No.	Botanical Names	Family	Local Name	Type of Plant	Parts Used	Uses
1.	<i>Abrus precatorius</i>	Fabaceae	Karjani	Climber	Seed and root	Leaves are used for asthma, coughs, colds, skin issues, and shoulder inflammation. The grounded or powdered form of the root is employed to address conditions such as eye infections, jaundice, diabetes, headaches, diarrhea, sexual difficulties, stomach pain, leucorrhea, and menstrual issues. The seeds are also used as an antibacterial agent and to treat problems of the central nervous system.
2.	<i>Abutilon indicum Linn</i>	Malvaceae	Atibala	Shrub	Leaves, root, bark, and whole plant	Ailments like persistent cystitis, urinary disorders, jaundice, gleet, leprosy, gonorrhea, piles, ulcer cough, chronic dysentery, and fever are addressed.
3.	<i>Acacia farnesiana willd</i>	Mimosidae	Arimed	Tree	Stem and bark	Used as antispasmodic, aphrodisiac, astringent, demulcent
4.	<i>Acacia arabica willd</i>	Mimosaceae	Babul	Tree	Leaves, seed, bark and gum	Used as anti-diarrheal, anti-malarial, anti-inflammatory.
5.	<i>Acacia catechu willd</i>	Leguminosae	Kheer	Tree	Leaves, bark and resin	Used as hepatoprotective, antipyretic and to treat digestive problems



6.	<i>Acacia nilotica</i> willd	Leguminosae	Babul	Tree	Stem, leaves and pod	Used as anti-asthamatic, anti-diabetic and anti-plasmodial
7.	<i>Achyranthus aspera L</i>	Amaranthacea e	Chirchiri	Herb	Root	Used as antibiotic and spermicidal
8.	<i>Acorus calamos</i> Linn	Araceae	Wach	Shrub	Root	The substance is utilized for relieving headaches, demonstrating anti-bacterial properties, acting as an anti-helminthic, addressing fever, managing asthma, alleviating bronchitis, soothing coughs, and aiding in digestive problems such as gas, bloating, and colic
9.	<i>Adhatoda vasica</i> Nees	Acanthaceae	Vassa	Shrub	Leaf, root and Stem	The herb is employed to treat impotence and sexual difficulties, bleeding hemorrhoids, bronchitis, jaundice, diarrhea, dysentery, fever, and headaches. Additionally, it serves as a laxative and is applied in the treatment of skin diseases, wounds, and leprosy.
10	<i>Adina cordifolia</i>	Rubiaceae	Karam	Tree	Root	Used to treat jaundice and stomachache
11	<i>Aegle marmelos</i> corr	Rutaceae	Bel	Tree	Bark and fruit	Utilized for its potential as an anticancer agent, cardiovascular protection, and for its anti-bacterial and anti-fungal properties
12	<i>Aerva lanata</i> Juss.	Amaranthacea e	Lupu aa	Herb	Shoot and leaves	Is employed to address conditions such as cough, strangury, headache, and urolithiasis
13	<i>Ailanthus excelsa</i> Roxb	Simaroubacea e	Aralu	Tree	Root and leaves	Used as antispasmodic and for cardiac depressant
14	<i>Alangium salvifolium</i>	Alangiaceae	Akola	Shrub	Bark	The shrub is employed in combating hypertension, diabetes, epilepsy, cancer, and inflammation
15	<i>Albizzia lebbek</i>	Mimosaceae	Siris	Tree	Whole plant	The plant is employed for its properties that counteract asthma, inflammation, fertility, diarrhea, sepsis, dysentery, and tuberculosis.
16	<i>Albizzia procera</i>	Mimosaceae	Safed Siris	Tree	Leaves	The leaves are utilized for their varied medicinal qualities, functioning as agents against asthma, fertility,



						diarrhea, sepsis, tuberculosis, cancer, and ulcers.
17	<i>Boerhaavia diffusa</i> Linn.	Nyctaginaceae	Rakt punarn wa	Herb	Leaves	Utilized in the treatment of ophthalmia, Anemia, dyspepsia, constipation, coughing, lumbago, myalgia, cardiac conditions, strangury, leucorrhoea, jaundice, and general debility.
18	<i>Bombax ceiba</i>	Malvaceae	Semul	Tree	Seeds	Used for treating chickenpox, smallpox and catarrhal affections
19	<i>Boswellia serrata Roxb.</i>	Burseraceae	Slai	Tree	Leaves , seed, gum and resin	Used as diaphoretic, astringent and diuretic
20	<i>Bryonopsis laciniosa</i>	Cucurbitaceae	Toktoyan Sag	Herb	Leaves and seed	Seeds are employed for addressing menstrual problems, treating snake bites, and managing fever.
21	<i>Buchanania lanza</i>	Anacardiaceae	Piar	Tree	Seeds	Used as antioxidant and anti-inflammatory agent
22	<i>Butea frondosa Roxb.</i>	Fabaceae	Palash	Tree	Whole plant	Used as antistress and anticonvulsive
23	<i>Butea superba</i>	Fabaceae	Lata Palash	Shrub	Root	It is utilized to counter sexual disorders, leucorrhoea, arthritis, and filariasis.
24	<i>Butea superba</i>	Papilionaceae	Lata palash	Climber	Root	Used to treat erectile dysfunction in males
25	<i>Butomopsis latifolia</i> Linn.	Alismataceae	Lundi aa	Herb	Shoot and leaves	Used to treat skin diseases
26	<i>Calotropis procera</i> R	Asclepiadaceae	Akwan	Shrub	Root and stem	Used to treat bronchitis, ssthma, leprosy, eczema and elephantiasis
27	<i>Capparis sepiaria</i> Linn.	Capparidaceae	Heens	Shrub	Leaves	Addressing paralysis, mental disorders, and tubercular glands.
28	<i>Carissa carandas</i> Linn.	Apocynaceae	Karronda	Tree	Fruit	Used as anti-inflammatory, anti-pyretic
29	<i>Cassia fistula</i> Linn.	Leguminosae	Amalataash	Tree	Root and bark	Used as antifungal, antiviral, luxative agent
30	<i>Cassia occidentalis</i> Linn.	Leguminosae	Kasoon di	Herb	Seed	Employed in the remedy of hemoglobin problems, rheumatism, typhoid, asthma, and painful eyes.



31	<i>Cassia tora</i> Linn.	Caesalpiniaceae	Kanyuraa	Herb	Shoot and leaves	Treatment of leprosy and various skin disorders
32	<i>Celastrus paniculatus</i> willd	Celastraceae	Jyotismati	Climber	Stem and seed	Addressing gout, rheumatism, asthma, leucoderma, leprosy, and paralysis. Additionally, it is employed for fever, edema, pain in joint, rheumatoid arthritis, , chills and infections due to bacteria.
33	<i>Celosia argentea</i> Linn.	Amaranthaceae	Huding Sirgiti	Herb	Shoot and leaves	Used to treat sores, ulcers, and skin eruptions.
34	<i>Celosia cristata</i> Linn.	Amaranthaceae	Marang Sirgiti	Herb	Shoot and leaves	Utilized in cases of hematuria, abdominal pains, leucorrhea, menstrual bleeding, hemoptysis, bleeding hemorrhoids, and osteoporosis.
35	<i>Centella asiatica</i> Linn. Urban	Umbelliferae	Brahmi	Climber	Aerial part	Used to treat asthma, skin disorders, ulcers, and body aches. Additionally, it is employed to enhance memory, act as a nervine tonic, and address conditions such as dropsy, elephantiasis, leucorrhoea, gastric issues, kidney problems, leprosy and urethritis.
36	<i>Cleome monophylla</i> Linn.	Cleomaceae	Hurhuriaa	Herb	Shoot and leaves	Possesses anti-diarrheal, anti-inflammatory, anticancer, antifungal, antimicrobial, anti-arthritis, hepato protective, anti nociceptive, and wound healing properties.
37	<i>Cleome viscosa</i> Linn.	Cleomaceae	Hurhur	Herb	Shoot and leaves	Rheumatic arthritis, hypertension, malaria, neurasthenia, and wound healing
38	<i>Clerodendron infortunatum</i>	Verbenaceae	Bhant	Shrub	Leaves	Antimicrobial and anthelmintic
39	<i>Clerodendrum serratum</i> Linn.	Verbenaceae	Vaarangi	Herb	Roots	Rheumatism, asthma and other inflammatory diseases
40	<i>Clitoria ternatea</i>	Fabaceae	Aprajita	Herb	Flower and fruit	Used to treat tuberculosis, asthma, ulcers, skin conditions, and eye issues.
41	<i>Coccinia indica</i> Naud	Cucurbitaceae	Kunduru	Herb	Leaves	Utilized in the treatment of skin conditions, leprosy, psoriasis, filarial swelling, diabetes, and bronchitis
42	<i>Cocculus hirsutus</i>	Menispermaceae	Chilhinth	Creeper	Leaves and root	Syrup derived from the roots is employed for the remedy of sunburn and snake bites, while the leaves are



						used to address sexual problems, skin conditions, fever, and eye problems.
43	<i>Cocculus hirsutus</i> (Linn.) Diel	Menispermaceae	Chilahinta	Herb	Leaves and roots	Utilized for venereal diseases, chronic rheumatism, fever, and syphilitic cachexia, the herb exhibits hypoglycemic, antimicrobial, anti-inflammatory and cardiotonic effects.
44	<i>Colocasia antiquorum</i> Linn.	Araceae	Pechkiaa	Herb	Shoot and leaves	To treat diarrhea
45	<i>Dalbergia sissoo Roxb.</i>	Leguminosae	Seesam	Tree	Stem	Anthelmintic, antipyretic, aphrodisiac
46	<i>Desmodium gangatium</i>	Leguminosae	Saalparni	Shrub	Rhizome	Analgesic, diuretic, antiinflammatory, and haemorrhagic
47	<i>Dioscorea bulbifera</i> Linn.	Dioseoriaceal	Gainthi	Herb	Tuber and rhizome	Conjunctivitis, diarrhea, and dysentery
48	<i>Elephantopus scaber</i>	Asteraceae	samduulan	Herb	Roots	Effective in reducing fever, addressing cardiac problems, and managing hepatitis.
49	<i>Embelia ribes burm. F</i>	Myrsinaceae	Vidang	Shrub	Root and fruits	Antibacterial activity, anti-inflammatory, antioxidant
50	<i>Embilica officinalis</i>	Euphorbiaceae	Amla	Tree	Fruits	Antioxidant, immunomodulatory, antipyretic, analgesic
51	<i>Embla officinalis gaerin</i>	Euphorbiaceae	Aawala	Tree	Fruit	Antimicrobial, hepato- and renal-protective, antivenom
52	<i>Feronia elephantum con</i>	Rutaceae	Kaith	Tree	Fruit	CNS depressant and CVS depressant
53	<i>Ficus bengalensis</i> Linn.	Moraceae	Bargad	Tree	Whole plant	Antioxidant and antimutagen
54	<i>Ficus glomerata Roxb.</i>	Moraceae	Gular	Tree	Whole plant	Anti-diabetic, hepatoprotective
55	<i>Ficus hispida</i> Linn. F.	Urticaceae	Kakodumbar	Shrub	Whole plant	Antimicrobial activity against several pathogenic bacteria
56	<i>Gamochaeta pensylvanica</i> wild.	Compositae	Putamaa	Herb	Shoot and leaves	Diabetes, hypertension, gastric ulcers, diarrhea, and intestinal infections.
57	<i>Gloriosa superba</i> Linn.	Diliaceae	Karihari	Herb	Tuber	Utilized for, leprosy, ulcers, gonorrhea, hemorrhoids, inflammations, stomach pains, itching and respiratory disorders.
58	<i>Gmelina arborea</i> Linn.	Leguminosae	Gamhaar	Tree	Leaves and stem	Anti-diabetic, antipyretic and analgesic activity



59	<i>Gnaphalium indicum</i> Linn.	Compositae	Putam aa	Herb	Shoot and leaves	Treatment of jaundice, ulcer, fever and antiseptic
60	<i>Helicteres isora</i> Linn.	Sterculiaceae	Morfali	Shrub	Root, stem, Bark and flower	Antidiarrhoeal, anticancer
61	<i>Hemidesmus indicus</i> R	Asclepiadaceae	Anantmul	Herb	Root and leaves	Treatments for leucoderma, gonorrhea, piles, jaundice, and dysentery are provided.
62	<i>Hibiscus rosa sinensis</i> Linn.	Malvaceae	Japa	Shrub	Root, leaves and flower	Diuretics, contraceptives, antidiarrheals, aphrodisiacs, cough suppressants
63	<i>Holarrhena antidysenterica</i>	Apocynaceae	Kurchi	Tree	Whole plant	Treatment of dysentery, indigestion, and diarrhea
64	<i>Holoptelea integrifolia</i> planch	Ulmaceae	Chirbila v	Tree	Whole Plant	Treatment of inflammation, gastritis, dyspepsia
65	<i>Jasminum multiflorum</i>	Oleaceae	Chameli	Tree	Flowers	Antimicrobial, insecticidal, antioxidant, antifertility and dermatological effects
66	<i>Lagerstroemia speciosa</i>	Lythraceae	Jarul	Tree	Whole plant	Antimicrobial, antioxidant, anticancer, antidiabetic, hypolipidemic
67	<i>Lannea coromandelica</i>	Anacardiaceae	Doka	Tree	Bark	Antioxidant and analgesic
68	<i>Lawsonia inermis</i> Linn.	Lythraceae	Madyan tika	Shrub	Leaves, bark and seed	Addressing bleeding disorders, skin diseases, acting as a diuretic, and possessing antibacterial, antifungal, and anti-amoebiasis properties.
69	<i>Leptadenia retiulata</i> W&A	Asclepiadaceae	Jiwanti	Shrub	Leaves and flower s	Revitalizing, Rejuvenating, and Lactogenic Properties
70	<i>Leucas aspera</i> , Spreng.	Lamiaceae	Tupi aa	Herb	Shoot and leaves	Used for bone fractures
71	<i>Leucas cephalotes</i> Spreng.	Lamiaceae	Tupi aa	Herb	Shoot and leaves	To treat cough, asthma and respiratory difficulties
72	<i>Madhuca indica</i> J.F. Gmel	Sapotaceae	Madhuk	Tree	Leaves	Anti-pyretic, anti fertility, analgesic, antioxidant
73	<i>Mallotus philippensis</i> Muell	Euphorbiaceae	Kamila	Tree	Bark	Anti-inflammatory and immune regulatory



74	<i>Mangifera indica</i> Linn.	Anacardiaceae	Aam	Tree	Fruit	Anti-hemorrhagic, anti-tetanus, analgesic and antipyretic
75	<i>Marsilea minuta</i> Linn.	Marsiliaceae	Chatomaa	Herb	Shoot and leaves	To treat spastic condition of leg and muscle, epilepsy, and migraine
76	<i>Medicago lupulina</i>	Fabaceae	Bida aas	Herb	Shoot and leaves	Antidote to poisoning
77	<i>Melia azedarch</i>	Meliaceae	Bakain	Tree	Seeds	Antioxidative, analgesic, anti-inflammatory
78	<i>Melilotus indicum</i> Linn.	Rutaceae	Banmet hi	Herb	Leaves and seed	Aphrodisiac, antihemorroida
79	<i>Mentha viridis</i> Linn	Labiatae	Pudina	Herb	Whole plant	Hiccup, vomiting, flatulence and cholera are addressed, along with fever and bronchitis. The plant is also used for toothache, pain of neuralgia, and herpes.
80	<i>Merremia macrocalyx</i> (Ruiz & Pavon) O'Donell	Convolvulaceae	Oye Rams/Oye manda	Climber	Leaves	Antidote to poisoning
81	<i>Nerium indicum</i> Mill	Apocynaceae	Kaner Laal	Shrub	Flower	Used for antibacterial, cardiotonic and analgesic properties
82	<i>Oroxylum indicum</i>	Bignoniaceae	Sonapat ta	Tree	Whole plant	Antimicrobial, antidiabetic, hepatoprotective, anti-inflammatory, anticarcinogenic, and immunomodulatory properties are attributed to it.
83	<i>Phaseolus trilobus</i>	Papilionaceae	Banmung	Herb	Leaves	It is used to address fever, burning feeling, thirst, piles, diarrhea, coughing up gout, and biliousness.
84	<i>Phoenix sylvestris</i> Roxb.	Palmae	Khajuri	Tree	Fruit	Treatment for sore throat, colds, bronchitis
85	<i>Polygonum plebeium</i> R.Br.	Polygonaceae	Muin aa	Herb	Shoot and leaves	Treatment for pneumonia and bowel issues.
86	<i>Pongamia glabra</i>	Leguminosae	Karanj	Tree	Seed	Antioxidant, antimicrobial, anti-inflammatory
87	<i>Portulaca quadrifida</i> Linn.	Portulacaceae	Dali aa	Herb	Shoot and leaves	Employed in scurvy as well as conditions affecting the kidney, bladder, spleen, and liver.
88	<i>Rauwolfia serpentina</i> benth	Apocynaceae	Sarpgan dha	Herb	Whole Plant	Addresses Acts as a sedative for insomnia and insanity and treats hypertension, sleeplessness, mental



						health problems, gastrointestinal diseases, epilepsy, traumas, anxiety, and schizophrenia.
89	<i>Rhinacanthus nasuta kurz</i>	Acanthaceae	Uthiparni	Shrub	Leaves	Used to address ringworm, itching, and various skin diseases.
90	<i>Saecharum spontaneum Linn.</i>	Graminae	Kaans	Grass	Whole Plant	Employed in the treatment of vesical calculi, burning feelings, stranguria, haemorrhagic diathesis, biliousness, menorrhagia, dyspepsia, hemorrhoids, dysentery, and phthisis.
91	<i>Salmalia malabarica schobt & endi</i>	Bombacaceae	Semal	Tree	Flower and fruit	Treatment of gastric ulcers
92	<i>Semecarpus anacardium Linn.</i>	Anacardiacea	Velwa	Tree	Seed and leaves	Anti-inflammatory, antiarthritic, antioxidant activity
93	<i>Shorea robusta gaertn</i>	Dipterocarpea	Saal	Tree	Leaves and seed	Treatment of ulcer, inflammation and wounds, gastro protective
94	<i>Sida cardifolia Linn.</i>	Malvaceae	Bala	Shrub	Stem	Anti-inflammatory for preventing cell proliferation
95	<i>Sida varonicifolia Linn.</i>	Malvaceae	Rajbala	Shrub	Stem	Addressing stomatitis, asthma, blennorhea, asthmatic bronchitis, and nasal congestion.
96	<i>Teramnus labialis spreng</i>	Cucurbitaceae	Vanurad	Herb	Seed	Utilized in the treatment of emphysema, gastric ulcers, diabetes mellitus, cirrhosis, aging, and cancer. Additionally, it is employed for addressing rheumatism, tuberculosis, nerve disorders, paralysis, and catarrhs.
97	<i>Terminalia arjuna Roxb</i>	Combretaceae	Arjan	Tree	Bark	Antioxidant, anti-inflammatory, antithrombotic
98	<i>Terminalia bellirica Roxb</i>	Combretaceae	Bahera	Tree	Fruit	Antibacterial activities
99	<i>Terminalia chebula retz</i>	Combretaceae	Harre	Tree	Seed	Antifungal activity, antiviral activity
10	<i>Terminalia tomentosa. Bedd</i>	Combretaceae	Aasan	Tree	Bark	Anti-hyperglycaemic, Anti-diarrheal, Antileucorrhea



IV. Conclusion

Jharkhand is known for its varied geography, featuring lush greenery, dense forests, and picturesque plateaus. The region possesses a diverse array of ethnomedicinal plants, and the historical wisdom surrounding medicinal plants has played a vital role in Jharkhand's healthcare practices. Traditional medicine, rooted in ancient healing practices and indigenous knowledge, has had a crucial role in healthcare systems across cultures for centuries. The study identified a variety of medicinal plants obtained through wild harvesting and cultivation, including trees, shrubs, herbs, grasses, creepers, and climbers. Over 100 plant species were identified derived from across 45 families to treat various diseases. The research also focused on providing information about the preparation, administration, and plant components involved in traditional healing practices.

References

1. Mehta, V. K., Sullivan, P. J., Walter, M. T., Krishnaswamy, J., & DeGloria, S. D. (2008). Impacts of disturbance on soil properties in a dry tropical forest in Southern India. *Ecohydrology*, 1(2), 161–175. <https://doi.org/10.1002/eco.15>
2. Singh, A. K., & Pandey, S. K. (2019). An Analytical Study of Ethnomedicinal and Sacred Plants of Jharkhand. *International Journal of Current Microbiology and Applied Sciences*, 8(02), 1837–1841. <https://doi.org/10.20546/ijcmas.2019.802.215>
3. Sabar community is one of the ancient tribes of Jharkhand , primarily resides in the Fast and West Singhbhum Districts . They are classified as a Particularly Vulnerable Tribal Group (PVTG) due to their socioeconomic backwardness and distinct cultural practices.The Sabar population is relatively small,with scattered settlements in remote forested regions and hilly terrains relying on natural resources for sustenance.Their belief system is deeply rooted in animism,worshiping nature and ancestral spirits.