



## Tribal medicines of India

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**Abstract:** Tribals are the oldest ethnological groups which live far away from the civilized world. They prefer to live in forested areas, follow primitive customs and occupations, profess primitive religions, have common language and social culture, are economically dependent on each other. The use of tribal medicines is documented here.

**Key words:** Tribals, Medicinal plants, Rajasthan

### Introduction

About 500 tribal communities are representing 7.76 per cent of the total population of the country. It is spread over 19 per cent of the total area of the nation. Rajasthan has 8 percent of the tribal population of India which is common in Udaipur, Banwara, Bhilwara, Kota Jhalawar and other hilly areas of the state. These tribal people use large amount of plants for the medicinal purposes, such studies fall under "the study of the relationship which exists between people of primitive societies and their plant environment".

### RAJASTHAN

The state of Rajasthan has total land area of the state is about 3,24,239 km<sup>2</sup>, out of which about 1,98,100 km<sup>2</sup> is arid and the rest semi arid. Rajasthan is situated between 23°3' and 30°12' N latitude and 69°30' and 78°17' E longitude. Out of the total area, forests cover only about 37,638 km<sup>2</sup> and are rich in biodiversity. A major portion of western Rajasthan has desert soils and sandy plains. The average annual rainfall in the state is 525-675 mm, and the annual precipitation in different tracts of Rajasthan varies from 13 mm to 1766 mm.

**Vegetation on hilly tracts:** Majority of hills in Jaipur are almost barren. However Hills in the Amber region have *Anoegissus pendula*, *Boswellia serrata* and *Sterculia urens* along with *Butea monosperma*, *Sterculia urens*, *Commiphora wightii*, *Anogeissus pendula*, *Boswellia serrata*, *Lannea coromandelica*, *Rhus mysorensis*, *Adina cordifolia*, *Diospyros melanoxylon*, *Wrightia tinctoria*, *Cassia fistula*, *Aegle marmelos*.

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*Cordia gharaf* and *Ficus racemosa*. Some of the Shurbs of common occurrence are: *Grewia damine*, *Melhania hamiltoniana*, *Plumbago zeylanica* and *Lantana indica*.

**Plants for human health and welfare:** Plant have been associated with the health of mankind from times immemorial. These practices have gradually developed into a system of medicine like-Ayurveda. The methods and practices of healthful living and herbs for relief of ailments enunciated in Ayurveda are in vogue in Indian households even today.

**The tribals:** Tribals are the oldest ethnological groups which live far away from the civilized world. They prefer to live in forested areas, follow primitive customs and occupations, profess primitive religions, have common language and social culture, are economically dependent on each other.

The total tribal population of Rajasthan state is 5, 474, 881 which is 12.44% of the total population of this state. The tribals of Rajasthan constitute 8.07% of the total population of tribals in India. On the basis of distribution of various tribes the state can be divided into four different zones.

- I. **First Zone:** In this zone the districts of southern areas are included. These districts are Banswara, Dungarpur, Udaipur and Chittorgarh where 'Bhils' and 'Damors' are residing.
- II. **Second Zone:** It includes Sirohi and Pali districts where 'Garasia' is the dominating

tribe.

- III. **Third Zone:** It has Jaipur, Sikar and Alwar districts where 'Meena' tribes reside dominantly.
- IV. **Fourth Zone:** In this zone Tonk, Bundi, Jhalawar and Kota districts are included where 'Bhil' and 'Meena' form the dominating tribal population.

The Meena population (3,68,025) is found majority in Jaipur district and other tribal population e.g. 'Bhil', 'Kalbelia', 'Gadia Lohar', 'Banjara', 'Kanjar', 'Sansi' and 'Bauria' is found in minority.

**Wild medicinal plants in Indian Folk Life-A Historical Perspective:** Plants of over 3500 wild species are used to cure ailments in man and his domesticated animals:

### 1. Plants in folk medicine of the Himalaya

The Himalayan ranges are inhabited by a large tribal population, often with their distinct way of life, traditions, dialects and cultural heritage. The Himalaya have bestowed them with vast, varied and even endemic plants. Some folkore medicines of the region have proved efficacious after detailed pharmacological and clinical trials. *Rauvolfia serpentina* roots are a classical example. *Coptis teeta* is another plant which has given encouraging results. The oil of seed kernel of *Hydnocarpus kurzii*, from upper Assam and Tripura hills, has proved useful in the treatment of leprosy and skin diseases. The roots of *Nardostachys grandiflore* have provided a safe sedative.

### CENTRAL INDIA

Use of plants in folk medicine is prevalent in Central India<sup>1-5</sup>. More than one hundred plants were reported to be commonly used in medicine in the district of Bastar. Some plants are used singly, whereas others are used in mixture. Similarly, certain plants were considered useful in only one disease whereas several had multiple uses.

Many medicinal uses reported by tribals of Bastar appeared to be unknown or little-known outside their community. Examples of a few such plants are given below:

### MADHYA PRADESH (Ambikapur District)

Ethno-Medico-botanical surveys of tribal area of Ambikapur distt. M.P. was conducted and folk-lore information on forty medicinal plants was recorded with the help of Corwa, Oraon and Pando tribes. The Tribals are living in Asad, Dindo, Kusmi, Mainpat, Janakpur, Sonhat and Rampur forests of Ambikapur district. Some noteworthy plant species which are used in the treatment of various diseases are *Boerhavia diffusa* (Elephantiasis), *Hemidesmus indicus* (Stomach ulcer), *Indigofera cassioides* (Antifertility agent), *Leea macrophylla* (Chest pain). *Ricinus comunis* (Antifertility agent).

Some of the important plants of this region are given below:

- Achyranthes aspera* L.** (Amaranthaceae) 'CHIRCHITA'  
About 50g root crushed with 10g Sonth (*Zingiber officinale* Rosc.) and Bach (*Acorus calamus* L.) half teaspoonful powder with two teaspoonful honey is prescribed for 3-4 days for leucorrhoea.
- Asparagus racemosus* Willd.** (Liliaceae) "SATAWARI"  
Root paste is applied locally on joint pain.
- Boerhavia diffusa* L.** (Nyctaginaceae) "PUNARNAVA"  
About half teaspoonful root juice taken for seven days for paralysis.
- Calotropis procera* (Ait.) R.Br.** (Asclepiadaceae) "AAK".  
Latex of the plant with mustard oil is boiled and applied locally for bodyache.
- Hemidesmus indicus* (L.) R.Br.** (Asclepiadaceae) "Anantmul"  
Fresh roots crushed with 8-10 black pepper (*Piper nigrum* L.) About 2g powder given orally on empty stomach for 7 days for stomach ulcer.
- Madhuca longifolia* (Koen.) Macb.** (Sapotaceae) "MAHUA"  
About half teaspoonful powdered root of tender plant taken for abdominal pain.
- Ziziphus mauritiana* Lam.** (Rhamnaceae) "BER"  
About 10 g root, 25g Kali musli (*Curculigo orchoides* Gaertn.) and 5g sonth (*Zingiber officinale* Rosc.) powdered with butter oil and made into pills; two pills given twice a day for asthma.

**BIHAR (Hazaribagh district)**

The main tribes of Hazaribagh district are: Santhal, Munda, Bedia, Karmali, Oraon, Mahali, Birhor and Khond. The district has a hilly terrain, thick forest occupy nearly 46 percent of the total area.

Hazaribagh district in Bihar was selected for ethnobotanical studies as it is within the tribal belt of India. Out of the total population of over three million, the scheduled castes and scheduled tribes are over 10 percent.

Some of the plants used by these tribals are given below:

**Acacia catechu**

Get-langhan (Santhal)

Locality. Lavalong (Chatra)

Root made into a paste and applied on the joints for seven days for rheumatism.

**Cassia tora**

Chakar (Oraon); Chakunda (Khond)

Locality. Singhani (Hazaribagh town)

Root made into a paste and along with the powder prepared from the horn of a cow, given orally once daily in high fever and to a patient who is unable to speak and hear.

**Hibiscus rosa – sinensis**

Urhul (Santhal)

Locality. Chatra

Flower bud made into a paste which is prescribed in impotency, once daily on an empty stomach for seven days.

**Terminalia alata**

Karaka (Khond); Aswan (Hindi)

Locality Singhani (Hazaribagh Town)

Two to three leaves from a fresh twig made into a paste and given three times a day for one day in vomiting and loose motions.

**Xeromphis spinosa**

Dudri (Munda); Nisawala (Birhor)

Locality. Dhajadhari Pahar (Koderma)

Stem bark made into a paste and mixed with goat's milk and country liquor. This is prescribed in rheumatism once daily on an empty stomach for 15 days.

**ASSAM (The Miris of Assam Plains)**

The Miris are a tribe living in the Brahmaputra Valley of Assam. The plants used for medicine are:

a) *Ageratum conyzoides* (Namin-ing):-

Leaves and fruits used to prevent bleeding.

b) *Calotropis gigantea* (Akon): The milky juice used as purgative; leaves after crushing are applied on the burn injury or swelling; the bark of the root given for dysentery.

c) *Ocimum sanctum* (Tulsi): Leaves used for cold and cough.

d) *Piper longum* (Piplu): Root used in improving digestion.

e) *Polygonum strigosum* (Bihalangani): Leaves used for skin diseases.

**Plants used by Karbis of Assam**

The Karbis are a tribe inhabiting the mountainous regions of Assam. More than 350 plants are related with the folklore and folk life of the Karbis.

The knowledge of medicinal uses of plants is well-developed among the Karbis. More than two hundred fifty plants are used by them for medicinal purposes. But the knowledge is confined chiefly to the medicinemen. However, a good number of these plants are also used in the Karbi household when the local medicineman is not available.

These plants grow mostly near the villages and do not necessitate and complicated technique in applying them.

A number of plants employed in common ailments are listed in Table 3.

**ORISSA****Aristolochia indica**

Panairi (Oriya)

Locality Bhubneshwar

Root (3 g) made into paste and given twice daily for treatment of diarrhoea.

**Borreria articularis**

Solaganthi (Oriya)

Locality. Udaigiri

Juice of leaves mixed with little salt poured in eyes in conjunctivitis and other eye diseases.

**Croton roxburghii**

Dev Chandan (Oriya)

Locality. Udaigiri

Decoction of the bark (10g), rhizome of Ramkedar (*Zingiber montanum*), black pepper and Nimba chhatu given in cholera and diarrhoea.

***Leucas aspera***

Gayas (Oriya)

Locality. Adava

The leaf paste fried and applied on the forehead to relieve pain.

***Shorea robusta***

Salua (Oriya)

Locality. Ganjam

Small quantity (5g) of powdered *jhuna* (resin) taken with hot milk to relieve chest pain and stomachache.

**BIHAR (The Asurs of Netarhat Plateau)**

The Asurs live and enjoy the life amidst nature in the pat areas of Netarhat plateau within Chotanagpur division of south Bihar, collecting tubers, roots, fruits, flowers, leaves, honey and gums from the forest and using them in a variety of ways.

The native uses of medicinal plants by the Asurs are listed here:

- i. Satawar: In fever due to heat, the root of Satawar and the root of Putri are ground with water and the decoction is orally administered.
- ii. Asan: The bark is brunt and mixed with Til oil, and is used for curing itch.
- iii. Siris: The bark, leaves and fruit are boiled together, and the infusion is given in cases of anaemia.
- iv. Asog: The leaves are boiled and the infusions taken medicinally for curing jaundice.
- v. Rakatphar: The root in ground fine and applied as a thick plaster to reduce the swelling of dropsy.
- vi. Sinduar: The leaves of Sinduar are applied on the body for curing dropsy.

**"HO" Tribe**

The use of 32 plants (in 25 folk – role claims) employed for curing 17 diseases (and one as tonic) among the "Ho" tribe of Bihar is reported.

These folk-lore claims with their related data are presented in a tabular form. The following abbreviations are used LF: Leaf; PL: Whole plant; RH: Rhizome; RT: Root; SB: Stem bark.

**ANDAMAN AND NICOBAR ISLANDS**

- i. Body Pains: *Adenia penangiana*
- ii. Cough: *Premna serratifolia*
- iii. Cuts and wounds: *Morinda citrifolia*
- iv. Fever: *Desmodium unbellatum*

v. Headache: *Hernandia peltata*vi. Gynaecological disorders: *Donax connaeformis*vii. Miscellaneous medicinal use: *Thespesia populnea*viii. Stomach pains: *Aegle marmelos***MEGHALAYA (Garos of Meghalaya)**

Although nowadays patent allopathic medicines are sold in their weekly markets by quack-doctors, the Garos look for many wild plants for their medicinal use. Some of the important plants used for medicine are:

- i. *Cassia fistula* (Soneru): Pulp of the fruit used as purgative.
- ii. *Ficus fistulosa* (Tabi): Used for headache.
- iii. *Rubus rugosus* (Thekhi-sambok): Fruit juice used for curing fistula.
- iv. *Stauranthera umbrosa* (Sukum saplax): Plant juice used for curing boils.
- v. *Stephania japonica* (Kharkha): Juice of roots administered to heart patients.

**Khasi and Jaintia Tribes**

In this region, there are 100 species of plants in 81 genera and 46 families, having medicinal virtues and which are commonly used, especially, by the rural tribals of Khasi and Jaintia hills.

Meghalaya has three major tribes, viz., the Khasis, Jaintias and Garos.

In the list that follows, the botanical name of the medicinal plant is given first, followed, wherever possible, by vernacular names, the locality (loc) of collection and uses.

***Ageratum conyzoides***

Loc. Sohkh

During typhoid fever and high body temperature, a paste made from leaves, ginger and mustard seed is placed on skull, over the position of the brain, to bring down the temperature of the patient.

Whole plant is pounded, boiled and the solution is used in massaging body swelling, tumours, etc.;

***Azadirachta indica***

Neem – Loc. Byrnihat

Diarrhoea and dysentery, leaver along with barks of *Aegle marmelos*, *Shorea robusta* and leaves of *Phlogacanthus thyriflorus* are

mixed together with a few more plants, boiled, stored in a bottle and taken when attacked with the disease.

### ***Commelina paludosa***

Patugia-Loc. Kudeng

Whole plant ground with ginger and tabacco leaves applied on insect stings.

### ***Holmskioldia sanguinea***

Loc. Lailad

Juice of roots taken to relieve fever.

### ***Sonerila maculata***

Loc. Lailad

Roots boiled and taken for stomach ailments.

## **RAJASTHAN (Hadoti Plateau)**

Ethnobotanical studies in Rajasthan were conducted<sup>6-24</sup>. The following medicinal plants are distributed in various districts of Rajasthan:

1. ***Chlorophytum tuberosum***: This plant mainly found in Udaipur, Chittaurgarh, Banswara, Dungarpur, Baran district of Rajasthan.
2. ***Asparagus racemosus***: Cosmopolitan.
3. ***Calotropis procera***: This plant mainly found in Kota, Baran and Udaipur district of Rajasthan.

Plants during present investigation following data was recorded:

***Acacia nilotica* (L.) Willd.** (Mimosaceae)  
Babool or Barodi kikar.

It is a moderate – sized tree, pinnae 4-9 pairs, stipular thorns long, heads yellow, pods stalked. Loc. Jhirniya

Flowering and Fruiting: October – February.

Medicinal Use: Comparatively younger and softer twigs of the tree are used for massage of gums and cleansing of teeth.

Paste of stem bark is applied locally for abdominal pain.

***Azadirachta indica* (A.Juss.) (Meliaceae).**

Neem or Neemda. A large evergreen tree. Leaves compound, leaflets, sub-opposite. Flowers white in panicles, drupes oval oblong, yellow when ripe. Loc. Khasa radi, Jhalawar. Flowering and Fruiting: March-August  
Medicinal Use: The tree has got widespread medicinal value in the locality; fresh leaves are chewed, as blood purifier. Paste of leaves is utilised for the treatment of skin diseases.

***Butea monosperma* (Lamk.) Taub.** (Fabaceae) Ver. Khankera Palas. A medium sized deciduous tree, leaflets three rhomboid, flowers orange red showy, pods flat. Loc. Jhirniya.

Medicinal Use: The seeds are crushed into powder. This powder is mixed with lemon juice and applied thrice a day on ringworm for seven days and is said to be efficacious.

***Calotropis procera* (Ait.) R. Br.** (Asclepiadaceae) Ver. Ankda.

A large erect lactiferous shrub. Leaves ovate obovate, flowers purple white, follicles recurved. Loc. Talai. Flowering and Fruiting: Most part of the year.

Medicinal Use: Two drops of latex from fresh leaves of the plant are applied on the nails of both the toes. This practice is repeated for three days, twice a day. Absolutely effective in treatment of conjunctivitis (eye flu)  
Asclepiadaceae has great religion value.

***Ocimum canum* L.** (Lamiaceae) Ver. Bantulsi  
An erect branching herb, leaves ovate-lanceolate. Flowers pinkish white, nutlets black pitted.

Loc. – Lotiajhir

Flowering and Fruiting: August-February

Medicinal Use: This plant is very useful for the tribals of the area, mostly used for the treatment of diversified ailments but specifically the hot poultice of leaves and inflorescence is applied on the right side of the abdomen to cure appendix pain. The poultice is applied twice for three days.

## **Conclusion**

Use of medicine by tribal people has great potential for discovery of new and undiscovered medicines for cure of human diseases and human welfare.

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