



## Ethno-Medicinal Plants Used By Tribals Of Tamar Block Of Ranchi District, Jharkhand, India To Cure Diseases

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### Abstract:

*Ethnobotany is the study of the traditional knowledge possessed by indigenous communities regarding the utilization of local flora for various purposes, such as medicine, food, fodder, shelter and oils. This knowledge has been passed down through generations to generations as part of their cultural heritage, emphasizing the crucial role of plants in human welfare since prehistoric times. Ethno medicinal plants generally known as “Jari-butis” are widely used by local people as well as tribal people for the treatment of different diseases. Tribal have their inherited and old tradition and systems of treatment of diseases and ailments. They still rely on their tested system of natural treatment to cure their diseases by local medicinal plant species rather than modern procedure of treatment. The local people as well as tribal people always survive on locally available medicinal plants to treat different diseases and save their lives. All inhabitants of this area rely on these ethno medicinal plant species for treating various health conditions, including colds, coughs, skin diseases, diabetes and digestive disorders etc. This paper deals with some ethno medicinal plants used therapeutically by tribal to cure various ailments of various diseases. A study is given in this paper here on traditional mode of preparation, dosages and the mode of drug administration and the part of plant used in the treatment of various diseases. This research documented 21 ethno medicinal plant species with sixteen families. All ethno medicinal plants are very useful for the treatment of different diseases.*

**Keywords:** -Ethno medicinal plants, various diseases, Tamar Block, Jari-butis, Administration, etc.

### Introduction:

Traditional medical knowledge is experiencing increased attention worldwide in light of global health care demand and the significant role of traditional medicine in meeting the public health needs of developing countries. Traditional medicines already comprise a multi-billion-dollar, international industry and biomedical sector is increasingly investigating the potential of genetic resources and traditional knowledge. The tribal people are very simple and nature loving people. They live in the lap of the nature and believe in traditions and old faith. They have very old traditions of treatment of their diseases and ailments. They knew the

art rather science of treatment of diseases from their ancestors and folk lore. Their system of treatment is so authentic and tested that they rarely go to hospitals or health centers for the treatment of their diseases. They treat and cure most of their diseases like Malaria, Filariasis, Cough and cold Arthritis, Stomach disorders, etc. Due to the poor socio-economic condition, illiteracy, drinking habits and absence of basic civic facilities in tribal villages, Munda and other tribal people are very much vulnerable to the Jaundice disease. Jaundice is regarded as water borne disease and is caused by Virus due to consumption of contaminated water and food. It mainly

affects the liver and spleen and if not treated properly it may cause death of the victim. Its diagnosis is very difficult, but Santhals, Munda, Oraons, Birhor and other tribal Kavirajes easily diagnose this disease and treat the patient effectively. They diagnose the disease by testing the color of the eye ball, urine and stool. This disease takes too much time to cure but local Kavirajes are so efficient that they cure this disease well within ten days. This paper deals with some ethno medicinal plants used therapeutically by tribals of Tamar Block of Ranchi district of Jharkhand, to cure different diseases. A study is given in this paper on traditional mode of preparation, dosages and the mode of drug administration and the part of plant used in the treatment of jaundice.

#### **Materials and Methods:**

Tamar Block of Ranchi District is located between 23° 3' 21'' N and 85° 39' 44'' E covering an area of 513.91 Km<sup>2</sup>. Out of this area about 148.91 Km<sup>2</sup> (29%) covering forest region. Tamar Block has eighty-one revenue villages, such as Achudih, Agra, Amlesha, Babaikundi, Barlanga, Baredih, Barukande, Baburamdih, Buradih, Barneya, Birdih, Birgaon, Burusigu, Darida, Daruhara, Dimbudih, Domra, Dubla, Geredih, Gumandih, Gutibaru, Haradih, Haramlohar, Haradih, Janumpiri, Jhargaoon, Jojodih, Karamdih, Lankeya, Lohri, Madhudih, Manjhidihi, Murpa, Nawadih, Parasi, Poradih, Rangamati, Rargaon, Roladih, Rolabera, Rugri, Salgadih, Tamar, Timpur, Ulilohar etc. The Munda tribe is very popular in about twenty-five villages. Many of them still depend on medicinal plants for the treatment of different ailments. But with the modern civilization, their traditional knowledge on medicinal plants is going to be extinct. No more work has been done in this region. Now a day many villages have no connection with road. Hence many people of the different villages of Tamar

Block have been totally depends upon medicinal plants for treatment of diseases. There are many Baidhyas and knowledgeable person who were very prominent and successful for treatment of different diseases. Comparatively very less attention has been given by the ethno botanists for exploring the ethno-medicinal resources of the Tamar Block of Ranchi District. This survey was done to explore more about the diversity of valuable ethno medicinal plants of this Block.

The field survey was carried out during 2022 to October, 2024 covering all seasons to collect information on the plants having different diseases used by the Munda tribe inhabited villages of Achudih, Agra, Babaikundi, Baredih, Barlanga, Birdih, Chirudih, Dimbudih, Deori, Dulmi, Edeldih, Jaradih, Kasmburudih, Lohri, Murpa, Salgadih, Poradih, Timpur, and Ulidih. All forest regions contain numerous ethno medicinal plants. In this block the Munda Tribe is about 43 percent, according to 2011 population census. Climate of this block is subtropical in nature. The annual rainfall is ranges between 230 to 1390 mm and temperature ranges between 6-43°C with the highest in the of May and June. Plants have been collected in their flowering and fruiting stages as far as possible from natural habitat. The observations have been made through different knowledgeable person regarding the location, natural habitat, distribution pattern, nature of root, bulbs, or rhizomes etc. Methodologies as suggested by Schulte (1960 and 1962), Jain (1964, 1967, 1987, and 1989) and Ford (1978) have been followed using collection of information on ethno medicinal and ethno botanical aspects. The information about the antipyretic plants have been gathered from the village old men, medicine men, even local men, women, Baidhyas, and cultivators using structured questionnaires. Data on each plant have recorded on their family, vernacular

name, occurrence and process of utilization by the Munda tribe and other tribal people of Tamar Block for the treatment of different diseases.

Specimens were sprayed 10% formaldehyde, Desert plants, bulbous plants and rhizomatous plants were kept in lukewarm water till the plants turned yellow and pressed properly. All medicinal plants which were collected from different villages had been making herbarium in herbarium sheet. The collected plants were identified consulting a no. of Floras especially Flora of British India (Hooker, 1872- 1897), Hans Flora (I—VI volumes), Kirtikar and Basu, and many other floras.

Present report is based on survey of Tribals of Tamar Block of Ranchi district, Jharkhand. Knowledgeable person, Baidhyas, Kavirajes were given the

information about the medicinal plants and their mode of administration. The local/vernacular name of ethno medicinal plants used by above tribes, their localities, plant parts used, traditional mode of preparation of drug, mode of drug administration and dosages were noted from known ledged tribal people. Plant specimens collected were identified & deposited in the University Department of Botany, Kolhan University, Chaibasa, Jharkhand.

### Results:

The information collected from tribal people and plants collected from their villages were analyzed. Enumeration and plant parts used, traditional mode of preparation of drug, mode of drug administration and dosages are as follows-

### ENUMERATION

Sr. No	Botanical Name	Family	Local Name	Plant part used	Mode of administration and dosages
1.	<i>Acacia nilotica</i> L.	Mimosaceae	(Babul)	Flower Leaves	Jaundice- mix equal quantities of its flower powder & sugar candy. Give 10 gm of its powder; twice a day to the patient, it cures jaundice. In <b>diarrhoea</b> - takes 10-12 leaves & grinds them with small amount of cumin seeds & buds of pomegranate. Add a piece of hot brick in it. Give 2 teaspoonful of this solution 2 to 3 times a day. It cures all types of diarrhoea. In blood dysentery-take one teaspoonful juice of leaves & give to the patient with honey, 2 to 3 times a day. It controls bleeding stools.
2.	<i>Achyranthus aspera</i> Linn.	Amaranthaceae	Chirchita	Leaves Seeds	Toothache- Soak cotton in extract of 2-3 leaves & applies it on the aching tooth. It gives immediately relief & also aids in filling & healing even the old-time cavities. In piles- Take 3 gm powder of Apamarg seeds. Give this with the water with which rice is rinsed, every morning & evening. This helps cure bleeding from the piles. In fever- Takes 10-12 Apamarg leaves, 5-10 pieces of black pepper &

					5-10 gm garlic. Grind them all & prepare 5 tablets. Give 1 tablet, at least two hours before recurrence of fever. It cures fever due to cold.
3.	<i>Adhatoda zeylanica</i> Medic.	Acanthaceae	Adhusa	Leaves	Powder of leaves is given along with betel leaf twice a day for seven days to control asthma. Epilepsy: -Patient who takes only milk & rice as recommended food & take 2-3 gm of vasak powder with one teaspoonful honey regularly, get cured of old epilepsy disorder. In anthelmintic: -- It is poisonous for aquatic insects & animals' frog & another small animal. Hence, it is used to purify water.
4.	<i>Aegle marmelos</i> L.	Rutaceae	Bael	Leaves Fruits	Headache: -Grind its dried root in a little amount of water & apply the paste on the forehead. For deafness: - Grind its soft leaves in cow's urine & then add 4 times the quantity of sesame oil & 16 times that of goat's milk & cook them all on low heat till only oil is left. Strain the oil & store it. Put drops of this oil in the ears. It cures deafness & tinnitus, dryness & itching of the ears. In angina- gives 1 ml juice of its leaves with ghee. Stomach pain- Take 10 gm of Bael leaves & grind them with 7 black peppers. Mix 10 gm sugar candy in the solution & give this to the patient, twice a day. In burning sensation:- Soak 20 gm Bael leaves in 500 ml water for 3 hours. After every 2 hours, give 20 ml of this water to the patient. It cures burning sensation.
5.	<i>Andrographis paniculata</i> Linn.	Acanthaceae	Kalmegh Chirata	Whole plant	In eczema, apply the paste of Kalmegh leaves. Kalmegh 10 gm, <i>Fumaria indica</i> 10 gm and <i>Terminalia chebula</i> mixed together and keep it into 200 ml water overnight. After at morning, filtered the mixed water and drunk it. It cures all types skin diseases.
6.	<i>Azadirachta indica</i> A. Juss	Meliaceae	Neem	Young and tender leaves	In diabetic patients take fresh leaves with half cup of water in morning, mid- day and in night daily for 10 days. It controls diabetes. Blood disorders: - the bark of margosa root is considered to be the best medicine for blood purification. Give 5-10 gm of its decoction or cold extract every

					day to the patient. It cures all types of blood disorders.
7.	<i>Cajanus cajan</i> (L.) Huth	Fabaceae	Rahar, Arhar	Young Leaf, tender leaves, Twigs	Half cup of fresh crushed leaves and twigs juice is taken with milk in empty stomach in the morning before sunrise, mid-day and in evening. It cures jaundice. The leaf juice is taken along with half cup of raw milk is beneficial effects of jaundice patients. The leaves are also used to cure malarial fever, diabetes, stomach tumours and wounds. In some areas for research field, the kavirajes were advice to used Arhar dal for cardiovascular health and could develop as a new dietary supplement food that prevents high blood pressure.
8.	<i>Carica papaya</i> Linn	Caricaceae	Papita	Green fruits Ripe Fruits  Leaves	If the patients of piles eat 250 gms of papaya early morning, their diseases will go away. After giving birth to a child, many women produce very less milk, due to which the child does not get satisfied. He keeps crying. By making raw papaya vegetable for and feeding them twice a day, milk starts coming properly. If the constipation patients eat raw papaya on an empty stomach in the morning, constipation goes away. Constipation also goes out away by eating 250 gms of peeled ripe papaya with 250 gms of milk.
9.	<i>Centella asiatica</i> (L.)Urban.	Apiaceae	Beng- sag Brahmi- buti	Whole part	Grind 4 gm powder in 500 ml cow's uncooked milk. Strain the milk and then give this it to the patient for a week. It cures the sleeplessness. Take 5 ml juice of Brahmi, 150 ml gm powder of <i>kooth</i> and 5 gm honey. Mix them well and give it to the patient for 3 days for anxiety control. In case of hair fall, give one teaspoonful of its whole plant powder every morning and evening for a few weeks. It also helps cure the weakness of body and hair fall.
10.	<i>Clerodendrum serratum</i> (L.) Moon	Verbenaceae	Bharangi Kharsag	Leaves Roots.	Grind its root in warm water and apply paste on the forehead to cure headache. Boil its leaves in mustard oil and apply on the eyes. It cures swelling of the eye lids. Grind its root and put one drop in the ears for ear pain. Give 2gm each of its root's juice with ginger juice. It controls the

					complications of asthma. Give 2 gm powder of its root, 4 times in a day, with honey to cures cough. .
11.	<i>Cuminum cyminum</i> Linn.	Apiaceae	Jeera	Seeds	Use the decoction of black cumin seeds to gargle. It cures toothache. Grind cumin seeds with India gooseberry and cotton leaves in fresh cold water. Tie the paste on head for 21 days. It cures night blindness. Take 5 gm of cumin seed powder and 10 gm sugar candy powder. Mix the two and give to the patient with rice water, every morning and evening for leucorrhoea.
12.	<i>Dalbergia sissoo</i> Roxb. ex DC.	Fabaceae	Shisham	Fresh young leaves	Mix juice of its leaves with honey and put drops of it in the eyes. It cures the painful eyes. Prepare its tablets with fragrant, bitter and hot Ayurvedic preparations and give this to the patient. It cures cholera. Give 10 ml juice of its leaves, thrice a day. It cures gonorrhea. For metrorrhagia patients, give 10 ml juice of its leaves, every morning and evening. Prepare squash of 5 gm powder and give this to the patient. It cures blood impurities and blood disorders.
13.	<i>Eclipta alba</i> L.	Asteraceae	Bhringraj	Leaves	Stomatitis- Chew 5 gm leaves & then split the saliva. Chew leaves several times a day. It cures all oral problems. In cough- in case of spleen enlargement, loss of appetite, liver disorder, cough, cold & fever give 6ml juice of <i>Eclipta alba</i> with 30 ml milk, every morning & evening. In blood pressure—Give 2 teaspoonful juices of its leaves with 2 teaspoonful honeys, twice a day. Within a day, it normalizes the blood pressure.
14.	<i>Ficus bengalensis</i> L.	Moraceae	Bargad		Tooth problems—Take 10 gm tree bark, 5 gm catechu & 2 gm black pepper. Grind them all to form a fine powder, use this powder to brush the teeth. Apply banyan leaf's milk on aching teeth. It gives relief. In diarrhoea—take 6 gm buds & boil in 100 ml water. Strain the solution & mix sugar candy in it. Give this to the patient, followed by butter milk. It immediately cures diarrhoea. In diabetes—take 20 gm crushed powder of bark & aerial roots & cook them in 500 ml water. Boil the water till it is reduced to 65 ml. Cool the



					'solution, strain it & give to the patient. Give it regularly every morning & evening for 1 month. It is beneficial in curing diabetes.
15.	<i>Gloriosa superba</i> L.	Liliaceae	Kalihari	Tuber Leaves Roots	The tuber is prescribed in abortifacient. The tuber is also given as a tonic, but large dose poisons. Juice of tuber is introduced in the ear to cure earache. In jaundice- powder of dry leaves is mixed with butter milk & give internally in jaundice. In leucorrhoea- grinds the tubers & make powdered. After filtration of powder, mixed with water & taken to the patient, it cures leucorrhoea completely. For easy delivery-grinds the roots of Kalahari & taken into vagina, it helps to easy delivery of child. In fever- root powder is prescribed to cure fever & rheumatism.
16.	<i>Holarrhena antidysenterica</i> L.	Apocynaceae	Kurchi		Diarrhoea—Give 10 ml juice of bark of its stem with one teaspoonful honey, thrice a day. Boil 40 gm of its seeds in water. Give this water with honey mixed in it to the patient, thrice a day. It also controls diarrhoea. In blood in dysentery--- Grind its 15-gm fresh bark in buttermilk & give this to the patient. It immediately controls blood dysentery. For bleeding piles-grind its 10-gm bark & give this to the patient with two teaspoonful honeys mixed in it. It cures bleeding piles. In dermatoses—grind its 10-gm bark in water & give this to the patient thrice a day.
17.	<i>Ocimum sanctum</i> L.	Lamiaceae	Tulsi	Leaf Seed	Headache- give 2 gm powder of its shaded dried leaves powder with honey. In night blindness- put 5 gm powder of tulsi juice in eyes, several times a day. It cures night blindness. For vomiting- give Tulsi juice with juice of green cardamom & give ginger, it is beneficial in curing vomiting. In case of cough, give 5 gm juice of its leaves mixed with powder of black pepper. It controls the intensity of cough. In impotency- take powder of its seeds & add equal amount of jiggery in it. Give 3 gm of this mixture with cow's milk regularly. It cures the disorder in 1

					month to 6 weeks.
18.	<i>Solanum surattense</i> Burm. f.	Solanaceae	Kantakar i Bhatkatti ya	Roots	For forehead pain, apply the juice of its fruits on the forehead. Grind its 20 leaves and apply the paste on the eyes. It cures the eye pain. Take equal amount of its root and poppy seeds. Grind them in child's urine and put 2 drops in the nose, 3 times a day. It cures epilepsy. Give 500 mg powder of its flowers with honey. It cures all types of coughs in children. If the swelling of throat, give 10 gm juice of its fruits.
19.	<i>Tinospora cordifolia</i> (Willd.) Hook. f. &Thoms	Menispermaceae	Guruchi, Giloy, Guruch	Roots	In case of vomiting due to travelling in sun or due to pitta, give 10 ml juice of Giloy juice with 5 gm sugar mixed in it to the patient every morning and evening. Grind Giloy in water and warm the water. Put 2 drops twice daily in ears. It cleanses the ears. Give 20 ml of its decoction with 2 teaspoonful honeys mixed in it, 3 times in a day will be administered to the patient. It cures jaundice. Mix 50 ml bitter oil in 15 gm Giloy juice and give this to the patient every morning on empty stomach. It cures elephantiasis.
20.	<i>Tamarindus indica</i> L.	Caesalpiniaceae	Imli	Leaves Seeds Bark	Diarrhoea- Boil 15 gm tamarind leaves in 400 ml water till water is reduced to 100 ml. Give this decoction to the patient. It cures diarrhoea. In bleeding piles- give 20 gm juice of its flower thrice a day. In dysentery- give 15 gm of its leaves juice after dipping a red-hot iron rod 4 times a day. Continue this treatment for a few days. For stomach pain- Take its bark & rock salt in an earthen pot & burn them. Give 125 mg of the white ash to the patient. It is very beneficial in curing stomach pain. In potency- soak 10 gm of tamarind seeds in water for 4 days & then peel it off. Mix 2 parts of jaggery in it and prepare small gram sized tablets, give 1-2 tablet at night before going to bed. It improves potency.
21.	<i>Vitex negundo</i> L.	Verbenaceae	Sindwar Nirgundi	Leaf Roots	In case of irregular or incomplete menstrual cycle, give 2 gm powder of its seeds every morning and evening. It normalizes the menstrual cycle. Give 2 gm powder of its fruits,



					thrice a day for 3 days. It cures disorders of nasal passages and mind. Grind its paste and take its <i>nasya</i> . It cures multinodular tuberculosis. Boil its 10 gm leaves in 100 ml water and give this to the patient every morning and evening. It cures fever, chronic rhinitis and arthritis
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### Discussion;

Tribal people of Tamar Block of Ranchi District of Jharkhand are forest dwellers. They depend on forest to meet their requirements and needs. They rarely go to hospitals or health Centre for their treatment. They have strong belief in Ethno medicinal plants in curing their diseases. The investigation revealed that 21 genera of 16 (Sixteen) families are commonly used by tribal people in the treatment of different diseases. They treat and cure other diseases also by mixed together of more than two or three or more plant species by above enumerated 21ethno medicinal plants. During the treatment they strictly avoid to take fried or roasted material in their food and oily running foods also. In jaundice patients, when they found that urine and stool are clear and eye-ball color is returned to normal color, then they stop the treatment after two days, in this way they save the life of many people. So, it can say that the tribal people have tremendous indigenous knowledge about medicinal plants. Today it is necessity that the conservation of these medicinal plant species and documentation of this indigenous/traditional knowledge about medicinal plants for those research areas.

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