

ETHNO-MEDICINAL PLANTS AND THEIR USES IN TREATMENT OF VARIOUS DISEASES BY RURAL TRIBES OF SARGUJA REGION

1 Abstract

The kingdom of Chhattisgarh in India is one of the exceptional representatives of the Deccan peninsular biogeographic location that gets deciduous forests wealthy in biodiversity. India is one of the 12 Mega Biodiversity Centers within side the international with wealthy flowers with 47000 plants, a huge form of species and medicinal plants, a culture of plant-primarily based totally understanding disbursed throughout a huge range of ethnic organizations have lived with inside the forests of Chhattisgarh considering the fact that ancient instances Important tribes of the kingdom are: Gond, Korwa, Oraon, Munda, Baiga, Nagesia, Agariya etc. The way of life of the tribal human beings relies upon at the land. Agriculture, hunting, fishing, series of wooded area products, bamboo paintings or any form of labour is their livelihood and those tribal and non-tribal organizations meet their everyday wishes from the encompassing wooded area resources. About forty four tribal groups stay within side the kingdom of Chhattisgarh. About forty four% of the geographical place of Chhattisgarh State is below numerous varieties of forests with wealthy plant diversity, lots of those species are of ethno-botanical importance. In order to preserve and keep the herbal populace of those ethno-botanical species in addition to to satisfy their requirements, the Chhattisgarh State Minor Forest Produce Cooperative Federation has been established, which offers with numerous conservation, improvement and livelihood problems on the kingdom level.

33 Introuction

The take a look at vicinity is positioned with inside the Surguja district with inside the northern a part of the Indian kingdom of Chhattisgarh. It is positioned among 23°37'25" to 24° 6'17" north range and 81°3.4'40" to 84°4'40" east longitude. 244.sixty two km (152.00 m) lengthy east to west and 67.37 km (41.86 m) extensive north to south, the land has a place of approximately 5,732 km². (2,213 sq mi).

The general wooded area and tree cowl is 24.sixty two% of the full vicinity of the country. The general wooded area cowl is 7,75,228 sq km that is 21.71% of the geographical vicinity of the country. The tree cowl is 2.91% of the geographical vicinity of the country. In Surguja, rainfall varies among 100-two hundred cm. The common annual temperature is 260 ° C-270 ° C and humidity 60-80% ensuing in monsoon deciduous forests. The tree of such forests shed their leaves throughout spring and early summer time season whilst the garage of water is extra acute. Reduction of sub-soil water tables now no longer sufficient to permit the timber to maintain their leaves all of the 12 months around.

Geographical Area (Area in sq.Km.)	Forest Area (Area in sq. K.m)			
	Total Forest	Reserved Forest	Protecte d Forest	Uncategoriz edForest
3,287,469	7,75,288	4,42,276	2,12,259	1,20,753

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57 Recorded Forest Areas (RFA) in India as per ISFR-
58 2021.

59 Plants have been used for medicinal purposes almost
60 as long as humans have been alive. People in the
61 study area use medicinal recipes in their daily lives.
62 In a region where the majority of the population is a
63 migrant, not a tribe, the use of herbal remedies is
64 common. Traditional medicine practitioners
65 (Vaidyas, Ojhas, Gunias or Sirhas) suggest that the
66 following medicinal plants are used by the local
67 people in the study area: *Asparges racemos*,
68 *Terminalia chebula*, *Equine marmellus*, *Acacia*
69 *catechu*, *Diospyros melanoxylan forum*, *Ocembo.*,
70 *Dioscorea bulbifera* and *Calotropis gigantea*. *Ficus*
71 *religiosa* and *Butea monosperma*. It is mainly used
72 to treat common problems like malaria (fever),
73 cough, skin diseases, toothache, wounds, ulcers, heart
74 diseases. U.I.T. Good for infections, skin diseases,
75 epileptic seizures, liver complaints, tonic for

76 bronchitis, impotence, diuretic, antidiarrheal,
77 stomach ailments, digestive problems, dysentery,
78 bow, bow, oral gum disease, eye disease, as
79 medicine, the cancer roots and seeds for tonic Tung-
80 tree (*Vernicia fordii*) Although it is considered
81 poisonous, there are some places. It is used to treat
82 diabetes, including fruits and seeds, ulcers, swelling,
83 scorpion stings. Laxative, urinary tract disorders,
84 inflammation, astringent, flatulence, hemorrhoids,
85 eye irritation, oral dewormed, etc.

86 Chatterjee (2014) studied the medicinal
87 plants used among the tribes of Surguja region (C.G.)
88 and found that the Surguja people developed
89 extensive knowledge about plants. Some plants are
90 said to be used for specific purposes (such as joint
91 pain, kidney stones, worms, allergies, malaria,
92 impotence, etc.). The plants used for the successful
93 treatment of respiratory diseases by the Uraon people
94 of Surguja district of Chhattisgarh are similar to
95 those studied by such workers (Aniwal et al. (2006);
96 Chandel et al. (1996); Focho et al. (2009). This study
97 showed that using local plants and shrubs as
98 medicine not only cures the diseases of the travelers
99 but is very valuable for the migrant population.

100 Review of Literature

101 The people of Surguja have found. The social
102 services they have been fulfilling since ancient times
103 through their traditional activities. This irreplaceable
104 knowledge must be recorded quickly. Traditions may
105 disappear with the rise of modernity. The use of
106 certain herbs for certain reasons (such as joint pain,
107 kidney, worms, allergies, malaria, weakness, etc.) is
108 limited to only certain people, and most of the time
109 they are reluctant to share their knowledge with
110 outsiders.

111 R. et al. (2022) identified 93 useful
112 medicinal plants belonging to 55 genera and 85
113 genera of which Euphorbiaceae and Asteraceae
114 families were widely used in the region. This study
115 supported the hypothesis of random selection of
116 medicinal plants. Among the plant parts, the leaves
117 are the most used. An ethno-medicinal study of
118 medicinal plants used by the Mizo tribes of
119 Champhai District, Mizoram, India.

120 Khajuria et al. (2021) included a total of 236
121 species belonging to 80 families and 188 genera for
122 the treatment of 82 diseases. Asteraceae (23 species),
123 Rosaceae (16 species) and Lamiaceae (13 species)
124 were the most common families. Medicinal plants
125 (57.2%) were the most consumed live form, while
126 leaves (24.5%) were the main part of the plant.

127 Chatterjee (2014) studied the medicinal
128 plants used among the tribes of Surguja region (C.G.)
129 and found that the Surguja people developed
130 extensive knowledge about plants. Some plants are
131 said to be used for specific purposes (such as joint
132 pain, kidney stones, worms, allergies, malaria,
133 impotence, etc.). The plants used for the successful
134 treatment of respiratory diseases by the Uraon people
135 of Surguja district of Chhattisgarh are similar to those
136 studied by workers such as Chandel et al (1996).
137 Focho et al. (2009.) The study showed that using
138 local plants and shrubs as medicine, the immigrants
139 not only cure diseases, but it is very expensive for the
140 resident population.

141 Sanigrahi (2013) researched the traditional
142 knowledge of medicinal plants and stated that
143 indigenous traditional knowledge is a collection of
144 non-written and verbal knowledge that is passed
145 down from generation to generation, It is done by the
146 people of the iwi, from the forest, fern. . The red clay
147 background of Purulia district in W.B. Traditional
148 knowledge is based on eco-friendly health methods
149 with few side effects and low costs.

150 Benoham et al (2006) reviewed medicinal
151 plants with potential antidiabetic activity and
152 identified 176 species belonging to 84 families,
153 demonstrating the importance of medicinal plants in
154 the treatment of diabetes. The families are
155 Leguminosae (11 species), Lamiaceae (7 species),
156 Liliaceae (8 species), Cucurbitaceae (7 species),
157 Asteraceae (6 species), Moraceae (6 species),
158 Rosaceae (6 species), Euphorbiaceae (5 species). and
159 Araliaceae (5 species), the most studied species are:
160 *Citrullus colocynthis*, *Opuntia streptacantha* L.
161 (Cactaceae), *Trigonella foenum greacum* L.
162 (Leguminosae), *Momordica charantia* L.
163 (Cucurbitaceae), *Ficus bengalensis* L. *Polygala*
164 *senega* L. (Polygalaceae) and *Gymnema sylvestre*
165 R. (Asclepiadaceae).

Painkra et al (2015) reported 50 medicinal plant species belonging to 29 families, Euphorbiaceae being the largest recorded family with 4 plant species (8%). Shrubs show the most presence (34 percent), followed by trees (32 percent), medicinal plants (20 percent) and climbers (14 percent) in the assessment of the knowledge of medicinal plants and their use in the nomadic region of Jashpur (Chhattisgarh) provided by them.

Ahirwar (2015) studied the Boridand forest of Korea district, Chhattisgarh, India and reported 41 plant species belonging to 26 families and 37 genera, of which 10 are herbaceous plants, 8 are small trees, 19 trees and 4 riders in the field. Plant species such as *Abrus precatorius*, *Achyranthes aspera*, *Adhatoda vesica*, *Aegle marmelos*, *Andrographis paniculata*, *Argemone mexicana*, *Dalbergia sisso*, *Butea monosperma* and others dominated the area.

Research and methodology

The study area is Bhagwanpur, Pahad Garment, Pandonagar, Latori, Namnakala, Udaypur, in Sarguja district.

- Data Collection - The field of study is important for ethnographic studies which show the status of various ethnic communities Gond, Baiga, Oraun, Panika, Kurva, Rajwar, Pandu etc. The questions were designed to identify basic plant knowledge. The treatment of the local people, the specimens of the recorded plants, shrubs and trees were identified using the local flora and historical documents, and many studies were conducted and expatriates and local doctors.
- Research Method – This is the main method of collecting data from the local community and Ayurveda Hospital in Ambikapur Government District. Survey research is a commonly used method of collecting information's about local tribal peoples of interest. The main aim of the survey was to gather information about the different wild and native ethno-medicinal plant species which are used by the local tribal people for treatment of diseases. Survey for identification and distribution of ethno-medicinal plant species in Sarguja.

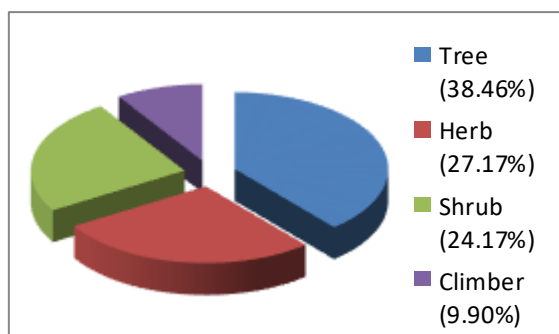
- Tribal Community - Survival of ethnobotanical knowledge was evident in the abundant economic important data gathered in this study, from published and unpublished sources from historic and contemporary times, and from interviews with living elders belong to The district spread over a vast mountainous area inhabited by many different people groups such as the Gond, Bhumij, Oraon, Panika, Korwa, Bhuiya, Kharwar, Munda, Chero, Rajwar, Nagesia, and Santal
- Target Groups - To gather specially target of groups in my research works like; field survey, local tribal people, different families of medicinal plant and ethno-medicinal importance. The Ethno-medicinal data were gathered from the tribal medicine men, Baigas i.e Vaidyas, who practices ethno-medicine among their communities since time immemorial. In my field research, plants from different families of medicinal plants were collected which are a source of medicinal herbs for local people for treating flu, jaundice, cold and cough, fever, headaches, asthma, wounds, skin diseases, etc.

Result and discussion

The results of the study are presented (Table 2) where the plants are classified according to their culture. 91 species of plants belonging to 42 genera have been recorded in Sargoja for medicinal purposes. For each common name, their botanical name, family name, meaning, medicinal properties and medicinal uses. The actual use value for the plant species found in the plant species used by the rural people or traditional health practitioners (THP) were collected, identified and recorded (Table 1.1). The highest nutritional value for plant species was found in the Korva tribe (18.7 percent) followed by the Oraun tribe (15.4 percent). The most edible family is Fabaceae (13.19%), followed by Euphorbiaceae (7.70%), Apocynaceae (6.60%), Zingiberaceae (5.50%), Combretaceae, Moraceae (4.40% each), Acanthaceae, Anacardiaceae 3.0%.) Amaranthaceae, Asparagaceae, Asteraceae, Cruciferae, Menispermaceae, Myrtaceae, Poaceae, Rutaceae, Sapotaceae (2.19%), Annonaceae, Apiaceae, Araceae, Asclepiadaceae, Cyvolaceae, Lamioxidea, (Asphodelaceae), Lythraceae. Meliaceae, Moringaceae, Musaceae,

Oleaceae, Papaveraceae, Rhamnaceae, Rubiaceae, Sapindaceae, Verbenaceae, Vitaceae (1.10% each). The types of plants used in the preparation of traditional medicine are shown in (Figure-1). It was determined that trees (38.6%) were the most common plants, followed by shrubs (27.47%), medicinal plants (24.17%), and climbers (9.90%).

fig 1: life form of medicinal plant in study site



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Table 1 : medicinal plant species families

Sr.No.	Family Name	No of species	Percentage(%)
1.	Fabaceae	12	13.19
2.	Euphorbiaceae	07	7.70
3.	Apocynaceae	06	6.60
4.	Zingiberaceae	05	5.50
5.	Combretaceae	04	4.40
6.	Moraceae	04	4.40
7.	Acanthaceae	03	3.30
8.	Anacardiaceae	03	3.30
9.	Malvaceae	03	3.30
10.	Solanaceae	03	3.30
11.	Amaranthaceae	02	2.19
12.	Asparagaceae	02	2.19
13.	Asteraceae	02	2.19
14.	Cruciferae	02	2.19
15.	Menispermaceae	02	2.19
16.	Myrtaceae	02	2.19
17.	Poaceae	02	2.19

18.	Rutaceae	02	2.19
19.	Sapotaceae	02	2.19
20.	Annonaceae	01	1.10
21.	Apiaceae	01	1.10
22.	Araceae	01	1.10
23.	Asclepiadaceae	01	1.10
24.	Convolvulaceae	01	1.10
25.	Cucurbitaceae	01	1.10
26.	Cyperaceae	01	1.10
27.	Dipterocarpaceae	01	1.10
28.	Ebanaceae	01	1.10
29.	Hypoxidaceae	01	1.10
30.	Lamiaceae	01	1.10
31.	Liliaceae	01	1.10
32.	Lythraceae	01	1.10
33.	Meliaceae	01	1.10
34.	Moringaceae	01	1.10
35.	Musaceae	01	1.10
36.	Oleaceae	01	1.10
37.	Papaveraceae	01	1.10
38.	Rhamnaceae	01	1.10
39.	Rubiaceae	01	1.10
40.	Sapindaceae	01	1.10
41.	Verbenaceae	01	1.10
42.	Vitaceae	01	1.10
Total		91	100

Table no. 2 List of documented medicinal plant's

TREE'S				
S.n	Common name	Botanical name	Family	Uses
1	Bael	Aegle mormelos	Rutaceae	Clean stomach Relief in head pain
2	Bargad	Ficus benghalensis	Moraceae	Weakness
3	Aam	Mangifera indica	Anacardiaceae	Syphilis, wounds and ulcers
4	Mahua	Madhuca indica	Sapotaceae	Cooking and adulteration of Ghee
5	Harra	Terminalia chebula	Combretaceae	Cough
6	Bahera	Terminalia bellirica	Combretaceae	Cough and digestive.
7	Munga	Moringa oleifera	Moringaceae	Blood pressure balance
8	White fig	Ficus infectoria	Moraceae	Dysentery
9	Amrud	Psidium guajava	Myrtaceae	Eye infection, Stomach pain
10	Semal	Bombax ceiba	Malvaceae	Dysentery.

11	Karanj	Pongamia Pinnata	Fabaceae	Itching, Cough, piles, liver pain and skin irritation
12	Aonla	Embllica officinalis	Euphorbiaceae	Jaundice disease Asthma and digestion problem
13	Sapota	Manilkara zapota	Sapotaceae	anti-inflammatory
14	Chhatiyan tree	Alstonia Scholaris	Apocynaceae	Breast/chest pain
15	Rohini	Mallotus Philipinensis	Euphorbiaceae	Pain relief
16	Nimbu	Citrus limonum	Rutaceae	Antipyretic cold and stomachic
17	Tendu	Diospyros melanoxylon,	Ebanaceae	Gives relief from diarrhea
18	Neem	Azadirachta indica	Meliaceae	Gives relief from diarrhea. Treatment of Diabetes
19	Dhawa	Anogeissus lantifolia	Combretaceae	Gives relief from diarrhea.
20	Jamun	Eugenia jambolana	Myrtaceae	Treatment of Diabetes

21	Amaltash	Cassia fistula	Fabaceae	Bark for glands, Laxative, Leprosy, Skin disease
22	Arjun	Terminalia arjuna	Combretaceae	For snake bite, Cardiovascular disease, congestive
23	Babool	Acacia nilotica	Fabaceae	Toothache, antiseptic for wounds, Dysentery
24	Char	Buchanania lanzan	Ancardiaceae	Tonic, Astringent, Coiling, Depurative constipating
25	Gamhar	Gmelina arboria	Verbenaceae	Ulcer, Asthma, stomach
26	Goolar	Ficus glomarata	Moraceae	Ulcer, asthma, stomach
27	Haldu	Adina cordifolia	Rubiaceae	Bark for Dysentery, Bruises and wounds.
28	Kusum	Schleichera oleosa	Sapindaceae	Analgesic, Antibiotic

29	Palas	Butea monosperma	Fabaceae	Urinary disorder, worms, diabetes, inflammation, Astringent cosmetics, Piles
30	Pipal	Ficus religiosa	Moraceae	Diarrhea, Piles, Eye trouble, Mouth Ulcer
31	Sal	Shorea robusta	Dipterocarpaceae	Fruit for dysentery and Scorpion weakness, Diabetes, Nerve complaints
32	Shisham	Dalbergia sissoo	Fabaceae	Skin disease, Dysentery, Gonorrhea, Itching
33	Siris	Albizia lebbek	Fabaceae	Antitode, Asthma, Piles, Diarrhea
34	Sitafal	Annona squamosa	Annonaceae	Constipation, Vomiting, Cough, Purgative

35	Tund	Vernicia fordii	Euphorbiaceae	The tund tree is poisonous in all of its parts, including the fruit and the seeds
HERB'S				
Sr. No.	Common name	Botanical Name	Family	Uses
1	Ashwagandha	Withania somnifera	Solanaceae	fat control and enhance force
2	Ghrit kumari	Aloe vera	Liliaceae	Skin protection
3	Baraira	Sida acuta	Malvaceae	Ring worm
4	Beng sag, Brahmi buti	Centella asiatica	Apiaceae	Increase hungriness
5	Aakand (aok)	Calotropis gigantea	Apocynaceae	Fevers, rheumatism, indigestion
6	Safed musli	Chlorophytum borivilianum	Asparagaceae	Sexual enforcement
7	Mirch	Capsicum annum	Solanaceae	Teeth pain, Hyper-lipidemia
8	Mustard	Brassica campestris	Cruciferae	Antimicrobial, skin diseases and cold
9	Bhanwar malli (Parijat)	Nyctanthes Arbor-tristis	Oleaceae	Fever

10	Lajwanti	Mimosa pudica	Fabaceae	Stomach problem
11	Satyanashi	Argemone maxicana	Papaveraceae	Leprosy and skin-diseases
12	Castor	Ricinus communis	Euphorbiaceae	Jaundice
13	Tulsi patta	Ocimum sanctum	Lamiaceae	Fever and cough
14	Tikhur	Curcuma angustifolia	Zingiberaceae	Stomach problem
15	Lal bhaji	Amaranthus cruentus	Amaranthaceae	Women fertility and mouth ulcer
16	Jharberi	Ziziphus nummularia	Rhamnaceae	Gives relief from diarrhea
17	Bans	Dendrocalamus strictus	Poaceae	Antifertility agent, Astringent
1	Gurhal	Hibiscus rosa sinenses	Malvaceae	Alopecia
19	Kaner	Nerium indicum	Apocynaceae	Swelling, Skin disease, ulcer, Bronchitis
20	Karonda	Cassia carandus	Apocynaceae	It sometimes used in treatment of anemia anti scorbic

21	Mehandi	Lawsonia inermis	Lythraceae	Skin disease, Hair tonic, Burning
22	Ratanjot	Jatropha carcus	Euphorbiaceae	Ulcer, Tuemor, Constipation
HERB'S				
Sr. No.	Common name	Botanical Name	Family	Use
1	Bhui-neem	Andrographis paniculata	Acanthaceae	Malaria fever and purification of blood
2	Banana	Musa paradisiaca	Musaceae	Leprosy, fevers and hemorrhages Diarrhea
3	Raksha Karun kurunji	Strobilanthes heyneanus	Acanthaceae	Stomach pain of animal
4	Dub ghas	Cynodon dactylon	Poaceae	Increase hunger
5	Chirchita	Amaranthus aspera	Amaranthaceae	Pain killer, Liver problem
6	Motha	Cyperus rotundus	Cyperaceae	Ulcer

7	Vanhaldi	Curcuma aromatica	Zingiberaceae	Gives relief from diarrhea.
8	Haldi	Curcuma longa	Zingiberaceae	Body strain, Ulcer and skin treatment, Pain killer
9	Muli	Raphanus sativus	Cruciferae	Jaundice
10	Dhatura	Datura stramonium,	Solanaceae	Anti-dandruff.
11	Bhuiaonla	Phyllanthus niruri,	Euphorbiaceae	Gives relief from diarrhea
12	Akarkara	Anacyclus pyrethrum	Asteraceae	Tonic for nervous system, Digestion relieves toothache and aphrodisiac
13	Anantmool	Hemidesmus indicus	Apocynaceae	Blood purifier, bronchitis, skin disease, Purgative, Antiviral, Boil Ringworm.
14	Bach	Acorus calamus	Araceae	Stomachic, Purgative, Anthelmintic, Fever, Gastric,

				Urinary Problem
15	Charota	Cassia tora	Fabaceae	Dermatosis, Cough and respiratory disease, Skin disease
16	Flemengia	Flemengia vestita	Fabaceae	Treatment of soft bodied intestinal worms
17	Giloy	Tinospora cordifolia	Menispermaceae	Immunomodulator, antioxidant, Piles, Prevent Respiratory illness,
18	Hazardana	Phyllanthus niruri	Euphorbiaceae	Jaundice, Gonorrhea, Swelling, Itching, Skin ulcer, Frequent menstruation
19	Kachnar	Bauhinia variegata	Fabaceae	Piles, Cough and asthma, Diarrhea and thyroid
20	Kalimusli	Curculigo orchoides	Hypoxidaceae	Jaundice, skin ailments, anticancerous

				s potential.
21	Kalmegh	Andrographis paniculata	Acanthaceae	Blood purifier, jaundice, fever, diabetes
22	Keukand	Costus speciosus	Zingiberaceae	Burning, Skin disease, bronchitis, fever, stimulant
23	Lajwanti	Mimosa pudica	Fabaceae	Allergy, Ulcer, Bleeding, Asthma
24	Sarpagandha	Roulfia serpentina	Apocynaceae	Blood pressure. Malaria, Ulcer, Snake Bite, Joint pain, Nerve complaints
25	Sankhpushpi	Convolvulus prostratus	Convolvulaceae	Brain tonic, Antihypertensive, antidiarrheal, bronchitis,
CLIMBER'S				
Sr. No.	Common name	Botanical Name	Family	Uses
1	Shatavari	Asparagus recemosus	Asparagaceae	Enforcement of power

2	Chinhaur / Murva	Marsdenia tenacissima	Asclepiadaceae	Gives relief from diarrhea
3	Kapur Kachri	Hedychium spicatum	Zingiberaceae	Sexual enforcement
4	Hadjod	Cissus quadrangular	Vitaceae	Bone fracture
5	Samdudri	Elephantopus scaber	Asteraceae	Bone fracture
6	Padhi	Cissampelos Pareira	Menispermaceae	Anti-poisonous, Fever
7	Sattarkowa	Morus alba	Moraceae	Stomach pain
8	Kheera	Cucumis sativus	Cucurbitaceae	Cure to kidney stone
9	Gumchi	Abrus precatorius	Fabaceae	Gives relief from diarrhea

Conclusion - Total 91 plant species belonging to 42 families' plants species are used by the rural tribes or traditional healthcare practitioners (THP) were collected, identified and documented. A total 30 people were interviewed. More than 90% of the respondents were male. Data on botanical name, vernacular name, family, common name, habit, habitat are documented for their healing properties in Sarguja. Vernacular names are

names that are called locally, Common names of plants were given mostly in Hindi and some were in English, etc.

The most important medicinal plant species are Fabaceae, Euphorbiaceae, Apocynaceae, Zingiberaceae, Combretaceae, Moraceae, Acanthaceae, Anacardiaceae, Malvaceae, Solanaceae, Amaranthaceae, Asparagaceae, Asteraceae, Cruciferae, Menispermaceae, Myrtaceae, Poaceae, Rutaceae, Sapotaceae, Annonaceae, Apiaceae, Araceae, Asclepiadaceae, Convolvulaceae, Cucurbitaceae, Cyperaceae, Dipterocarpaceae, Ebanaceae, Hypoxidaceae, Lamiaceae, Liliaceae (Asphodelaceae), Lythraceae, Meliaceae, Moringaceae, Musaceae, Oleaceae, Papaveraceae, Rhamnaceae, Rubiaceae, Sapindaceae, Verbenaceae, Vitaceae. Analysis of medicinal plant types used as medicinal plant indicated that about 35 are trees, 25 are herbs, 22 shrubs and 9 climbers.

Traditional Practice and preparations of ethno-medicine by traditional healers

Traditional ethno-medicine prepared by traditional healers. in the form of Decoction, Extract, Fresh Juice, Paste, Pills (Tablets), Powder, Fumigation, Infusion Ointment (Unguent) etc.

- **Jaundice** : mix the juice of lemon, mango root, Bija bark and give it to drink for 10 days
- **Bone fracture** : hadjod paste is applied in the fractured area and its juice is given in the evening for 5 or 7 days.
- **Dysentery** : mixing the peel of mango in 50 gm. of lime is and given to drink

- **Joint pain** : Making the juice of mothagrasse root for relief joint pain.
- **Vomiting** : 1 lemon + ½ half tea spoon salt.
- **Shingles** : mixing Tutiya + lemon juice or sulfur stone +oil is applied in the shingle area.
- **Kideny stone** : Use the juice of papaya root 15 day continuously.
- **Diabetic** : Use regularly juice of neem bark in small amount.

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