



## Research Article

Volume-01|Issue-01|2021

## Ethnobotanical Study on Terrestrial Plants Used By Tea Tribes Specially Santhal and Munda Tribe of Cachar District, Assam

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### Article History

Received: 25.06.2021

Accepted: 05.07.2021

Published: 15.07.2021

### Citation

Alom, J. (2021). Ethnobotanical Study on Terrestrial Plants Used By Tea Tribes Specially Santhal and Munda Tribe of Cachar District, Assam. *Indiana Journal of Agriculture and Life Sciences*, 1(1), 31-41.

**Abstract:** District Cachar, one of the districts in southern part of Assam, is very rich in terms of flora and fauna including medicinal plant. *Tea tribe community*, especially Santhal and Munda tribes are dominant in the tea gardens of Cachar district. In their traditional practices for medicinal purposes they have been using different parts of plants such as leaves, fruit, flower, bark, root, stem, petioles, rhizomes etc. for the formulations of herbal medicines. Traditional medicine plays a crucial role in health care and serves the health needs of majority of people. The present study revealed 92 plant species belonging to 88 genera of 56 families, reported by the local Santhal and Munda tribal healer for the treatment of different diseases.

**Keywords:** Medicinal Plant, Tea Tribe Community, Santhal, Munda, Cachar District.

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## INTRODUCTION

Since the time immemorial, human beings have been using plant species for the treatment of different types of disease. Herbal medicine is still the mainstay of about 75-80% of the world population, mainly in the developing countries for primary health care because of better cultural acceptability, better compatibility with the human body and lesser side effects. The use of traditional herbal medicine for the treatment of common ailments has great relevance today because of high cost of modern medical care, which is beyond the reach of poor, side effects of synthetic drugs and development of resistance to currently used drugs for infectious diseases. Contrary to this, plants used for medicinal purpose have been found to have little or no side effects. Primitive people have used plants to cure a variety of ailments but they kept no records and the information is mainly passed verbally from generation to generation.

The traditional ethnobotanical knowledge has been descending from generation to generation with constant updating through trial and error method. World Health Organization (WHO) has shown great interest in documenting the use of medicinal plants from tribes in different parts of the world. India in general and north eastern region in particular is the treasure island for ethnobotanical researches. Its diversity in genomic components, diversity in languages, diversity in cultural heritage have made the subcontinent a prospective field for ethnobotanical study. Scientist and research workers

are now documenting the ethnobotanical uses of plants in North-East India and some of the sporadic works towards the knowledge of medicinal plants have also been reported.

The North Eastern states of India that comprises eight states harbours more than 130 major tribal communities of the total 427 tribal communities found in India (Census, 2001). Assam comprises 12.8 % of the total tribal population of India with 14 hill tribes, 12 of these are tribes whose settlement go back to the days of undivided Assam and includes pockets of Khasi, Jantia, Garo, Naga and a clutch of Mizo and related tribes. The tribals/aboriginal people live in remote area, which remain cut off from main centres of civilization for many months at a stretch.

During the last few decades, a wide range of plants with ethnomedicinal value against some very important diseases have been reported from this region but much larger numbers of folk medicines have remained endemic to certain tribal pockets. With the passage of time, they have developed a great deal of knowledge on the used of plants and plants products in curing various ailments. They have a deep belief in their native folklore medicine for remedies and they rely exclusively on their own herbal cure. Although literature on the uses of varied medicinal plants by the different tribes has been documented from different parts of India but information on the traditional and cultural practices of the varied tribes residing in the North Cachar Hills District of Assam is scanty.

Screening of medicinal herbs used by different ethnic groups or communities has now become a potential source for isolation of bioactive compound. The present study deals with the ethno medicinal use of the plants used by the tea tribe community (Santhal, Munda and Orang tribe) of Cachar district of Assam. A need was thus felt to gather in depth information on the plant species used by the Tea tribes residing in Rosekandy and Silcoorie about their traditional knowledge and practices.

### Study Area

Cachar district is situated in the southern part of Assam. Its northern part is surrounded by North

Cachar Hills and Meghalaya, South by Mizoram, East by Manipur and West by Bangladesh (Fig. 1). The geographical area of Cachar district is 3,786 sq. km, which constitutes 4.83% of the total area of Assam. The altitude of the district is 36.5 (MSL) and it lies between latitude 90.44°E and longitude 20.04°N. Physiographically, the district consists of small hillocks, plain; *bheels* and low lying flood prone areas. The temperature is moderate ranging from 13<sup>o</sup>C-35<sup>o</sup>C. The rainy season starts from April to September, while the month of December and January exhibit very dry period in Cachar district.



**Figure 1.** Map of Cachar district of Assam

I have visited seven tea garden of Cachar ditrict named as Cossipur tea estate, Rosekandy tea estate, Silcoorie tea estate, Derby tea estate, Labac tea estate, Poloi tea estate, Iringmara tea estate for sampling study.

### About The Tribes

- **Santhal Tribe:** The third largest tribe of India is the Santhal tribe(Singh et al. 2006). This tribe lives mainly in the states of West Bengal, Bihar, Odisha, Jarkhand and Assam. Santhals speak Santhali, which belongs to the Austro-Asiatic language family. Santhals have their script called Olchiki. They are generally Bilingual. Apart from Santhali, the Santhal tribe of Cachar also speak Bengali, Oriya and Hindi.
- **Munda Ttribe:** This tribes is an Adivasi ethnic group of the Chota Nagpur plateau region, speaking Mundari language, which belongs to the Munda subgroup of the Austro-Asiatic languages (Reference?). They are found across much of Jharkhand as well as adjacent parts of Assam, Odisha, West Bengal, Chattisgarh and Bihar. They also speak Hindi, Sadari and other local dialects.

## METHODOLOGY

Collection of plant materials, recording of field data and preservation were done according to the model questionnaire design by Parabia & Reddy (2002).

- Plants were collected in their flowering and fruiting stages from their natural habitat.
- Caution was taken while collecting of the plants which have religious significance; permission had been sought from the local community before collecting such samples.
- The plants were collected from the field and attached with tags. In the tags the collection number, collection data, vernacular name, parts used etc. are recorded. The plants collected were dried thereafter. The dried plants

parts were poisoned by mercuric chloride and ethanol. The plants parts were then fixed with glue in a herbarium sheets (Jain and Rao, 1977).

- Some flowering and even whole of herbaceous plants were collected and bottle specimen made in FAA for critical morphological studies and documentation in museum or laboratory.
- Mounted herbarium specimens were used for the purpose of identification. Critical morphological studies were made for the collected plant specimens. The specimens were studied by making dissection of a number of flowers both live and preserved. The authentic identification of the plants were done with the help of the available floristic literature such as Flora of British India vol.1-7 (Hooker,1872-1897); Flora of India, vol.12-13 (Hajra, *et al.*,1995).

The collected specimens have been deposited to the herbarium of Department of Ecology and Environmental Science Assam University, Silchar.

## RESULTS

In the tea gardens of Cachar district people still depend on the traditional medicinal practices specially on medicinal plants for their primary treatment. Due to over exploitation of these resources, the number of medicinal plants has been decreasing day by day. During my study period I have recorded 84 species of medicinal plants of 81 genera belonging to 57 families, used by Santhals and Mundas (Table?).

**Table 1:** Detailed List of Plants and Their Uses Pattern

Sl. No	Scientific Name	Local Name	Family	Part Used	Purpose of uses	Name of the tribe
	<i>Andrographis paniculata</i> (Burm.f.)	Kalomeg/ Chirta	<i>Acanthaceae</i>	Stem& leaves	Leaves are used in chronic fever and for deworming. Dried stem cut into small pieces are kept in water overnight. The juice obtained is taken orally in empty stomach for deworming.	Santhal
	<i>Argemone mexicana</i> L.	Siyalkata	<i>Papaveraceae</i>	Stem & Leaves	Juice of the plant is useful in scabies.	Munda
	<i>Piper beetle</i> L.	Pan patha	<i>Piperaceae</i>	Leaves	Paste of leaves is applied externally for early bursting tumour. Leaves are chewed against mouth cancer.	Santhal/ munda
	<i>Mimosa pudica</i> L.	Lojjabothi/ Soiamora	<i>Mimosaceae</i>	Whole plant	Leaf juice is used externally on piles and piles. Leaf paste is applied on bone injuries as pain killer and tumor for early burst.	Santhal
	<i>Alstonia scholaris</i> (L.) R. Br	Chatni	<i>Apocynaceae</i>	Stem & Leaves	Leaf juice is used in headache Bark juice is used in malaria and dysentery.	Munda
	<i>Azadirachta indica</i> L.	Nim	<i>Melicaceae</i>	Leaves & Seeds	Leaves are boiled in water and used at the time of bath to prevent infection of small pox Leaf juice is useful for malarial fever. Leaf paste is applied externally on wounds caused by snake-bite and scorpion-sting	Santhal/ Munda
	<i>Clerodendrum viscosum</i> Vent.	Batigas	<i>Verbenaceae</i>	Leaf	Young leaf juice is taken to check blood sugar, to cure dysentery Leaves of <i>Clerodendrumviscosum</i> + <i>Azadirachta indica</i> are boiled in water and used for bath to prevent skin disease.	Munda
	<i>Nyctanthes arbouristis</i> L..	Shefali	<i>Oleaceae</i>	Leaf	Leaf extract is taken for fever & liver-trouble.	Santhal

<i>Cassia alata</i> . L.	Dadraksh i/Dudloti	<i>Caesalpiniaceae</i>	Leaves	Leaf paste is applied on the forehead to cure headache Paste is made by pounding 5-10 fresh leaves and <i>Allium sativum</i> L. and is applied externally to cure ringworm	Santhal
<i>Ananas comosus</i> (L.) Merr.	Anaros	<i>Bromeliaceae</i>	Leaves, roots & fruit	Juice of young leaves (1-2 teaspoonful) is taken for a period of 7-10 days for deworming Root juice 2-3 teaspoonful is taken once everyday in the morning for 7 days to get relief from urinary trouble.	Munda
<i>Cleome gynandra</i> L.	Sadahur	<i>Cleomaceae</i>	Leaves & root	Juice of young leaves. 1-2 teaspoonful is taken orally once daily for a period of 7-10 days for deworming. Root juice 2-3 teaspoonful is taken once every day in the morning hours for 7 days to get relief from urinary trouble.	Munda
<i>Datura stramonium</i> (L.)	Dutra	<i>Solanaceae</i>	Leaves & fruit	Slightly warmed leaves are used externally for muscular pain	Santhal
<i>Flacourtia jangomas</i> (Lour.) Raeus.	Luk-Luki	<i>Flacourtiaceae</i>	Fruit, leaves and bark	Leaves & bark paste is used externally in tumor for early bursting	Santhal
<i>Calatropis gigantean</i> (L.) R.Br.	Akand	<i>Asclepiadaceae</i>	Leaf and flower	Slightly heated leaves are used for the relief of muscular, rheumatic pain Latex is used against Leprosy and toothache	Santhal
<i>Dillenia indica</i> L.	Choilta	<i>Dilleniaceae</i>	Ripe & green fruits	Flower are used in Piles Green fruit juice is applied to scalp for curing dandruff Fruit is used against abdominal pain. The juice of the fruit mixed with sugar and water is used as cooling effect in fever.	Santhal
<i>Gnetum monteum</i> Mgf.	Mitar	<i>Gnetaceae</i>	Leaves	Juice of the leaf, male and female cone is taken every morning to get relief from pain.	Munda
<i>Enhydra fluctuans</i> Lour.	Hinchask	<i>Asteraceae</i>	Young stem & leaves	Juice of the plant (5-6ml) is taken every morning against constipation Boiled extract (3-4ml) of the plant is given orally in urinary troubles, dysentery, until cure.	Munda
<i>Hydrocotyles ibithorpiodes</i> Lam.	Kudmankuni/Sotalulkuri		Leaves	Purified leaf extract is applied in ear troubles	Munda
<i>Homalomena aromatic</i> Schott.	Gandhi kachu	<i>Araceae</i>	Rhizome	Rhizome juice (2spoonful) mixed with little water is taken once daily upto 4-5 days, which promotes urination	Santhal/ Munda
<i>Lagerstroemia reginae</i> Roxb.	Jarul/Jarol	<i>Lythraceae</i>	Leaves	Leaf juice (2-3ml) is taken regularly to check blood sugar in diabetes.	Munda
<i>Leucasaspera</i> (Roth) Spreng.	Donkolsh	<i>Lamiaceae</i>	Leaves	Leaf and flower juice (4-5ml) is taken orally in cold and cough. Fried leaves are taken to eradicate worm Leaf juice is used for the treatment of stomach trouble	Santhal
<i>Mesua ferrea</i> L.	Nageshor	<i>Clausiaceae</i>	Flowers	Flowers are used in piles, dysentery,	Santhal

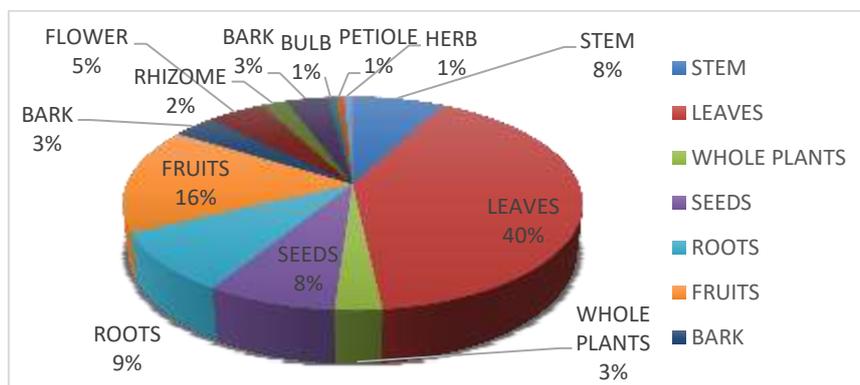
			and seeds	and leucorrhoea Seed paste is rubbing of the body to reduce rheumatic pain.	
<i>Mussaenda roxburghii</i> Hook f.	Baibhone	<i>Rubiaceae</i>	Leaves	Leaf paste is used in snake-bite.	Munda
<i>Tinospora cordifolia</i> (Wild) Hook.f.	Gulmoris	<i>Menispermaceae</i>	Stem & Leaves	Leaf juice (2-3 tea spoonful) is taken thrice in a day for a period of 5-6 days to reduce diarrhea & vomiting. Stem juice (about 10-15ml) mixed with little water, taken orally against dysentery and gastric.	Munda
<i>Oxalis corniculata</i> L.	Amrulsak	<i>Oxalidaceae</i>	Whole plant	Plant extract is given orally against stomach trouble and colic. Juice of the plant is used to stop bleeding.	Santhal
<i>Annona squamosa</i> L.	Atafo	<i>Annonaceae</i>	Bark & leaves	Leaves juice is applied externally on skin disease in empty Stomach.	Santhal
<i>Averrhoa carambola</i> L.	Kamranga	<i>Averrhoaceae</i>	Fruit	Fruit is prescribed in jaundice. Dried fruits are used in fever.	Munda
<i>Cojanuscajan</i> (L) Huth	Oro/Arhar	<i>Papilionaceae</i>	leaf	½ cup of leaf juice is given orally in the morning in empty stomach jaundice	Munda
<i>Catharanthus roseus</i> (L.) G. Don	Nayanthara	<i>Apocynaceae</i>	Leaf	Leaf juice is given orally in the morning in empty stomach in diabetes.	Munda
<i>Citrus aurantifolia</i> Swing.	Jamir	<i>Rutaceae</i>	Fruit	Fruit juice is applied on the skull or headache	Munda
<i>Clitoria ternatea</i> L.	Aparajita	<i>Fabaceae</i>	Root, stem & leaves	Juice of the root, stem & leaves (2-3 teaspoonful, once a day) are used to cure hysteria. Leaf juice is applied in the skull in high blood pressure	Munda
<i>Cuscuta reflexa</i> Roxb.	Shornolota / Shnyalath	<i>Cuscutaceae</i>	Whole plant	Boiled water of the plant is given orally in Jaundice Paste is applied locally to get relief from pain	Munda
<i>Houttuynia cordata</i> Thunb	Tangapat	<i>Sauraraceae</i>	Leaf	Juices (4-5ml) of leaves are used to cure dysentery Chatni of leave is edible in heart problem.	Santhal
<i>Mikania micrantha</i> L	Rupujiloth	<i>Asteraceae</i>	leaves	Leaf paste is used to stop bleeding. Extract of leaves (4-5ml) is taken once daily in diarrhoea The tip of the plant juice (50ml) is mixed with milk (50ml), taken orally in empty stomach against blood dysentery.	Santhal
<i>Michelia champom</i> L.	Champa	<i>Magnoliaceae</i>	Seed	2tbl spn full of seed powder dissolved in a cup of cold water & is taken orally in empty stomach.	Santhal
<i>Saraca soca</i> (Roxb) bewilled	Ashok	<i>Caesalpinaceae</i>	Bark, flower & seed	Bark juice is taken for leucorrhoea and blood dysentery Bark boiled water is used for deworming.	Munda
<i>Cinnamomum tamala</i> Nees. and Eberm.	Tejpata	<i>Lauraceae</i>	Leaves & stem bark	Boiled leaf juice is taken (10-20ml) twice to get relief from cough. Bark and leaf juice is given in gonorrhoea and diarrhoea.	Santhal
<i>Terminalia arjuna</i>	Arjun	<i>Combretaceae</i>	Bark	Bark infusion is given orally in	Santhal/

(Roxb.)				empty stomach in heart problem	Munda
<i>Wedelia chinensis</i> (Osborne) Merr.	Vringaraj	Asteraceae	Leaves, seeds & Bark	Leaf juice is applied in the skull in high blood pressure, used for cough, alopecia and cephalagin. Also leaf juices for growth of hair. Decoction of the herb is used for menorrhagia & uterine haemorrhages.	Santhal/Munda
<i>Syzygium Cumini</i> (L.) Skeels.	Kalojam	Myrtaceae	Seed & Bark	Seed powder with water is given orally in diabetes. Bark boiled water is also given to drink in diabetes	Santhal/Munda
<i>Hibiscus rosa-sinensis</i> L.	Jabaful	Malvaceae	flower	Flowers are applied to stop bleeding	Santhal/Munda
<i>Aegle marmelos</i> (L.) Corr.	Bel	Rutaceae	Leaves & green fruits	Leaf juice + Black piper to get relief from piles. Pulp of the roasted green fruit is used for stomach disorder	Munda
<i>Adhatodavasic</i> Nees	Bashok	Acanthaceae	Leaf	<i>Adhatodavasic</i> is an antispasmodic and expectorant, and has been used for centuries with much success to treat asthma, chronic bronchitis, and other respiratory conditions.	Santhal
<i>Centella asiatica</i> (L.) Urban.	Tankuni	Apiaceae	Whole plant except root	Leaf juice is taken orally to cure dysentery, constipation and acidity. Powdered leaves are used in skin diseases.	Santhal
<i>Terminalia chebula</i> Retz.	Hartaki	Combretaceae	Fruit	Fruits are chewed to get relief from piles and small pox.	Munda
<i>Gmelina arborea</i> Roxb.	Gamari / Gambhar	Verbenaceae	Roots and Leaves	Decoction of roots (4-5ml) is taken for fever & diarrhoea. Fresh leaves are put on forehead in acute headache.	Munda
<i>Ocimum sanctum</i> L.	Tulsi	Lamiaceae	Roots and Leaves	Roots of <i>Ocimum sanctum</i> L. is applied externally in Scorpion-sting. Leaf juice is used in cough, malarial fever. Leaf juice + lemon juice and applied externally in the infected area to cure skin diseases.	Munda
<i>Zingiber officinale</i>	Ada	Zingiberaceae	Rhizome, leaf	Paste of leaf is applied externally for headache. Rhizome are pounded & applied externally in rheumatic pain. Rhizome juice (2-3ml) is taken orally to get relief from dysentery. Rhizome is used in asthma	Santhal
<i>Citrus aurantifolia</i> Swing.	Kagilebu	Rutaceae	Fruit	Stomach problems, and Medicine for weakness	Santhal
<i>Anthocephalus chinensis</i> (L)	Kodom	Rubiceae	Bark	Bark juice is used in snake-bite. Bark juice is also used (2-3 (teaspoonful) to reduce vomiting	Santhal
<i>Ficus bengalensis</i> L.	Bot	Moraceae	Bark	Bark juice (4-5ml) is taken orally once daily in gonorrhoea and boils.	Munda
<i>Saccharum officinarum</i> L.	Kushiar	Poaceae	Stem	Stem juice with water is taken against jaundice	Santhal
<i>Corcharuscapsularis</i> L.	Naliya sag / NaliaPata	Tiliaceae	Leaves	decoction of dried leaves used for disorders of the liver	Santhal

<i>Curcuma domestica</i> Vaileton	Haldi	<i>Zingiberaceae</i>	Rhizomes	turmeric is commonly used as a treatment for external medical issues such as burns, insect stings and bruises, as well as internally as a remedy for gastrointestinal problems, arthritis and various inflammatory illnesses.	Munda
<i>Cucumis sativus</i> L.	Shosha / Kheera	<i>Cucubitateae</i>	Fruits	Decoction of the green fruit is used for cough. Pulp of the fruit is useful in dysenteric-diarrhoea, dropsy, piles and leprosy. Half ripe fruit is used as purgative. Kernel of the fruit is narcotic. Fruits are used in menstrual disorder. Seed oil is used in rheumatism.	Munda
<i>Coriandrum sativum</i> L.	Dhonia	<i>Apiaceae</i>	Leaves & fruits	antibacterial and antifungal activity	Munda
<i>Cucurbita maxima</i> L.	Kumra	<i>Cucubitateae</i>	Leaves & fruits	for the parasitic diseases ascariasis and schistosomiasis	Munda
<i>Emblica officinales</i> Gaertn.	Amloki	<i>Euphorbiaceae</i>	Fruits	Digestive and stomach The fruits are used in the treatment of diabetes Fruit decoction is mixed with sour milk and given by the natives in cases of dysentery.	Munda
<i>Hibiscus mutabilis</i> L.	Sthalpad ma	<i>Malvaceae</i>	Leaves and flowers	Used for persistent coughs, menorrhagia, dysuria and wounds, especially burns and scalds that are slow to heal. Leaves and flowers applied to swellings and skin infections. Infusion of flowers used for chest and pulmonary complaints; also used as stimulant.	Munda
<i>Ipomoea batatas</i> (L.)	Rangaial u	<i>Convovulaceae</i>	Whole plant except root	Antimutagenic, Anti-diabetic, Antibacterial, Anti-inflammatory and Anticancer activity	Munda
<i>Mentha arvensis</i> L.	Pudina	<i>Lamiaceae</i>	Leaves, roots	Tops, especially purplish ones, used for diabetes. Crushed leaves applied to boils and acne. Boiled roots used for diarrhea.	Munda
<i>Lagenaria sicerararia</i> (Molina) standley	Panilau	<i>Cucurbitaceae</i>	Fruit, Stem	Fruit juice with little amount of salt is edible in heart problem, weakness and as preventive of stroke.	Santhal
<i>Baccaurea ramiflora</i> Lour.	Bhubi	<i>Euphorbioceae</i>	Young fuit	Young fruit is prescribed to eat in jaundice.	Santhal
<i>Asparagus racemosus</i> Willd	Mistialu	<i>Asparagaceae</i>	Leaf and Bark	Leaf juice is used in headache Bark juice is used in malaria and dysentery.	Santhal
<i>Plumbago indica</i> L.	Raktochit a/Lalchitrak	<i>Plumbaginaceae</i>	Root &Leaves	Leaves are applied to cure leucoderma, eczema Root (1-2mm) is inserted into path of the uterus for easy delivery.	Munda
<i>Solanum anguivi</i> Lam.	Tethbaigon /	<i>Solanaceae</i>	Root & Fruit	Root juice (about 1-2 teaspoonful ) is taken once daily against colic.	Munda

		Rambegu n			Green fruit+chilly+salt is eaten for general health.	
	<i>Allium sativum</i> L.	Piaj	<i>Amaryllidaceae</i>	Bulb	Bulb is edible & used to normalise blood pressure.	Munda
	<i>Acacia farnsiami</i> .	Bokul	<i>Fabaceae</i>	Bark	1 cup of barkbailed water is given orally in empty stomach	Munda
	<i>Drynaria quercifolia</i> L.	Bonfaloi	<i>Drynariaceae</i>	Leaf	Typhoid fever , dyspepsia, cholera, cough, diarrhoea, chronic jaundice, inflammation and also used to treat skin diseases.	Santhal
	<i>Basela alba</i> L.	Puishak	<i>Basellaceae</i>	Leaves	The paste root of B. alba along with rice washed water is taken in the morning in empty stomach for one month to cure irregular periods by the rural people. Leaves of B. alba is used for the treatment of hypertension	Santhal
71	<i>Carica papaya</i> L.	Lhofol	<i>Caricaceae</i>	Unripe or ripe fruits	digestive problems, constipation, intestinal worms and skin diseases	Santhal/ munda
72	<i>Cynodon dactylon</i>	Dubra		leaf	Used against boil	Munda
73	<i>Tamarindus indicus</i> (L.)	Imli	<i>Caesalpiniaceae</i>	Fruits, leaf, seed, flower	Stomach disorders, general body pain, jaundice, yellow fever and as blood tonic and skin cleanser. , 83	Munda
74	<i>Rauwolfia serpentine</i>	Sarpagan dha	<i>Apocyanaceae</i>	Leaf, herb, stem, root		Munda
75	<i>Solanum surattense</i> Burm.		<i>Solanaceae</i>	leaf	Leaf infusion is used in severe cough and asthma	Santhal/ munda
76	<i>Plumbago zeylanica</i> L.		<i>Plumbgianaceae</i>	Root	Root powder with curd is given in boils	Santhal
77	<i>Artemisia nilagirica</i> L.		<i>Asteraceae</i>	leaf	Used leaves foe scarbies	Munda
78	<i>Colacasia erculenta</i> (L.) Schott	Kala Kachu	<i>Aranaceae</i>	petiole	General health	Munda/sa nthal
79	<i>Artocarpus heterophylus</i> Lam.	Kathal	<i>Moraceae</i>	Leaf, fruit, root, seed	Diaraha, tumor	Munda
80	<i>Phylunthus emblica</i> L.	Amla	<i>Euphorbiaceae</i>	Leaf, fruit, seed	Leaf is used for mensuration cycle, fruit is used for diabetes, seed is sold as cash crops	Munda
81	<i>Bombaxceiba</i> L.	Simul	<i>Bombacaceae</i>	seed	Seed is used to cure for liver	Munda
82	<i>Murayakoenigii</i> (L.) Sprengel	Narsigha patha	<i>Rutaceae</i>	leaf	Used for digestive purposes	Santhal
83	<i>Anisomeles indica</i> (L.) Kuntze	rujanta	<i>Lamiaceae</i>	leaf	Used for dysentery	Munda
84	<i>Camellia sinensis</i> (L.) Kuntze	cha	<i>Theaceae</i>	leaves	high blood pressure	Munda
85	<i>Chromolaenaodora ta</i> (L.) King & H.E. Robins.	Bon tulsi	<i>Asteraceae</i>	Root, leaf	Used against fresh cuts	Munda
86	<i>Melastoma melabatricum</i> L.	lotloti	<i>Melastomaceae</i>	leaf	Dysentery, diarrhoea	santhal
87	<i>Momordica chonita</i>	Tithakera la	<i>Cucurbitaceae</i>	Leaf, fruit	diabetes	Santha
88	<i>Poederia foetida</i> L.	Bedailota	<i>Rubiaceae</i>	leaf	Stomach pain, dysentery, diarrhoea	Munda
89	<i>Piper nigrum</i> L.	Gulmorich	<i>Piperaceae</i>	seeds	Used against cough	Santhal
90	<i>Tageta patrela</i>	Gendaful	<i>Asteraceae</i>	leaves	Used against fresh cuts to stop bleeding	Santhal

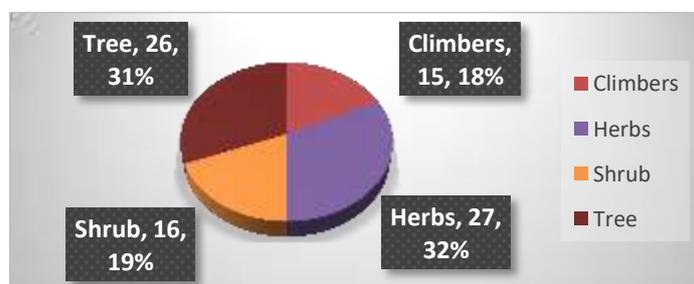
91	<i>Lablab purpures(L.) Sweet</i>	Shim, uri	<i>Papilionaceae</i>	leaf	Used against to cure ringworm	Santhal
92	<i>Punica granatum L.</i>	Dalim	<i>Puniaceae</i>	Leaf, flower, fruit	Leaf is used for small pox, flower is used for toothache, fruit is used against jaundice	Munda



**Figure 2.** Percentage of plants parts used in different diseases

Among the medicinal plants, the plant parts used varied according to various diseases. In this study, I found that use of leaves is maximum (40%), followed

by fruits (16%), roots (9%), stem (8%) and so on (Fig. 1).



**Figure 3.** No. And Percentage of types of plants used in different diseases

Most number of plants were found to be used in dysentery (16) followed by diarrhoea (12), Skin diseases (9), diabetes (7) and so on. Moreover, herbs was mostly used (27), followed by trees(26), shrubs(16), and the least one was climbers (15) (Fig. 3).

## DISCUSSION

Among the reported plants, leaves were the dominant part used as medicine. Through this limited study it is seen that the indigenous ethno medical practices dominates a distinctive position in the life of the people, can be termed as an art of skilful examination, diagnosis, ritual and expert treatment that is amicably administered as preened and are readily available within the reach of the people. It has been observed that among the tea tribe community, there is a belief that the effect of the plant is enhanced by chanting mantras and incantation. Such type of rituals does increase the faith and power of positive thinking both in the patient and the kabiraj. From this study it is clear that this tribe has sound knowledge about the medicinal values of plants available in their area.

Hence, there is an urgent need of their protection so that this ethnic knowledge and their bearers, who are straggling for their existence, can be saved.

In some cases various numbers of plants are used in one disease, whereas in some case one plant is used against in several diseases. Diarrhoea , dysentery are the some diseases which are common in tribal are so plants uses to cure this type of diseases are also more. Trees are mostly used to cure diseases because of they are easy to find and their life period id also more then the others climbers, herb, shrubs.L eaf are mostly used because they have more chemical properties and they are found in every season in comparison to flower, fruits etc. In this study it is found that though people are dependent on medicinal plants but rapid increasing of diseases lead them to allopathic medicinal treatment. One of the major cause is that the declination of the plants resources and the effect of modern urvanisation.

From this study it is clear that this tribe has sound knowledge about the medicinal values of plants

available in their area. Hence, there is an urgent need of their protection so that this ethnic knowledge and their bearers, who are straggling for their existence, can be saved. Proper measures must be initiated in terms of documenting the indigenous knowledge system of the Tea tribe. Further research and scientific experimentations of the traditional medicines must be encouraged.

## CONCLUSION

The Santhal and Munda tribe have traditional health care practices and system of treating diseases are based on their deep observation and belief in nature. Therefore Santhal and Munda people like many other tribes of North-East India rely more on the indigenous system of curing disease and on herbal medicines that are easily available around their locality for treating many common diseases. But with the development of education and their awareness towards importance of health and health care and also with the advent of modern health care facilities, Government health measures these people are becoming more interested in taking modern medicine instead of traditional herbal medicine. This study is based on the data collected from the tea garden situated in the urban fringe. So these people can easily available modern medical facilities from the nearby town and it is found that they are in favour of taking these facilities.

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