



Original Research Article

Traditional Medicinal plants used by Scheduled Tribe communities: An Ethnomedicinal study in Dima Hasao district of Assam, North East India

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Abstract: The custodian of indigenous medicine dominated by Tribal communities. The dependence of local people on plant medicine from natural forests has a long tradition in North East India. Dima Hasao district is endowed with abundant forest resources with many ethnic products, which are unique to this region. The purpose of this study was to document medicinal plant uses and associated indigenous knowledge for the management of various ailments among different schedule tribe communities living in rural areas of Dima Hasao district of Assam. The study was conducted in 11 villages of schedule tribe communities during September to November, 2024. A structured questionnaire was prepared following standard ethnobotanical methods and used for collection of information. Six different schedule tribe communities were resided in those study areas. The informants were identified by village leaders. In the present study total 196 medicinal plants were recorded through 89 informants. Leaves were used more commonly for treatment of various diseases. This study helps in preservation and documentation of these significant ethnomedicinal knowledge of tribal communities. The present communication creates awareness about ethnomedicinal knowledge of local tribal communities of Haflong, which could be a potential source for development of socio-economic condition of their society.

Keywords: Indigenous knowledge, Tribal community, Ethnomedicine, Socio-economic condition.

INTRODUCTION

Plants serve as a crucial source of medicine in rural areas, especially in tribal communities. In addition to ayurvedic and Unani medicine, plants have been the basis of traditional Chinese medicine as well (Ocvirk et al., 2013; Asiimwe et al., 2021). India is one of the

world's megadiversity countries and features an enormous plant diversity. Since ancient times, Indians have used medicinal plants and ayurvedic practices date back to 5000 B.C. (Kapoor, 1990). One of the 'biodiversity hotspots' that falls within the Himalayas and the Indo-Burma mega biodiversity

regions, the North East of India has the ample reservoir of floral diversity. The region is native to about 40% of India's endemic plant species and sustains about 50% of India's overall plant diversity. The diverse physiographic conditions of this region facilitate the growth of several medicinal plant species, which are widely used by ethnic groups north east India for their basic healthcare requirements (Ghosh and Parida, 2015; Dutta et al., 2023).

Assam the "Biological Gateway" of North east India is indeed a rich reservoir of diverse flora, fauna and traditional knowledge including medicinal plants and indigenous practices. There are 3.88 million tribal people in Assam, which accounts for 12.45% of the total population as per census 2011. Tribals are living throughout the state; but in certain districts such as Dima Hasao, Karbi Anglong, Dhemaji, Baksa, Chirang, Udalguri, Kokrajhar, Lakhimpur & Goalpara tribal predominance is significantly high (Tribal development plan, 2016). Tribal people are closely related and dependent on nature and natural products. They have extensive indigenous knowledge on medicinal plants and ancient healing practices transmitted through generations (Priyadarshini and Abhilash, 2019; Barua & Baruah, 2021).

Dima Hasao, the beautiful hill district of Assam has rich biodiversity. The hill station of this district Haflong, is often referred to as Switzerland of Assam or North East India. The district is situated in the southern part of Assam, India in between 24°58'2" N and 25°47'2" N latitudes and 92°27'2" E and 93°43'2" E longitudes. This region is habitat with a number of indigenous communities like Hmar, Biate, Dimasa, Jaintia, Zeme Naga, Khasia etc. with their peculiar tradition and custom. Total geographical area of the district is 4,888 sq. km. out of which 88.71% consist of forest cover. For centuries, the indigenous communities of this area have relied on the abundant flora to treat various ailments and maintain their overall well-being. They have enormous knowledge on their traditional food and medicinal plants (Medhi et al., 2014; Nayaka et al., 2019; Roy and Nath, 2019).

For centuries traditional herbal medicines have been utilized and are deeply rooted in the cultural and

ancient practices of many communities. The efficacy of traditional herbal medicines is often regarded as "time-tested" because these remedies have been used and refined over generations (Balkrishna et al., 2024). They are based on the collective knowledge and expertise of ethnic communities. In India, ancient texts like the Rigveda and Atharvaveda consist of precious information about the ancient medicinal practices and herbal remedies (Kumari et al., 2013; Taid et al., 2014).

However, due to increasing urbanization and industrialization, the indigenous knowledge has now been restricted to a limited age group people in tribal community areas, who largely remain delinked from urban areas (Jangir and Kumar, 2023). In order to conserve this traditional knowledge and maintain its legacy investigation and documentation of indigenous medicinal plants used by this tribal communities living in remote rural areas are needed. Therefore, the present study was undertaken to investigate and documentation of indigenous medicinal plants used by scheduled tribe communities of Dima Hasao district of Assam. This investigation also creates awareness about sustainable use of medicinal plants along with their market value and entrepreneurial opportunities through medicinal plants among the rural people of schedule tribe communities of this region.

METHODOLOGY

Study area: This study was conducted during September to November, 2024; in 11 villages named- Hounveng, Fiangpui, Bagetar, Dibrarai, Boro Haflong, Maibang (Horichandrapur), Kalachand, Retzol, Moulpong, Haflong East and Jatinga village of Dima Hasao district of Assam.

Data Collection: The village leaders identified total 89 local practitioners (informants) in those 11 villages. These informants were interviewed using structured interview schedule. The interview schedule was prepared using in accordance with standard ethnobotanical methods from Darro & Khan (2023) and Buragohain et al. (2024) in order to gather information on the different therapeutic plants that were utilized by them.

Map of the study area:



Fig.1 Map of Dima Hasao district of Assam (Source: www.mapsofindia.com)

RESULTS

In the present study total 89 informants were interviewed in 11 scheduled tribe villages of Dima Hasao district of Assam. The informants belong to Dimasa, Biate, Hmar, Zeme Naga, Khaisa, Jaintia communities. Sex ratio and literacy percentage of informant's were presented in Table 1. Out of the total informants 80.90% were male and 19.10% female. Literacy rate of the informants was good (85.39%). The highest (48.3%) percentage of informants were belonged to middle age adult group (Fig.2).

From this survey total 196 plants belong to 72 family and 157 genera were recorded (Table.2). The majority of the medicinal plants belongs to Asteraceae followed by Fabaceae and Solanaceae. Similar result was reported by Singh et al. (2000); Teklehaymanot & Giday (2007); Mesfin et al. (2009); Bhattarai et al. (2010). However, in other

research works reported Euphorbiaceae to be the dominant family with the majority number of medicinal plants (Khiangte et al. 2017; Gogoi and Nath, 2021). Table.2 contains all the medicinal plants recorded along with their vernacular name, scientific name, family, parts used, medicinal use and the communities that commonly used those plants. In this study leaves were used mostly compared to other parts of the plants for several ailments (Fig.3). Different medicinal plants were used for similar diseases and also for multiple diseases. The plant *Centella asiatica* was mostly used for several diseases compared to the other plants by all the studied communities of the district. Among the recorded medicinal plant species highest (46.4%) plants were used for the treatment of digestive diseases, followed by infectious diseases, dermatological diseases, cardiovascular disease, urological diseases, endocrinological diseases and neurological diseases (Fig. 4).

Table 1. Basic demographic features of the informants of Scheduled Tribe communities of Dima Hasao district

Features	Percentage
Sex ratio (Male: Female)	80.90: 19.00
Literacy rate	85.39

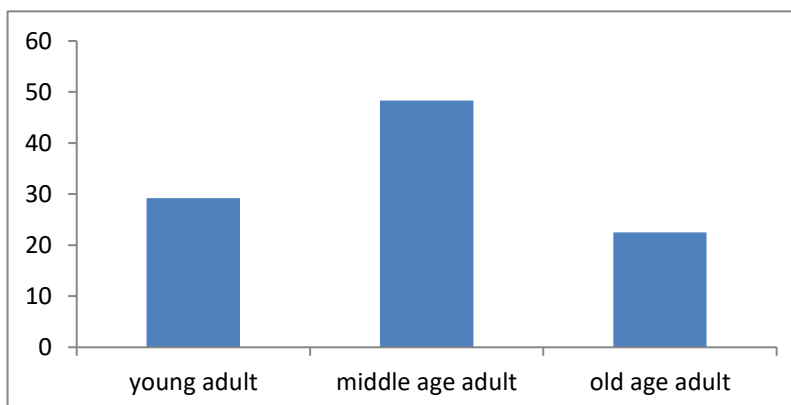


Fig.2 Number of percentage of different age group of informants

Table 2. Medicinal plants used by the Scheduled Tribe communities of Dima Hasao district, Assam

Sl no.	Vernacular name	Scientific name	Family	Part used	Medicinal use	Community
1	Bendi	<i>Abelmoschus esculentus</i>	Malvaceae	Fruit	Gastritis	Dimasa
2	Suzimikhri	<i>Acacia concinna</i>	Fabaceae	Leaf, shoot	Cold, cough	Dimasa
3	Gokul	<i>Acacia farnesiana</i>	Fabaceae	Root	Jaundice and wound	Dimasa
4	Thembra	<i>Acacia pinnata</i>	Fabaceae	Bark	Dog bite, jaundice	Jaintia
5	Merimezem	<i>Aconitum palmatum</i>	Ranunculaceae	Roots	Asthma	Dimasa , zeme naga
6	Kortoke	<i>Acyranthes aspera</i>	Amaranthaceae	Flower/seed	Cough/cold	Dimasa, zeme naga

1	Basok, Vasa	<i>Adhatoda vasica</i>	Acanthaceae	Leaf, flower	Dysentery and lung disease	Hmar, khasi
8	Aviinero	<i>Adiantum caudatum</i>	Pteridaceae	Aerial parts	Worm infestation	Dimasa , zeme naga
9	Belhei/ Bilva	<i>Aegle marmelos</i>	Rutaceae	Fruit, leaf	Dysentery and heart disease	Hmar, khasi
	Pkelepuna	<i>Ageratina adenophora</i>	Asteraceae	Leaf	Stomach ache	Biate
	Samberma	<i>Ageratum conyzoides</i>	Asteraceae	Leaf	Bleeding, cuts and wounds	Dimasa, Jaintia
	Kamatrak	<i>Albizia lebbeck</i>	Fabaceae	Bark	Fish poisoning	Hmar
	Purunsen /Sangprang-gajao	<i>Alium cepa</i>	Amaryllidaceae	Bulb	Menstrual problem, body ache, toothache	Hmar, Dimasa
	Purunvar	<i>Alium sativum</i>	Amaryllidaceae	Bulb	Gastrointestinal issue	Hmar
	Salang	<i>Allium chinense</i>	Amaryllidaceae	Bulb	High blood pressure	Dimasa kachari
	-	<i>Aloe barbadensis</i>	Asphodelaceae	Latex	Skin treatment	Jaintia
	Elongera	<i>Aloe vera</i>	Asphodelaceae	Leaf	Stomach ache, wound, pain, itching, black spot on face	Hmar
	Mandin	<i>Alseodaphne petiolaris</i>	Lauraceae	Bark	Jaundice	Dimasa kachari
	Chawngpereng/ Bongklong	<i>Alstonia scholaris</i>	Apocynaceae	Stem, bark	Boil, skin disease, snake bite, malaria, fever	Hmar, dimasa
2	Khutra	<i>Amaranthus viridis</i>	Amaranthaceae	Leaf	Stomach problem, headache	Jaintia
2	teinghiimidu	<i>Amorphallus bulbifer</i>	Araceae	Stem	Blood pressure control	Dimasa, zeme naga
2	Rengtheite	<i>Ananas comosus</i>	Bromeliaceae	Fruit	Menstrual irregularity	Dimasa kachari
2	Chirota hena	<i>Andrographis paniculata</i>	Acanthaceae	Leaf/shoot	Stomach ache, fever, tape worm, dysentery, diabetes	Hmar, Jaintia
2	Ata	<i>Annona squamosa</i>	Annonaceae	Bark	Diabetes	Dimasa
2	Pantaokurang	<i>Argemone mexicana</i>	Papaveraeae	Root, stem	Urinary tract infection, skin infection	Dimasa
2	Ciena	<i>Artemisia indica</i>	Asteraceae	Leaves	Skin infection	Dimasa, zeme naga
2	-	<i>Asclepias curassavica</i>	Apocynaceae	Leaves/stem	Eye treatment, dysentery	Dimasa, zeme naga
2	Shatavari	<i>Asparagus racemosus</i>	Asparagaceae	Tuberous root	Indigestion in children	Dimasa, khasi
2	Thaihereet/ Khabrangtai / Sohdong	<i>Averrhoa carambola</i>	oxalidaceae	Fruit / leaves	Liver disease, eye disease, jaundice, urine infection, lowering cholesterol	Hmar, Dimasa, Jaintia

1	Neem	<i>Azadirachta indica</i>	Meliaceae	Leaf	Pox, Stomach problem, skin disease	Hmar, dimasa
2	Khusmai	<i>Baccurea ramiflora</i>	Phyllanthaceae	Fruit	Jaundice	Dimasa
3	Wahshi	<i>Bambusa tulda</i>	Poaceae	Shoot	Jaundice, body pain	Dimasa
3	Kaukhluhaba	<i>Banincasa hispida</i>	Cucurbitaceae	Fruit	Dysentery	Dimasa kachari
3	Mephrai	<i>Basella alba</i>	Basellaceae	Leaf, stem	Jaundice	Dimasa, khasi, Jaintia
3	Theisamankhup	<i>Begonia grandis</i>	Begoniaceae	Whole plant	Skin disease	Hmar
3	Tichu	<i>Begonia picta</i>	Begoniaceae	Whole plant	Indigestion, insect bite	Dimasa
3	Alumithri	<i>Begonia roxburghii</i>	Begoniaceae	Rhizome	Snake bite	Dimasa kachari
3	Anramang	<i>Blumea lannceolaria</i>	Asteraceae	Leaf	Internal infection	Hmar
3	-	<i>Bombax ceiba</i>	Bombacaceae	Bark	Jaundice and malaria during pregnancy	Dimasa, zeme naga
4	Thasui	<i>Bonnaya ciliata</i>	Linderniaceae	Leaf	Wounds, joint pain	Hmar
4	Saran flower	<i>Bougainvillea</i>	Nyctaginaceae	Leaf	Worm infestation, nail infection	Hmar
4	Rengan	<i>Breynia androgyna</i>	Phyllanthaceae	Leaf	High blood pressure control	Biate
4	Hnathap	<i>Broussonetia papyrifera</i>	Moraceae	Leaf	Wounds, gastric	Hmar
4	Lahlo	<i>Brugmansia suaveolens</i>	Solanaceae	Leaves	Ulcer, bodyache	Zeme naga
4	Khimbung	<i>Brugmansia suaveolens</i>	Solanaceae	Leaf	Body ache and fatigue	Dimasa kachari
4	Waiblai / Tiewkhluid-ding/ Kangdam	<i>Bryophyllum pinnatum</i>	Crassulaceae	Leaf/ root	Burns, kidney stone, gastric, ulcer, cough	Dimasa, khasi, Hmar
4	Betlineng/ Khauklim / Bethliam	<i>Cajanus cajan</i>	Fabaceae	Leaf, fruit	Jaundice, mouth ulcer, vomiting, bronchitis, worm infestation	Hmar, Dimasa, Biate
4	Tingdon	<i>Calamus erectus</i>	Arecaceae	Immature stem	High pressure control	Biate
4	Akanha	<i>Calotropis procera</i>	Apocynaceae	Stem	Abscess	Hmar
5	-	<i>Calyptocarpus vialis</i>	Asteraceae	Leaf	Worm infestation	Biate
5	Nganja / Ganja	<i>Cannabis sativa</i>	Cannabaceae	Leaf	Energy booster, cuts and wounds	Dimasa kachari, Zeme naga
5	Morsai-berma	<i>Capsicum frutescens</i>	Solanaceae	Fruit	Leech bite to stop bleeding	Dimasa kachari
5	Seguoga	<i>Cardamine hirsuta</i>	Brassicaceae	Whole plant	Indigestion	Dimasa, zeme naga
5	Thingfenghna /	<i>Carica papaya</i>	Caricaceae	Fruit and leaf	Dog bite and	Hmar, Biate

	Poipol				jaundice, diabetes	
	Aragvadha	<i>Cassia fistula</i>	Fabaceae	Fruit pulp	Bone injuries	Khasi
		<i>Cassia siamea</i>	Fabaceae	Leaves	Skin infection	Jaintia
	Kumlluongpar/ tsuinrinaso	<i>Catharanthus roseus</i>	Apocynaceae	Leaf	Diabetes, skin disease, stomach problem	Hmar, Dimasa, zeme naga
	Durejeh	<i>Cayratia trifolia</i>	Vitaceae	Leaf, stem	Antibacterial property, sugar control	Dimasa
	Palbop/ Lensai/ Lambak/gara/ Mikaring	<i>Centella asiatica</i>	Apiaceae	Leaf, whole plant	Jaundice, gastric, stomach disorder, diabetes, burn, diarrhea Dysentery, eye infection, joint injuries	Hmar, Biate, zeme naga, Dimasa
	-	<i>Chloris barbata</i>	Poaceae	Leaves	Skin infection	Dimasa, zeme naga
	Thlobnong/ Samkhabli	<i>Chromolaena odorata</i>	Asteraceae	Leaf	Cuts, anesthesia, bleeding, constipation	Hmar, Dimasa, Biate
	Simtai	<i>Chrysopogon aciculatus</i>	Poaceae	Roots	Haematuria	Dimasa
	Tej-pata/ Tej-patra	<i>Cinnamomum tamala</i>	Lauraceae	Leaf	Diabetes, gastric	Hmar, khasi
	Yaujora	<i>Cissus quadrangularis</i>	Vitaceae	Whole plant	Bone fracture	Dimasa
	Serhnahring	<i>Citrus aurantifolia</i>	rutaceae	Fruit, leaf	Bleeding and boils	Hmar
	Reba	<i>Citrus maxima</i>	Rutaceae	Fruit	Tremor	Dimasa kachari
	Champara	<i>Clausena heptaphylla</i>	Rutaceae	Fruit	Kidney stone	Hmar
	Anphui / sgainyaopalai	<i>Clerodendrum colebrookianum</i>	Lamiaceae	Leaf, root	High blood pressure, dysentery	Hmar, Biate, Dimasa
	-	<i>Clerodendrum glandulosum</i>	Lamiaceae	Leaf	High blood pressure	Hmar, Biate
	Phuibimhna	<i>Clerodendrum viscosum</i>	Lamiaceae	Leaf	Cuts and wounds	Hmar
	Aparajita	<i>Clitoria ternatea</i>	Fabaceae	Leaf	High blood pressure	Dimasa
	Narikol	<i>Cocos nucifera</i>	areaceae	Fruit/ coconut water/dry leaf	Small pox, chicken pox	Jaintia, Dimasa, Khasi
	Sura-ai-phun/ Kebuka	<i>Costus speciosus</i>	Costaceae	Leaf	Kidney stone	Biate, Khasi
	-	<i>Croton bonplandianum</i>	Euphorbiaceae	Stem latex	Cuts and wounds	Biate
	Khaokhlumenglai	<i>Cucurbita maxima</i>	Cucurbitaceae	Leaf	Balanitis	Jaintia
	Aieng	<i>Curcuma domestica</i>	Zingiberaceae	Rhizome	Liver problem	Hmar
	Hegea/silikhdi/	<i>Curcuma longa</i>	Zingiberaceae	Rhizome	White	Dimasa,

	Haridra				discharge, wound, Cough, cold, skin disease	zeme naga, Khasi
	Swarnalata	<i>Cuscuta reflexa</i>	Convolvulaceae	Whole plant	Jaundice	Dimasa
	Jwarankusha	<i>Cymbopogon citratus</i>	Poaceae	Leaf	Cold, cough, skin disease	Khasi
	Plang wabih/Tirizi	<i>Cymbopogon nardus</i>	Poaceae	Leaves, whole plant	Headache, insect repellent	Jaintia, Dimasa
	Thlo/Durba	<i>Cynodon dactylon</i>	Poaceae	Leaf / whole plant	Cuts and wounds, antiseptic/ jaundice	Hmar, Biate
	Khimbung	<i>Datura innoxia</i>	Solanaceae	Leaf	Food allergy	Dimasa, Biate
	Invetpar	<i>Datura matal</i>	Solanaceae	Seed, leaf	Joint pain	Hmar
	Invetpar/ Kimbong	<i>Datura stromanium</i>	Solanaceae	Leaf	Asthma, rheumatism	Hmar, Dimasa
	-	<i>Desmodium triquetrum</i>	Fabaceae	Leaves	Piles	Jaintia
	Ailand	<i>Dillenia indica</i>	Dilleniaceae	Fruit	Dysentery	Hmar
	Varahikanda	<i>Dioscorea bulbifera</i>	Dioscoreaceae	Tuber	Cancer, ulcer	Khasi
	Nthairia	<i>Dolichos labab</i>	Fabaceae	Whole plant	Malaria, chest pain	Zeme naga
	Sunhlu/ Amalaki	<i>Emblica officinale</i>	Phyllanthaceae	Fruit	Digestive problem	Hmar, khasi
	Suthai	<i>Entada rheedii</i>	Fabaceae	Fruit	Wound/boil	Jaintia, Dimasa
	Dhania-bakhori	<i>Eryngium foetidum</i>	Apiaceae	Leaf	Food allergy, vomiting, stomachache	Dimasa, Biate
	Garibaheu	<i>Eupatorium chinense</i>	Asteraceae	Leaves	Fungal skin disease	Dimasa, zeme naga
	Burma	<i>Eupatorium odoratum</i>	Asteraceae	Leaf	Antiseptic	Biate, Dimasa
	Khutra	<i>Euphorbia hirta</i>	Euphorbiaceae	Leaf	Boil, wounds	Dimasa, Biate
	Sunlunoithum	<i>Euphorbia niruri</i>	Euphorbiaceae	Whole plant	Jaundice and liver problem	Hmar
	Khandaojala	<i>Ficus hispida</i>	moraceae	Bark	Carbuncles	Dimasa
	Profand	<i>Ficus religiosa</i>	Moraceae	Root	Jaundice	Dimasa
	—	<i>Garcinia xanthochymus</i>	Guttiferae	Fruit	Hair treatment, stomach problem	Dimasa , Zeme naga
	Laidisa	<i>Geodorum densiflorum</i>	Orchidaceae	Tuber	Carbuncles	Dimasa
	Mursengchi	<i>Heritiera fomes</i>	Malvaceae	Bark/flower	Gastric	Dimasa, zeme naga
	-	<i>Hibiscus sabdariffa</i>	Malvaceae	Leaf/fruit	High blood pressure	Biate
	Reibalsen /Kambuthlang	<i>Hibiscus-rosa-sinensis</i>	Malvaceae	Leaf and flower	Cuts and wounds, abscess, scurf treatment, body pain	Hmar, Jaintia
	Khimlili	<i>Hippeastrum reginae</i>	Amaryllidaceae	Corm	Stomachache	Dimasa

	Gondai	<i>Homalomena aromatica</i>	Araceae	Tender leaf	Ractal prolaps	Dimasa
	Keirim /Mosokmao	<i>Houttuynia cordata</i>	Saururaceae	Leaf, root	Stomach problem, high blood pressure, skin disease, heart disease	Hmar, Biate, Dimasa
	-	<i>Hydrocotyle rotundifolia</i>	Araliaceae	Whole plant	Stomach problem	Biate
	Tukhma	<i>Hyptis suaveolens</i>	Lamiaceae	Seed	Urinary tract infection	Dimasa
	-	<i>Ipomea curnea</i>	Convolvulaceae	Plant sap	Cuts and wounds	Biate
	Mutmaleng	<i>Jatropha curcas</i>	Euphorbiaceae	Stem	Toothache, burning pain	Hmar
	Radaokhlong gajao	<i>Jatropha gossypifolia</i>	Euphorbiaceae	Plant sap	Sore tongue	Dimasa
	Khim-atha/Hlothing	<i>Justicia gendurussa</i>	Acanthaceae	Leaf/shoot	Bleeding, burn, cuts and wounds	Dimasa, kachari
	Meikangpar	<i>Kalanchoe pinnata</i>	Crassulaceae	Leaf	Cough, diarrhea, burn	Hmar
	Buor-thu	<i>Laggera crispata</i>	Asteraceae	Leaf	Cure menstrual problem	Hmar
	Mehendi	<i>Lawsonia inermis</i>	Lythraceae	Leaf	Cuts and wounds	Hmar
	Sairam / Sam-sheebing	<i>Leucas aspera</i>	Lamiaceae	Leaf	Ear and hair treatment, eye infection	Hmar, Jaintia
	Theihai-kung-rikol	<i>Mangifera indica</i>	Anacardiaceae	Bark	Jaundice, dysentery	Biate, hmar
	Thialbalfak	<i>Maranta arundinaceae</i>	Marantaceae	Root	Lactation enhancer	Biate
	Thaijora	<i>Marsdenia jenkinsii</i>	Apocynaceae	Fruit	Fracture	Dimasa
	Khangkhrai	<i>Mecardonia procumbens</i>	Plantaginaceae	Leaf, stem	Minorrhagia	Dimasa
	Hmurkuong/ Khusim	<i>Melastroma malabathricum</i>	Melastomataceae	Leaf, young twigs	Diabetes, dysentery, worm infestation	Hmar, Dimasa
	-	<i>Melia composita</i>	Meliaceae	Leaf	Stomach and liver trouble	Biate
	Wahtzi	<i>Melocanna baccifera</i>	Poaceae	Stem/leaf	Cut and wound	Dimasa
	Pudina /loibamsia	<i>Mentha arvensis</i>	Lamiaceae	Leaf/whole plant	Stomachache, gastric	Hmar , Biate
	Champa	<i>Michelia champaka</i>	Magnoliaceae	Seeds	Jaundice	Dimasa
	Japanrang	<i>Mikania micrantha</i>	Asteraceae	Leaf	Piles, cuts and wounds, allergies	Hmar
	Hlonuor/hezeiheu/ Nuorhlu/ Samgablob	<i>Mimosa pudica</i>	Fabaceae	Roots/leaves	Kidney stone, skin disease, toothache, piles	Hmar, Dimasa, zeme naga
	Samkabli	<i>Mirabilis jalapa</i>	Nyctaginaceae	Leaf	Skin itch, swelling	Dimasa, bIATE
	Chankha/ Galha/Changkhana	<i>Momordica charantia</i>	Cucurbitaceae	Leaf	High blood pressure, rabies,	Hmar, Dimasa,

					chest pain	Biate, Zeme naga
	Daingul	<i>Moringa ollifera</i>	Moringaceae	Bark and stem	Bone pain, fracture, stomach ache	Hmar
	Tuta	<i>Morus nigra</i>	Moraceae	Fruit	Lower body heat	khasi
	Narasingha	<i>Murraeya koenigii</i>	Rutaceae	Leaf	Diabetes	Dimasa
	Athiya-kol/ Lai-yung	<i>Musa balbisiana</i>	Musaceae	Tuber, fruit, leaf	Pyrea, low haemoglobin, dysentery	Dimasa
	Laigonthai	<i>Musa paradisiaca</i>	Musaceae	Flower	Malaria	Dimasa
	Rimotvui	<i>Musa sp.</i>	Musaceae	Flower/latex	Blood pressure control	Biate
	Katphala	<i>Myrica esculenta</i>	Myricaceae	Fruit	Indigestion in children, diabetes, fever	Khasi
	Tulsihegra	<i>Ocimum tenuiflorum</i>	Lamiaceae	Leaf	Itching, cough, jaundice, diarrhea	Dimasa, Jaintia
	Katakung	<i>Opuntia dillenii</i>	Cactaceae	Whole plant	Snake and insect bite	Hmar
	Kholong	<i>Oroxylum indicum</i>	Bignoniaceae	Bark	Jaundice	Dimasa
	Bora rice	<i>Oryza sativa</i>	Poaceae	Seed	Skin treatment	Jaintia
	Inrainuthei	<i>Oxalis corniculata</i>	Oxalidaceae	Root	Toothache, dysentery	Hmar, Dimasa
	-	<i>Oxalis debillis</i>	Oxalidaceae	Whole plant	Stomach problem	Biate
	Tachimburia	<i>Paederia foetida</i>	Rubiaceae	Whole plant	Malaria, bodyache	Dimasa, zeme naga
	Bairethai	<i>Parkia speciosa</i>	Fabaceae	Fruit	Gastritis, Diabetes, kidney, liver problem	Dimasa, Hmar
	Dein-chakop	<i>Phlogocanthus thyrsiformis</i>	Acanthaceae	Flower	Cough	Jaintia
	Samlaiphang	<i>Phyllanthus fraternus</i>	Phyllanthaceae	Leaf, root	Diarrhea, jaundice, fever	Dimasa
	Samanline/ zokasi /Hamlaithai	<i>Phyllanthus emblica</i>	Phyllanthaceae	Fruit, bark	Jaundice, indigestion, diabetes	Jaintia, Dimasa , zeme naga
	Pan	<i>Piper betle</i>	Piperaceae	Leaf	Cuts and wounds, scorpions sting	Hmar
	Hmarchainhlum/ morsaidi	<i>Piper nigrum</i>	Piperaceae	Seed, root	Pneumonia, cough and sore throat, dysentery, piles	Hmar
	Vawk-an-hna	<i>Plantago major</i>	Plantaginaceae	Whole plant	Kidney stone	Hmar
	Samsongi	<i>Plantago ovata</i>	plantaginaceae	Leaves	Jaundice, toothache, gum bleeding, tongue infection	Dimasa
	Ntheuheu	<i>Polygonum hydropiper</i>	Polygonaceae	Leaves	Anthelmintic, uterine	Dimasa, zeme naga

					disorder, worm infestation, painkiller	
	Mirongru	<i>Polygonum orientale</i>	Polygonaceae	Whole plant	Fish poisoning	Hmar
	-	<i>Pouzolzia hirta</i>	Urticaceae	Leaf/ stem	Lactagogue	Biate
	Ichardon /Kawlthuzik	<i>Psidium guajava</i>	Myrtaceae	Leaf bud	Stomachache, dysentery	Biate, hmar
	Thaebufai	<i>Punica granatum</i>	Lythraceae	Leaf	Dysentery, gastric	Hmar
	Tdongpaitpuraw	<i>Rauvolfia serpentina</i>	Apocynaceae	Root, leaf	Snake bite, high blood pressure	Khasi
	Methapla	<i>Rhaphidophora glauca</i>	Araceae	Leaf	Carbuncles	Dimasa
	Nak-lam-hna	<i>Rhaphidophora tetrasperma</i>	Araceae	Leaf	Chest pain	Hmar
	Khangkhairegu	<i>Richardia scabra</i>	Rubiaceae	Shoot	Urinary tract infection	Dimasa
	Muthi	<i>Ricinus communis</i>	Euphorbiaceae	Leaf/root/seed	Liver disorder, constipation	Hmar
	Manjishtha	<i>Rubia cordifolia</i>	Rubiaceae	Leaf, stem	Skin disease, poisonous sting of insects	Khasi
	Sbai-thai	<i>Rungia parviflora</i>	Acanthaceae	Leaf	Cuts and wounds, small pox	Dimasa, Biate
	Mafu	<i>Saccharum officinarum</i>	Poaceae	Stem	Jaundice	Hmar
	Lingsaru	<i>Sapindus mukorossi</i>	Sapindaceae	Fruit	Swelling/tonsil	Biate
	Khuongbaihlo	<i>Scoparia dulcis</i>	Scrophulariaceae	Leaf , wholeplant	Kidney stone, diabetes	Hmar
	Sheebaling	<i>Sesamum indicum</i>	Pedaliaceae	Seed	Piles	Dimasa
	—	<i>Smilax glabra</i>	Smilacaceae		Energy booster, urine infection	Hmar
	Sidzigubrulai	<i>Smilax perfoliata</i>	Smilacaceae	Leaf	Excess urination	Dimasa
	Tawkrakur/ Khimkatai	<i>Solanum indicum</i>	Solanaceae	Fruit	Toothache, high blood pressure, jaundice	Hmar, Dimasa
	Kumkathai	<i>Solanum integrifolium</i>	Solanaceae	Fruit	High blood pressure	Dimasa, Biate
	Brihati	<i>Solanum khasianum</i>	Solanaceae	Fruit	Toothache	Khasi
	Lamlianpa samtrok/Samtawkte	<i>Solanum torvum</i>	Solanaceae	Fruit	Blood pressure, abscess	Biate, hmar
	Khimkatai	<i>Solanum viarum</i>	solanaceae	Fruit	Heart problem	Dimasa
	Anisa	<i>Spilanthes acmella</i>	Asteraceae	Inflorescence	Indigestion, ringworm, toothache	Hmar, Biate
	Pararsi/ Santustem	<i>Spilanthes panniculata</i>	Asteraceae	Leaf and flower	Cure early stage of cancer, toothache, worm infestation	Hmar, Dimasa
	Uthar	<i>Stephania</i>	Dilleniaceae	Tuber	Carbuncles	Dimasa

		<i>japonica</i>				
	Khande	<i>Streblus asper</i>	Moraceae	Leaf, shoot	Stomach ache	Dimasa
	Khande	<i>Streblus aspera</i>	Moraceae	Leaf/shoot	Stomachache	Dimasa
	Chirata	<i>Swertia chirata</i>	Gentianaceae	Stem and twig	Blood pressure control, diarrhea, malaria	Dimasa
	Jambu	<i>Syzygium cumini</i>	Myrtaceae	Seed, bark	Diabetes	Dimasa
	Teteli/ Sinkerlet/ Tintri	<i>Tamarindus indica</i>	Fabaceae	Fruit	Stomach problem, blood pressure control, cough, snake and dog bite	Jaintia, Biate, hmar, dimasa
	Sthauneyaka	<i>Taxus wallichiana</i>	Taxaceae	Leaf	Gastric, cancer	Dimasa, khasi
	Arjun	<i>Terminalia arjuna</i>	Combretaceae	Bark	Heart problem, digestive problem	Dimasa, hmar
	Ortaki	<i>Terminalia chebula</i>	Combretaceae	Fruit	Cough, pneumonia	Jaintia
	Vaakhruai	<i>Thunbergia grandiflora</i>	Acanthaceae	Node	Conjunctivitis	Hmar
	Kambathbarma /Daothulu	<i>Tinospora cordifolia</i>	Menispermaceae	Stem	Bone fracture, jaundice, diabetes	Jaintia, dimasa
	-	<i>Toona ciliata</i>	Meliaceae	Bark	Chronic dysentery	Jaintia
	Sam-khamao-thai	<i>Tridax procumbens</i>	Asteraceae	Flower	Toothache	Dimasa
	-	<i>Urceolina grandiflora</i>	Amoryllidaceae	Leaf	Blood clotting	Hmar
	Tingneh / Vawkpuihner-kewl	<i>Urena lobata</i>	Asteraceae	Leaves/root	High blood pressure, rheumatic pain, dysentery, hyperacidity	Zeme naga, hmar
	Thasui	<i>Veronica sp.</i>	Plantaginaceae	Leaf	cuts	Hmar
	Vringaraj	<i>Wedelia chinensis</i>	Asteraceae	Leaf	High blood pressure	Dimasa
	Tejovati	<i>zanthoxylum acanthopodium</i>	Rutaceae	Seed	Toothache, skin disease	Khasi
	Posaltakaza /Miskil-duka	<i>Zanthoxylum nitidum</i>	Rutaceae	Roots	Infertility, pyrea	Hmar, dimasa
	Aithing	<i>Zingiber officinale</i>	zingiberaceae	Rhizome and leaf	Cough, inflammation	Hmar, Jaintia
	-	<i>Zingiber zerumbet</i>	Zingiberaceae	Flower	Hair treatment	Biate

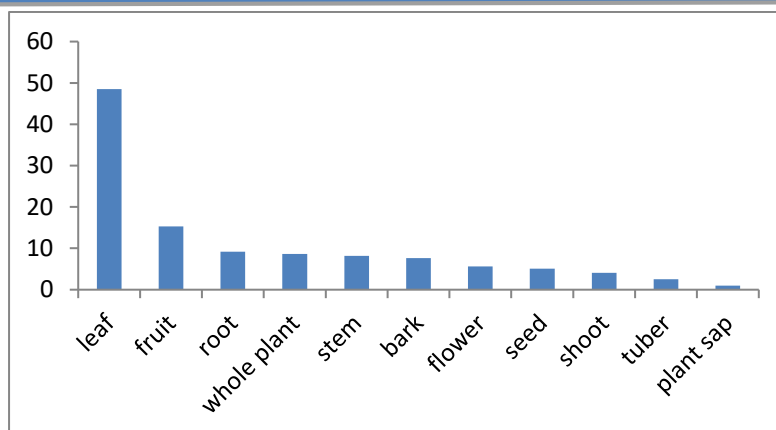


Fig.3 Number of different medicinal plant parts used by Scheduled Tribe communities of Dima Hasao

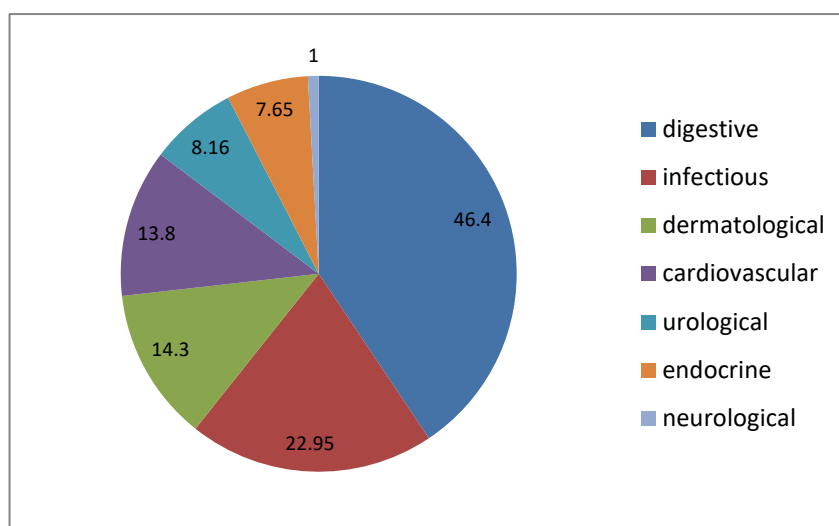


Fig.4 Percentage of different medicinal plants used for different diseases

DISCUSSION

The present investigation revealed that scheduled tribe communities of Dima Hasao district have enormous indigenous knowledge on traditional medicinal plants. According to the finding Dima Hasao district inhabited with a number of medicinal plants. It is clearly recognizable that the area has abundant potential therapeutic plants that has been used from ancient times. The emergence of new crude medications for the treatment of many ailments is thus aided by this documentation study. Similar investigation was conducted in Dimasa tribe of North Cachar Hills district (Dima Hasao at present) and in Barak Valley by Tamuli and Sharma (2010); Nath et al. (2011). Another survey was conducted on ethnomedicinal plants used by Hmar tribe of Dima Hasao district by Das et al. (2023).

In the present study male practitioners were higher than female. The informants were mainly from middle age adult group. The decent literacy rate of

the informants indicate that tribal people were educated in that region. Rural residents have a low socio-economic level while having a high literacy rate. Therefore, additional educational skills and career possibilities should be provided to them in order to improve their socio-economic condition. Moreover, it was also noted that these people had an immense amount of traditional knowledge about how to prepare and use a variety of plants, which might be documented and used with appropriate modifications to boost their economy.

From the findings of the study, it was observed that every documented plant had a traditional purpose for curing one or more ailments and different traditional healers and rural practitioners have exploited various uses. Most of the informants used leaves for several treatment compared to the other parts of the plants. Most of the medicinal plants recorded in this study were highly used for treatment of different digestive diseases as compared to other types of disease.

During this study it was noticed that numerous superstitious beliefs were found among the ST communities. They believed that if they imparted their expertise to others, the potential of the medicinal properties would not stay. They also added that they never ask for anything from the client in order to prepare medication because they believed that it would be not like by God. They were unable to improve their socioeconomic circumstances as a result of these superstitious beliefs. Therefore, it is very important to create awareness among them to upliftment of their livelihood through indigenous medicinal plants.

It is the first extensive study on indigenous medicinal plants used by Scheduled Tribe communities of Dima Hasao district of Assam. In addition to documenting the indigenous knowledge of the Scheduled Tribe communities, the finding of present study raise awareness of the socio-economic development of their society through the use of ethnic medicinal practices, which may improve their standard of living.

CONCLUSION:

This study has provided useful details about the edible fruits, vegetables, and plants used for ethnomedical purposes by the Scheduled tribe communities of Dima Hasao. In addition to implementing measures to protect and conserve these species, it is imperative that locals are adequately networked and have knowledge about the medicinal advantages of these native plants. It will take input from a variety of society sectors, professions, and strata to build such a sustainable system. However, it is evident from the illicit use of many beneficial medicinal herbs in nature that they are rare in rural areas. Furthermore, similar studies need to be initiated in other regions of Dima Hasao.

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