

Medicinal plants used by the tribal communities of Bandarban Hill District, Bangladesh

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ABSTRACT

Tribal communities in hilly areas of Bangladesh are mainly depend on herbal treatment for their illness and primary health care. The purpose of the present study was to document significantly distinguishable medicinal plants and their ethnopharmacological applications used by the tribal communities of Bandarban Hill District. During this expedition, a total of 244 ethnomedicinal plants have been recorded and documented which belonged to 86 plant families. Euphorbiaceae was found to be the largest plant family represented by 17 plant species, followed by Asteraceae, Rubiaceae, Fabaceae, Acanthaceae, Apocynaceae, Lauraceae and Verbenaceae. Herbs (35%) were found to be the most used plant, followed by shrubs (28%), trees (21%), climbers (13%) and fern (3%). For the treatment of different ailments, leaves were the most used dominant plant parts (42%), followed by roots (21%), whole plants (10%), bark (6%), stem (5%), fruit (4%), rhizome (4%), flower (4%), seed (2%), latex (1%) and tuber (1%). Out of 11 different forms of treatments for different diseases, the most common form was juice, followed by paste, decoction, fluid extraction, pill, powder, poultice, chewing raw, curry, infusion and fermented plant materials. Through this investigation, 102 diseases or illnesses were recorded which have been treated by medicinal plant species. The most commonly treated diseases was skin diseases for which 23 plant species were used followed by fever (22 species), stomachache (21 species), coughs (20 species), headache and dysentery (18 species each), menstruation problem and asthma (17 species each), wound and jaundice (16 species each), gastric and constipation (15 species each).

Keywords: Ailments, Bandarban, Boiddays/ Kabiraj, medicinal plants, traditional knowledge

INTRODUCTION

Since ancient times, the main constituents of several traditional medicines have been plants, plant parts and plant products of all types, especially those with therapeutic qualities (Motaleb *et al.*, 2013). It is estimated that Bangladesh is home to about 6,500 species of higher cryptogams and phanerogams, of which over 500 species have medicinal value (Rahman *et al.*, 2022). The natural forests of Bangladesh were rich with diverse plant species (Hossain *et al.*, 2013; Mukul *et al.*, 2018). Compare to any other areas in Bangladesh, Bandarban is one of the richest areas in terms of flora (Motaleb *et al.*, 2013). Ethnomedicinal knowledge is essential for identifying plants as

therapeutic agents (Balick, 1990). Plants contain novel drug compounds and aid in the discovery of economically important plant-based drugs (Cox and Balick, 1994).

Chowdhury *et al.* (1996) documented 42 folk formularies that have long been used in Bangladesh to treat dysentery and diarrhea. Alam *et al.* (1996) documented 143 folk formularies against 53 common diseases in another study. Information about 69 medicinal plants utilized by tribal peoples in the Chittagong Hill Tracts is provided by Yusuf *et al.* (2007). Rahman (2010) states that the majorities of the country's tribal groups live in hilly areas and rely mostly on herbal medicine for their basic medical needs. Motaleb *et al.* (2013) provide

information on 116 medicinal plants used by the traditional herbal practitioners of Thanchi upazila of Bandarban. According to Alam *et al.* (2022a) a total of 129 plant species belonging to 63 families have been traditionally used for medicinal purposes by the ethnic community residing in Thanchi upazila of Bandarban hill district to treat a variety of illnesses. According to Mohiuddin *et al.* (2012), the Marma, Bwam, Murang, and Tanchangya tribes in the hill regions of Bandarban have been using 70 plant species from 36 families, which are regarded as ethnomedicinal. Alam *et al.* (2022b) report that 81 plant species, belonging to 42 families, were used for ethnomedical purposes by the Marma people of Rowangcharri upazila in Bandarban hill district.

Traditional *healers-treat-patients* with medicinal plants are considered experts in plant knowledge and preparation in disease-treating formulations. This valuable indigenous knowledge is dwindling as modern health care systems emerge in hilly areas (Rahman *et al.*, 2003). For scientists searching for new drugs, ethnomedical information regarding the uses of medicinal plants might be a useful source (Ghiselin and Landa, 2005). The knowledge of majority of the *Boiddays* (physician/healer) is unrecorded and vanishes after they leave the workforce. A written language or script regarding the use of medicinal herbs is absent from the majority of ethnic tribes. People living in contemporary societies are unaware of this knowledge system. As a result, this age-old medicinal knowledge is rapidly dwindling. While a few older men and women in the community are aware of the benefits of using medicinal herbs. To preserve and make use of biological resources, indigenous knowledge needs to be recorded (Tugume *et al.*, 2016). However, there is very little information available on the ethnomedicinal plants used by tribal communities in Bandarban hill district. The current study was undertaken to document ethnomedicinal knowledge and plant parts application for curing various ailments by the ethnic communities of Bandarban hill district.

A series of investigations were conducted in the tribal regions of the Bandarban hill district over a span of three years from 2019 to 2021. During the study, we conducted visits to nine tribal paras located in three upazilas within the Bandarban district to collect ethnomedicinal plants. The study was conducted within the Marma, Tripura, Chakma and Tanchangya communities. Local herbal healers called Kabiraj/Boiddays and senior citizens were involved in collecting information about medicinal plants. With the help of herbal healers from the nearby forest areas, plant specimens were gathered for the study during various seasons, along with the relevant data. To ensure the accuracy of the information gathered, it was cross-checked on location. Documentation has been created through the random conduction of interviews with old men and women as well as traditional health practitioners. A digital voice recorder was used to record and document the interview process, which involved selecting open-ended and semi-structured question formats. The accuracy of the data on each plant was verified through multiple interviews. Documentation gathered on the aforementioned local names, plant parts utilized, application techniques, illnesses for which the formulations were applied and dosages. During the data collecting and sharing process, an interpreter who had translated the native language into Bengali was involved. The authors identified the common plant samples during the fieldwork and the remaining unknown species were identified with the assistance of plant taxonomists from the Bangladesh National Herbarium, Dhaka, and the Forest Botany Division of the Bangladesh Forest Research Institute, Chattogram. The voucher specimens were deposited at the Bangladesh Forest Research Institute's herbarium.

During the research work, a total of 244 ethnomedicinal plants were documented, belonging to 86 distinct families. Euphorbiaceae is the largest family represented by 17 species, followed by Asteraceae (15), Rubiaceae (14), Fabaceae (12), Acanthaceae (9), Apocynaceae (9), Lauraceae (8) and Verbenaceae (8). Whereas, there are 45 families has only one species each (Table 1).

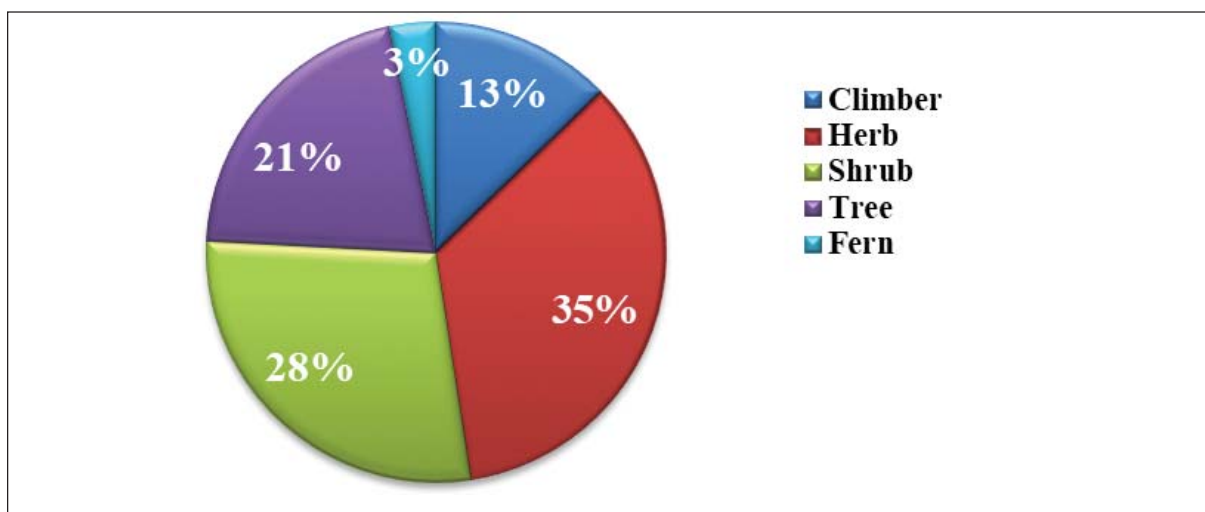


Fig. 1: Habit form of ethnomedicinal plants used by the herbal practitioner

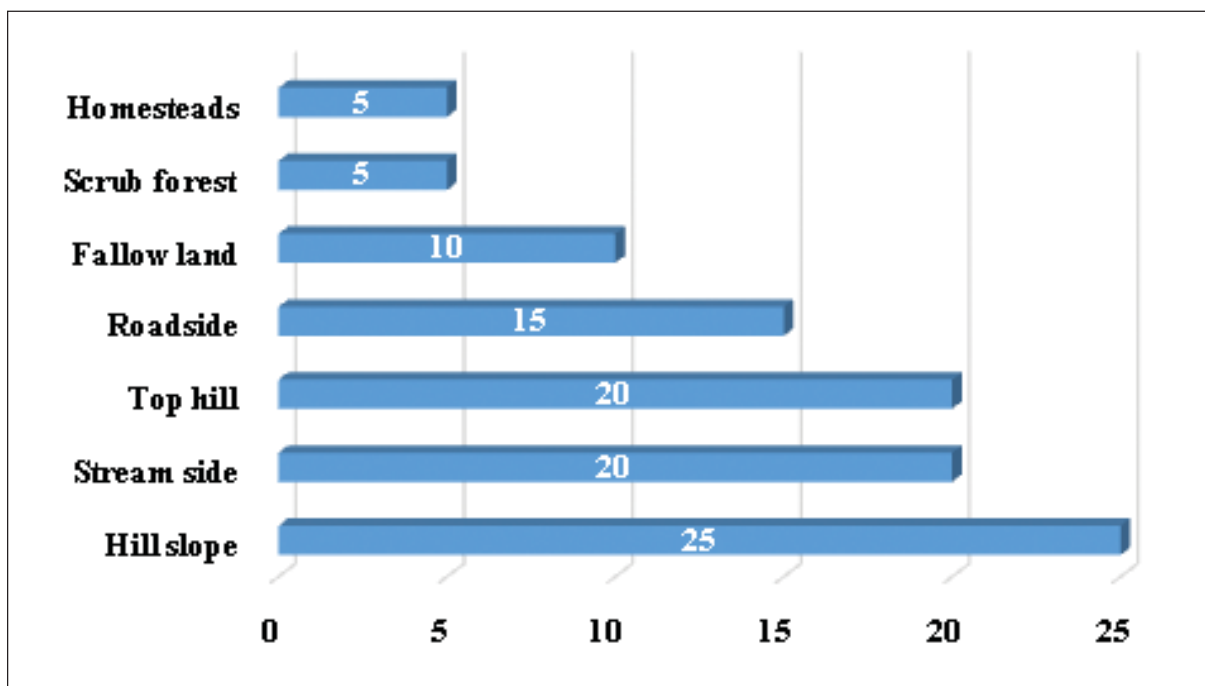


Fig. 2 : Habitat diversity of the ethnomedicinal plants

Based on habit, 35% (85 species) were herbs, 28% (69 species) were shrubs, 21% (51 species) were a tree, 13% (31 species) were climbers and 3% (8 species) were ferns. Herbs and shrubs account for 52% of medicinal plants in South India (Rawat and Garg, 2005). The distribution of plants in different habit form are shown in Figure 1.

Out of two hundred forty four ethnomedicinal plants, 29 (12%) species were common in three areas; 43 (18%) species were found exclusively in Bandarban Sadar, 26 (11%) were found in Rowangchhari and 34 (14%) were found in Thanchi upazila. Some new medicinal plant uses were also reported that had not previously been mentioned

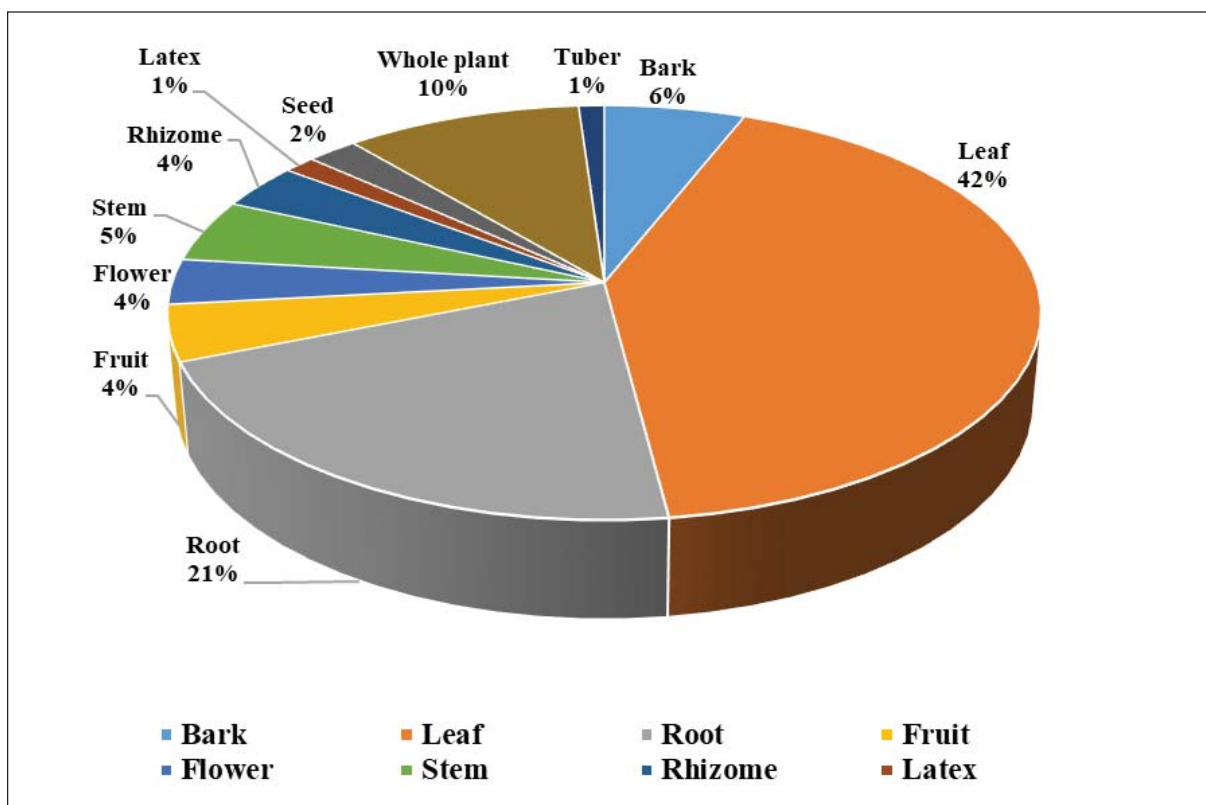


Fig. 3 : Proportion of different morphological parts used as herbal medicine

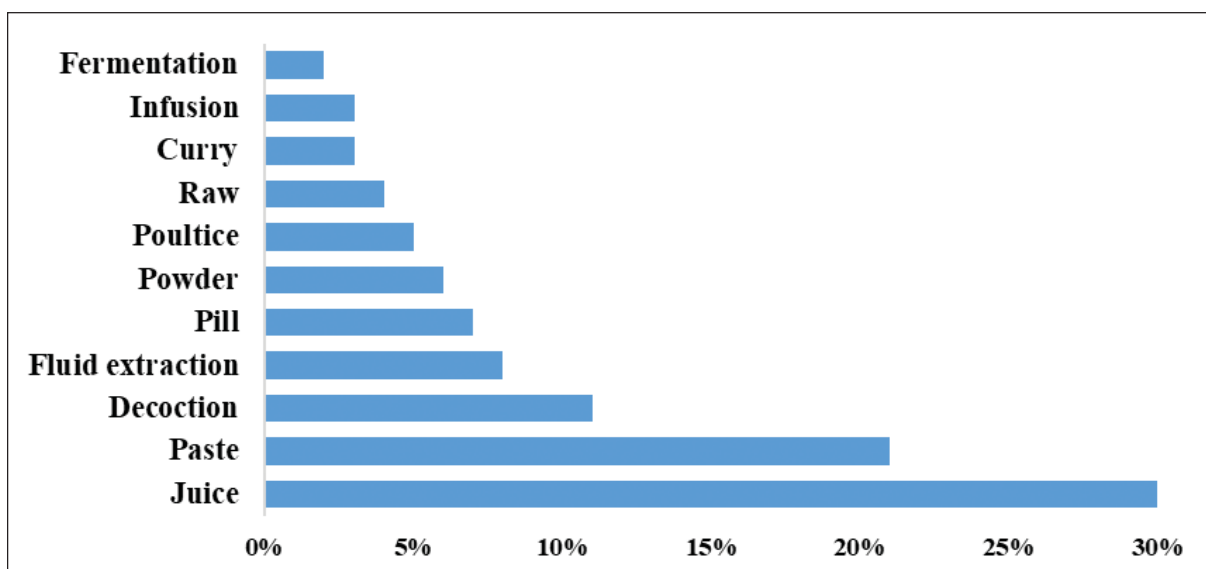


Fig. 4 : Mode of preparation used in herbal medicine formulation

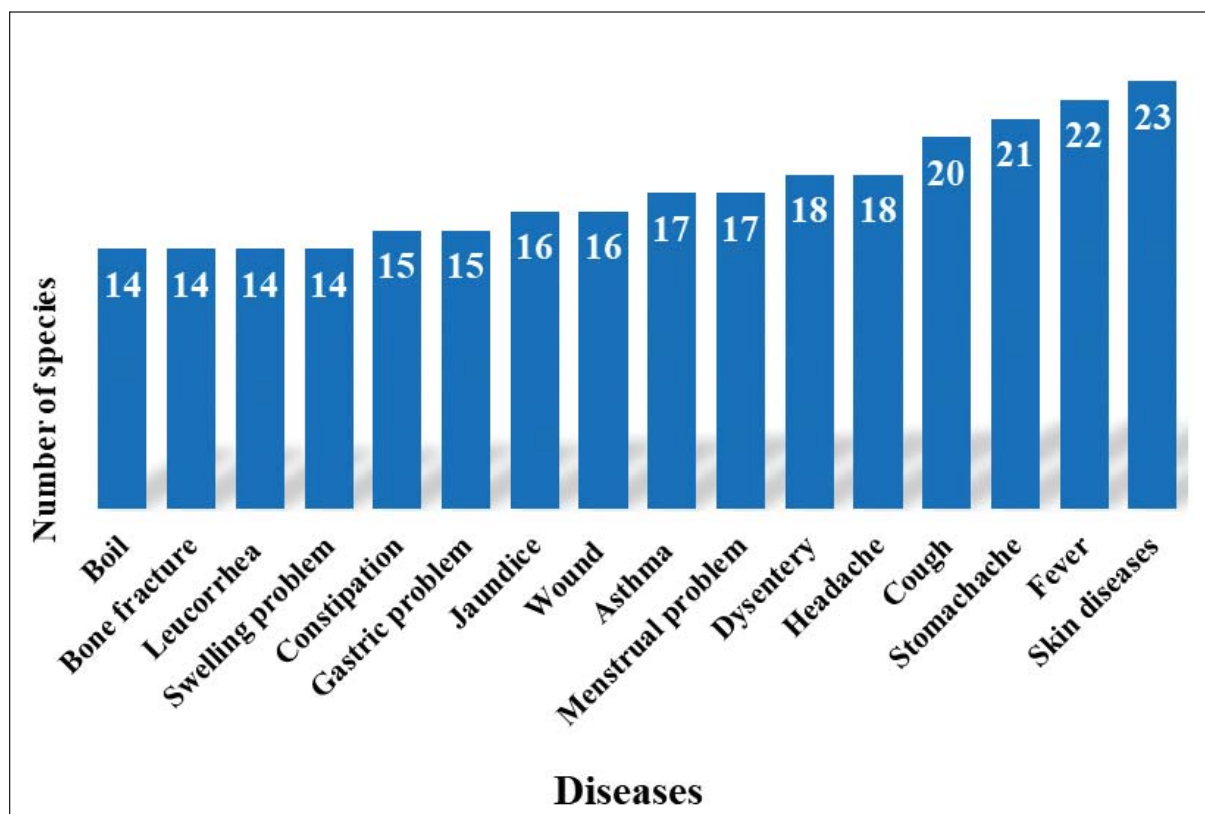


Fig. 5 : Number of species to treat different diseases

in Bangladesh. The widely used medicinal plants may draw the attention of phytochemists and pharmaceutical researchers to determine the active component of the plant for the production of new medicines.

Information about the habitat of ethnomedicinal plants of any species is essential for the conservation of the species. The habitat diversity of the ethnomedicinal plant sample reveals that 25% of the plants grow on the hill slope, 20% of the plants grow near the streamside (jhiri), 20% of the plants grow on the top of the hill, 15% of the plants grow on the roadside, 10% of the plants grow in the fallow land, 5% of the plants grow in the scrub forest and 5% of the plants grow in the homesteads (Figure 2).

The study reveals that the herbal practitioners of Bandarban hill district uses 11 different parts of the plants for the treatment of different ailments. Leaves were the most dominant plant parts (42%), followed by roots (21%), whole plants (10%), bark (6%), stem (5%), fruit (4%), rhizome (4%), flower

(4%), seed (2%), latex (1%) and tuber (1%) (Figure 3). Herbal practitioners commonly favor the leaves and flowering components of the plant due to their convenient collecting process and widespread availability (Baydoun *et al.*, 2015; Giday *et al.*, 2003) In addition, the leaves are the most active part of the plant in terms of metabolite production and photosynthesis (Ghorbani, 2005). The use of plant parts affects plant populations. The use of whole trees with roots reduces the abundance of those plants in the area. For small populations and local plants, this practice has become more serious. More than 100 medicinal plants are extracted destructively from the Thar Desert in India (Bhattacharyya *et al.*, 2006). But regrettably, due to deforestation, jhum farming, illicit cutting, burning, and over exploitation of the resources, medicinal plants are becoming increasingly scarce, and wild plant populations are fast dwindling. So along with the use of medicinal plants, emphasis should be placed on their conservation.

Herbal practitioners informed that most of the medicine is used orally and in some cases is used

Table 1: List of recorded medicinal plant species in Bandarban Hill District, along with their family, local name, habit, local name, habit, parts used and ailments

Scientific name	Family	Local name	Habit	Parts used	Ailments
<i>Abelmoschus hostilis</i> Wall.	Malvaceae	Kantabhendi	Shrub	Root	Insect bite
<i>Abelmoschus moschatus</i> Medik.	Malvaceae	Mushakdana	Herb	Leaf, root and seed	Snake bite, cough, fever, anemia and throat pain
<i>Abroma augusta</i> (L.) L.f.	Sterculiaceae	Ulatkambol	Shrub	Leaf, root and stem	Paralysis, leucorrhoea, gonorrhoea and fever
<i>Abrus precatorius</i> L.	Fabaceae	Kunch	Climber	Leaf and seed	Abortion, leprosy and asthma
<i>Acalypha hispida</i> Burm.f.	Euphorbiaceae	Lal hatsur	Shrub	Leaf	Leprosy, sores and skin rash
<i>Achyranthes aspera</i> L.	Amaranthaceae	Apang	Herb	Whole plant	Carbuncle, body pain, constipation and gynecological complexity
<i>Acorus calamus</i> L.	Araceae	Bach	Herb	Whole plant	Headache, cough and pneumonia
<i>Actinostemma tenerum</i> Griff.	Cucurbitaceae	Golapata	Herb	Flower and leaf	Abdominal pain and hydrocele
<i>Adenosma indianum</i> (Lour.)	Scrophulariaceae	Barakesuti	Herb	Leaf	Asthma
<i>Adiantum caudatum</i> L.	Adiantaceae	Fern	Fern	Leaf	Excessive bleeding after child birth and anorexia
<i>Aegle mermelos</i> (L.) Correa	Rutaceae	Bel	Tree	Leaf, root and fruit	Weakness, dysentery constipation and headache
<i>Aerva sanguinolenta</i> (L.) Blume	Amaranthaceae	Nuriya	Herb	Leaf	Piles, stop bleeding, burning urination and stomachache
<i>Agave cantala</i> Roxb.	Agavaceae	Bombai agar	Herb	Leaf	Joint pain
<i>Ageratum conyzoides</i> L.	Asteraceae	Fulkuri	Herb	Leaf	Cutting wounds, oedema, sneezing, hiccup and headache
<i>Alangium salivifolium</i> (L.f.)Wangerin	Alangiaceae	Ankor kanta	Tree	Bark, leaf and fruit	Piles, leprosy, rheumatic pain and lumbago
<i>Allophylus cobbe</i> (L.) Raeusch.	Sapindaceae	Aitachita	Shrub	Root and leaf	Wound, skin diseases, hydrocele and rheumatic pain
<i>Alocasia acuminata</i> Schoot	Araceae	Pata bokakachu	Herb	Rhizome and stem	Skin diseases and earache
<i>Aloe vera</i> (L.) Burm. f.	Aloeaceae	Grita kumari	Herb	Leaf	Eczema, menopause problem and paralysis
<i>Alpinia conchigera</i> Griff.	Zingiberaceae	Konchi elachi	Herb	Rhizome	Gastric pain, dyspepsia, stomach pain and diarrhoea
<i>Alstonia scholaris</i> (L.) R. Br.	Apocynaceae	Chhatim	Tree	Stem bark, leaf and latex	Rheumatic pain, gout and skin diseases
<i>Amaranthus spinosus</i> L.	Amaranthaceae	Katanotey	Herb	Whole plant	Chicken pox, fever, vomiting and burning urination
<i>Amorium aromaticum</i> Roxb.	Zingiberaceae	Labongha elachi	Herb	Rhizome	Asthma, gastric and indigestion
<i>Amorphophallus bulbifer</i> (Roxb.) Blume	Araceae	Jongle ol	Herb	Bulbil	Insect bite
<i>Anacardium occidentale</i> L.	Anacardiaceae	Kajubadam	Tree	Leaf and fruit	Diarrhea, skin infection, burns and eczema
<i>Andrographis paniculata</i> (Burm.f.)	Acanthaceae	Kalomegh	Herb	Whole plant	Dysentery, acidity, worms and stomach problem
<i>Andropteris evecta</i> (G. Forst.) Hoffm	Marattiaceae	Dhekia Shak	Fern	Leaf and rhizome	Carbuncle, wound, knee pain and tumor
<i>Anisomeles indica</i> (L.) O. Kuntze	Lamiaceae	Gobura	Herb	Whole plant	Oedema, evil spirit, anorexia and mouth abscess
<i>Anogeissus acuminata</i> Roxb.	Combretaceae	Itchri	Tree	Leaf	Diarrhea, dysentery and anemia
<i>Ardisia humilis</i> Vahl.	Myrsinaceae	Ban jam	Shrub	Leaf and root	Muscle pain, snake bite and heal sores
<i>Argyrea nervosa</i> Burm. f.	Convolvulaceae	Bara dudhi	Climber	Leaf	Increase sexual capacity

Scientific name	Family	Local name	Habit	Parts used	Ailments
<i>Aristolochia indica</i> L.	Aristolochiaceae	Iswarmul	Climber	Root, leaf and seed	Stomachache, cough, joint pain and anemia
<i>Asparagus racemosus</i> Willd.	Liliaceae	Shotomuli	Climber	Tuber	Fever, cough, general weakness and gonorrhoea
<i>Azadirachta indica</i> A. Juss.	Meliaceae	Neem	Tree	Leaf and root	Scabies, chest pain and itching
<i>Baliospermum solanifolium</i> (Burm. f.) Suresh		Euphorbiaceae	Danti	Shrub	Leaf, bark and root Rheumatic pain, enlarged spleen and burning sensation
<i>Barleria lupulina</i> Lindl.	Acanthaceae	Kanta bishalla	Shrub	Leaf	Skin diseases and itching
<i>Bauhinia acuminata</i> L.	Caesalpinaceae	Shet kanchan	Tree	Leaf, root and bark	Epilepsy, jaundice and leprosy
<i>Bauhinia purpurea</i> L.	Caesalpinaceae	Raktakanchan	Tree	Bark	Diarrhea, ulcer, dropsy and rheumatism
<i>Begonia roxburghii</i> A. DC.	Begoniaceae	Gonirakto	Herb	Whole plant	Stone in urinary tract, intestinal worms and jaundice
<i>Blumea balsamifera</i> (L.) DC.	Asteraceae	Nagor chandal	Shrub	Leaf	Gout, oedema, leg pain, cough and chronic eye diseases
<i>Boerhavia diffusa</i> L.	Nyctaginaceae	Punarnava	Herb	Whole plant	Epilepsy, abdominal pain, anemia and renal disorder
<i>Bombax ceiba</i> L.	Bombacaceae	Shimul	Tree	Gum, root and flower	Diarrhea, leucorrhoea, dysentery and gonorrhoea
<i>Breynia retusa</i> (Dennst.) Alston	Euphorbiaceae	Silpati	Shrub	Leaf and stem	Conjunctivitis, ulcer and toothache
<i>Bridelia retusa</i> (L.) A. Juss.	Euphorbiaceae	Kata koi	Tree	Root	Cough, fever and leucorrhoea
<i>Bryophyllum pinnatum</i> (Lamk.) Oken	Crassulaceae	Pathorkuchi	Herb	Leaf	Whooping cough, pneumonia, burn problem, blood dysentery and cold
<i>Buddleja asiatica</i> Lour.	Buddlejaceae	Badbhota	Shrub	Leaf	Rheumatism and pneumonia
<i>Byttneria pilosa</i> Roxb.	Sterculiaceae	Harjora lata	Climber	Leaf and root	Bone fracture, boils and dandruff
<i>Calotropis gigantea</i> (L.) Drynad.	Asclepiadaceae	Akanda	Shrub	Leaf and latex	Bone fracture, oedema, malarial fever, ringworm, pain and cough
<i>Campanumoea lancifolia</i> Roxb.	Campanulaceae	Atosigede	Herb	Leaf	Chicken pox
<i>Canna indica</i> L.	Cannaceae	Kalaboti	Herb	Rhizome and leaf	Dropsy, dyspepsia and abdominal pain
<i>Cardiospermum halicacabum</i> L.	Sapindaceae	Lataphatki	Climber	Whole plant	Whooping cough, chicken pox, healing wounds and asthma
<i>Catharanthus roseus</i> (L.) G. Don	Apocynaceae	Nayan tara	Herb	Leaf and root	Diabetic, dysentery, asthma and cancer
<i>Celosia cristata</i> L.	Amaranthaceae	Moroghul	Herb	Root, flower and stem	Irregular menstruation, piles, body swollen, leucorrhoea and measles
<i>Centella asiatica</i> (L.) Urb.	Apiaceae	Thankuni	Herb	Leaf	Blood dysentery, indigestion, conjunctivitis and insomnia
<i>Christella dentata</i> (Forsk.) Brownsey	Thelypteridaceae	Bish dhekia	Fern	Whole plant	Chronic leukemia
<i>Chromolaena odorata</i> (L.) R.M.king & H. Rob.	Asteraceae		Bara shialmuti	Herb	Whole plant Cough, gastric and healing wound
<i>Cinnamomum tamala</i> (Buch.-Ham)	Lauraceae	Tejpata	Tree	Leaf	Cough, cardiac weakness and sexual weakness

Scientific name	Family	Local name	Habit	Parts used	Ailments
<i>Cissus adnata</i> Roxb.	Vitaceae	Bhatia-lota	Climber	Root and leaf	Paralysis and hypochondria
<i>Cissus javana</i> DC.	Vitaceae	Rangila lata	Climber	Leaf	Enlarge liver
<i>Cissus quadrangularis</i> L.	Vitaceae	Hajjora	Climber	Whole plant	Bone fracture, cancer and ulcer
<i>Cissus repens</i> Lam.	Vitaceae	Marmaria lata	Climber	Leaf	Jaundice and boils
<i>Clausena heptaphylla</i> (Roxb.) Wight & Arn.		Rutaceae	Pan mouri	Shrub	leaf and root Cancer, fever, hysteria and mental disorder
<i>Clerodendrum indicum</i> (L.) Kuntze	Verbenaceae	Bamunhatti	Shrub	Leaf and root	Fever, gynecological complexity, rheumatic pain and cough
<i>Clerodendrum viscosum</i> Vent.	Verbenaceae	Bhat	Shrub	Leaf	Abdominal pain, boils, impotence and itching
<i>Clerodendrum wallichii</i> Merr.	Verbenaceae	Tara tabah bhat	Shrub	Root and leaf	Fever and skin allergy
<i>Clitoria ternatea</i> L.	Fabaceae	Aparajita	Climber	Whole plant	Menopause, cough, diarrhoea, leprosy and boils
<i>Coccinia grandis</i> (L.) Voigt	Cucurbitaceae	Telakucha	Climber	Leaf	Diabetes, skin eruptions and hypertension
<i>Coix lacryma-jobi</i> L.	Poaceae	Tosbi dana	Shrub	Root and seed	Strangury, menstrual complaints and urinary tract inflammation
<i>Commelina benghalensis</i> L.	Commelinaceae	Dholpata	Herb	Leaf	Malnutrition, leprosy and sores
<i>Commelina diffusa</i> Burm. f.	Commelinaceae	Monayna kanshira	Herb	Whole plant	Anemia and leucorrhoea
<i>Coryza semipinnatifida</i> Wall.	Asteraceae	Adha conyza	Herb	Leaf	Boils
<i>Costus speciosus</i> (J. Koenig) Sm.	Costaceae	Keu	Herb	Whole plant	Jin assor, Indigestion, paralysis and earache
<i>Cratava magna</i> (Lour.) DC.	Capparaceae	Barun	Tree	Stem bark and root	Rheumatic pain and contraceptive
<i>Crotalaria pallida</i> Aiton	Fabaceae	Jhunjhuni	Shrub	Root and leaf	Stomachache, piles and prostate enlargement
<i>Croton bonplandianus</i> Baill.	Euphorbiaceae	Nakphul	Herb	Whole plant	Gastric ulcer, abdominal pain and eczema
<i>Croton tiglium</i> L.	Euphorbiaceae	Jamalgotra	Tree	Seed	Tumor, scabies and asthma
<i>Curculigo orchioides</i> Gaertn.	Hypoxidaceae	Talmuli	Herb	Tuber	Lumbago, menorrhagia, leucorrhoea and impotence
<i>Curcuma caesia</i> Roxb.	Zingiberaceae	Kalo holud	Herb	Rhizome	Diarrhea, blood dysentery, headache and tonsillitis
<i>Curcuma longa</i> L.	Zingiberaceae	Halud	Herb	Rhizome	Wound healing, dysentery, bone fracture and stomachache
<i>Cuscuta reflexa</i> Roxb.	Cuscutaceae	Swarmalata	Climber	Whole plant	Jaundice, constipation, stomachache, liver diseases, body pain and anorexia
<i>Cyathula prostrata</i> (L.) Blume	Amaranthaceae	Shyontula	Herb	Root and leaf	Gastric, oedema and pneumonia
<i>Cycas pectinata</i> Buch.-Ham.	Cycadaceae	Cicas gaas	Palm	Leaf, fruit and flower	Asthma, breast tumor and menstruation problem
<i>Cyclea barbata</i> Miers	Menispermaceae	Thangbandri	Climber	Leaf and root	Easy delivery, body pain and epilepsy
<i>Cymbopogon citratus</i> (DC.) Stapf	Poaceae	Lebugandhi ghas	Herb	Leaf	Nasal congestion, cough and tuberculosis
<i>Cyperus rotundus</i> L.	Cyperaceae	Mutha	Herb	Whole plant	Cough, dyspepsia and stomach complaints
<i>Datura metal</i> L.	Solanaceae	Dhutra	Shrub	Leaf and fruit	Headache, skin diseases, dislocated bone and tumor
<i>Dendrobium aphyllum</i> (Roxb.)	Orchidaceae	Fasiarium	Herb	Leaf	Deformed head and abdominal pain
<i>Dendrocnide sinuata</i> (Blume) Chew	Urticaceae	Sutra	Tree	Leaf and root	Appendicitis, body pain and swollen limb
<i>Desmodium gangeticum</i> (L.) DC.	Fabaceae	Salpani	Shrub	Root	Asthma, headache and whooping cough

Scientific name	Family	Local name	Habit	Parts used	Ailments
<i>Desmodium triquetrum</i> (L.) DC.	Fabaceae	Kising sina gach	Shrub	Root and leaf	Asthma, jaundice, bone fracture and tuberculosis
<i>Dillenia pentagyna</i> Roxb.	Dilleniaceae	Hargaza	Tree	Bark	Blood dysentery, diarrhea and tuberculosis
<i>Dioscorea bulbifera</i> L.	Dioreaceae	Banalu	Climber	Tuber	Enlarged spleen, syphilis and dyspepsia
<i>Diplazium esculentum</i> (Retz.) Sw.	Athyriaceae	Dheki shak	Fern	Leaf	Swollen knee and allergy
<i>Dracena spicata</i> Roxb.	Asparagaceae	Kadorateng gach	Shrub	Stem	Evil spirit
<i>Drymoglossum piloselloides</i> (L.)	Polyodiaceae	Pasha dhekia	Fern	Whole plant	Liver inflammation, asthma and knee pain
<i>Eclipta prostrata</i> (L.) L.	Asteraceae	Kalokeshi	Herb	Whole plant	Resists hair fall, constipation and boils
<i>Elatostema papillosum</i> Wedd.	Urticaceae	Silajhara	Herb	Leaf and root	Abscess, pneumonia and paralysis
<i>Emilia sonchifolia</i> (L.) DC ex DC	Asteraceae	Sadusi	Herb	Leaf	Eye inflammations, night blindness and joint pain
<i>Entada rheedii</i> Spreng.	Mimosaceae	Gilagach	Climber	Whole plant	Skin diseases, bowel complaints and wound healing
<i>Eupatorium triplinerve</i> Vahl	Asteraceae	Ayapan	Herb	Leaf	Ulcer and stomachache
<i>Euphorbia hirta</i> L.	Euphorbiaceae	Dudhiya	Herb	Whole plant	Bronchial affections, dysentery and piles
<i>Euphorbia nerifolia</i> L.	Euphorbiaceae	Mansa	Shrub	Root and leaf	Snake bite, bronchitis, cough and asthma
<i>Ficus hispida</i> L.f.	Moraceae	Kakdumur	Tree	Fruit and root	Stop vomiting, epilepsy and menstrual hemorrhage
<i>Flemingia macrophylla</i> (Willd.) Merr.	Fabaceae	Bara salphan	Shrub	Leaf and root	Polio and irregular menstruation
<i>Flemingia stricta</i> Roxb.	Fabaceae	Charchara phan	Shrub	Leaf and root	Stop bleeding, digestive problem and chest pain
<i>Flueggea virosa</i> (Roxb. ex Willd.)	Euphorbiaceae	Khaukra	Shrub	Root	Burning eye, small pox and gonorrhea
<i>Gmelina arborea</i> Roxb.	Verbenaceae	Gamari	Tree	Leaf and flower	Gonorrhea, anemia, burning sensation and scabies
<i>Gouania tiliifolia</i> Lam.	Rhamnaceae	Harijen gagota	Shrub	Leaf	Sores
<i>Grewia nervosa</i> (Lour.) Panigrahi	Tiliaceae	Asar	Tree	Leaf	Bone fracture and hair tonic
<i>Gynura nepalensis</i> DC.	Asteraceae	Diabetes plant	Herb	Leaf	Headache, mums, body pain, oedema and fever
<i>Hedyotis thomsoni</i> Hook. f.	Rubiaceae	Taso wpaingpai	Herb	Whole plant	Wound healing
<i>Heliotropium indicum</i> L.	Boraginaceae	Hatisur	Herb	Leaf	Stop bleeding, bone fracture and night blindness
<i>Hibiscus rosa-sinensis</i> L.	Malvaceae	Jaba	Shrub	Flower, root and leaf	Excessive menstruation, urinary tract, piles and boils
<i>Holarrhena antidysenterica</i> (L.) Wall. exA. DC.	Apocynaceae	Apocynaceae	Kurchi	Tree	Bark Threadworm, abdominal pain, dysentery, mouth sore and asthma
<i>Homolomena aramatica</i> (Spreng.) Schott	Araceae	Gandhobi kochu	Herb	Leaf and rhizome	Piles, insect bite and blood dysentery
<i>Hoya parasitica</i> (Wall. ex Hornem.)	Asclepiadaceae	Serapatahoya	Creep	Leaf	Ear abscess, paralysis, headache and arthritis
<i>Hydnocarpus kurzii</i> (King) Warb.	Flacourtiaceae	Chalmugra	Tree	Bark and seed	Tumor, fever, leprosy and skin diseases
<i>Hymenodictyon orixensis</i> (Roxb.) Mabb.	Rubiaceae	Bhui-kadam	Tree	Leaf and bark	Ham, snake bite, jaundice and paralysis
<i>Ichmocarpus frutescens</i> (L.) W. T Aiton.	Apocynaceae	Syamalota	Climber	Leaf	Stop bleeding, fever and ham
<i>Imperata cylindrica</i> (L.) Raeusch.	Poaceae	Ulu	Herb	Whole plant	Burning urination and fever
<i>Ipomoea mauritiana</i> Jacq.	Convolvulaceae	Bhuikumra	Climber	Tuber	Syphilis and sexual disabilities
<i>Ixora coccinea</i> L.	Rubiaceae	Rangan	Shrub	Root and flower	Hiccup, fever, leucorrhoea and dysmenorrhea

Scientific name	Family	Local name	Habit	Parts used	Ailments
<i>Ixora cuneifolia</i> Roxb.	Rubiaceae	Beophul rangan	Shrub	Root and leaf	Cholera, gallstone and tonsillitis
<i>Ixora nigricans</i> R. Br. ex Wight & Arn.	Rubiaceae	Kuthi rangan	Shrub	Root	Diarrhea
<i>Jasminum sambac</i> (L.) Aiton	Oleaceae	Beli	Shrub	Leaf and root	Fever, abdominal pain and urinary tract infection
<i>Jatropha gossypifolia</i> L.	Euphorbiaceae	Laljeol	Shrub	Leaf and root	Fistula, hydrocele and excessive menstruation
<i>Justicia adhatoda</i> L.	Acanthaceae	Basok pata	Shrub	Leaf	Cough, fever and asthma
<i>Justicia gendarussa</i> Burm. f.	Acanthaceae	Jagatmadan	Shrub	Leaf	Tumor, body pain and leucorrhoea
<i>Kaempferia galanga</i> L.	Zingiberaceae	Sugandi bach	Herb	Leaf and rhizome	Headache and flatulence
<i>Lantana camara</i> L.	Verbenaceae	Guayganda	Shrub	Leaf	Tetanus
<i>Laportea interrupta</i> (L.) Chew	Urticaceae	Chutra	Herb	Leaf and root	Muscular pain, asthma and boils
<i>Leea aequata</i> L.	Leeaceae	Kakjangha	Shrub	Root and leaf	Carbuncle, rheumatism and sores
<i>Leea indica</i> (Burm. f.) Merr.	Leeaceae	Dubjat	Shrub	Leaf	Jaundice and bone fracture
<i>Lepisanthes senegalensis</i> (Poir.) Leenh.	Sapindaceae	Gotaharina	Tree	Leaf	Leucorrhoea
<i>Leucas zeylanica</i> (L.) W. T. Aiton	Lamiaceae	Shetadrone	Herb	Whole plant	Fever, gout and blister
<i>Leucas aspera</i> (Willd.) Link.	Lamiaceae	Dondakolos	Herb	Whole plant	Tonsillitis, cough and headache
<i>Lippia alba</i> (Mill.) N.E.Br. ex Britton	Verbenaceae	Vui okra	Shrub	Leaf	Diarrhea, stomachache and bronchitis
<i>Listea glutinosa</i> (Lour.) C. B. Rob.	Lauraceae	Menda	Tree	Bark, leaf and root	Joint pain, blood dysentery and tumor
<i>Lygodium altum</i> (C. B. Clarke) Alderw.	Schizaeaceae	Dheki shak	Fern	Whole plant	Swallowness of leg and headache
<i>Lygodium flexuosum</i> (L.) Sw.	Schizaeaceae	Kuttijurkha	Fern	Leaf	Toothache, dental caries and mumps
<i>Maesa indica</i> (Roxb.) A. DC.	Myrsinaceae	Ramjoni	Shrub	Root and leaf	Fever, body pain and paralysis
<i>Maesa ramantacea</i> (Roxb.) A. DC.	Myrsinaceae	Maricha	Tree	Leaf, stem and flower	Headache, cutting wound and urine infection
<i>Mangifera indica</i> L.	Anacardiaceae	Aam	Tree	Bark, fruit and latex	Dysentery, constipation, urinary discharge and sole healing
<i>Maranta arundinacea</i> L.	Marantaceae	Ararut	Herb	Rhizome	Cough and urinary problem
<i>Melastoma malabathricum</i> L.	Melastomaceae	Ban-tezpata	Shrub	Root and leaf	Toothache, boils, dysentery, gynecological problem and ulcer
<i>Merremia vitifolia</i> (Burm.f.) Hallier f.	Convolvulaceae	Kormolata	Climber	Leaf and root	Injury, inflammation and stomachache
<i>Mesua ferrea</i> L.	Clusiaceae	Nageshwar	Tree	Seed and flower	Nasal polyp, weakness, leucorrhoea and piles
<i>Micromelum minutum</i> (J. G.Forst.) Wight & Arn.		Rutaceae	Dulia	Tree	Leaf and bark Teeth decay, evil spirit and headache
<i>Microsorium punctatum</i> (L.) Copel.	Polypodiaceae	Gucha patra	Fern	Leaf	Knee pain and stomach pain
<i>Mikania cordata</i> (Burm. f.) B.L.Rob.	Asteraceae	Refuzi lata	Herb	Whole plant	Stop bleeding and wound healing
<i>Mimosa pudica</i> L.	Mimosaceae	Lajjaboti	Shrub	Whole plant	Abscess, filaria, measles, pyorrhea and hydrocele
<i>Molineria capitulata</i> (Lour.) Herb.	Hypoxidaceae	Sotipata	Herb	Root	Stop bleeding, hernia and stop vomiting
<i>Molineria recurvata</i> (W.T.Aiton) Herb.	Liliaceae	Satipata	Herb	Leaf and root	Stop bleeding and bone fracture
<i>Morinda angustifolia</i> Roxb.	Rubiaceae	Daruharidra	Tree	Root, leaf and stem	Urinary tract infection, tetanus and jaundice
<i>Morinda persicifolia</i> Buch.-Ham.	Rubiaceae	Cefo bena	Shrub	Root and leaf	Irregular menstruation and jaundice

Scientific name	Family	Local name	Habit	Parts used	Ailments
<i>Moringa oleifera</i> Lam.	Moringaceae	Sajna	Tree	Leaf, bark, root and fruit	High blood pressure, cough, rheumatism, flatulence, joint pain, liver diseases and menstrual pain
<i>Mucuna pruriens</i> (L.) DC.	Fabaceae	Alkushi	Herb	Leaf and root	Bone fracture, stop bleeding and cholera
<i>Murraya koenigii</i> (L.) Spreng.	Rutaceae	Kariphuli	Tree	Leaf	Dysentery, eruptions and stop vomiting
<i>Murraya paniculata</i> (L.) Jack.	Rutaceae	Kamini	Tree	Leaf	Toothache and tooth decay
<i>Musa paradisiaca</i> L.	Musaceae	Kola	Herb	Flower and fruit	Dysentery, menorrhagia, indigestion and constipation
<i>Mussaenda macrophylla</i> Wall.	Rubiaceae	Baropata muchenda	Shrub	Shrub	Diarrhea
<i>Mussaenda roxburghii</i> Hook. f.	Rubiaceae	Silchaonri	Shrub	Leaf and flower	Breast pain, headache and fever
<i>Naravetia zeylanica</i> (L.) DC.	Ranunculaceae	Chagol-boti	Climber	Leaf	Gastric problem
<i>Nelsonia canescens</i> (Lam.) Spreng.	Acanthaceae	Paramul	Herb	Leaf	Boils, asthma and body pain
<i>Neolamarckia cadamba</i> (Roxb.) Bosser	Rubiaceae	Kadam	Tree	Leaf	Enlarge liver
<i>Ocimum americanum</i> L.	Lamiaceae	Bon tulsi	Herb	Leaf	Bronchitis, abdominal pain and nose bleeding
<i>Ocimum gratissimum</i> L.	Lamiaceae	Ram tulsi	Shrub	Leaf	Burning urination, skin diseases and flatulence
<i>Ocimum tenuiflorum</i> L.	Lamiaceae	Kalo tulsi	Shrub	Leaf	Cold, cough, influenza and gastric problem
<i>Ophiorrhiza trichocarpa</i> Blume	Rubiaceae	Karphagandhali	Herb	Leaf	Jaundice
<i>Opuntia dillenii</i> (Ker-Gwal.) Haw.	Cactaceae	Phanimansa	Shrub	Stem	Impotence, inflammation and dandruff
<i>Oroxylum indicum</i> (L.) Kurz	Bignoniaceae	Khona	Tree	Bark and leaf	Headache, body pain, hydrocele and jaundice
<i>Oxalis corniculata</i> L.	Oxalidaceae	Amrul	Herb	Whole plant	Fever and dysentery
<i>Paederia foetida</i> L.	Rubiaceae	Gandhabhaduli	Climber	Leaf	Stomach disorder, gout, constipation and urticaria
<i>Passiflora foetida</i> L.	Passifloraceae	Jumkolata	Herb	Leaf and root	Asthma, hysteria, menopause and ringworm
<i>Pedilanthus tithymaloides</i> (L.) Poit.	Euphorbiaceae	Rangchita	Shrub	Leaf	Bone fracture, body pain and eczema
<i>Peperomia pellucida</i> (L.) Kunth	Piperaceae	Luchi pata	Herb	Whole plant	Allergy, eye inflammation and insect stings
<i>Peristylus constrictus</i> (Lindl.) Lindl.	Orchidaceae	Bhainora orchid	Herb	Leaf	Gonorrhea and earache
<i>Persicaria hydropiper</i> (L.) Delarbr	Polygonaceae	Biskatali	Herb	Leaf	Joint pain, carbuncles and stomach pain
<i>Phyllanthus emblica</i> L.	Euphorbiaceae	Amloki	Tree	Fruit	Anorexia, dyspepsia, flatulence and hair fall
<i>Phyllanthus niruri</i> L.	Euphorbiaceae	Bhuamla	Herb	Whole plant	Stomachache, tetanus, gonorrhea and vomiting
<i>Phyllanthus reticulatus</i> Poir.	Euphorbiaceae	Chitki	Shrub	Leaf and root	Boils, diabetes and malaria
<i>Phyllanthus urinaria</i> L.	Euphorbiaceae	Andha ghas	Herb	Root	Urinary tract infection
<i>Physalis minima</i> L.	Solanaceae	Fotka	Herb	Whole plant	Easy delivery and insomnia
<i>Piper longum</i> L.	Piperaceae	Pepul	Climber	Leaf and fruit	Breast pain, delivery pain and chronic bronchitis
<i>Plumbago indica</i> L.	Plumbaginaceae	Raktachita	Shrub	Leaf	Hyper acidity, leprosy, snakebites contraceptive and jaundice

Scientific name	Family	Local name	Habit	Parts used	Ailments
<i>Plumbago zeylanica</i> L.	Plumbaginaceae	Shetchita	Shrub	Leaf and root	Piles, blood dysentery, arthritis, contraception and irregular menstruation.
<i>Plumeria rubra</i> L.	Apocynaceae	Kat-golap	Tree	Bark	Facial paralysis, constipation and piles
<i>Polyalthia longifolia</i> (Sonn.) Thw.	Annonaceae	Debdaru	Tree	Bark	Fever
<i>Polygala chinensis</i> L.	Polygalaceae	China-dudhi	Herb	Leaf	Jaundice, chronic bronchitis and catarrhal affection
<i>Portulaca oleracea</i> L.	Portulacaceae	Nune	Herb	Whole plant	Dyspepsia and sore in mouth
<i>Pouzolzia zeylanica</i> (L.) Benn.	Urticaceae	Kullaruki	Herb	Whole plant	Stomachache, snake bite and dysmenorrhea
<i>Premna esculenta</i> Roxb.	Verbenaceae	Lalong	Shrub	Leaf	Headache, abdominal pain and urinary problem
<i>Prismatomeris tetrandra</i> Roxb.	Rubiaceae	Katmali	Tree	Leaf	Sore throat
<i>Pseuderanthemum carruthersii</i> (Seem.)	Acanthaceae	Gollaekchanda	Shrub	Root	Evil spirit and insect bite
<i>Pseudoelephantopus spicatus</i> (Juss. ex Aubl.)	Asteraceae	Asteraceae	Kukurghba	Herb	Whole plant Skin diseases
<i>Psychotria adenophylla</i> Wall.	Rubiaceae	Baro bhuta	Tree	Root	Indigestion and tetanus
<i>Pueraria peduncularis</i> (Benth.)	Fabaceae	Pendun kunch	Climber	Leaf	Tuberculosis
<i>Pueraria tuberosa</i> (Willd.) DC.	Fabaceae	Botrajineem	Climber	Leaf and flower	Stop bleeding and leprosy
<i>Rauwolfia serpentina</i> (L.) Benth. ex Kurz	Apocynaceae	Sarpagandha	Shrub	Root and leaf	Hypertension, constipation, and schizophrenia
<i>Rauwolfia tetraphylla</i> L.	Apocynaceae	Bara chadar	Shrub	Root	High blood pressure, dysmenorrhea, chest pain and excessive menstruation
<i>Ricinus communis</i> L.	Euphorbiaceae	Bherenda	Shrub	Leaf and seed	Constipation, anal fistula and mental disorder
<i>Rungia pectinata</i> (L.) Nees	Acanthaceae	Pindi	Herb	Leaf	Chicken pox and body pain
<i>Sansevieria roxburghiana</i> Schult. & Schult. f.		Agavaceae	Gorachaka	Herb	Rhizome Gonorrhoea, glandular enlargement and bone pain
<i>Saraca asoca</i> (Roxb.) Willd.	Fabaceae	Asok	Tree	Bark, leaf and flower	Dysmenorrhea, irregular menstruation and dysentery
<i>Schefflera elliptica</i> (Blume) Harms	Araliaceae	Dahina kath	Shrub	Leaf and root	Insomnia, tumor, bone dislocation and hiccup
<i>Scoparia dulcis</i> L.	Scrophulariaceae	Bandhane	Herb	Whole plant	Breast pain, gallstone, earache and jaundice
<i>Senna alata</i> (L.) Roxb.	Caesalpinaceae	Dadmardhan	Shrub	Leaf	Ringworm, eczema, hookworm and constipation
<i>Senna hirsuta</i> (L.) H.S. Irwin and Barneby	Caesalpinaceae	Caesalpinaceae	Gandhosena	Shrub	Leaf and root Snake bite, blood purify and boils
<i>Senna tora</i> (L.) Roxb.	Caesalpinaceae	Chakunda	Shrub	Leaf	Insanity, cough, eczema and ringworm
<i>Sida acuta</i> Burm. f.	Malvaceae	Ban methi	Shrub	Leaf, root and stem	Acne, blister, early delivery and abscess
<i>Sida rhombifolia</i> L.	Malvaceae	Lal berela	Shrub	Leaf and root	Pain, quick delivery, burning urination and carbuncle
<i>Smilax zeylanica</i> L.	Smilacaceae	Kumari lata	Climber	Root and stem	sores, general weakness and gonorrhoea
<i>Solanum lasiocarpum</i> Dunal	Solanaceae	Kantha sola	Shrub	Leaf and root	Irregular menstruation and leucorrhoea
<i>Solanum torvum</i> Sw.	Solanaceae	Tit Begun	Shrub	Leaf and root	Haemorrhage, ear pain, leucorrhoea and tonsillitis
<i>Solanum violaceum</i> Ortega	Solanaceae	Brihati begun	Shrub	Leaf and fruit	Stop vomiting, intestinal worms and gastric problem

Scientific name	Family	Local name	Habit	Parts used	Ailments	
<i>Sonchus wightianus</i> DC.	Asteraceae	Ban palang	Herb	Leaf	Pneumonia and swellings	
<i>Spilanthes calva</i> DC.	Asteraceae	Marhatinga	Herb	Leaf	Knee pain, epilepsy, allergy and snakebite	
<i>Stauroyne argentea</i> Wall.	Acanthaceae	Chemdima	Herb	Leaf	Jaundice, cancer, gout and body pain	
<i>Stephania japonica</i> (Thunb.) Miens	Menispermaceae	Akanadi manik	Climber	Leaf and root	Hydrocele, irregular mensuration and constipation	
<i>Sterculia villosa</i> Roxb.	Sterculiaceae	Udal (B)	Tree	Leaf	Burning urination, obesity and impotency	
<i>Stereospermum colais</i> (Buch.-Ham.)	Bignoniaceae	Dharmara	Tree	Bark	Intestinal worms	
<i>Suregada multiflora</i> (A. Juss.) Bail	Euphorbiaceae	Maricha	Tree	Leaf and root	Rheumatism, pneumonia, cough and fever	
<i>Synedrella nodiflora</i> (L.) Gaertn.	Asteraceae	Relanodi	Herb	Leaf	Eczema, uricaria and stomachache	
<i>Syzygium cumini</i> (L.) Skeels	Myrtaceae	Kalojam	Tree	Bark	Jaundice and dysentery	
<i>Tabernaemontana divericata</i> (L.) R. Br.	Apocynaceae	Tagar	Shrub	Leaf and stem	Bronchitis, rheumatic pain and abdominal pain	
<i>Tabernaemontana recurva</i> Roxb. ex Lindl.	Apocynaceae	Apocynaceae	Baka tagar	Shrub	Leaf	Insect bite and acidity
<i>Tamarindus indica</i> L.	Caesalpinjiaceae	Tentul	Tree	Leaf and fruit	High blood pressure, weakness, inflammatory swelling and sore throat	
<i>Terminalia arjuna</i> (Roxb. ex Dc.) Wight & Arn	Combretaceae	Combretaceae	Arjun	Tree	Bark	Leucorrhoea and cardiac weakness
<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Combretaceae	Bahera	Tree	Fruit	Cough, piles and anorexia	
<i>Terminalia chebula</i> Retz.	Combretaceae	Horitaki	Tree	Fruit	Leucoderma, constipation, flatulence and diarrhea	
<i>Tetrasigma bracteolatum</i> (Wall.)	Vitaceae	Golgoli lata	Climber	Root	Wounds	
<i>Thunbergia grandiflora</i> (Roxb. ex Rottl) Roxb.	Roxb.	Acanthaceae	Neel lata	Climber	Leaf	Leucorrhoea, eye diseases and hysteria
<i>Tinospora cordifolia</i> (Willd.) Miens	Menispermaceae	Guloncho	Climber	Stem and root	Syphilis, gonorrhea, gastric and scabies	
<i>Tournefortia viridiflora</i> Wall.	Boraginaceae	Tiaturni	Shrub	Leaf	Eczema	
<i>Trema orientalis</i> (L.) Blume	Ulmaceae	Jigni	Tree	Leaf, bark and root	Toothache, stomachache, muscular pain and epilepsy	
<i>Trichosanthes tricuspidata</i> Lour.	Cucurbitaceae	Makal	Climber	Leaf and fruit	Allergy, hemicrania and earache	
<i>Typhonium trilobatum</i> (L.) Schott	Araceae	Ghet kochu	Herb	Leaf and root	Gastric, wound healing and liver diseases	
<i>Uraria crinita</i> L. DC.	Fabaceae	Bilal lengur	Shrub	Root and leaf	Tetanus, evil spirit and hysteria	
<i>Vernonia cinerea</i> (L.) Less.	Asteraceae	Kukshim	Herb	Leaf	Fever and headache	
<i>Vitex negundo</i> L.	Verbenaceae	Nishinda	Tree	Leaf	Abdominal pain, black fever, cough and asthma	
<i>Wedelia chinensis</i> (Osbeck) Merr.	Asteraceae	Kesraj	Herb	Whole plant	Uterine haemorrhagia and menorrhagia	
<i>Woodfordia fruticosa</i> (L.) Kurz.	Lythraceae	Dhaiphul	Tree	Flower	Skin diseases, dysentery and stop bleeding	
<i>Xanthosoma violaceum</i> Schott	Araceae	Dudhkachu	Herb	Rhizome and leaf	Stop bleeding, rheumatic pain and itchy skin	
<i>Zingiber capitatum</i> Roxb.	Zingiberaceae	Jongly ada	Herb	Rhizome	Gastric, indigestion and chronic dysentery	
<i>Zingiber montanum</i> (J. Koenig.) Link	Zingiberaceae	Bonada	Herb	Rhizome	Gastric, stomachache and constipation	

externally and they use drugs in 11 different forms to treat different diseases. The most common form was found in juice, followed by paste, decoction, fluid extraction, pill, powder, poultice, chewing raw, curry, infusion and fermentation (Figure 4).

According to Nadembega *et al.* (2011), the decoction is one of the most common forms of herbal formulations in traditional herbal drugs because it is very simple to prepare ethnomedicine by simply mixing plant parts with boiling water. However, in CHT most common form herbal formulation is juice. It is done by grinding the plant parts in stone and squeezing them to extract the juice. It may be due to their local adaptation to the harsh situation of the Chittagong Hill Tracts and the tradition they inherited from their predecessor.

From this investigation, 102 illnesses or symptoms that the herbalist treated were documented and it was found that fourteen species (Figure 5) are used for the treatment of the following diseases: boils, bone fractures, leucorrhea, rheumatic pain and swelling problems (14 species each), constipation, gastric problems (15 species each), jaundice and wounds (16 species each), asthma and menstrual problems (17 species each), dysentery and headache (18 species each), cough (20 species), stomachache (21 species), fever (22 species) and skin diseases (23 species). The herbal healers also reported that rheumatic pain, constipation, gastric problems, dysentery, cough, stomachaches, fever and skin diseases are the common diseases that occur among the tribal people of the Bandarban Hill District. Sumbul *et al.* (2011) state that *Myrtus communis* has been used to treat gastric ulcers, rheumatism, diarrhea, vomiting, haemorrhages, fever and dysentery. *Solanum nigrum* is used to treat hypertension, according to Abe and Ohtani (2013). The entire *Cynodon dactylon* plant is used to cure diabetes and tuberculosis, according to Dulla and Jahan (2017). According to Alam *et al.* (2022), *Calotropis gigantea* has been used to treat cough, oedema, ringworm, malaria, bone fractures and discomfort.

CONCLUSION

The utilization of medicinal plants by the indigenous people residing in the Bandarban hill district for the treatment of several human ailments has been observed. The documentation of indigenous traditional knowledge regarding

medicinal plants is imperative to prevent its permanent loss within the community. In order to ensure the preservation and sustainability of medicinal plants, it is imperative to promptly undertake measures encompassing both in-situ and ex-situ conservation approaches. When scientific research is done properly, new substances that can be utilized to cure both old and new diseases may be discovered. A well planned educational and awareness building campaign involving local herbal healers and religious leaders should be implemented to raise awareness about the benefits of ethnomedicinal plants and sustainable ways to harvest plants for disease treatment now without endangering their availability for future use. The research work should be extended to other parts of the hill district to find any previously unidentified medicinal plants that have been utilized for ages to treat a variety of difficult ailments.

CONFLICT OF INTEREST STATEMENT

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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