

Traditional Uses of Ethnomedicinal Plants and their Documentation of Vyara, Tapi District, Gujarat, India

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Abstract

The present study focuses on the ethnomedicinal plants utilized by the tribal communities of Vyara Taluka in the Tapi District of Gujarat. The study documents details on medicinal plants, including their botanical names, tribal names, parts used, and methods of preparation. The tribal people employ a variety of wild plants, flowers, seeds, and barks in their traditional treatments. They possess knowledge about a number of rare medicinal plants and their applications. With the assistance of modern technologies, their data can be scientifically validated, leading to wider acceptance of traditional systems by the scientific community.

Keywords: Ethnomedicinal plants, traditional healers, Vyara taluka

INTRODUCTION

Ethnobotany is an interdisciplinary field that explores the relationship between plants and people (Birhana et al., 2015). It combines 'ethnology'—the study of culture—and 'botany'—the study of plants. Harshberger (1895) coined the term "Ethnobotany" to describe the study of plants used by ancient peoples. He defined ethnobotany as "the study of the utilitarian relationship between human beings and vegetation in their environment, including medicinal uses." Harshberger also noted that the term comes from the Greek words 'ethnos,' meaning 'people,' and 'botane,' meaning 'herb.' These terms can be literally translated as the study of people and herbs, generally understood as 'the study of people and plants' (Jain, 2002).

In most tribal villages, there are usually one or two local practitioners of traditional medicine, known as 'Bhagats' (Joshi et al., 2013). These practitioners have acquired their knowledge— primarily oral or non-codified—from the elders of their families, enabling them to treat patients effectively.

Richard Evans Schultes, often referred to as the "Father of Ethnobotany," described the discipline as the investigation of plants used by primitive societies in various parts of the world. He also stated that ethnobotanists aim to document, describe, and explain the complex relationships between cultures and

plant usage. Their focus is primarily on how plants are used, managed, and perceived across human societies, encompassing uses such as food, clothing, currency, rituals, medicine, dyes, construction, cosmetics, and more. Berlin (1973) reported that during the first half of the 20th century, ethnobotany was mainly a descriptive endeavor, with ethnobotanists compiling extensive lists of plant species and their uses. Tapsell et al. (2004) noted that medicinal plants have been identified and used throughout human history. Plants possess the ability to synthesize a wide variety of chemical compounds, which perform important biological functions and offer Defense against predators such as insects, fungi, and herbivorous mammals.

Traditional medicine is widely practiced in the homes of tribal and forest-dwelling communities. The importance of traditional medicine and ethnobotanical information in scientific research cannot be overstated. Among the medicinal plants used in Ayurvedic medicine for their therapeutic properties, some have been extensively investigated (Bharti et al., 2013). This study endeavors to explore the traditional medicinal knowledge of readily available plant materials in Vyara Taluka, Tapi District, Gujarat. Ethnobotanical information was collected through multiple visits, questionnaires, and group discussions with local residents and “Bhagats” (traditional healers/Vaid’s).

Vyara Taluka, located in the Tapi district of Gujarat, is home to a rich tapestry of tribal communities, it is home to four major tribal communities: Bhil, Chaudhari, Gamit, and Vasava. In Vyara taluka, 39% of the population belongs to Scheduled Tribes. These communities have distinct cultural identities, languages, and traditions that contribute to the region’s vibrant social fabric. The Bhils, one of the largest tribal groups in Gujarat, are known for their deep connection to nature, traditional dance forms, and folklore. The Chaudharis, primarily found in southern Gujarat, are agriculturists with strong community bonds. The Gamits, residing in remote villages, often face socio-economic challenges such as poverty and limited access to education. The Vasavas, a subgroup of the Bhils, are recognized for their colorful customs and tribal governance systems.

METHOD AND METHODOLOGY

Study Area: Vyara is located at 21.12 degrees North and 73.4 degrees East, approximately sixty-five kilometers from the Surat National Highway (NH-6). The town has an average elevation of 69 meters (226 feet) above sea level and typically experiences a humidity level of around 32 percent. Vyara serves as the headquarters of the Tapi District, which includes seven talukas: Vyara, Songadh, Valod, Uchhal, Dolvan, Kukarmunda, and Nizar.



Fig1: Satellite view of Vyara (study area)

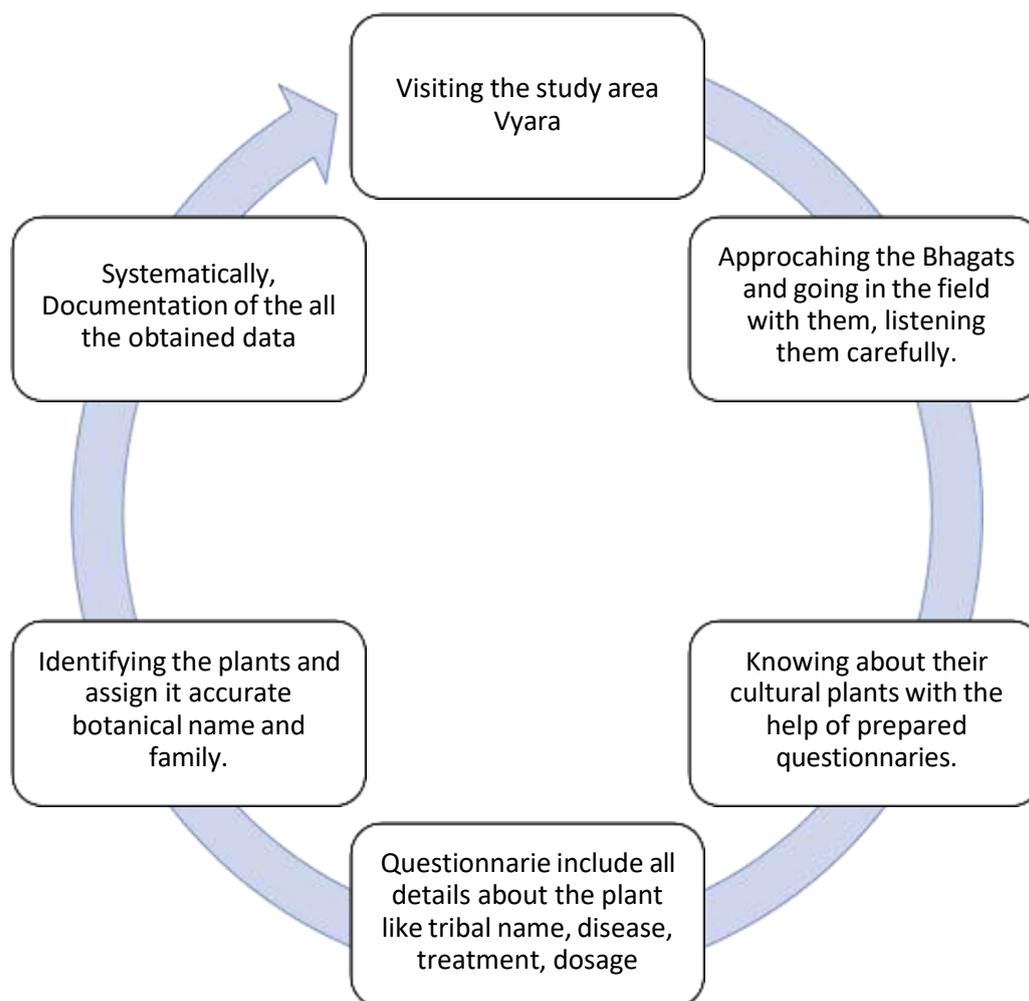
Vyara is known for its rich cultural heritage, vibrant festivals, and scenic landscapes. The town boasts a harmonious blend of tradition and modernity, with a variety of temples, historical sites, and bustling markets. The Tapi River, flowing nearby, adds to the natural beauty of the area and provides a serene backdrop for residents and visitors alike. The town also serves as a gateway to several nearby attractions, including the historical Songadh Fort and the verdant Purna Wildlife Sanctuary, which is home to diverse flora and fauna. Vyara's strategic location and well-connected transport network make it an ideal base for exploring the wider Tapi District and beyond.

Field Study: The current research was conducted to gather data on the traditional knowledge, medicinal plants, and ethno-medicinal practices employed by the tribals of Vyara Taluka. Fieldwork involved multiple visits to the selected study area to document the information. Data collection was achieved using questionnaires and through conversations with tribal and local healers commonly called as Vaidis or Bhagats. Ethno-medicinal data were gathered following the recommended methodology. The information collected included local names, preparation methods, medicinal uses, and parts used, obtained through interviews and questionnaires with the bhagats.

Plant Documentation Questionnaire:

Questionnaire are as follows

1. Local name of the plant.
2. Plant part used for the treatment.
3. Disease or condition treated.
4. Preparation method of the medicine.
5. Source and method of collection.
6. Season or time of harvest.
7. Any known side effects or precautions.
8. Dosage and mode of administration.
9. Duration of treatment.



OBSERVATION

Sr. No.	Scientific Name	Family	Tribal Name	Parts Used	Treatment	Preparation	Dosage
1	<i>Abelmoschus manihot</i> (L.) Medik	Malvaceae	Mani bendi	Tuberous roots	Jaundice	Roots are crushed and mixed with milk.	The juice is given twice a day until cured.
2	<i>Abrus precatorius</i> L.	Fabaceae	Chanothi Bingli	Leaf	Headache and toothache	Crushed leaves are made into a paste for use.	Apply leaves paste to crown twice daily until cured.
3	<i>Abutilon indicum</i> (L.) Sweet	Malvaceae	Zurkali	Roots	Diarrhea	Roots are crushed and juice is extracted.	The juice is given once in a Day.
4	<i>Achyranthes aspera</i> L.	Amaranthaceae	Apamarga	Roots	Toothache and gums	Roots are chewed as a datun.	Once in a day until

							cured.
5	<i>Aegle marmelos</i> (L.) Correa	Rutaceae	Bili	Fruits and leaves	Fever	Leaves of nilgiri, billi, nilgda, and neem are boiled together in water.	Take a bath with this water twice a day until cured.
6	<i>Aloe vera</i> (L.) Burm.f.	Liliaceae	Kuvarpatha	Fleshy leaves	Skin diseases	Leaves are crushed and make a paste.	Paste is applied on infected part until cure.
7	<i>Andrographis paniculata</i> (Burm.f.) Wall.	Acanthaceae	Kariyatu	Whole plant	Fever	Whole plant is dried, crushed, and mixed with water.	A cup of juice is taken until cured.
8	<i>Annona squamosa</i> L.	Annonaceae	Seethaphal	Bark & Fruit	Delivery problems	Crushed bark of Seethaphal and Akado soaked to make herbal juice.	Take one cup twice daily until cured.
9	<i>Antidesma ghaesembilla</i> Gaertn.	Euphorbiaceae	Ragatrohna	Fruits, Bark	Menstrual cycle regulator	Crushed bark mixed with water and fermented overnight.	Take juice twice daily until cured.
10	<i>Argemone mexicana</i> L.	Papaveraceae	Darudi, Pinglya	Roots	Diarrhea	Crushed root mixed with water to make juice.	A cup of juice is taken twice a day for 3 days.
11	<i>Asparagus racemosus</i> Willd.	Asparagaceae	Jenjalio, Shatavari	Tuberous roots	Breast feeding problems	Roots are taken and washed off.	Roots are chewed once in a day.
12	<i>Azadirachta indica</i> A. Juss.	Meliaceae	Limdo	Leaves	Diarrhea and headache	Leaves are crushed and juice are extracted.	A cup is taken once in a day.
	<i>Azanza</i>	Malvaceae	Jongli benda	Roots	Jaundice	Roots crushed	A cup of

13	<i>lampas</i> Alef.					well and mixed juice is with water and taken twice the juice is a day until fermented overnight. cured.
14	<i>Bauhinia racemosa</i> Lam.	Fabaceae	Hinglo	Flowers, Leaves, Bark	Cough	A small piece of Chewed bark is taken and thrice a day crushed well. until cured.
15	<i>Biophytum sensitivum</i> (L.) DC	Oxalidaceae	Lajvalia	Whole plant	Chicken pox	Smoke from burning <i>Biophytum sensitivum</i> , rabbit excreta, and dried cow dung on a palm petiole base is inhaled under a Twice a day until cured.

						blanket for chickenpox, followed by goat's milk application.
16	<i>Blumea lacera</i> (Burm.f.) DC.	Asteraceae	Moya	Whole plant	Sting (Scorpion) & Bleeding (Piles)	Whole plant is applied on infected parts and is kept for 2 days.
17	<i>Bryophyllum pinnatum</i> (Lam.) Oken	Crassulaceae	Panphuti	Leaves	Kidney stone	Orally leaves are eaten. 2 to 3 leaves are taken eaten and buttermilk is in taken after immediately.
18	<i>Butea monosperma</i> (Lam.) Taub.	Fabaceae	Khakhro	Flowers	Heart Stroke, Fever	Flowers are crushed and mix with water part & Take bath twice a day until prepared & cured.

						Flowers are crushed and mix with water.	
19	<i>Caesalpinia bonduc</i> (L.) Roxb.	Fabaceae	Kachka	Seeds	Diarrhea	Seeds are rubbed and paste formed with mixture water.	Take one spoon twice a day for 2 days.
20	<i>Calotropis procera</i> (Aiton) Dryand.	Asclepiadaecae	Ruvada	Seeds & Leaves	Lung infection & Stomach ache	Seeds are mixed with jaggery secondly, Leaves are heated.	The mixture is taken for 2 to 3 days & leaves are tied on stomach.
21	<i>Canavalia gladiata</i> (Jacq.) DC.	Fabaceae	Dabhaya	Whole plant	Menstrual problem	Twig of this plant and fresh leaves Ziziphus jujuba are crushed and kept in water for sometime and juice is prepared.	A cup of juice is taken a day for 2 days.
22	<i>Capparis grandis</i> L. f.	Capparidaceae	Khak bilado	Fruits, Roots	Diarrhea	Roots are crushed well and mixed with water and juice.	A cup of juice is taken twice a day until cured.
23	<i>Cardiospermum halicacabhum</i> L.	Sapindaceae	Popto	Whole plant	Swelling	Plant is boiled in water.	Take a bath with this Water twice a day until cured.
24	<i>Careya arborea</i> Roxb.	Annonaceae	Khatikuhmbi	Bark & leaves	Blood clotting	Bark and leaves are crushed and	Paste applied on the injured

						paste is formed.	part.
2 5	<i>Carica papaya</i> L.	Caricaceae	Papaya	Leaves, Fruits	Abortion, Platelet enhancer	Raw fruit is cut into the slices.	Eat 3-4 pieces for 7 days.
2 6	<i>Carissa carandas</i> L.	Apocynaceae	Kandi	Roots	Urinary infection	Roots are crushed and juice is extracted.	Juice is taken twice a day for 2 days.
2 7	<i>Cassia fistula</i> L.	Fabaceae	Girmalo	Roots	Headache	Roots are grounded and mix with water to form a paste.	Paste applied until cured.
2 8	<i>Cassia occidentalis</i> (L.) Rose	Fabaceae	Motho dindaryo	Roots	Vomiting and Diarrhea	Roots are washed, crushed, and soaked in water for use.	The Juice is extracted.
2 9	<i>Cassia tora</i> L.	Fabaceae	Dinderiyo	Leaves	Sting Scorpion	Leaves are crushed and made into a paste.	A paste is applied on the sting for two days.
3 0	<i>Catharanthus roseus</i> (L.) Don.	G. Apocynaceae	Barmasi	Flowers	Sugar control	2-3 flowers are taken and chewed.	Once a day for 15 days.
3 1	<i>Centella asiatica</i> (L.) Urbani	Apiaceae	Brami	Leaves	Tuberculosis, Asthma	Leaves of this plant are taken and crushed and made into a juice.	A half cup of juice is taken twice per day until cured.
3 2	<i>Chlorophytum borivilianum</i> Santapau & R.R.Fern	Asparagaceae	Safed musali, Ujli Musali	Tuberous roots	Increase sperm count	Roots are crushed well and made into a paste. The paste is mixed with jaggery.	The mixture is taken twice a day.

333	<i>Cissus quadrangularis</i> L.	Vitaceae	Hadjod, Asthisamhara, Adsakal	Stem	Fracture	Crushed stem paste is heated, applied, and tied over the fracture after bone setting.	The paste is changed every 10 days.
344	<i>Coccinia grandis</i> (L.) Voight.	Cucurbitaceae	Tindora	Leaves	Diabetes, Detox	1 cup of leaves with 1/2 tsp of turmeric and 1/2 tsp of black pepper Powder.	Paste is taken empty stomach with Luke warm water.
355	<i>Cocculus hirsutus</i> (L.) W. Theob.	Menispermaceae	Vosano	Roots	Snake bite	Roots are crushed and paste is made from it.	Paste is applied on injured part.
366	<i>Cordia dichotoma</i> G. Forst.	Boraginaceae	Helti, Gunda	Roots & Bark	Diarrhea, Menstrual problems	Roots and bark are crushed and kept in water, Bark is crushed and juice is prepared.	Take cup of water twice everyday.
377	<i>Costus speciosus</i> (J.koenig) Sm.	Costaceae	Tetvada	Rhizome	Stomach pain	Rhizome is crushed well and mixed with water and made into a juice and kept for fermenting overnight.	A cup of juice is taken twice a day for 2 days.
388	<i>Crateva religiosa</i> G. Forst.	Capparidaceae	Vanadovdi	Bark	Sore, Boils	Bark of the plant is taken and crushed and made into a paste.	The paste is applied on the sore twice a day until cured.

39	<i>Curculigo orchioides</i> Gaertn.	Amaryllidaceae	Kali Musli	Tuberous roots	Paralysis	Roots of <i>Curculigo orchioides</i> , <i>Phyllanthus emblica</i> , <i>Oreochromis niloticus</i> , <i>Ricinus communis</i> , and <i>Anogeissus latifolia</i> are crushed with jaggery and tied over the paralyzed area as a remedy.	The paste is tied on the paralyzed part for 1-1:30 hours.
40	<i>Cuscuta reflexa</i> Roxb.	Convolvulaceae	Jivarakha	Whole plant	Fracture, Ulcer & Fever	Whole plant is crushed and juice is extracted.	Take a cup once a day for two days.
41	<i>Cynodon dactylon</i> (L.) Pers.	Poaceae	Bermuda grass	Root	Colic (Inconsolable crying of infants)	Roots of <i>Cynodon dactylon</i> , <i>Leptadenia reticulata</i> , and <i>Jatropha gossypifolia</i> are wrapped in cloth to form a locket worn around the neck as a remedy.	Only once until cured.
42	<i>Cyperus alulatus</i> kern.	J.Cyperaceae	Motha Gundla	Roots	Stomach pain (children)	Crushed roots of this plant and <i>Bakul</i> are tied on the abdomen as a traditional	Twice a day until cured.

						remedy.	
4 3	<i>Datura metel</i> L.	Solanaceae	datura	Leaves	Fever	Leaves of <i>Datura metel</i> and <i>Coccinia grandis</i> are crushed into a paste, with 10–15 drops of water added for consistency.	The juice is extracted and applied on the top of the head.
4 4	<i>Derris scandens</i> (Roxb.) Benth.	Fabaceae	Malivelo	Root	Lactation insufficiency	Root of is taken and crushed well and mixed with water and then made into a juice.	A cup of juice is taken twice a day till cured.
4 5	<i>Digitalis purpurea</i> L.	Scrophulariaceae	Tilapusphi	Dried leaves	Chronic heart failure	Dried the leaves and taken as per prescribed.	Dried digitalis leaves starts at 1.5 grams per day, divided into two doses.
4 6	<i>Dioscorea hispida</i> Dennst.	Dioscoreaceae	Vaskand	Tuber	Sore	The tuber is rubbed on stone to make a paste, which is applied to the sore.	Twice a day until cured.

47	<i>Dolichandrone falcata</i> (Wall. ex DC.) Seem.	Bignoniaceae	Medhingi	Bark	Diarrhea, Snake bite	Powdered bark of <i>Dolichandrone falcata</i> and <i>Bauhinia racemosa</i> is mixed with water; a separate paste is made from the crushed bark.	Take a cup twice a day for 2 days, paste is applied on infected parts.
48	<i>Echinops echinatus</i> Roxb.	Asteraceae	Upkatiya	Roots	Vomiting and Diarrhea	Crushed bark of <i>Echinops echinatus</i> , <i>Ficus hispida</i> , and <i>Bauhinia racemosa</i> soaked in water prepare a juice.	A cup of juice is taken twice a day until cured.
49	<i>Eclipta prostrata</i> (L.) L.	Asteraceae	Bhrungraj, Bhangro	Whole plant	Hair fall	The whole plant is sun-dried, crushed and powdered for use.	The paste is applied once a day for 30 days.
50	<i>Eleusine coracana</i> (L.) Gaertn.	Poaceae	Nagli	Seeds	Diabetes	Seeds are ground to flour.	Chapati is made from flour and is eaten.
51	<i>Enicostema verticillare</i> (Retz.) Baill.	Acanthaceae	Mamejavo	Leaves	Rheumatism and Arthritis	Leaves are crushed with tumeric and a paste is prepared.	applied in the morning to relief stiffness.

52	<i>Eucalyptus globulus</i> Labill.	Myrtaceae	Nilgiri	Leaves	Fever	Leaves of <i>Eucalyptus globulus</i> , <i>Vitex negundo</i> , and <i>Azadirachta indica</i> are boiled in water to prepare a decoction.	Bath is taken with this water. Twice a day until cured.
53	<i>Euphorbia heterophylla</i> L.	Euphorbiaceae	Dudlya	Latex	Lactation insufficiency	Latex is taken and about half a spoon is mixed with a glass of milk and then applied.	Twice a day for 4 days.
54	<i>Euphorbia neriifolia</i> L.	Euphorbiaceae	Habra	Stem	Stomach ache	Stem is heated.	Stem is applied on abdominal part.
55	<i>Ficus benghalensis</i> L.	Moraceae	Vod	Fruits, Aerial prop roots	Stomach pain	Crushed aerial roots are boiled and tied on the abdomen as a herbal treatment.	Once until cured.
56	<i>Ficus hispida</i> L. f.	Moraceae	Dedh Umbaro, Burumbro	Bark	Diarrhea, Vomiting	A thin bark strand with seven knots is tied and worn around the neck as a remedy.	Only once until cured.
57	<i>Ficus racemosa</i> L.	Moraceae	Umro	Leaves	Diarrhea	3 to 5 leaves are heated.	Leaves are tied on abdominal

							part.
58	<i>Flemingia strobilifera</i> (L.) W.T.Aiton	Fabaceae	Motho chiptyo	Roots	Jaundice, Fever, Pain in hands and legs	The root is washed, crushed, mixed with water, and the juice is fermented overnight.	A cup of juice is taken twice a day until cured.
59	<i>Hemidesmus indicus</i> (L.) R.Br. ex. Schult.	Apocynaceae	Anantmul	Roots and leaves	Skin disease	Leaves are taken & juice is extracted.	A cup of juice is taken twice a day.
60	<i>Hibiscus hirtus</i> L.	Malvaceae		Tuberous roots	Jaundice	Roots are crushed and mixed with milk.	A cup is taken twice a day.
61	<i>Hibiscus sabdariffa</i> L.	Malvaceae	Khati bhindi	Fruits	Blood pressure, Cardiac tissue and Cholesterol	Fruits are crushed and juice is made from it.	A cup is taken until cured.
62	<i>Holarrhena pubescens</i> Wall. ex G.Don	Apocynaceae	Kudi	Leaves	Body pain	Leaves of <i>Holarrhena pubescens</i> , bark of <i>Aegle marmelos</i> and <i>Morinda pubescens</i> are heated in water.	Take bath with that water.
63	<i>Holostemma annularis</i> (Roxb.) K. Schum.	Asclepiadaceae	Khaner	Flowers, Roots	Weakness, Use as a tonic	Crushed roots of <i>Holostemma annularis</i> , <i>Pergularia pallida</i> , and <i>Solena amplexicaulis</i>	A cup of juice is taken twice a day until cured.

						are boiled in water to prepare a decoction.	
64	<i>Hygrophilla schulli</i> (Buch.-Ham.) Alm. & Alm.	Acanthaceae	Kokilaksha	Leaves	Back pain, Ear discharge	Crushed leaves are tied on the back; alternatively, a paste is made and the juice is extracted for use.	Twice a day until cured, A drop of juice is applied twice a day until cured.
65	<i>Hymenodictyon orixensis</i> (Roxb.) Mabb.	Rubiaceae	Bovarsal	Bark	Giddiness	The bark is crushed, mixed with water, and the juice is fermented overnight.	A cup of juice is taken twice a day until cured.
66	<i>Indigofera tinctoria</i> (L.f.) Retz.	Fabaceae	Modri	Root	Small boils on tongue	Root is taken and then chewed.	Twice a day until cured.
67	<i>Ipomoea aquatica</i> Forssk.	Convolvulaceae	Nafatia	Leaves	Appendix	Leaves are crushed and made into paste.	Paste applied on abdominal region for 2 days.
68	<i>Ipomoea carnea</i> Jacq.	Convolvulaceae	Bahavalia	Leaves	Appendix	Leaves are crushed and made into paste.	Paste applied on abdominal region for 2 days.
69	<i>Jatropha curcas</i> L.	Euphorbiaceae	Adaro	Small stem	Toothache	Fresh stem is taken and then chewed.	Twice a day until cured.

70	<i>Justicia adhatoda</i> L.	Acanthaceae	Arduso, Ardushi	Leaves	Cough Fever	<p>Recipe 1: Crushed leaves of <i>Justicia adhatoda</i> and <i>Ocimum tenuiflorum</i> are boiled in 500 ml of water to prepare a herbal juice.</p> <p>Recipe 2: Crushed leaves of <i>Justicia adhatoda</i>, <i>Bacopa monnieri</i>, and <i>Tinospora cordifolia</i> are combined and boiled in water.</p>	<p>A cup of juice is taken three times in a day for 3-4 days.</p> <p>Recipe 2: A cup of juice is taken twice a day.</p>
71	<i>Lannea coromandelica</i> (Hout.) Merr.	Anacardiaceae	Modalo	Bark	Fracture	Crushed bark of <i>Lannea coromandelica</i> , <i>Careya arborea</i> , and <i>Terminalia cordifolia</i> is tied over the fractured area as a herbal dressing.	Mixture is tied twice a day until cured.
72	<i>Lantana camara</i> L.	Verbenaceae	Khardamala	Roots	Fracture, Abscess	Roots are ground into a fine paste and tied limb after setting the bone.	The paste is changed in every two days for 15 days.

73	<i>Leucas aspera</i> (Willd.) Link.	Lamiaceae	Dudhkudo	Leaves	Jaundice	Leaves are crushed and made into a paste.	The paste is applied on the top of the head twice a day until cured.
74	<i>Madhuca indica</i> Gmel.	J.F Sapotaceae	Mahua	Whole plant, Bark	Irregular periods, headache	The bark is crushed, mixed with water, and the extract is fermented overnight.	A cup of juice is taken twice a day until cured.
75	<i>Mangifera indica</i> L.	Anacardiaceae	Ambo	Flowers	Sting of scorpion	Flowers are rubbed on the hand.	Juice is applied externally.
76	<i>Manilkara hexandra</i> Dubard	Sapotaceae	Royana	Bark	Fractures	Bark is crushed and juice is extracted.	A cup of juice is taken for a week.
77	<i>Martynia annua</i> L.	Martyniaceae	Vinchhudo, Vagnokhi a	Seed	Skin diseases	The seed is rubbed on stone to form a medicinal paste.	The paste is applied on the infected part twice a day until cured.
78	<i>Mesosphaerum suaveolens</i> (L.) Kuntze	Lamiaceae	Gander	Leaves	Fever	Leaves are crushed well and made into a paste.	The juice is applied on the whole body twice a day until cured.
79	<i>Mirabilis jalapa</i> L.	Nyctaginaceae	Gulbas	Stem	Abscess	Stem is rubbed and made into a paste.	A paste is applied on the infected part until cured.

80	<i>Momordica dioica</i> Roxb. ex Willd.	Cucurbitaceae	Kantla	Tuberous roots	Rabies and Diabetes	Tubers of the male plant <i>Momordica dioica</i> , whole <i>Tinospora cordifolia</i> , is crushed, mixed with wheat flour, made chapatti for patient.	This food is given everyday for one and a half month.
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81	<i>Morinda pubescens</i> Sm.	Rubiaceae	Alado	Leaves	Burning sensation(in urethra)	Leaves are boiled in water, and the decoction is used for bathing.	Twice a day until cured.
82	<i>Moringa concanensis</i> Nimmo Dalzell & A.Gibson	Moringaceae	Mano Hegvo	Fresh leaves, Gum	Toothache, Headache, Scorpion bite	Leaves are crushed to extract juice, which is applied to the ear pinnae; gum is rubbed into a paste for use.	Paste is applied on the forehead and tied with a cloth. 2-3 drops in the morning for two days. Paste is applied until cured.
83	<i>Morus alba</i> L.	Moraceae	Setur	Fruit	Urinary infection	Fruit is eaten	Juice is taken twice a day for 2 days or fruits are eaten raw.
84	<i>Mucuna pruriens</i> (L.) DC.	Fabaceae	Khajkujali	Roots	Fungal Infection	Roots are taken and made into bracelet.	Bracelet is worn around the neck.

85	<i>Ocimum basilicum</i> L.	Lamiaceae	Ajilo	Leaves	Cough, Cold	Leaves of Sweet basil and Tulsi are crushed into a paste, and the juice is extracted.	A cup of juice is taken twice a day until cured.
86	<i>Ocimum tenuiflorum</i> L.	Lamiaceae	Tulsi	Leaves	Cough, Cold, Fever	Crushed leaves of <i>Tulsi</i> , <i>Brahmi</i> , <i>Vasa</i> , and a stem of <i>Guduchi</i> are boiled in water to make herbal juice.	A cup of juice is taken twice a day until cured.
87	<i>Operculina turpethum</i> (L.) Silva Manso	Convolvulaceae	Huvana	Leaves	Chronic skin disease	A cup of leaves is crushed into a fine paste	The paste is applied in the morning and evening until cured.
88	<i>Oroxylum indicum</i> (L.) Kurz	Bignoniaceae	Tetu	Bark	Vomiting and Diarrhea	Syonak bark and Mango seed are crushed to prepare a juice.	A cup of juice is taken twice a day until cured.
89	<i>Pergularia daemia</i> (Forssk.) Chiov.	Asclepiadaceae	Vahni sirhi	Flowers, Root	Weakness	Roots of <i>Pergularia daemia</i> + <i>Holostemma annulareum</i> + <i>Solenanthe amplexicaulis</i> are crushed, boiled in water, and made into a medicinal juice.	A cup of juice is taken twice a day until cured.
90	<i>Phyllanthus amarus</i> Schumacher & Thonn.	Euphorbiaceae	Bhoyamli	Whole plant	Jaundice	Plant is crushed, mixed with water, and juiced.	A cup of juice is taken twice a day until cured.

91	<i>Physalis minima</i> L.	Solanaceae	Dolaro	Fruits, Leaves	Abdominal pain (Children)	Leaves are crushed into a paste and tied on the abdomen.	Twice a day for 3 days.
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92	<i>Pithecellobium dulce</i> (Roxb.) Benth.	Fabaceae	Hargia-ambli	Bark	Menstrual problem	Bark is crushed well and juice is extracted.	A cup of juice is taken for two days.
93	<i>Pongamia pinnata</i> (L.) Pierre	Fabaceae	Karanj	Leaves	Diarrhea, Cough & Cold	Leaves are heated.	Heated leaves are tied on the fracture.
94	<i>Portulaca pilosa</i> var. <i>grandiflora</i> (Hook.) Kuntze	Portulacaceae	Pink purslane, Chini Misda, gulab,	Whole plant	Scorpion bite	Plant is crushed well and made into a paste.	The paste is applied on the bite.
95	<i>Psidium guajava</i> L.	Myrtaceae	Jamrukh	Fresh leaves	Cough	Fresh leaves are washed well.	Leaves are chewed until cured.
96	<i>Pterocarpus marsupium</i> Roxb.	Fabaceae	Vijaysar, Biyo	Bark	Joint pains, Excessive menstrual bleeding	Vijaysar bark is crushed, juiced with water, and fermented overnight.	A cup of juice is taken twice a day until cured.
97	<i>Pueraria tuberosa</i> (Roxb.) DC.	Fabaceae	Bhoikhuvli	Roots	Abdominal pain	Roots are crushed and juice is extracted.	Take a cup for once a day for 2 days.
98	<i>Punica granatum</i> L.	Punicaceae	Dadam	Roots	Diarrhea	Roots are crushed and juice is extracted.	A cup is taken twice a day.
99	<i>Ricinus communis</i> L.	Euphorbiaceae	Diwale	Leaves	Stomach ache	Leaves are heated	Heated leaves are bound on the abdominal

							region.
100	<i>Solanum surattense</i> Burm. L.	Solanaceae	Kantakari	Seeds	Toothache	The fruit is taken and heated; the seeds are taken out and made into a paste.	The paste is applied on the cheek twice a day until cured.
101	<i>Solena amplexicaulis</i> (Lam.) Gandhi	Cucurbitaceae	Goval gumtha	Roots	Jaundice	Roots of Solena and Abelmoschus are crushed, mixed with water, and fermented overnight to make a medicinal juice.	A cup of juice is taken twice a day until cured.
102	<i>Sorghum halepense</i> (L.) Pers.	Poaceae	Jhonson grass, Bu'uwadya	Roots	Colic	Roots of Johnson grass, Indian sarsaparilla, and Bermuda grass are wrapped in a cloth to form a locket worn around the neck.	Only once until cured.
103	<i>Sterculia urens</i> Roxb.	Sterculiaceae	Kakaboli	Seed, Bark	Fracture	Bark is crushed into a paste and applied to the fracture.	The paste is changed every 2 days until cured.
104	<i>Syzygium cumini</i> (L.) Skeels.	Myrtaceae	Haro	Seeds	Diabetes	Seeds are ground into a powder.	One spoon of powder is taken with one glass water twice a day until cured.
	<i>Tacca leontopetaloides</i>	Dioscoreaceae	Pia, Mamandola	Tuber	Sore , Injured eye	Tuber is taken and rubbed on	The inner part of the

105	(L.) Kuntze					the stone and root is made into a squeezed in paste. water and applied as a rinse for injured eyes.
106	<i>Tagetes erecta</i> L.	Asteraceae	Galgota	Flowers, Leaves	Earache	Leaves are crushed into a paste, and the juice extracted. A drop of juice is applied twice a day for 7 days.
107	<i>Tamarindus indica</i> L.	Fabaceae	Amali	Fruit	Fever	Tamarind fruits and Palash flowers are soaked, hand-ground, and applied using a cloth from head to toe—repeated 7 times front and back. Remaining liquid is spread over the body. Thrice a day until cured.
108	<i>Tamilnadia uliginosa</i> (Retz.) Tirveng. & Sastre	Rubiaceae	Genda	Bark	Cough	A piece of Katal is crushed and chewed. Chewed twice a day until cured.
109	<i>Tecomella undulata</i> (Sm.) Seem.	Bignoniaceae	Ragatroana	Bark	Bleeding during delivery	Bark is crushed, soaked in water briefly, and a juice is prepared. A cup is taken twice a day for 2 days.

110	<i>Tectona grandis</i> L.f.	Verbenaceae	Sag	Fresh leaves	Wound	Fresh leaves are crushed and a paste is prepared.	A paste is applied on the wound and it is kept bound to it for 3 days.
111	<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Combretaceae	Baheda	Bark	Paralysis	<i>Baheda</i> and <i>Guduchi</i> bark are crushed in water to prepare a juice	A cup of juice is taken twice a day for a week.
112	<i>Terminalia crenulata</i> Roth.	Combretaceae	Arjuna, Arjuna (Sadad) /Hadaddo	Bark	Cough and Cold	Bark is crushed, juiced with water, and fermented overnight.	A cup of juice is taken twice a day until cured.
113	<i>Tinospora glabra</i> (Burm.f.) Merr.	Menispermaceae	Gamliavelo, Giloy	Whole plant, Bark	Skin infection, Snake bite	The plant is tied around the hand. The whole plant is also crushed and mixed with jaggery and water, the mixture is boiled and then used. Bark of <i>Tinospora glabra</i> and <i>Azadiracta indica</i> are crushed and made into a paste.	A cup of juice is taken until cured. The paste is applied on the infected part.

114	<i>Tridax procumbens</i> L.	Asteraceae	Dingalia- khod	Whole plant Leaves	Digestion, Fresh wounds, Scorpion bite	<p>Recipe a) : Whole plants of <i>Tridax procumbens</i>, <i>Eclipta prostrata</i> are ground to a fine paste.</p> <p>Recipe b) : The whole plant of <i>Tridax procumbens</i> and leaves of <i>Cassia tora</i> are crushed with salt water into a fine paste.</p>	<p>The paste is applied on the abdominal region for 2 days.</p> <p>The paste is applied on the sting for two days.</p>
115	<i>Typha angustifolia</i> L.	Typhaceae	Botakda	Root	Fever, Stomach pain (Child)	<p>Recipe1: Crushed roots of <i>Typha angustifolia</i> are mixed with water to prepare a medicinal juice.</p> <p>Recipe2: Roots of <i>Typha angustifolia</i> and root of <i>Cyperus exaltatus</i> are taken and crushed well and tied on the stomach.</p>	<p>A cup of juice is taken twice a day until cured, Twice a day until cured.</p>
116	<i>Uraria picta</i> (Jacq.) Desv. Ex DC.	Fabaceae	Kharhadi	Roots	Colic	<p>Roots of Anantmool, Jow, and Durva are wrapped in cloth and worn as a bracelet.</p>	<p>Bracelet is worn around the neck only once.</p>

117	<i>Senegalia catechu</i> (L.f.) P.J.H. Hurter & Mabb.	Fabaceae	Kher	Bark	Excessive menstrual bleeding	Crushed bark of Biyo and Gundi is a mixed with water to make a juice.	A cup of juice is taken until cured.
118	<i>Ventilago denticulata</i> Willd.	Rhamnaceae	Aasi	Bark	Abscess	Bark is rubbed on a stone and a paste is prepared.	The paste is applied on the abscess until cured.
119	<i>Vitex negundo</i> L.	Verbenaceae	Nagod	Leaves	Fever	Leaves of Nirgundi, Bael, and Neem are boiled for 30 minutes and used for bathing.	Twice a day until cured.
120	<i>Wrightia arborea</i> (Dennst.) Mabb.	Apocynaceae	Zhini kudi	Bark	Snake bites	Bark is crushed, mixed with water, and left to ferment overnight.	A cup of juice is taken twice a day until cured.
121	<i>Ziziphus jujuba</i> Mill.	Rhamnaceae	Boin	Bark	Cough	Bark is peeled.	Bark is chewed once a day.

DATA ANALYSIS

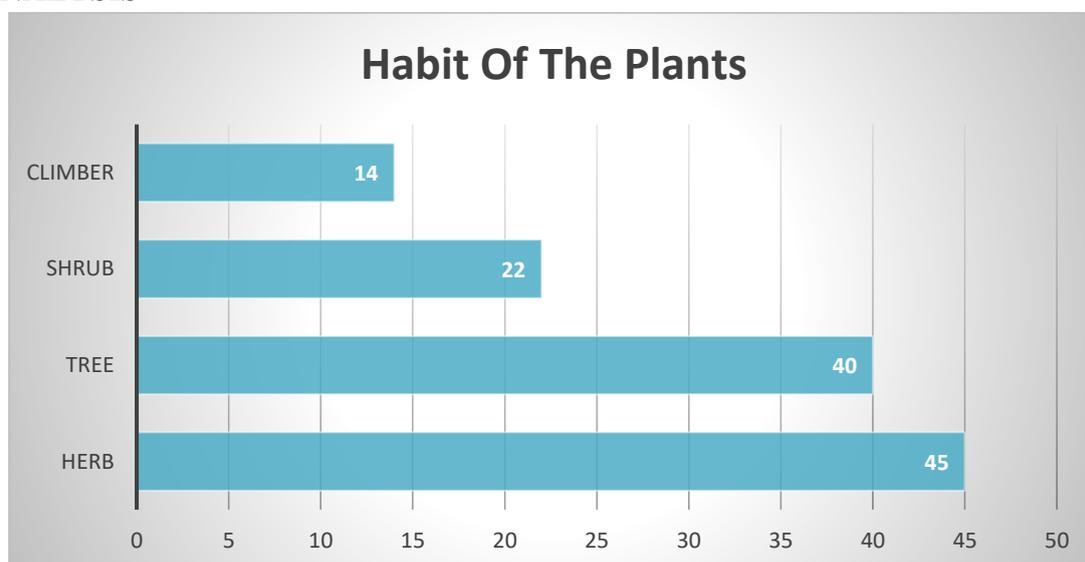


Fig 1: Represent the habitat of the studied plants

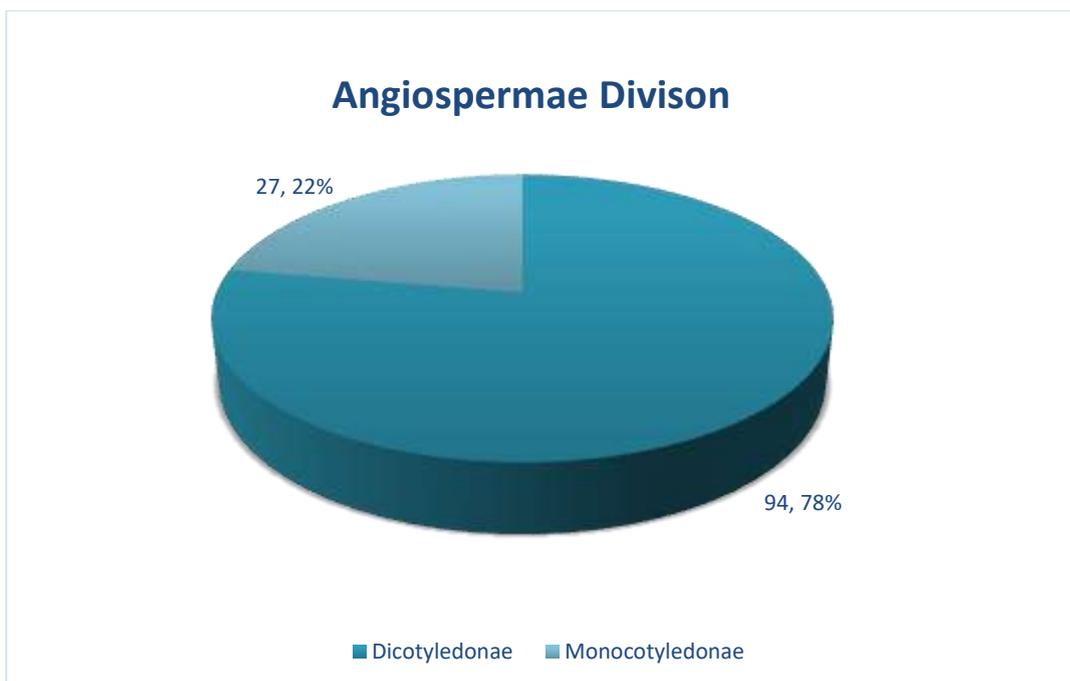


Fig 2: Represent the Angiospermae division of the studied plants

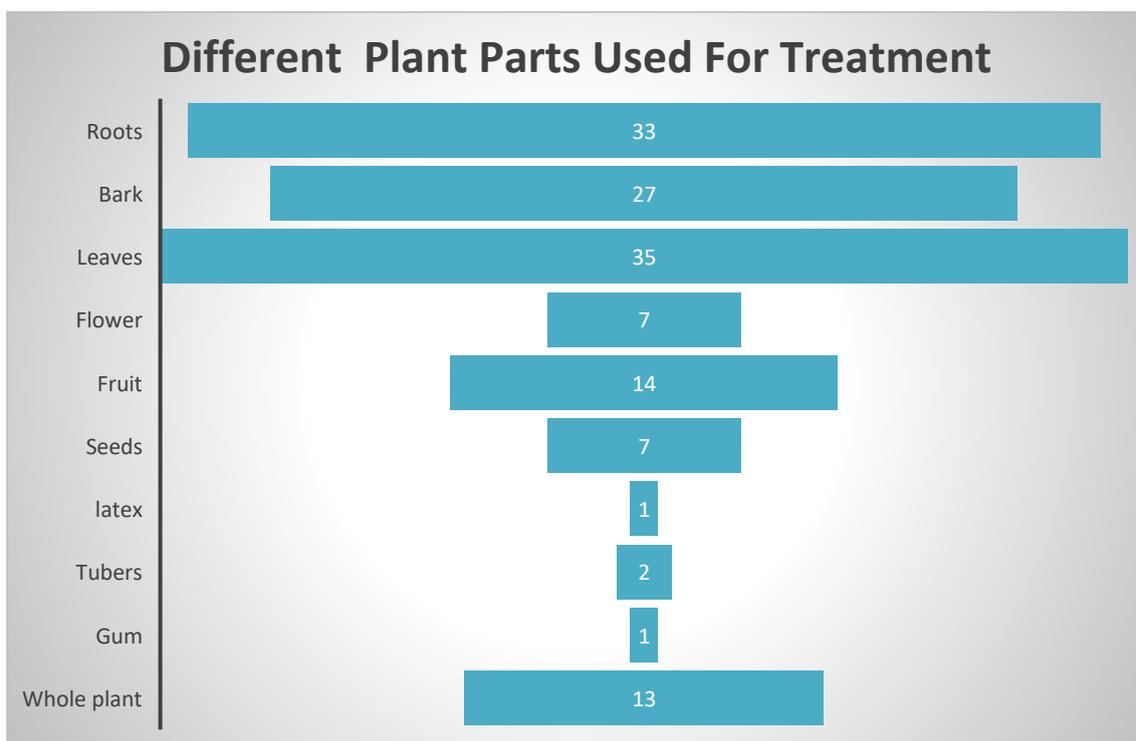


Fig 3: Different plant parts used for the treatment

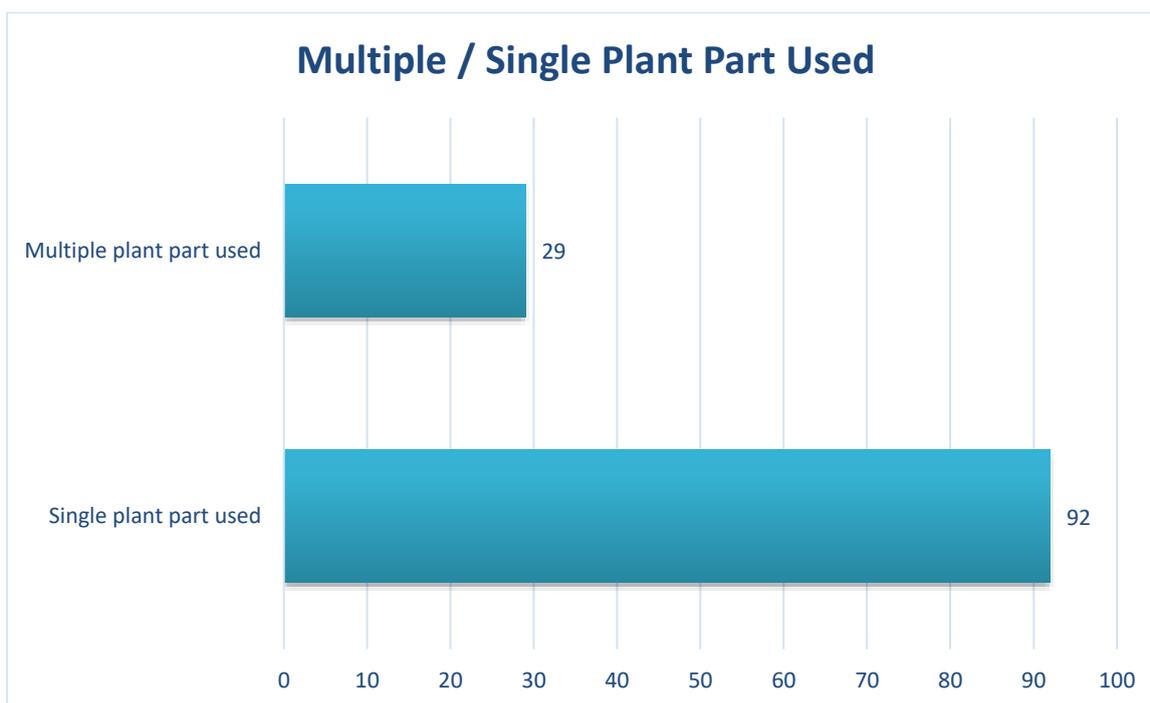


Fig 4: Represent the multiple/single plant part used

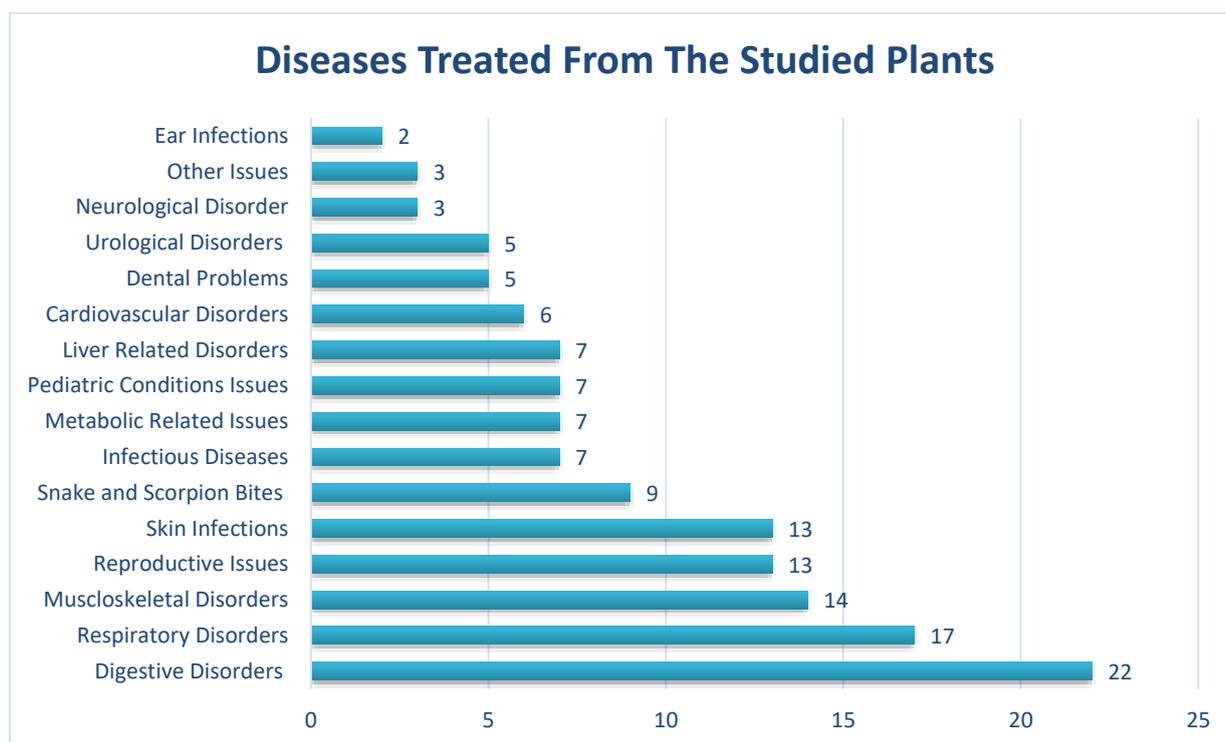


Fig 5: Represent the diseases treated from the studied plants

DOMINANT FAMILY	NO.
Fabaceae	19
Euphorbiaceae	8
Apocynaceae, Asteraceae, Malvaceae	5

Acanthaceae, Convolvulaceae, Lamiaceae, Verbenaceae, Moraceae	4
Asclepiadaceae, Poaceae, Cucurbitaceae, Myrtaceae, Rubiaceae, Bignoniaceae, Solanaceae	3
Anacardiaceae, Sapotaceae, Annonaceae, Asparagaceae, Capparidaceae, Combretaceae, Dioscoreaceae, Menispermaceae, Rhamnaceae	2
Amaranthaceae, Amaryllidaceae, Boraginaceae, Caricaceae, Costaceae, Crassulaceae, Cyperaceae, Liliaceae, Martyniaceae, Meliaceae, Moringaceae, Nyctaginaceae, Oxalidaceae, Portulacaceae, Puniacaceae, Rutaceae, Sapindaceae, Sterculiaceae, Typhaceae, Scrophulariaceae	1

Fig 6: Table represent the dominant families of the observed plants

RESULTS AND DISCUSSION

During the course of the study, a total of 121 plant species were documented, representing 45 distinct botanical families. A notable majority of these species were herbaceous, with the Dicotyledonae group being most prevalent. In terms of medicinal use, leaves emerged as the most commonly utilized plant part, followed by roots. Remarkably, about 92 species were associated with the use of a single plant part for remedy preparation, reflecting a focused approach in traditional practices. These medicinal plants were employed across approximately 16 broad therapeutic categories, addressing a diverse range of ailments and health conditions, from common infections to chronic disorders.

CONCLUSION

The Gamit tribe, like many indigenous communities, shares a deep, time-tested relationship with nature, relying heavily on forests for food, shelter, fodder, and especially medicinal plants used in traditional healthcare. This wealth of indigenous knowledge, often preserved and practiced by elderly traditional healers, involves a wide array of locally available plants—including herbs, seeds, barks, and flowers—used either individually or in combination to treat a broad spectrum of ailments. These remedies are not only effective and affordable compared to modern medicines but are also deeply rooted in cultural heritage.

However, this valuable knowledge is at risk of being lost due to modernization and lack of documentation. To ensure the preservation of this traditional wisdom, it is essential to scientifically document and validate these practices. Doing so not only helps bridge the gap between indigenous knowledge and modern healthcare but also opens opportunities for collaboration with government agencies and research institutions. Such partnerships can support the patenting of traditional remedies, protect tribal intellectual property, and promote the development of herbal products. This, in turn, can foster economic empowerment through small-scale enterprises, create local jobs, and encourage self-reliance within tribal communities.

Furthermore, urban populations can contribute by cultivating medicinal plants in home gardens and community spaces, thus reducing pressure on forest resources while promoting natural remedies. Integrating traditional knowledge with modern science and policy not only helps conserve biodiversity but also supports a more inclusive, sustainable, and health-conscious future for both tribal and urban communities. Nature continues to provide what we need—our responsibility is to protect, respect, and preserve this invaluable heritage for future generations.

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