

## ETHNOBOTANICAL STUDIES OF WILD PLANT RESOURCES OF PUNA HILLS, DISTRICT BHIMBER, AJK

MUHAMMAD AJAIB<sup>1</sup>, ANEESA ABID<sup>1</sup>, MUHAMMAD ISHTIAQ<sup>1</sup> AND  
MUHAMMAD FAHEEM SIDIQI<sup>2</sup>

<sup>1</sup>*Department of Botany (Bhimber Campus), Mirpur University of Science and Technology (MUST), Mirpur-10250 (AJK), Pakistan*

<sup>2</sup>*Department of Botany, University of Karachi, Karachi-Pakistan*

*\*Corresponding Author's E-mail: majajibchaudhry@yahoo.com*

### Abstract

In the investigated area, Puna Hills, District Bhimber, Azad Jammu and Kashmir, a total of 100 plant species belonging to 52 families were recorded. Among these, single species of family Pinaceae representing gymnosperms, while the rest of the plant species representing the dicot and monocot angiosperms. Ethnobotanical survey of almost all the places of Puna Hills was carried out by interviewing local people on the basis of random selection through a questionnaire during 2014-2015. The information about medicinal plants was collected from people belonging to different professions. The ethnobotanical information includes the local name, recipes of plant usage and part usage. Out of 100 plant species 65(65%) were used as single-usage, 17(17%) were two- usage, 18(18%) were multi-usage.

### Introduction

Through ethnobotanical survey one can learn to know about locally important plants. The information which is obtained from study is used to discover different aspects of plants like medicines. The ethnobotanical data available is majorly useful to discover various modern day drugs. Thousands of medicinal plants species are present in throughout the whole world. There are about 258,650 higher plants species are used as medicines (Shinwari, 2010). Plants are the best medicines to cure ailments because they contain drugs which very effective against diseases and have no harmful side effects (Gilani and Rahman, 2005; Ajaib *et al.*, 2014a).

The present study is conducted in Puna Hills. It is very beautiful and pleasant. It is sub-division of Tehsil Samahni, District Bhimber. There is a great diversity of medicinal plants in study area. The interesting thing about study area is that the coniferous forest is gradually become rare. All the forms, i.e. trees, shrubs, herbs and climbers are richly present in this area. Trees plays very important role in the daily lives of community and mostly used as multipurpose like medicinal, constructional work, furniture making, as a fuel, as a fiber, as a fodder and as fencings (Ajaib *et al.*, 2014b). Different kinds of products are extracted from plants like resins and charcoal. All these products used by the people (Jabeen *et al.*, 2105). Medicinal plants are used in making medicines to cure their ailments' Plants are the great source of poor inhabitance in various ways (MacKay, 1994).

The climate of this area is mostly inconsistent. The average maximum temperature of this area 28.9 degree and minimum temperature is 15.8 degree. The temperature falls in December and January up to 6034 degree to 5.22 degree. There is very cold in these two months. 3.2 degree temperature is recorded in December. Average rainfall of study area is 102.8mm per month. During rainy season and winter humidity becomes low. The highest value of humidity during August at morning is 83.4 and lowest value in evening is 29 (Ishtiaq *et al.*, 2007).

### Materials and Methods

The present study was conducted during 2014 and 2015. Several visits were made on weekly bases to different parts of the study area. The study was based on visits of almost all villages more than 80 respondents in addition to personal observations and informal discussions. To collect the ethnobotanical data and uses of medicinal plants of study area all the villages of Puna Hills were visited and information was collected. The information about medicinal plants was collected from people belonging to different professions. It includes Herbal practioners, wood sellers and Farmers, etc. through interviews and filling a questionnaire. The adjoining areas were also visited for the study which include, Seri, Dhaka, Chala and Sabez pir. The plants collected were pressed, dried and mounted on herbarium sheets and identified with available literature such as Flora of Pakistan.

## Results and Discussion

The area under study was visited and observed throughout the year. Local inhabitants of the area were interviewed through the questionnaire. The entire plant specimens were collected from the study area and then identified with the help of flora of Bhimber and Samahni. In the study area a total of 100 species were recorded belonging to 52 families, out of which, monocot included 12 species of 3 families, i.e. Poaceae and Cyperaceae. Among monocot Poaceae was the dominant family having 10 species. The remaining 88 plants were belonging to dicot families; Asteraceae and Papilionaceae with 5 species each; Amaranthaceae with 4 species; Moraceae with 4 species; Euphorbiaceae with 4 species; Rhamnaceae, Lamiaceae and Mimosaceae represented by 3 species each. Acanthaceae, Caesalpiniaceae, Rutaceae, Scrophulariaceae, Malvaceae, Solanaceae, Verbinaceae and Sapindaceae each with 2 species. The remaining families Arecaceae, Rosaceae, Cucurbitaceae, Polygonaceae, Myrsinaceae, Convolvulaceae, Ranunculaceae, Violaceae, Araliaceae, Chenopodiaceae, Fumariaceae, Tiliaceae, Juglandaceae, Lythraceae, Asclepidiaceae, Cannabinaceae, Anacardiaceae, Meliaceae, Bombacaceae, Oxalidaceae, Apocynaceae, Celastraceae, Myrtaceae, Pinaceae, Menispermaceae, Caryophyllaceae, Brassicaceae, Cuscutaceae, Vitaceae, Aizoaceae, Rubiaceae, Primulaceae, Plantaginaceae and Papaveraceae were families consisting of one species each (Table 1).

### 1. Single-Usage Plants

The plants used for one specific purpose are called single-usage plants, e.g. *Tridax procumbens* L. a medicinal plant only. Out of 100 plant species reported, 65 were single-usage, used for medicinal, fodder, vegetable, furniture and fuel purposes. Out of these 65 plants, medicinal plants were 43, while fodder, vegetable, furniture and fuel plants were 14, 3, 3, and 2, respectively. In terms of percentage, medicinal were 43%, where as fodder, vegetable, furniture and fuel plants were 14%, 3%, 3% and 2% respectively (Fig. 1).

Among medicinal plants, Dicotyledons were 42 in number, while Monocotyledons were 1. Out of 14 fodder plants, 5 were Dicotyledons, whereas 9 Monocotyledons. Plant used as the vegetable represented by 3, furniture by 3 and fuel by 2 Dicotyledons. Fig. 1 presents single-usage plants of Puna hills.

### 1. Two-Usage Plants

These are the plants used for two purposes, e.g. *Convolvulus arvensis* L. is used for both medicinal and fodder purposes. Out of 100 plant species, 17 represented two-usage plants. There were 8 categories of two-usage plants, i.e. Medicinal and Fodder (5), Medicinal and Furniture (3), Medicinal and Vegetable (2), Fodder and Vegetable (2), Medicinal and Fuel (2), Fodder and Fuel (1), Fodder and Furniture (1), Furniture and Fuel (1). The percentage of these two-usage plants was given in the Fig 2.

### 2. Multi-Usage Plants

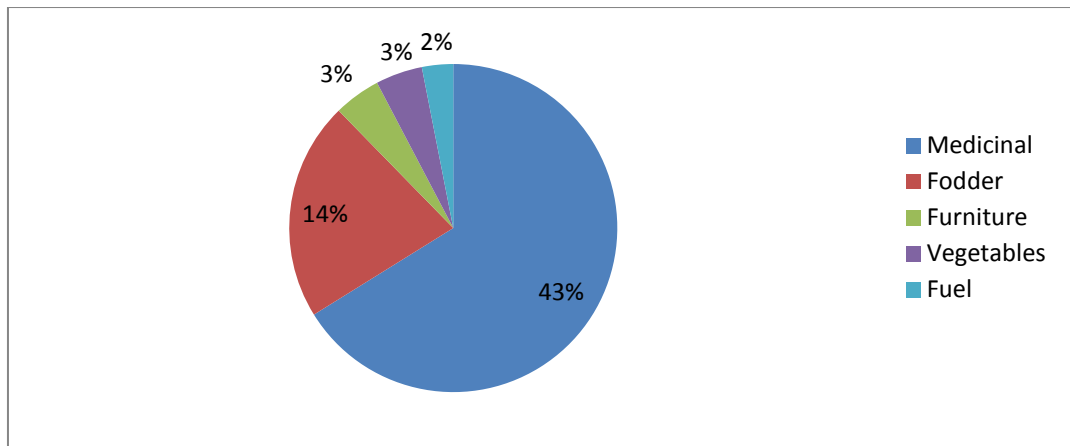
The plants used for more than two purposes are called Multi-Usage Plants, e.g. *Ziziphus jujuba* Lamk. is used for Medicinal, Furniture and Fodder purposes. Out of 100 plants, the Multi-Usage plants were 18 in number.

Only one Gymnosperms *Pinus roxburghii* Sargent was used for Medicinal, Fodder, Fuelwood, Ornamental, Timber and Agricultural purposes. Rest of 17 plants were used as Medicinal, Fodder, Food, Vegetable, Fuel and Agricultural purposes were Angiosperms including 14 Dicotyledons and 3 Monocotyledons.

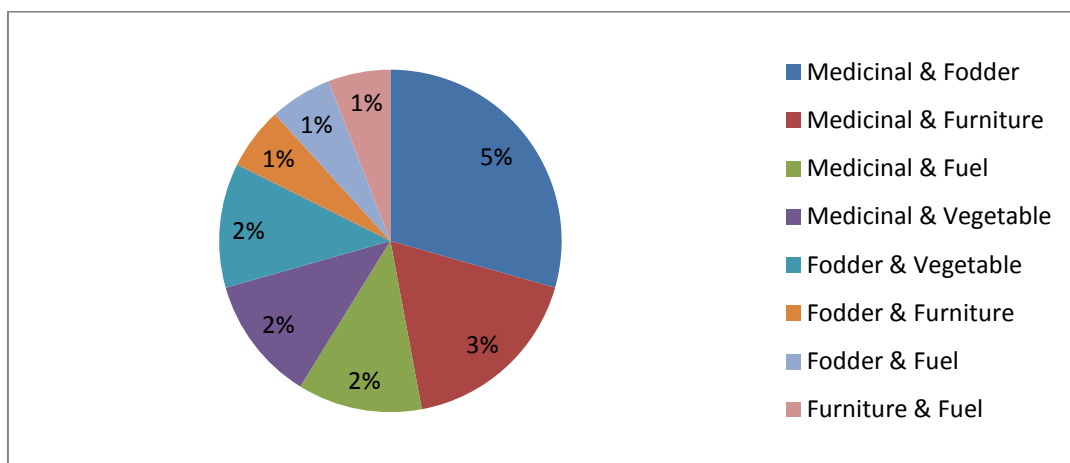
In the investigated area, i.e. Puna Hills, Tehsil Samahni, District, Bhimber Azad Kashmir a total of 100 plants were collected. Some plants are medicinal, some are used as fuel wood, some are used as fodder, some are used for furniture making and some are edible vegetable. This can be shown in fig 3.

Puna Hills is a very beautiful and fabulous area with a great diversity of plants. It is hilly as well as plain area. Shrubs are the most dominant part of vegetation. Trees are also present in wide range. These are used by the local people for different purposes. For example for construction, furniture, agro-agriculture, instrument, honeybee production, food, dye, fiber, fodder, medicines, fuel wood, fencing, timber wood, charcoal, resin, building material, airbrake, production of kitchen utensils, culture, religious or judicial and traditional ritual function. Trees and products are economically important for local people as discussed by Mackey (1994).

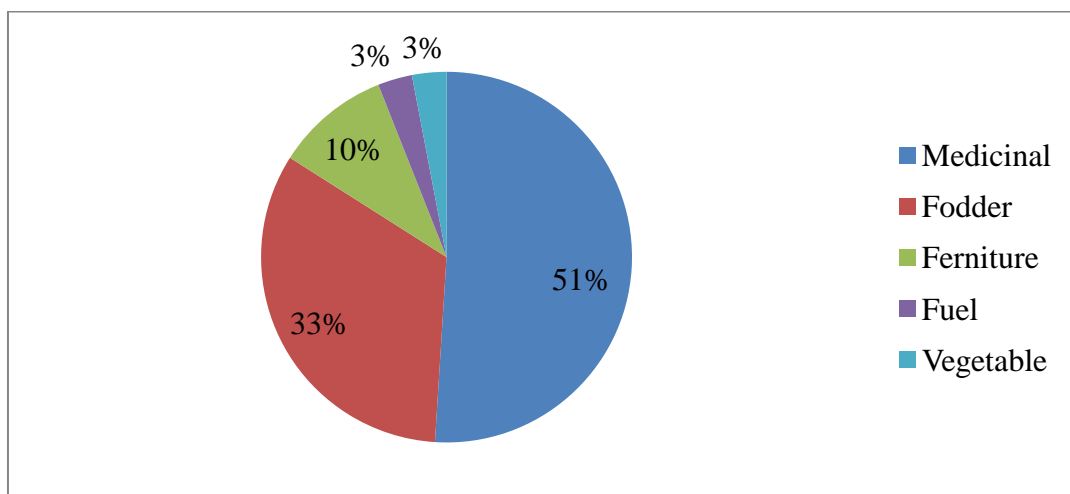
People living in the study area depend upon local vegetation such as they cut trees to meet their daily needs. As the population increases in very high alarming rates people need more space to occupy them and hence, the number of plants decreases day by day. Somewhat similar situations were reported by Ajaib *et al.* (2014c) during the documentation of ethnobotanical information from Tehsil Kharian District Gujrat, Pakistan and Zareen *et al.* (2013) during the ethnobotanical study of shrubs of central Punjab, Pakistan.



**Fig. 1: Proportion of the single-usage plants of Puna Hills**



**Fig. 2: Proportion of the two-usage plants of Puna Hills**



**Fig.3: Chart Showing % usage of plants of Puna Hills**

**Table.1. Species wise Inventory with Ethnobotanical importance of Some plants of Puna Hills Valley, AJK**

Botanical name	Family	Common name	Traditional uses
<i>Ajuga bracteosa</i> Wall.ex. Benth.	Lamiaceae	Heri-booti	A decoction is used for curing jaundice, high blood pressure and throat infection. It is also used for treatment of intestinal ulcer.
<i>Argemone mexicana</i> L.	Papaveraceae	Dudhli kandyari	Seeds are laxative and analgesic when taken with milk. Root with lemon is used for pile.
<i>Alstonia scholaris</i> (L.) R.Br.	Apocynaceae	-	The bark is used in medicine to treat fever, malaria, tumors and asthma.
<i>Amaranthus viridis</i> L.	Amaranthaceae	Ganar	Leaves are used on snake bite and scorpion sting. The root juice is used to treat inflammation during urination. It is also taken to treat constipation.
<i>Alternanthera pungens</i> Kunth	Amaranthaceae	Itsit Te Phakra	Roots are used for eye tumor. Leaves and roots are diuretic blood purifier.
<i>Anisomeles indica</i> (L.) S. Kurz.	Lamiaceae	-	Decoction of leaves used as anti-rheumatic and stomachic. Leaves chewed for toothache.
<i>Achyranthes aspera</i> L.	Amaranthaceae	Puth kanda	Leaves are used against pneumonia. Leaves are boiled in water and that water is used against pneumonia and asthma.
<i>Albizia lebbeck</i> (L.) Benth.	Mimosaceae	Sreeia	Seeds are used for curing the severe kidney infection. Wood is used as fuel wood and for making milk stirrer. Leaves are also palatable and weight increasing in cattle.
<i>Anagallis arvensis</i> L.	Primulaceae	Billi buti	It is used as fodder for cattle.
<i>Arundo donax</i> L.	Poaceae	Narr	Sticks keep on heap of straw of maize and also for making pens to write.
<i>Avena fetha</i> L.	Poaceae	Gandail	It is used as fodder for cattle.
<i>Aristida adscensionsis</i> L.	Poaceae	Saroot	Branches collected and used to make wiper and mats.
<i>Bauhinia variegata</i> L.	Caesalpiniaceae	Katchnar	Leaves palatable and used as fodder for cattle. Fruit is used as vegetable and wood as fuel. It is also useful for skin diseases and leprosy.
<i>Butea monosperma</i> (Lam.) Taubert	Papilionaceae	Chechra	Leaves are palatable for goats and wood is used as fuel wood. Gum is used as tonic and also given for backache after birth in women.
<i>Buddleja asiatica</i> Lour.	Buddlejaceae	Batta	It is used for skin disease, abortion and as a cure for loss of weight.
<i>Barleria cristata</i> L.	Acanthaceae	-	Seeds used as antidote for snake bites. It is used in the treatment of serious catarrhal infections.
<i>Bombax ceiba</i> L.	Bombacaceae	Simbal	Wood is used for making sports goods such as bats, hockey sticks, etc. Fruit when matures excretes silky cotton which is used for making pillows.
<i>Boerhavia diffusa</i> L.	Amaranthaceae	Sanati	This medicinal plant is used to improve eyesight. It has diuretic properties which is useful in controlling blood sugar levels in diabetic patients.
<i>Buglossoides arvensis</i> (L.) Johnston	Boraginaceae	Kalu	Plant served as fodder for cattle. Leaves infusion is used as sedative.
<i>Croton bonplandianus</i> Baill	Euphorbiaceae	-	Leaves are highly medicinal and used for controlling blood pressure.
<i>Cissampelos pareira</i> L.	Menispermaceae	Batrarr	A rhizome decoction or pounded leaves are also widely taken or externally applied as a febrifuge and

			stomachic, and against cough and snake bite.
<i>Cedra toona</i> Roxb. Ex Willd.	Meliaceae	Toon	Wood is used in house and ship building.
<i>Carissa opaca</i> Staplf ex. Haines	Apocynaceae	Grunda	Stem and root is used as fuel especially in local ovens. Leaves are highly palatable for goat and increase weight of goat. Fruit is palatable and blood purifier.
<i>Cassia fistula</i> L.	Caesalpiniaceae	Amaltas	The root has immense medicinal value. It also helps in reliving the symptoms of asthma, leprosy, fever and heart related diseases.
<i>Chenopodium album</i> L.	Chenopodiaceae	Bathwa	Plant is used as food cooked in the form of saagh and also used as fresh fodder. This plant is laxative
<i>Coronopus didymus</i> (L.) Smith	Brassicaceae	-	Whole plant is used as fodder for cattle.
<i>Cissus carnosa</i> (L.) Lamk	Vitaceae	Dakh	Fruit is eaten. It is good for abdominal diseases.
<i>Calotropis procera</i>	Asclepiadaceae	Desi akk	Whole plant extract is applied on dog bite. Latex is commonly used for ring worm and skin diseases. The milky juice (latex) is toxic.
<i>Cannabis sativa</i> L. (Ait.)	Cannabinaceae	Bhang	Root and leaves extract is used for liver disorders. Leaves and flowers are sedative, analgesic and narcotic. A local product called Chars is manufacture from it. Leaves are also used as laxative, stomach diseases and as aphrodisiac.
<i>Cuscuta reflexa</i> Roxb	Cuscutaceae	Neel Dhari	Its infusion is anti-lice. It is also used in skin diseases such as anemia and other weaknesses of children.
<i>Chenopodium album</i> L.	Chenopodiaceae	Bathwa	Leaves and fruit are used as vegetable. Leaves are laxative and anthelmintic and also used as fresh fodder.
<i>Citrus acida</i> L.	Rutaceae	Khatta	Fruit is used in pickles while wood is used as fuel wood.
<i>Convolvulus arvensis</i> L.	Convolvulaceae	Rawari	It is used as fodder for cattle. The root is purgative and diuretic.
<i>Diplocyclos palmatus</i> (L.) C. Jeffery	Cucurbitaceae		The whole plant is used for cough and skin diseases.
<i>Dodonea viscosa</i> (L.) Jacq.	Sapindaceae	Sanatha	Decoction of wood also used as febrifuge. It is used for skin diseases.
<i>Dicliptera bupleuroides</i> Nees	Acanthaceae	Kaali Buti	It is used as fodder for cattle.
<i>Dalbergia sissoo</i> Roxb.	Papilionaceae	Tali	Decayed leaves provide excellent bio fertilizer. Wood is used for making furniture especially black wood of old trees. Wood is also used as fuel wood and house construction. Ground leaves is bandaged on mammary glands to remove pain. Branches are used as muswak and kills worms in the teeth.
<i>Dichanthium annulatum</i> (Forssk.) Stapf	Poaceae	Marvel Grass	It is commonly used as forage for livestock.
<i>Eugenia jambolana</i> Lam.	Myrtaceae	Jaman	It is used for the treatment of cancer.
<i>Euphorbia hirta</i> L.	Euphorbiaceae	Choti dhooal	Whole plant is used as a medicinal supplement.
<i>Euphorbia helioscopia</i> L.	Euphrbiaceae	Doodal	Toxic plant
<i>Fumaria indica</i> (Hausskn.)Pugsley	Fumariaceae	Papra	It is used as fodder for cattle. Its infusion is also used as blood purifier, diaphoretic and antipyretic.
<i>Ficus palmate</i> Forssk	Moraceae	Phugwara	Leaves are used as fodder for goat. Fruit is edible and laxative. It soothes the bee sting by simple rubbing on the skin. Wood is hard and used for making household utensils. It is also used as fuel wood.

<i>Ficus religiosa</i> L.	Moraceae	Peepal	Leaves and fruits are eaten by the animals. Wood is used for the furniture purposes.
<i>Grewia optiva</i> Drummond	Tiliaceae	Dhaman	Leaves are highly palatable for goat.
<i>Gymnosporia royleana</i> (Wall.ex Lawson) Cuf	Celastraceae		It is used for treatment of asthma, cough, tonic, abdominal pain and expectorant.
<i>Galium aparine</i> L.	Rubiaceae	Lahndara	Plant extract is useful for dropsy, diuretic, urinary bladder and kidney infection.
<i>Hedera nepalensis</i> K.Koch.	Araliaceae		Leaves are used traditionally for treatment of diabetes.
<i>Heteropogan controus</i> L. P. Beav	Poaceae	Suryalla Grass	It is used as fodder for cattle.
<i>Ipomoea carnea</i> Jacq.	Convolvulaceae	Jangli Bhaikar	It is used to stop the soil erosion in bare land. It is also used as a medicinal and hedge plant. It is also used as fuel wood.
<i>Justicia adhatoda</i> L.	Acanthaceae	Bhakar	It is used to treat coughs, colds, asthma, skin infections, fevers and inflammations. Leaves bark and roots are also used for wound infection.
<i>Juglans regia</i> L.	Juglandaceae	Khor	Wood is used for making furniture. Root and leaves used as antiseptic. Fruit used as dry fruit. Wood is used as fuel wood. Fruit also remove stone in gall bladder and aphrodisiac.
<i>Malva parviflora</i> L.	Malvaceae	Sonchul	Leaves used as vegetable. Leaves extract is anthelmintic in human, children and animals worms.
<i>Mallotus philippinensis</i> (Lam.) Muell.	Euphorbiaceae	Kamella	Wood is used as fuel wood. Dried fruit is powdered and mixed with yogurt and is used as purgative and anthelmintic for animals, especially for tape- worms. Leaves in early stages are palatable and older leaves are non palatable.
<i>Medicago polymorpha</i> L.	Papilionaceae	Sriri	Whole plant is used as fodder for cattle. Leaves decoction is used for digestive disorders. Leaves are also used as vegetable.
<i>Melia azadarach</i> (L.)	Meliaceae	Draik	Leaves are palatable for goat. Wood is used as a fuel wood. Leaves and fruit powder is used as blood purifier, fever and diabetes.
<i>Morus alba</i> L.	Moraceae	Shehtoot	Leaves are palatable and used as fodder for goat and silk worms. Fruit is dried and sold in market as a dry fruit. Wood is used for making agricultural tools and furniture. Wood is also used as fuel wood.
<i>Malvastrum coromandelianum</i> (L.) Garcke	Malvaceae		Leaves are crushed and made in to paste to relieve pain. Flowers are used as diaphoretic. Decoction is resolvent.
61. <i>Morus nigra</i> L.	Moraceae	Kala Toot	Leaves are palatable and used as fodder for goat and silk worms. Fruit is dried and sold in market as a dry fruit. Fresh fruit is ground and used as tonic and for cough and throat irritation. Wood is also used as fuel wood.
<i>Mentha longifolia</i> Benth	Lamiaceae	Jangli podina	Leaves are stimulant, stomach and carminative. Leaves are also used as antispasmodic and dyspepsia.
<i>Myrsine Africana</i> L.	Myrsinaceae	Guggle	Shoots are used as fodder for goat and sheep.
<i>Nasturtium officinale</i> R.Br.	Brassicaceae	Chooch	The leaves with stem are used for the treatment of internal tumors, anemia and scurvy.
<i>Nerium indicum</i> L.	Apocynaceae	Gandeera	Leaves decoction in the form of paste is applied externally on skin diseases. The plant is ornamental but toxic.
<i>Oxalis corniculata</i> L.	Oxalidaceae	Khati Buti	Fresh leaves are used as vegetable. Leaves decoction is used in fever and dysentery. It is also used as fodder for cattle.

<i>Phoenix sylvestris</i> (L.) Roxb	Arecaceae	Khajoor	Leaves are used to make hand fans, baskets and prayer mats. Wood is used for construction purposes. Bushes are used to make the sticks of kites. Bushes without fruits are used for the mopping.
<i>Plantago lanceolata</i> L.	Plantaginaceae		Leaf extract is applied to sores, wounds and bruises where as seeds are purgative.
<i>Pinus roxburghii</i> Sargent	Pinaceae	Cheer	Resin is used for tumors and bleeding wounds. Resin is also useful for sever cough. Leaves and bark powder is used with cold water which is useful for dysentery. Wood is used to make reliable furniture. Seeds are edible and cone is used for fuel purposes.
<i>Parthenium hysterophorus</i> L.	Asteraceae	Thandi booti	Weed of waste places.
<i>Papaver dubium</i> L.	Papaveraceae	Jangli post	It is used as fodder for cattle. Its infusion is also used as blood purifier, diaphoretic and antipyretic.
<i>Polypogon fugax</i> Nees ex Stued	Poaceae		Sometimes used as a fodder for cattle.
<i>Periploca aphylla</i> Decne	Asclepidiaceae	Bata	It is commonly used for the treatment of tumors and swellings.
<i>Rumex dentatus</i> L.	Polygonaceae	Herfli	Leaves are diuretic and astringent.
<i>Rhamnus triquetra</i> (Wall.) Brandis	Rhamnaceae	Clader	Leaves and fruit extract is useful for hemorrhagic septicemia.
<i>Ranunculus muricatus</i> L.	Ranunculaceae	Kor-Kandoli	Plant extract is lapped on snake bite. Leaves and fruit are very useful on burst and rooted tumor.
<i>Rubus ellipticus</i> Smith	Rosaceae	Akhra	Fruit is edible. It is used as hedge plant to protect the fields.
<i>Saccharum spontaneum</i> L.	Poaceae	Kai	It is used as fodder. It is used for making ropes and for roof thatching.
<i>Sapindus mukorossi</i> Gaertn	Sapindaceae	Raitha	Wood is used as a fuel wood and fruit as a hair tonic.
<i>Senegalia modesta</i> (Wall.) P. J. Hurter	Mimosaceae	Phulai	Leaves are used as fodder for goat. Flowers are used for honey bee collection. Wood is used as a fuel wood.
<i>Silybum marianum</i> Gaertn	Asteraceae	Kanndyara	Seeds used as an antioxidant and appetite.
<i>Solanum nigrum</i> L.	Solanaceae	Katch-match	Shoot is used for curing dropsy and jaundice. Leaf juice is used in kidney diseases. Leaves are used for wounds.
<i>Sonchus asper</i> (L.) Hill	Asteraceae	Pangdaru	Fresh plant is served as a fodder for cattle.
<i>Sorghum halepense</i> (L.). Pers	Poaceae	Baru	Whole dried plant on grass and maize straw heap is used to protect from the rain. It is also used as fodder for cattle.
<i>Sporobolus coromandelianus</i> Retz.	Poaceae		It is used as fodder for livestock.
<i>Stellaria media</i> (L.) Vill.	Carryophyllaceae		The plant is served as a fodder for cattle.
<i>Taraxacum officinale</i> Weber	Asteraceae	Hund	It is a general stimulant to the system, but especially to the urinary organs, and is chiefly used in kidney and liver disorders. Roots are also used as fodder for cattle.
<i>Trianthema portulacastrum</i> L.	Aizoaceae	Itsit	Plant is served as fodder for cattle. Leaves extract is useful for stomach problems and snake bites.
<i>Tridax procumbens</i> L.	Asteraceae	Coat Buttons	The leaves are antiseptic, haemostatic and parasiticide. They are used as a treatment against bronchial catarrh, dysentery, and diarrhea.
<i>Vachellia nilotica</i> (L.) P. J. Hurter & Mabb.	Mimosaceae	Kikar	Hard wood is durable and is used for the construction of homes, fuel wood and for making agricultural tools. Leaves used as fodder for goats and oxen to increase weight. Seeds are also used for making wine.
<i>Viola canescens</i> Wall. ex Roxb.	Violaceae	Banafsha	Flowers are used as febrifuge, diaphoretic and antipyretic. Roots are used as laxative and diuretic. Paste is locally used in eczema. Flowers are

			recommended in epilepsy and nervous disorders.
<i>Vitex negundo</i> L.	Verbinaceae	Bana	The leaves root, and fruit showed antihistamine benefits that might relax bronchial muscles and reduce asthma symptoms.
<i>Vicia hirsuta</i> (L.)	Papilionaceae		The seed can be eaten as a staple food. Leaves and stem used as a vegetable.
<i>Vicia sativa</i> L.	Papilionaceae		Common vetch is widely cultivated for its high quality forage and grain for livestock.
<i>Veronica polita</i> Fries	Scrophulariaceae	Sriri	Plant is served as fodder for cattle, goat and sheep.
<i>Verbascum Thapsus</i> L.	Scrophulariaceae	Gidar Tabacco	Leaves and flowers are used in cough and pulmonary diseases.
<i>Verbena officinalis</i> L.	Verbinaceae		It is used for treatment of infections and fever.
<i>Withania somnifera</i> (L.) Dunal	Solanaceae	Dodak	It is used in Ayurvedic medicine. Fruit is edible.
<i>Woodfordia fruticosa</i> (L.) Kurz	Lythraceae	Tahvi	Leaves are useful in bilious sickness. Flowers and leaves are stimulant and used in dysentery, diarrhea, ulcers, wounds and toothache. Wood is used as fuel wood.
<i>Ziziphus jujuba</i> Lamk	Rhamnaceae	Jand-beri	Wood is used as a fuel wood. It is also used in local furniture like beds. The leaves are used for fodder for goat. Fruit is edible, blood purifier and used in indigestion. Fruit decoction is excellent hair wash.
<i>Zanthoxylum alatum</i> DC.	Rutaceae	Timber	Wood is used as fuel wood. Ground leaves used for digestion. The fruit is aromatic, carminative and condiment and is used in sauce. Fruit is also used for the treatment of pile.
<i>Ziziphus nummularia</i> (Burm.f.) Wight & Arn.	Rhamnaceae	Bair	Leaves are used as fodder for goat. Fruit is edible and laxative.

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