

Documentation of Ethno Medicinal Plants of Gopalganj District of Bihar (India)

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Abstract: Gopalganj, the small underdeveloped district in North- Western part of Bihar is bestowed with rich floral diversity and economically backward rural population covering 2033 Km² geographical area. The district is very close to the foothill of Himalayan ranges separated by river Gandak from west Champaran in east. The Present communication deals with the documentation of 221 Ethno Medicinal species out of 79 families, mostly from Angiosperms, a few from Gymnosperms and the few from Pteridophytes in alphabetical order. All these Ethno medicinal Plants are mentioned in this paper with their Botanical name, respective families, local name, life forms, Parts use and local uses.

Key words: Ethno Medicinal Plants, Gopalganj, rural population, diseases, district.

I. Introduction

The Gopalganj region is known for its diverse, unique, natural and socio- economical important flora. Gopalganj is the Small district in North- Western Bihar covering an area of 2033 Km². It lies between 26^o 39' N Latitude and 83^o 54' East Longitude. The altitude is 73 feet MSL. The soil of the district is thick alluvium intermittent deposited by river Gandak. The pH of the soil is mostly alkaline ranges from 7-8. The temperature ranges from 4^o C in winter (December-January) and more than 44^o C in hot Summer (May-June). The average annual rain fall is about 1170.90 mm.

The district occupies one of the great archaic significance of places like Bhore, Thawe Durga Mandir and Daha river ; its reference appear in the epics like the Ramayan and Mahabharat. Now the Grah of Bhuishrwa in Bhore, the forest of Thawe near Thawe Durga Mandir and bank of river Daha is the best depository of Ethno Medicinal Plants. In spite of these grasslands, the riverain banks of the river Gandak and their tributaries, the road side of National High way-28, the Saran main canal and its sub canals, the Railways sides are the rich Ethno Medicinal reservoir of the district.

Atharveda, the fourth and the last Vedas in Indian scripture, revealed the first Indian documented Scripture means the science of long life, appeared in the form of Ayurvedic medicine a system of traditional medicine native to the Indian sub- Continent. The most ancient and popular detailed texts on Ayurveda were composed by Charaka (600 BC) and Shushruta (first century) provided information on medicinal Plants (Devraj) 1985, Sharma and Goswami,(1992). In India medicinal needs of local Population mostly depends on plants as the natural sources of medication singh,(1998). The poor illiterate rural population and high class quality living persons equally believes in Ethno medicine.

II. Materials And Methods

The Present work was carried out for a frequent field trips in different seasons and different localities during the last few years. The Ethno medicinal information collected after frequent interview with rural old People, Gragiers , vaidyas, sadhu , house wives etc. Proper information were also gathered from the Doctors Practicing in Ethno Medicines in the light of medicinal literature of Kritikar and Basu,(1935), Jja and Choudhary (1998), Annoymous (2006),Jain(2011).

III. Results And Discussion

The district has been blessed by nature with one of the richest vegetation of Ethno medicinal Plants from which the crude drugs can easily be produced . Rural population are economically , socially and educationally backward. The aim of the present study is to create local awareness regarding the importance, of Ethno medicinal plants for biodiversity conservation as well as community upliftment .

A total of 221 Ethno medicinal species belonging to 79 families were recorded. Among Families Fabaceae (15 Species), Solanaceae (11 Species) , Cucurbitaceae (10 Species) Asteraceae (9 Species), Caesalpineaceae (8 Species), Malvaceae, Moreceae and Apocynaceae (7 Species), Mimosaceae, Verbenaceae and Euphorbiaceae (6 Species), Rutaceae , Liliaceae, Apiaceae, Meliaceae and poaceae (5 Species), Amaranthaceae, chenopodiaceae , Myrtaceae, Zingiberaceae and Convolvulaceae (4 species), Acanthaceae,

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Annonaceae, Areceaceae, Brassicaceae, Amaryllidaceae, Rubiaceae, oleaceae, Lamiaceae(2 species) and the remaining 40 families were monospecific (table-1).

Table-1 Enumeration Of Ethno Medicinal Palnts Of Gopalganj,Bihar						
S.N O.	Botanical Name	Family	Local Name	Life forms	Parts use	Local uses
1	<i>Abelmoschus esculentus</i> Moench. syn. <i>Hibiscus esculentus</i> Linn.	Malvaceae	Bhindi	Herb	Green fruits	Chronic dysentery
2	<i>Abuliton indicum</i> (Linn.) Sweet.	Malvaceae	Kanghi	Herb	Roots	Antipyretic, piles
3	<i>Acasia auricylaformis</i> A. cunn.	Mimosaceae	Australian babul	Tree	Flower	Deranged courses in women
4	<i>A. catechu</i> Willd.	Mimosaceae	Khair	Tree	Stem bark/leaf	Hepatoprotective,Hypoglycemic.
5	<i>A. nilotica</i> (Linn) Delile sub. Sp.A. <i>indica</i> (Benth.) syn. <i>A. arabica</i> Willd.	Mimosaceae	Kikar/babul	Tree	Gum, Fruit Powder	Cough, Rheumatism
6	<i>Achyranthes aspera</i> Linn.	Amaranthaceae	Latjira/apamarga	Herb	Whole Plant	Toothache
7	<i>Adhatoda vasica</i> Nees.	Acanthaceae	Adusa/vasaka	Herb	Leaves	cough,RTI
8	<i>Adiantum philippense</i> Linn.syn. <i>A. Lunulatum</i> Burm.	Adiantaceae	Hansaraj	Herb	Fronds burnt in oil	Itch.
9	<i>Aegle marmelos</i> correa ex Roxb.	Rutaceae	Bael/Bilva	Tree	Fruit/Leaves	Astringent , Digestive, Hypoglycemic
10	<i>Aganosoma dichotoma</i> (Roth) K.Schum. syn. <i>A. Caryophyllata</i> G. Don.	Caesalpiniaceae	Malti	Shurb	Leaves/Flower	Anthelmintic, Antiseptic,
11	<i>Agave americana</i> linn.	Agavaceae	Bans-keora	Shrub	Leaves	laxative,scurvy
12	<i>Albizia lebbek</i> Benth.	Mimosaceae	Siris	Tree	Bark, Leaves seeds	Eye troubles , Boils
13	<i>Allium cepa</i> Linn.	Liliaceae	Piyaz	Herb	Bulb	sun storke, heart tonic
14	<i>A. sativum</i> Linn.	Liliaceae	Lahsun	Herb	Bulb	Cold storke.Reduce cholesterol
15	<i>Aloe barbadensis</i> Mill. syn <i>A. Vera</i> Tourn. ex Linn.	Liliaceae	Ghee kuvar	Herb	Whole Plant	Constipation, haemorhoid
16	<i>Alstonia scholaris</i> R. Br .	Apocynaceae	Chhatian/satparmi-	Tree	Bark	Chronic diarrhoea,Latex-asthma
17	<i>Alternanthera sessilis</i> L.R. Br. Exdc.	Amaranthaceae	Gandhrisag	Herb	Leaves	Toothache, Piles
18	<i>Althaea rosea</i> cav. Syn <i>A. triandra</i>	Malvaceae	Holly hock	Herb	Flower	Diuretic, chest complaints.
19	<i>Amaranthus blitum</i> Linn. var. <i>oleracea</i> Duthine	Amaranthaceae	Chaulai sag	Herb	Flowers	Increase haemoglobin
20	<i>A. coudatus</i> Linn .	Amaranthaceae	Ramdana	Herb	Seeds	Calsium supliment
21	<i>Amorphophallus companulatus</i> Blume ex Decne	Araceae	OI/ suran	Herb	Corms	Dysentery, piles
22	<i>Andrographis paniculata</i> wall.ex nees.	Acanthaceae	Kalmegh	Herb	Leaves	Hepatoprotective, jaundice
23	<i>Anethum sowa</i> kurz. syn. <i>Peucedanum graveolens</i> linn.	Apiaceae	Sowa	Herb	Leaves decoction	Anaemia
24	<i>Annona reticulata</i> Linn.	Annonaceae	Ramphal/ mewa	Shurb	Stem bark	astringent .
25	<i>Annona squamosa</i> Linn.	Annonaceae	Sharifa/ sintaphal	Shurbs	Seeds	Abortifacient
26	<i>Argemone mexicana</i> Linn.	Papaveraceae	Bhaj kateya /styanasi	Herbs	Seeds	scabies, ophthalmia
27	<i>Artocarpus heterophyllus</i> Lam. syn. <i>A.integra</i> (THUMB.)Merriell. <i>A.integrifolia</i> Linn.f	Moraceae	Kathal	Tree	Roots Juice with cow milk	Loss of appetite
28	<i>Artocarpus lakoocha</i> Roxb.	Moraceae	Barhal	Tree	Flowers	Laxative, curing

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						liver
29	<i>Asparagus racemosus</i> Willd.	Liliaceae	Satawar	Climber	Roots	Galactogogue, nervous, Rheumatic
30	<i>Azadirachta indica</i> A. Juss. syn. <i>Melia azadirachta</i> Linn.	Meliaceae	Nim	Tree	Whole plant	Skin disease, blood purifier
31	<i>Bambusa</i> sp.	Poaceae	Banas	Shrubs	Green Stem Peel	Dysentery, diarrhoea
32	<i>Basella alba</i> Linn. Syn. <i>B. rubra</i> Linn.	Basellaceae	Poi	Climber	Leaves	Rejuvenative, Refrigerant.
33	<i>Bauhinia variegata</i> Linn.	Caesalpiniaceae	Kachnar	Shrubs	Stem bark	Tonic in fever
34	<i>Biota orientalis</i> Ende. syn. <i>Thuja orientalis</i> Linn.	Cupressaceae	Morpankhi	Shrubs	Flat Green branch	Fever, cough
35	<i>Beta vulgaris</i> Linn var. <i>rapa</i> Dum.	Chenopodiaceae	Chukandar	Herbs	Roots	Rheumatoid
36	<i>Boerhaavia diffusa</i> Linn. Syn. <i>B. repens</i> Linn.	Nyctaginaceae	Punarnava	Herbs	Whole plant	Diuretic, Jaundice
37	<i>Bombax ceiba</i> Linn. syn. <i>Salmalia malabarica</i> (DC) Schott & Endl. <i>B. malabaricum</i> (DC.)	Bombaceae	Semul	Tree	Fruits/Stem bark	Stimulant, Expectorant, diuretic, Demulcent, tonic, styptic.
38	<i>Borassus flabellifera</i> Linn. syn. <i>B. flabelliformis</i> Roxb.	Arecaceae	Tadkul/Tar	Tree	Toddy/palm Juice	Constipation.
39	<i>Brassica campestris</i> Linn.	Brassicaceae	Sarson	Herbs	Oil with comphore	muscular Rheumatoid,
40	<i>Bryophyllum pinnatum</i> (Lam.) Kuntz. syn. <i>B. calycinum</i> Salisb.	Crassulaceae	Patherchur/Pasanbhedhi	Herbs	Leaves	Haemoptysis, stone
41	<i>Butea monosperma</i> (Lam.) Kurz syn. <i>B. frondosa</i> Koenig ex Roxb.	Fabaceae	Palas /Dhak	Tree	Stem bark	Piles, tumour, M.C. disorders
42	<i>Cajanus cajan</i> (Linn.) Mill sp syn. <i>C. Indicus</i> Spreng.	Fabaceae	Arhar	Shrubs	Leaves	Jaundice
43	<i>Callistemon lanceolatus</i> DC.	Myrtaceae	Bottle brush	Shrubs	Leaves	Poultice of leaves applied on vaginites.
44	<i>Colotropis gigantea</i> (Linn) R.Br.ex.Ait.	Asclepiadaceae	Ak	Shrubs	Leaves	Swelling pain, disease
45	<i>C. procera</i> (Ait.) R. Br.	Asclepiadaceae	Mandar	Shrubs	Root bark	leprosy
46	<i>Cannabis sativa</i> Linn.	Cannabinaceae	Bhang	Shrubs	Leaves	Sedative, appetising
47	<i>Capsicum annuum</i> Linn.	Solanaceae	Lalmirch	Herbs	Fruits	Carminative, rheumatism
48	<i>Carica papaya</i> Linn	Caricaceae	Papeeta	Shrubs	Roots Juice	Stone
49	<i>Carissa carandas</i> Linn.	Apocynaceae	Karaunda	Shrubs	Leavers decoction	Remittent Finvers
50	<i>Cassia fistula</i> Linn	Caesalpiniaceae	Amaltas	Tree	Fruits	Purgative, laxative
51	<i>C. occidentalis</i> Linn.	Caesalpiniaceae	Kasmard/kasaundi	Herb	Leavers seeds	Purgative, Skin trouble
52	<i>C. tora</i> Linn.	Caesalpiniaceae	Chakamrd/chakunda	Herb	Leavers	Purgative, laxative
53	<i>Carthamus tinctorius</i> Linn.	Asteraceae	Kusum	Herbs	Flower,	laxative, jaundice
54	<i>Cedrela toona</i> Roxb. syn. <i>Toona eiliata</i> M. Roem.	Meliaceae	Tunt	Tree	Bark	Chronic dysentery ulcer
55	<i>Centella asiatica</i> (Linn).Urban. syn. <i>Hydrocotyle asiatica</i> Linn.	Apiaceae	Bramhi / Mandukparni	Herb	Leaves	Brain tonic, Diuretic
56	<i>Chenopodium album</i> Linn. Lamb's	Chenopodiaceae	Bathua sag	Herb	whole plant	Anti anaemia
57	<i>Cicer arietinum</i> Linn.	Fabaceae	Chana /But	Herb	Seeds	Heart disease
58	<i>Cissus quadrangularis</i> Linn. <i>Cissus quadrangularis</i> Linn. syn. <i>Vitis quadrangularis</i> wall.	Vitaceae	Harzorwa	Climber	Leaves	Bone healing
59	<i>Citrus allrantifolia</i> (Christm) Swingle	Rutaceae	Kaghzinimbu	Shrubs	Fruits	Stomachic,

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60	<i>C. medica</i> Linn.	Rutaceae	Bara nimbu,	Shurbs	Fruits Rind	Indigestion, dysentery
61	<i>Cleome viscosa</i> Linn.	Capparidaceae	Hurnur	Herbs	Root Extract	Loweriry B.P,anthelmintic
62	<i>Clerodindron infortunatum</i> Linn.	Verbenaceae	Bhant/ Bharangi	Herbs	Leaves	Vermifug, Laxative
63	<i>Clitoria ternatea</i> Linn.	Fabaceae	Aparajit	Climbers	Leaves	Preserve Pregnancy
64	<i>Coccinia cordifolia</i> Cogn.syn.c. <i>indica</i> wight & Arn.	Cucurbitaceae	Kunari	Climbers	Leaves, flower, fruit,	Liver tonic
65	<i>Coriandrum sativum</i> Linn.	Apiaceae	Dhania	Herbs	Seeds	Menstruration,antibiotic
66	<i>Costus speciosus</i> (koenig) Sm.	Zingiberaceae	Keu kand	Herbs	Rhizome	Diuretic, C.N.systems
67	<i>Cocos nucifera</i> Linn.	Arecaceae	Nariyal	Tree	Fruit milk	During Pregnancy haemoglobin
68	<i>Cucurbita maxima</i> Duchesne.	Cucurbitaceae	Lal kumra	Climbers	Seeds	Diureric,tonic
69	<i>C.Pepo</i> Linn.	Cucurbitaceae	Kaddu	Climbers	Fruit juice	Cooling
70	<i>Curcuma amada</i> Roxb.	Zingiberaceae	Ama -haldi	Herbs	Rhizomes	Carminative, stomachic
71	<i>Curcuma aromatica</i> Salisb.	Zingiberaceae	Jangli haldi	Herb	Rhizomes	carminative, stomachic
72	<i>C. domestica</i> Valeton syn. <i>C. longa</i> Linn.	Zingiberaceae	Haldi	Harbs	Rhizomes	carminative, stomachic tonic
73	<i>Crinum defixum</i> Ker.Gawl <i>C. asiaticum</i> Linn. <i>C.latifolium</i> Linn.	Amaryllidaceae	Sukdarshan	Harbs	Bulbs, leaves juice	Diaphoretic Earache
74	<i>Crotalaria juncea</i> Linn.	Fabaceae	Sannai	Harbs	Flower	Laxative
75	<i>Cucumis melo</i> Linn.	Cucurbitaceae	Kharbuja	Climber	Seeds	diuretic,refrigerant
76	<i>C.momordica</i> Duthie &Fuller.	Cucurbitaceae	Phute	Climber	Seeds	Refrigerant
77	<i>C.utilissimus</i> Duthie & Fuller	Cucurbitaceae	Kakri	Climber	Seeds	Diuretic, refrigeranet
78	<i>C. sativus</i> Linn.	Cucurbitaceae	Khira	Climber	Seeds	Diuretic, refrigeranet
79	<i>Curculigo archoidea</i> Gaertn.	Amarylladaceae	Talmuli	Herb	Tubers	piles
80	<i>Cynodon dactylon</i> Pers.	Poaceae	Dub grass	Herb	Rhizomes	genito-urinary troubles.
81	<i>Cyperus rotundus</i> Linn.	Cyperaceae	Motha	Herb	Tuberous Roots	Diuretic ,diphoretic.
82	<i>Cyperus scariosus</i> R.Br.	Cyperaceae	Motha	Herb	Leaves	Stringent
83	<i>Dalburgia sissoo</i> Roxb.	Fabaceae	Shisham	Tree	Leaves bark	Indigenous swellings
84	<i>Datura alba</i> Nees syn. <i>D. mentel</i>	Solanaceae	Dhatura	Shurbs	Fruit	Cough Asthma , Mums
85	<i>Daucus carota</i> Linn Var- <i>D. Sativa</i> DC.	Apiaceae	Gajar	Herbs	Seeds	Diutetic,carminative,kidney troubles
86	<i>Delonix regia</i> Rafin syn. <i>Poinciana regia</i> Bojer	Caesalpiniceae	Gulmohar	Tree	Stem bark	Anti periodic
87	<i>Dendrophthoe falcata</i> (Linn.f.) syn. <i>Lorantchus falcatus</i> Linn.f.	Loranthaceae	Banda	Epiphytes	Bark	Narcotic, M.C. troubles asthma
88	<i>Desmostachya bipinnata</i> Stap f. syn. <i>Eragrostis cynosuroides</i> Baeuv	Poaceae	Kusha	Herbs	Areal parts	Abdominal pain ,dysentery ,memorrhagia , diuretic
89	<i>Dioscorea alata</i> Linn.syn. <i>D atropurpurea</i> Roxb.	Discoreaceae	Aatar /Pindalu	Climbers	Tubers	Piles,anthelmintic.
90	<i>Dolichos lablab</i> Linn.	Fabaceae	Sem	climber	Seeds	Stomachic
91	<i>Eclipta alba</i> (Linn). Hassk	Asteraceae	Bhringraja	Herbs	Whole plant	Hair dye hepatic. Spleen
92	<i>Eichhornia crassipes</i> Solms .syn. <i>E.Speciosa</i> kunth.	Pontederiaceae	Jalkumbhi	Aquatic herbs	whole plant	Burning of sole & palm, hepato protective
93	<i>Eleusin coracna</i> Gaertn.	Poaceae	Ragi/marua	Herbs	Seeds	Diabetics, uterus purification
94	<i>Emblica officinalis</i> Gaertn .	Euphorbiaceae	Awla	Tree	Fruits	Appetising, diurthic

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	<i>syn.phyllanthus emblica</i> Linn.					laxative
95	<i>Erythrina indica</i> Lam. Syn. <i>E. variegata</i> Linn.	Fabaceae	Farhad/Mandar	Tree	Bark	Leprosy, Feaver ,Blood dysentery
96	<i>Equisetum debile</i> Roxb.	Equisetaceae	-	Herb	whole Plant	Gonorrhoea , diuretic
97	<i>Eucalyptus treticornis</i> SM.syn. <i>E. umbellata</i> Domin.	Myrtaceae	Safeda	Tree	Oil form leaves	Cold
98	<i>Euphorbia hirta</i> Linn .syn. <i>E.pilulifera</i> Acuct.	Euphorbiaceae	Dudhi	Herb	Leaves	Preserve pregnancy, Milk inhancer
99	<i>E. neriifolia</i> Linn.	Euphorbiaceae	Sehund	Shurbs	Leaves latex	Purgative, expectorant
100	<i>Ficus bengalensis</i> Linn.	Moraceae	Bargad	Tree	Leaves,Prop root	Diabetes,Pain reumatism
101	<i>F.benjamina</i> Linn.	Moraceae	Pakar	Tree	Leaves, dicoction	Ulcers.
102	<i>F.glomerata</i> Roxb.syn. <i>F.Racemosa</i> Linn.	Moraceae	Gular	Tree	Root	Diarrhoea, diabets Laxative
103	<i>F.relignosa</i> Linn.	Moraceae	Pipal/Ashvatha	Tree	Fruits	Laxative
104	<i>Gmelina Arborea</i> Roxb.	Verbenaceae	Gambhar	Tree	whole Plant	Abortion and Prolapses piles
105	<i>Gardenia Jasminoides</i> Ellis.syn. <i>G. florida</i> Linn. <i>G. augusta</i> merrill.	Rubiaceae	Gandhraj	Shurb	Root	Dyspepsia.and nervous disorders.
106	<i>Gossypium arboreum</i> Linn. syn. <i>G.nan</i> king	Malvaceae	Patua	Herbs	Root Tincture	Prevent frequent abortion & prolapses
107	<i>Helianthus annus</i> Linn.	Asteraceae	Surajmukhi	Herbs	Seeds	Anthelmintic, Rubefacient
108	<i>Heliotropicum indicum</i> Linn.	Boraginaceae	Hathisund	Herb	whole Plant	Diuretic, ulcer , Feaver
109	<i>Hibiscus rosa- sinensis</i> Linn.	Malvaceae	Gurhal	Shurbs	Flower	Abortifacient,
110	<i>Hibiscus cannabinus</i> Linn.	Malvaceae	Patsan	Herbs	Leaves	Purgative
111	<i>Hygrophila angustifolia</i> Auct. syn. <i>H. salicifolia</i> Nees.	Acanthaceae	Talmakhana	Herbs	whole Plant	Jaundice, urinogenital system
112	<i>Impatiens balsamia</i> Linn.	Balsa minaceae	Gul-mehindi	Herbs	Flowers	Lumbago intercostal neuralgia
113	<i>Ipomoea aquotica</i> Forsk .Syn. <i>I. reptans</i> Poir	Convolvulacea e	Kalmisag	Creepers	whole Plant	Wholesome for women, ematic
114	<i>I. batatas</i> (Linn). Lam.	Convolvulacea e	Maith alu /shakarkaknd	Climber	(tuberow root), Leaves	Laxative
115	<i>I. cairica</i> (Linn.) Sweet syn. <i>I. palmat</i> Forsk.	Convolvulacea e	Behaya	Shurb	Seeds	Pugative
116	<i>I. digitata</i> Linn.	Convolvulacea e	Vidani kand	Climber	Root ,Leaves	Bone healing
117	<i>Ixora coccinia</i> Linn.	Rubiaceae	Rookmini	Shurbs	Roots	Stomachic, sedative
118	<i>Jasminum arborescens</i> Roxb. syn. <i>J.roxburghianum</i> Wall.	Oleaceae	Bela /chameli	Shurbs	Leaves	Bronchial obstruction stamachic, tonic
119	<i>J. grandiflorum</i> Linn.	Oleaceae	Chameli	Climber	Leaves dried	Pultices for indolent ulcer.
120	<i>Jatropha glandulitera</i> Roxb.	Euphorbiaceae	Janglive rendi	Shurbs	Seeds	Purgative, rheumatism,
121	<i>Kochia indica</i> wight.	Chenopodiacea e	Kochia	Herb	Leaves	Cardiac stimulant,
122	<i>Lactuca sativa</i> Linn.	Asteraceae	Salad Patta	Herb	Leaves	Hypnotic in bronchitis ,Asthma.
123	<i>Lantana camara</i> Linn.syn. <i>L. aculeata</i> Linn.	Verbenaceae	Lantana	Herb	Leaves	Chronic feaver , RTI,
124	<i>Launaea asplenifolia</i> Hook . f.	Asteraceae	Titlia	Herb	Roots	Constituent of galacta gogue drugs
125	<i>Lawsonia inermis</i> Linn. Syn. <i>L.alba</i> Lam.	Lythraceae	Mehandi	Shurbs	Leaves	Refregerant to mind.palms
126	<i>Letipidium sativum</i> Linn.	Brassicaceae	Chansur	Herb	Leaves	Liver tonic
127	<i>Leucas aspera</i> Spreng.	Lamiaceae	Gumi	Herb	Flower	Jaundice , spleene asthma

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128	<i>L. cephalotes</i> Spreng.	Lamiaceae	Dronpushapi /Guma	Herb	Flower	Skin disease ,Jaundice
129	<i>Linum usitatissimum</i> Linn.	Linaceae	Tisi/Alsi	Herb	Seeds with honey	Cough
130	<i>Luffa acutangula</i> (Linn.) Roxb.	Cucurbitaceae	Sataputia troi	Climber	Pultice	Hemorrhoids , Leprosy
131	<i>Lycopersicon esculentum</i> Mill.	Solanaceae	Tamatar	Herb	Fruit	Blood purifier
132	<i>Madhuca indica</i> J.F.Gmel syn. <i>M.Latifolia</i> Macbr. <i>Bassia latifolia</i> Roxb.	Sapotaceae	Mahua	Tree	Seed soil	Rheumatism, Laxative Piles
133	<i>Mangifera indica</i> Linn.	Anacardiaceae	Aam	Tree	Tendre leaves	Diabetes
134	<i>Melia azedarach</i> Linn.	Meliaceae	Bakain	Tree	Seeds/Leaf Juice	Asthma, Bark-uterine haemorrhage anthelmintic, diuretic
135	<i>Mentha arvensis</i> Linn.	Lamiaceae	Pudina	Herb	Fruits/Leaves	Tonic. Stimulant, carminative
136	<i>Michelia champaca</i> Linn.	Magnoliaceae	Champa	Harbs	Flower	Carminative , dyspepsia.
137	<i>Mimosa pudica</i> Linn.	Mimosaceae	Lajwanti	Herbs	Leaves	Piles, nausea, Fever
138	<i>Mimusops elengi</i> Linn.	Sapotaceae	Maulsari	Tree	Stem bark	Uterin purification
139	<i>Mirabilis Jalapa</i> Linn.	Nyctaginaceae	Gulabash	Herb	Leaves Juice	Blood purifier
140	<i>Mitragyna parvifolia</i> (Roxb.) korth. syn. <i>Stephegyne parvifolia</i> Korth.	Rubiaceae	Kadamb	Tree	Stem, fruits	Vaginitis, spermopoetic.
141	<i>Momordica charantia</i> Linn.	Cucurbitaceae	Karela	Climber	Fruits	Hypoglycemic.
142	<i>Maringa olifera</i> lam. syn. <i>M.pterygosperma</i> Gaertn.	Moringaceae	Sainjana/Shajna	Tree	Leaves, Fruits	Cardio tonic diuretic
143	<i>Morus alba</i> Linn.	Moraceae	Shahtut	Shurbs	Fruits	Refrigerant, purgative.
144	<i>Mucana prurita</i> Hook.syn. <i>M.pruriens</i> Baker.	Fabaceae	Kaunch/ kwachh.	Climber	Pods roots	Hypoglycemic, parkinson disease.
145	<i>Murraya koenigii</i> (Linn.)Spreng.	Rutaceae	Kurry patta	Shurbs	Root , barks	Carminative, diarrhoea
146	<i>M. paniculata</i> (linn). Jack syn. <i>M.exotica</i> Linn.	Rutaceae	Kamini	Shurbs	Leaves	Diarrhoea, dysentery
147	<i>Musa paradistica</i> Linn.syn. <i>M.sapientum</i> Linn.	Musaceae	Kela	Herb	Stem juice	dysentery.Laxative,hypertension.
148	<i>Nelumbo nucifere</i> Gaertn. syn. <i>Nelumbium nelumbo</i> Druce. <i>N.speciosum</i> Willd.	Nymphyaceae	Kamal	Herb	Rhizomes	diarrhoea,dysentery (children)
149	<i>Nerium Indicum</i> Mills. syn. <i>N.odorum</i> Soland.	Apocynaceae	Kanev/karber	Shurbs	Leaves	cardio tonic skin disorders.
150	<i>Nicotiana plumbaginifolia</i> viv	Solanaceae	Bantamaku	Herb	Leaves	painful tumours, gonorrhoea.
151	<i>N. tabacum</i> Linn.	Solanaceae	Tambaku/surti	Herb	Leaves	sedative, antispasmodic, gastric.
152	<i>Nyctanthes arbortristis</i> Linn.	Oleaceae	Harsinghar	Shurbs	Leaves	feaver,antibillious,expectorant raumatism,sciatica
153	<i>Nymphaea alba</i> Linn.	Nymphaeaceae	water lily	Herb	Rhizomes	dicoction in diarrhoea.
154	<i>Ocimum basilicum</i> Linn.	Lamiaceae	Tulsi	Herb	whole Plant	Expectorant, carminative,
155	<i>O.sanctum</i> Linn.	Lamiaceae	Tuls /Brinda	Herb	whole Plant	Antibacterial, Expectorant.
156	<i>Orobanche indica</i> Buch.Ham ex Roxb.	Orobanchaceae	Thokra/Gadhaura	Parasite	whole Plant	Diarrhoea
157	<i>Opuntia dillenii</i> Haw.	Cactaceae	Nagphani	Herb	Baked fruits	Whoopng cough.
158	<i>Oxalis corniculata</i> Linn.	Oxalidaceae	Khhatibuti	Herbs	Leaves	Dyspepsia,piles,anaemia,
159	<i>Pandanus andamanen</i> Sium Kurz. <i>P.fascicularis</i> Lam.	Pandanaceae	Keore	Sburbs	Flower juice	Cardio tonic
160	<i>Parthenium hysterophorum</i>	Asteraceae	Gajarghars	Herb	whole Plant	Febrifuse,

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	Linn.					dysentery, analgsic.
161	<i>Phoenix Sylvestris</i> Roxb.	Arecaceae	Khajur(jangli)	Shurbs	Palm gur(Candy)	Expechrant respiratory disease
162	<i>Phyla nodiflora</i> (Linn.) syn. <i>Lippia nodiflora</i> greene.	Verbenaceae	Mokana	Herb	Whole plant	diarrhoea
163	<i>Phyllanthus fraternus</i> Webster..	Euphorbiaceae	Bhuiamla	Herb	whole plant	Diuretic diarrhoea, dysentery.
164	<i>Piper betle</i> Linn.	Piperaceae	Pan	Climber	Leaves	Carminative, respiratory, asthma.
165	<i>Pithecellobium dulce</i> Benth	Mimosaceae	Jangle Jalabi	Tree	Seeds	Hemolytic agglutinating reaction
166	<i>Plameria acuminata</i> Ait.syn. <i>P.Acutitolia</i>	Apocynaceae	Golainchi	Shurbs	Bark	Stimulant purgative, antiherpatic
167	<i>Polianthes Tuberosa</i> Linn.	Amaryllidaceae	Rajnigandha	Shurbs	Bulbs	Diuretic, emetic
168	<i>Polyalthia longifolia</i> Thw.	Anonaceae	Ashoka	Tree	Bark	Anticancr, respirative stimulant
169	<i>Populus ephretica</i> Olivier	Salicaceae	Poplar	Tree	Bark	Diurctric, antipyretic
170	<i>Pothos scandens</i> Linn.	Araceae	Money plant	Climber	Stem	Asthma
171	<i>Prosopis cineraria</i> Druce syn. <i>P.spicigere</i> Linn.	Mimosaceae	Jand	Herb	Pods	Demulcent, pectoral
172	<i>Psidium guajava</i> Linn.	Myrtaceae	Amrud	Shurbs	Bark decoction/ Fruit	Cooling, Laxative, bleeding gums diarrhoea
173	<i>Punica granatum</i> Linn.	Punicaceae	Anar	Shurbs	Bark /Flower bud	Expel tape worm, boronchitis.
174	<i>Ranunculus scleratus</i> Linn.	Ranunculaceae	Jaldhania	Herb	whole plant	Stimulant, diuretic, Sciatica
175	<i>Raphanus sativus</i> Linn.	Brassicaceae	Muli	Herb	Seeds	Expectorant, diuretic, Carminative.
176	<i>Rauwolfia serpentina</i> Banth . ex Kurz.	Apocynaceae	Sarpgandha	Herb	Roots	Nervous disorders, Insomnia.
177	<i>R. tetraphylla</i> Linn.	Apocynaceae	Barachandrica	Herb	Roots	As Sarpagandha but low Quality
178	<i>Ricinus communis</i> Linn.	Euphorbiaceae	Arandi	Shurbs	Oil	Purgative, Lumbogo Root
179	<i>Rosa centifolia</i> Linn.	Rosaceae	Gulab	Shurbs	Flower	Heart tonic, Laxative
180	<i>Rumex dentatus</i> Linn.	Polygonaceae	Jangli palak	Herbs	Roots	Culaneous disorders
181	<i>Saccharum officinarum</i> Linn.	Poaceae	Ikh	Herb	Juice	Jaundice
182	<i>Saraca asoca</i> (Roxb.) De Wilde syn. <i>S.indica</i> Auct.	Caesalpiniaceae	Sita Ashok	Shurbs	Bark	Uterin, Excessiv menstruation.
183	<i>Sesamum indicum</i> Linn	Pedaliaceae	Til	Herb	Seeds	Diurcthic, Kidney
184	<i>Sesbania grandiflora</i> pers.	Fabaceae	Agast	Tree	Flower juice	Improving eye singt
185	<i>Sida cordifolia</i> Linn.	Malvaceae	Bariyar	Herb	Roots	Diuretic, tonic, sciatica, leucorrhoea
186	<i>Shorea robusta</i> Gaertn f.	Dipterocarpaceae	Sakhu/sal	Tree	Flower	Diarrhoea, dysentry
187	<i>Smilax china</i> Linn.	Liliaceae	Chabchini	Shurbs	Tubers	Venetal disease, rheumatic.
188	<i>Solanum melongena</i> Linn.	Solanaceae	Baingan	Herbs	Leaves	Asthma,bronchitis
189	<i>S. nigrum</i> Linn.	Solanaceae	Makoi	Herbs	Whole Plant	Antiseptic, tonic, heart disease
190	<i>S. Indicum</i> Linn.	Solanaceae	BanBhanta	Herbs	Fruit	Asthma, dry cough, Toothach
191	<i>S. Surattense</i> Burm f. syn. <i>S. xanthocarpum</i> schrod & Wendl.	Solanaceae	Ringnikat	Herbs	Roots.	Expectorant
192	<i>S. tuberosum</i> Linn.	Solanaceae	Alu	Herbs	Leaves	Antispasmodic in cough
193	<i>Spondias pinnata</i> (Linn. f) Kurz. <i>S. mangifera</i> Willd.	Anacardiaceae	Amare	Tree	Bark	Antiscorbic refrigerant, diarroea, dysentry

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194	<i>Spinacia odereca</i> Linn.	Chenopodiaceae	Palak	Herb	Leaves/Fruits	Antibacterial, diuretic, Fever,
195	<i>Stevia rebadiana</i> Burtoni	Asteraceae	Madhurguni	Herb	Leaves	Sweetener for diabetics.
196	<i>Swietenia macrophylla</i> King	Meliaceae	Mahogani	Tree	Bark	jetty piles
197	<i>S. mahogoni</i> Jacq.	Meliaceae	Mahogani (Large leaf)	Tree	Bark	Antipyretic. Tonic.
198	<i>Syzygium cuminii</i> (Linn.) Skeels. syn. <i>Eugenia jambolana</i> Lam.	Myrtaceae	Jamun	Tree	Fruit, seed	Hypoglycemic.
199	<i>Tagetes patula</i> Linn.	Asteraceae	Genda	Herbs	Leaves, Fruit	Blood coagulant
200	<i>Tamarindus Indica</i> Linn	Caesalpinaceae	Imli	Tree	Fruits	Carminative, laxative,
201	<i>Tamarix troupii</i> Hole. syn. <i>T. golliea</i> Auet.	Tamricaceae	Jhav	Shurb	Leaves	Diarrhoea dysentery
202	<i>Tectona grandis</i> Linn f.	Verbenaceae	Sagun	Tree	Kernels flower	Scabies, bronchitis
203	<i>Tephrosia purpurea</i> Pers.	Fabaceae	Sarphonka	Herb.	Whole plant	Tonic, laxative, diuretic,
204	<i>Terminalia arjuna</i> (Roxb) Wight & Arn.	Combretaceae	Arjuna	Tree	Bark	Symptomatic hypertension, heart disease
205	<i>Thevetia peruviana</i> (Pers) Merrill Linn. syn. <i>T. neriifolia</i> juss. ex Sterd.	Apocynaceae	Pila kaner	Shurb	Leaves	Purgative, emetic.
206	<i>Tinospora cordifolia</i> (Willd.) Miers ex Hook f. & Thoms	Menispermaceae	Giloe/Amrita	Climber	Leaves/Stem	Fever, antipyretic, leprosy
207	<i>Trapa natans</i> Linn. syn. <i>T. bispinosa</i> Roxb.	Trapaceae	Singhara	Aquatic Herb	Fruit	Abdominal disorders
208	<i>Tribulus terrestris</i> Linn.	Zygophyllaceae	Gokhru	Herb	Fruit	Tonic., diuretic, stomachic,
209	<i>Trigonella foenum graecum</i> Linn.	Fabaceae	Methi	Herb	Leaves fruits	Carminative, tonic, hypoglycemic
210	<i>Trachyspermum ammi</i> (Linn) Sprague . Syn. <i>T. copiticum</i> Link.	Apiaceae	Ajwain	Herb	Fruit	Antispasmodic, carminative,
211	<i>Trichosanthes dioica</i> Roxb .	Cucurbitaceae	Parwall	Climber	Fruits	Laxative, cancer, hemagglutinating activity.
212	<i>Typha angustata</i> Bory & Chaub.	Typhaceae	Patera	Herb	Rhizome	Diuretic.
213	<i>Vicia faba</i> Linn.	Fabaceae	Bakla	Herb	Bean	Jaundice, hemolytic anaemia
214	<i>Vigna mungo</i> (Linn.) Hepper syn. <i>Phaseolus radiatus</i> Roxb.	Fabaceae	Urd	Herb	Pulse	Rheumatism, nervous, hepatic.
215	<i>V. radiata</i> (Linn) Wilczek . syn. <i>Phaseolus mungo</i> Auet .	Fabaceae	Mung	Herb	Seeds	Polynuritis, gallinarum
216	<i>Vitex negundo</i> Linn.	Verbenaceae	Senuwar	Shurbs	Leaves, Fruits	Skin disease, rheumatoid.
217	<i>Vitis venifera</i> Linn.	Vitaceae	Angur	Climber	Fruits	Laxative, stomachic,
218	<i>Withania somni fera</i> Dunal.	Solanaceae	Ashwagandha	Herb	Roots	Rheumatism, female, disorders
219	<i>Xanthium spinosum</i> Linn.	Asteraceae	Lapta	Herb	Buds	Diarrhoea
220	<i>Yucca gloriosa</i> Linn.	Agavaceae	-	Shurbs	Fruits	Purgative, rheumatism,
221	<i>Ziziphus jujuba</i> Mill.	Rhamnaceae	Ber	Shurbs	Fruits	Tonic, antidot, sedative.

These 221 documented plant species are spread over Dicotyledonous 186 species (84.16%), Monocotyledons 32 species (14.48%), Gymnosperms 1 species (0.45%) and Pteridophytes 2 species (0.90%) (Table-2). Habitually the investigated taxa fall under 6 groups – trees (43 in number), shrubs (45 in number), Herbs (106 in number), Climbers (25 in number), Epiphytes (01 in number) & parasite (01 in number), and their respective percentage has been defined (figure-1).

Table 1: Percentage Composition of the Documented Plant Species & Their Groups

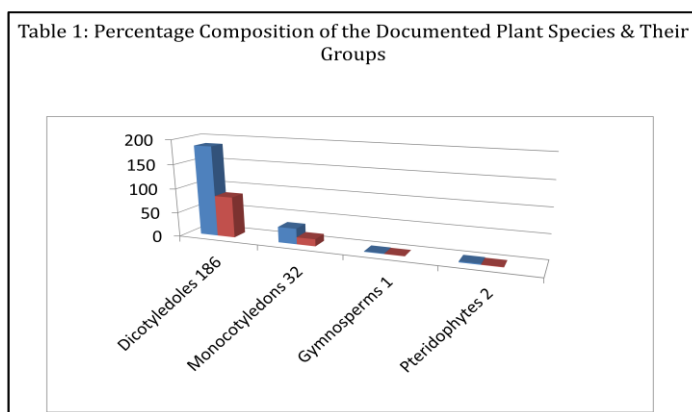
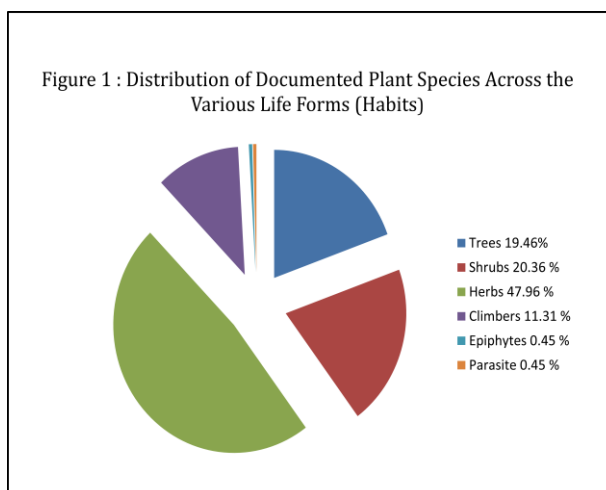


Figure 1 : Distribution of Documented Plant Species Across the Various Life Forms (Habits)



Distribution of medicinal plants According to family in this region

Sn	family	no of sps
1.	Fabaceae	35
2.	Solanaceae	21
3.	Cucurbitaceae	30
4.	Asteraceae	19
5.	Caesalpinaceae	18
6.	malvaceae, Moraceae, Apocynaceae	17
7.	Mimicoeae, verbinaceae, Euphorbiceae	16
8.	Rutaceae, Apiaceae, Liliaceae, Poaceae	15
9.	Amaranthaceae, chenopodiaceae, Myrtaceae, Zingerberaceae, convulvulaceae,	08
10.	Acanthaceae, Annonaceae, Aracaceae, Brasicaceae	7

It has been observed that most of the Ethno Medicinal herbs are grown as Weeds, Climbers are as agricultural proposes, shrubs and trees are for ornamental, shade and timber proposes . Only very few plants are grown as purely medicinal proposes.

If awareness creation and motivation in rural and urban population towards Ethno medicinal Plants will be created to cultivate Ethno medicinal Plants in commercial Proposes as well as their personal needs. This will leads to upliftment of communities in rural as well as urban area of the district. It Will also ensure conservation of biodiversity.

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