

## DIVERSITY AND INDIGENOUS USE OF SOME ETHNOMEDICINAL PLANTS IN ANANTHAGIRI FOREST IN VIKARABAD DISTRICT IN TELANGANA

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### ABSTRACT

India is traditionally rich in plant diversity and is a huge reservoir of medicinal plants. The country with vast geographical expanse and amazing diversity in topography. Climate and physiographic conditions support almost all types of ecosystems, the medicinal plant's wealth varies greatly with the change in agro-climatic zones of the country, Fortunately, India is also an inhabitancy of the oldest wide variety of plants, animals, and ecosystems including medicinal plants. India has been considered as one of the twelve mega-biodiversity countries of the World having a rich biodiversity. The present study has been accomplished to collect and document the ethno-medicinal knowledge of Lambadi, Kurmas, Golla, Yerukala, Vaddera, Gangireddula. In the provincial Region of Ananthagiri forest situated in Vikarabad District of Telangana state. Extensive fieldwork was conducted and information was collected through questionnaires, interviews and discussions with tribal villagers or practicing Traditional healer, the study conducted in the aries dharur and Vikarabad surrounding areas. About 137 plant species of 36 families have been documented in this study and an itinerary is prepared according to the alphabetical order of the diseases, families along with the vernacular names, botanical; names, drug formulation of drug formulation and methods of drug administration as told by the herbal practitioners. The Practitioners also felt that of late their practice is dwindling due to non-availability of plants which were plenty till recently, due to loss of habitat and forest cover in this area. The method of herbal practice is also decreasing as the practitioners are not passing the knowledge to the next generations before their death and also due to lack of proper written documentation.

**KEYWORDS:** Medicinal Plants, Traditional Botanical Knowledge, Tribals, Disorder

### INTRODUCTION

Ethno medication is the information created by local and tribal individuals, with their everyday experience and exchange of learning from their predecessors. Folk role system still persistent in rustic and semi-urban territories of India, The rural and tribal people are depending on their traditional learning for treating illness. Ethno medicine is often low-priced, intact, tested and proved based on local resources and strengths, Ethnomedicine has advanced through perceptions, trials, and errors, and goes from one generation to other. These traditional and folk claims can be subjected to scientific investigations, it is likely that though such examinations new medications of common starting point might be found for treatment of many diseases and infection, for which there are little satisfactory cures available in current medicine

Documentation of Ethnobotanical studies of any area has attained importance due to fast depletion of folklore knowledge and their uses because of modern lifestyles. The present use of modern medicine is increasing the vulnerability of human beings to various illnesses of unknown nature. The dominant allopathic systems of Medicine though providing treatment to many diseases also cause deleterious side effects on the human body. All these factors are forcing the man to look for alternative sources more particularly from the plant origin. The usefulness and efficacy of the plants as curative agents of many human diseases is long known. Traditionally, the knowledge of plants as a source of medicines for different diseases is well known through traditional medicinal systems of Ayurveda, Siddha, Unani, Homeopathy, Chinese's and Tibetan medicine. The vast tracts of Indian sub-continent and its rich flora and fauna are still to be explored. The people living in the forests and its vicinity and tribals are using many plants for several health problems. These people living away from modern society, due to lack of proper health care, still depend on the folklore medical practices for primary health care. The ethno-botanical survey of the area under study includes Vikarabad, Dharur and their surroundings of Vikarabad Dist. It is located on the central part of the Deccan plateau and lies in between  $17^{\circ} 20'$  and  $18^{\circ} 20'$  of North latitudes and  $77^{\circ} 54'$  and  $79^{\circ} 34'$  of East longitudes at Mean sea level 625.67mts. The forest cover is classified as a Southern Tropical Dry Deciduous type. Categorized, under group 5A/C-3 type of forest. The forest is of inferior type because of less rainfall, poor soil conditions, and ever-increasing biotic influence. The climate of the area is characterized by a hot summer of long duration and generally dry weather, except during South-West monsoon season. The average annual rainfall is about 90mm, the bulk of which is received through the SouthWest monsoon from June to September. The types of soils are predominantly black and red. The mandals under the study are partly covered by the forest area with interspersed human habitations, small villages, and tribal thandas. They use many plants for various ailments as well as food, fibers and other uses. Many of these plants are endemic and not known to the outer world. The knowledge of plants using as medicines gained by the people through generation is being lost through passing generations. Due to lack of education, prevailing myths and misconceptions this knowledge could gradually be lost under the pressure of human activities. Once we lose them it will be a permanent loss for us. Keeping in view of the above factors the present study has been under-taken in the mandals of Vikarabad, Dharur and their surrounding areas. The information gained in this study will definitely be useful in preparing medicines and extracting active principle substances form the plants to help cure many ailments with better therapeutic value. The study of chemical properties of the plant extracts and their efficacy evaluation scientifically will be useful in providing better Medicare for the rural people.

## METHODOLOGY

The present study includes the survey of nearly 40 villages in Vikarabad, Dharur mandals and their surroundings of Vikarabad Dist, during the last two year (May 2016 – May 2018). Several villages of the target area have been visited to find out resource persons, herbal practitioners, and village heads. Resource persons with great known how pertaining to folklore practices were identified after conducting 2-3 trips to the villages. However, a few villages were identified with the people having potential knowledge in the use of medicinal plants for different ailments.

After establishing a better rapport with the villagers, herbal practitioners' information was gathered and documented. Although with best efforts to retrieve the information about the plants, their products used as curative agents by the herbal practitioners, only limited information could be collected. In certain of the cases, local practitioners were reluctant to reveal the information due to myths and misconceptions. But the people who gave the information and helped

us in this project were very open-minded. Once they listened to our aims and objectives of the documentation, got realized and came forward openly to give their knowledge to be documented. Regular field trips were conducted to the villages of Vikarabad, Dharur, and other surrounding mandal villages. In interesting cases, one or two long distance villages have also been covered to get the information during all seasons. The Ethnobotanical data were collected and recorded following the standard procedures (Jain S.K, 1995.) by interacting with as many as 40 herbal practitioners and elders of the villages. Plant specimens were collected during the survey in different seasons and prepared herbarium specimens and identified with the help of floras. It is deposited with the Botany department SAP College, Vikarabad. The plant specimens collected were identified and cross-checked with the Herbarium of Department of Botany, PG College of Science, Saifabad, Osmania University. In this study, the local (vernacular) name of plants being used, preparation of the drugs, methods of administration and precautions regarding food and avoidances and other practices were systematically recorded and documented. For identification and cross-checking frequent visits were made to the Botany department Herbarium, PG.College of Science Saifabad, Osmania University, Hyderabad.

**Table 1: Enumeration of Species**

	<b>Botanical Name and Family Name</b>	<b>Vernacular Name</b>	<b>Medicinal Use</b>	<b>Part Used</b>	<b>Mode of Administration</b>
1	<i>Acacia farnesiana</i> (L.) Willd.(Mimosaceae)	Kasturi tumma, Muriki tumma	Mad dog bite (Verri kukka katu):	Stem bark	10 ml stem bark juice is given internally twice daily for three days
2	<i>Acacia nilotica</i> (L.)Del. (Mimosaceae)	Nalla tumma	Toothache	Stem bark	Clean teeth with stem bark ash daily till cured.
			Burns and Wounds		Apply stem bark ash by mixing coconut oil till cured
3	<i>Acalypha indica</i> L. (Euphorbiaceae)	Muripindi, kuppinta	Ring worm:	Fresh leaf	Collect fresh leaf juice and add turmeric powder and salt into it. Apply externally once a day till cured
4	<i>Acanthospermum hispidum</i> DC. (Asteraceae)	Kanigera alam, Guntakalagaraku	Cuts	Leaves paste	Leaves paste is applied on the affected part of the body once a day for 3-4 days.
			Wounds		Make a fine paste with leaves by adding tea spoonful of curcuma powder. Apply this paste externally on affected part once daily till cured.
5	<i>Achyranthes aspera</i> L. (Amaranthaceae)	Uthareni	Burns	Leaf extract as a lotion	Apply leaf extract as a lotion for 2-3 days.
			Toothache	Leaves juice	2 ml Leaves juice and dilute 1 g rock salt into it. Pour 2- 3 drops into the ear. If the tooth pain is on right side pour drops in the left ear and vice versa.
6	<i>Aegle marmelos</i> (L.)Corr. (Rutaceae)	Bilvamu, Maredu	Arthritis	Leaves	Make a paste with leaves and mix equal quantity of sesame oil. Apply this paste externally on the affected part once a day till cured
			Dysentery		10 g of semi burnt fruit pulp is given twice a day for 2- 3 days.
7	<i>Aerva lanata</i> (L) R.Br. (Amaranthaceae)	Pindikura	Abdominal pain	Root	10 ml root decoction is given internally once in the early morning for 3 days

Table 1 Contd.,

8	<i>Agave Americana</i> Linn. (Asteraceae)	Sakari matta	Ulcers	Leaf	50 g leaf pulp is given with 1 g sugar for 30 days to cure ulcer completely
9	<i>Ageratum conyzoides</i> L. (Asteraceae)	Ganagaju	Burns	Fresh leaf	Apply fresh leaf juice on the affected part
			Urinary infection		10 ml of leaf extract is given orally twice daily for three days
10	<i>Ailanthus excelsa</i> Roxb. (Simaroubaceae)	Pedda manu	Leucorrhoea	Stem bark	Make stem bark juice by adding 5g of <i>Piper longum</i> and 5g of <i>Cuminum cyminum</i> . 10ml juice is given thrice a day for one day.
11	<i>Alangium salvifolium</i> (L.f.) Wang (Alangiaceae)	Uduga,	Arthritis:	Stem bark	Grind together handful of stem bark with five fruits of black pepper and wrap it in cotton cloth to dip in 250 ml of hot water for fifteen minutes. 100 ml of this solution is given internally for one time, repeat it after a week if necessary
			Stomach pains		Make leaf juice and add double quantity of cow ghee to the juice. Given this medicine orally once daily for three days
12	<i>Albizia amara</i> (Roxb.) Boivin (Fabaceae)	Narlingi	Fever	Stem bark	5 g each of stem barks of <i>Albizia amara</i> , <i>Azadirachta indica</i> , <i>Zizyphus oenoplia</i> , <i>Capparis zeylanica</i> , <i>Ricinus communis</i> , and <i>Cassia fistula</i> are pounded together to make powder and mix one tea spoonful of powder made into decoction in 100 ml of water and filtered. The decoction thus prepared is given internally twice a day for two days.
13	<i>Allium cepa</i> L. (Liliaceae)	Ulligadda,	Immunity	Cut fresh onions	Cut fresh onions and eat them as salad during lunch and dinner.
14	<i>Allium sativum</i> L. (Liliaceae)	Thella gadda	Swellings	Bulb paste	Bulb paste is applied on the affected part once a day till cured
15	<i>Aloe vera</i> (L.) Burm.f. (Liliaceae)	Kalabanda	Red discharge in woman	Leaves	Given 100 g leaf pulp with sugar once a day till cured.
			Burning sensation while urination		Given 50 g leaf pulp with 10 g glucose for 3 days.
16	<i>Alternanthera sessilis</i> (L.) DC (Amaranthaceae)	Ponnagantikura	Night blindness	Leaves	Make curry with leaves and given once a week.
17	<i>Alysicarpus monolifer</i> (L.) DC. (Fabaceae)	Amera	Wounds	Leaf juice	Apply leaf juice on wounds twice daily for three days.
18	<i>Amaranthus spinosus</i> L. (Amaranthaceae)	Nalladoggata	Cuts Burns	Fresh leaf	Apply fresh leaf juice on the affected part.
19	<i>Amaranthus tricolor</i> L. (Amaranthaceae)	:Chirraku, Mulla thotakura	Scabies	Root paste	Root paste is applied (mix 0.5 g of sulphur for 100 g paste) externally once daily till cured.

Table 1 Contd.,

20	<i>Andrographis paniculata</i> (Burm.f.)Wall. ex Nees(Acanthaceae)		Controlling high BP	Whole plant	Ground whole plant with 10 fruits each of <i>Piper longum</i> , and <i>Piper nigrum</i> and make 5 g of sized pills. One pill is given orally until comes to the normal.
			Stomach pain		One tea spoonful of powder is given internally through cow milk for one time.
			Fever		This plant is decocted with 3 fruits of black pepper. 10ml decoction is given internally thrice daily until cured
21	<i>Annona squamosa</i> L. (Annonaceae)	Seethaphal	Arthritis	Leaves	Leaves paste is applied externally on affected part once daily till cured.
22	<i>Anthocephalus cadamba</i> (Roxb) Miq.	rudraganam, kadamba	Dysentery	Stem bark	10 ml of stem bark juice is given with one glass of water once daily for three days.
23	<i>Argemone mexicana</i> L. (Papaveraceae)	Ulli vinjara, Yerrickusuma	Swellings	Milk sap	Milk sap is applied externally on the affected part twice daily for 2-3days
			Skin allergy		Milk sap is applied externally on affected part once daily for 3-4 days
24	<i>Argyrea nervosa</i> (Burm.f.)	Telugu:samudra pala	Skin allergy	Leaves	Apply leaves paste on affected part once daily till cured.
25	<i>Aristolochia bracteolata</i> Lam (Aristolochiaceae)	Gadida gadapaku	Stomach pain	Fresh leaves	Grind 3 fresh leaves with 3 fruits of <i>Piper nigrum</i> and mix this into 20 ml water. 20 ml juice is given orally for one time only.
26	<i>Aristolochia indica</i> L.(Aristolochiaceae)	Nalla eswari	Skin infection		10 ml of root decoction is given internally once daily in the morning for a week.
27	<i>Asparagus racemosus</i> Willd.(Liliaceae)	Satavari, callagadda, pillipechara,	Mouth ulcers	Root powder	Make root powder along with seeds of <i>Abutilon indicum</i> . One tea spoon is given in the morning with sugar
			Enhance breast mil	Root powder	The root powder is given to the mothers internally along with water or milk once a day for two weeks
28	<i>Azadirachta indica</i> A. Juss. (Meliaceae)	Vepa	Fever	Stem bark	50 g stem barks of each of <i>Azadirachta indica</i> , <i>Zizyphus oenoplia</i> , <i>Capparis zeylanica</i> , <i>Ricinus communis</i> , <i>Cassia fistula</i> and <i>Albizia amara</i> boil in 1 liter of water for 15 minutes. 5 ml of decoction is given internally twice daily for 3- 4 days.
29	<i>Balanites aegyptiaca</i> (L.) Del.(Balanitaceae)	Gara chettu	Fever	Crushed fruit	Crushed fruit is given internally through the water once daily for three days
			Immunity	Leaf	Leaf chutney is prepared and eaten once in a week by locals during first rains (as on set of monsoon) to enhance immunity in their body to fight with the waterborne disease.
			Joint pains	Pulp of dried fruit	The pulp of dried fruit is used to cure joint pains in old people

Table 1 Contd.,

30	<i>Barleria prionitis</i> L.(Acanthaceae)	<i>Mulla gorinta,</i> <i>Gattugolimiti</i>	Toothache:	Fresh leaves	Chew the fresh stem piece for 5 min daily for 2 days.
			Arthritis		Roust fresh leaves and put them on the affected part when they are slightly warm once daily till cured.
31	<i>Basella alba</i> L.(Basellaceae)	Bachali kura	Anemia	Leaves	Make chutney with leaves of <i>Basella alba, Moringa oleifera</i> . Eat this chutney twice a week for 3 weeks to enhance their hemoglobin percentage
32	<i>Bauhinia racemosa</i> Lamk. (Caesalpiniaceae)	Are, Aare chettu	Arthritis	Stem bark	Make decoction with stem barks of <i>Bauhinia racemosa, Semecarpus anacardium</i> and 30 ml are given internally once a day for two days.
33	<i>Biophytum sensitivum</i> (L.)DC.(Oxalidaceae )	Muduchu thamara	Cut and wounds		Leaf pasteare applied externally once daily till cured.
			Gonorrhea		10 ml of root decoction is given internally once daily in the morning for 4 weeks
34	<i>Boerhaavia diffusa</i> L.,(Nyctagina ceae)	Atikamamidi	Anemia	Leaf juice	10ml leaf juice is given through honey daily once for 15 days
			Diarrhoea		Make a decoction with leaves and take 10ml orally twice daily till cured.
35	<i>Boswellia serrata</i> Roxb. (Burseraceae)	Andugu	Arthritis	Gum powder	One tea spoon full of gum powder is given through a glass of goat milk daily once till cured.
36	<i>Brassica juncea</i> ( L.) Czern.(Brassicaceae)	Avalu	Fever		Apply seed oil on the whole body mainly on chest part to control high fever particularly to the children.
			Skin infection		Semi rost the seeds and make a powder. Apply this powder along with coconut oil externally once a day for 4-5 days.
37	<i>Bridelia Montana</i> Willd. (Euphorbiaceae)	Panchothkam	Dysentery	Stem bark	One tea spoonful of stem bark powder is given internally along with one glass of warm water twice daily for 3 days
38	<i>Bridelia retusa</i> (L.) Spreng. (Euphorbiaceae)	Mulumaddi	Arthritis	Stem bark	50 g crushed stem bark is decocted in 100 ml sesame oil for 15 minutes and it is applied externally on affected part of the body once daily till cured.
39	<i>Bryonopsis laciniosa</i> (L.) Naud (Cucurbitaceae)	Ningi donda	Stomach pain	Seed	Ground 10 g seeds along with 5 g of <b>black pepper</b> to make powder. 10 g of powder is given internally as a single dose.
			Arthritis		Leaves are decocted with sesame oil and applied topically twice daily for 15 days
40	<i>Bryonopsis laciniosa</i> (L.) Naud (Cucurbitaceae)	Ningi donda	Stomach pain	Seed	Ground 10 g seeds along with 5 g of black pepper to make powder. 10 g of powder is given internally as a single dose.
			Arthritis		Leaves are decocted with sesame oil and applied topically twice daily for 15 days.

Table 1 Contd.,

41	<i>Buchanania lanzan</i> Spreng (Anacardiaceae)	Morri, morlichettu	Infertility	Seed	15 g seed powder is given with goat or cow milk internally during bed time after the fifth day of menstruation
42	<i>Butea monosperma</i> (Lamk.) Taub. (Fabaceae)	Mothuga, moduga	Fever	Dry flowers	Make a powder by the dry flowers of <i>Butea monosperma</i> , <i>Trachyspermum ammi</i> , <i>Cuminum cyminum</i> , <i>Piper nigrum</i> , <i>Zingiber officinalis</i> . Table spoon powder is given orally daily in the morning and evening till cured.
			Intestinal worms	Flower decoction	50 ml flower decoction is given orally for one time.
			Infertility	Stem bark	50 ml of stem bark extract is given internally for three days to check conception
43	<i>Caesalpinia bonduc</i> (L.) Roxb. (Caesalpinaceae)	Gacha	Intestinal worms	Seed pulp	5 g of seed pulp powder is mixed into one glass of water and given, twice daily till cured
44	<i>Calotropis gigantea</i> (L.) R.Br. (Asclepiadaceae)	Jilledu, Nalla jilledu.	Arthritis	Milk sap	Milk sap is applied externally on the affected part twice daily for three days
			Scorpion sting	Milk sap	Milk sap is mixed into an equal quantity of mango resin and applied externally at the place of sting for two times a day
			Burning sole	Leaves	Heat leaves on fire and put them on the ground and ask the patient to step on these leaves for 15 minutes. Apply Sesame oil to sole before the stand on leaves.
45	<i>Canavalia virosa</i> (Roxb.) Wt.&Arn. (Fabaceae)	Thamma kaya.	Ring worm	Leave	Leaves extract is applied on the affected part once daily for three days.
46	<i>Canthium parviflorum</i> Lam.(Rub iaceae)	China balusu	Intestinal worms in children	Root	3 ml of root extract is given internally once in the morning as a single dose.
47	<i>Capparis zeylanica</i> L.(Cappari aceae)	Adonda	Stomach pain	Stem bark	10 ml of stem bark extract is given orally twice daily till cured
			Fever	Stem bark	Collect 5 g stem barks each of <i>Capparis zeylanica</i> , <i>Azadirachta indica</i> , <i>Zizyphus oenoplia</i> , <i>Ricinus communis</i> , <i>Cassia fistula</i> , <i>Albizia amara</i> to make a decoction in one liter of water. 20 ml of this decoction is given internally twice a day for two days.
			Diabetics	Ripe fruits	Ripe fruits are eaten twice in a day to control sugar level.
48	<i>Capsicum annum</i> L. (Solanaceae)	Mirapa, mirpakaya	BP control:		It regulates blood pressure to normal in low blood pressure patients (many rural folks)

Table 1 Contd.,

49	<i>Cardiospermum halicacabum</i> L.(Sapindaceae)	Buddakaakara teega, Patapata	Wounds:	Leave	Grind 50 g leaves along with 5 g <i>Cuminum cyminum</i> to make a paste and it is applied externally on affected part once a day for three days.
			Arthritis	Leaves	50 g leaves are decocted in 100 ml sesame oil and applied on affected part once daily till cured
50	<i>Careya arborea</i> Roxb. (Barringtoniaceae)	Dudippa	Stomach pain	Stem bark	10 ml of stem bark extract is given internally twice daily for 2 days to cure stomach pain due to intestinal worms or indigest
			Fever	Stem bark	10ml of leaf and stem bark decoction is given internally twice daily for 2 days.
51	<i>Carica papaya</i> L. (Caricaceae)	Bappayi	Scabies:	Latex	Apply latex on the affected part once daily till cured. (Many women in the district)
52	<i>Carum copticum</i> Benth.&Hook. (Apiaceae)	Oma	Stomach pain	Leaves	Chew 5g of <i>Carum copticum</i> for two times
			Fever		Ground 5 g each of <i>Carum copticum</i> , <i>Cuminum cyminum</i> , <i>Piper nigrum</i> , and <i>Zingiber officinalis</i> to make juice and 2 tea spoons are given daily in the morning and evening for two days.
53	<i>Cassia auriculata</i> L.(Caesalpiniaceae)	<i>Nela thangedu</i> , <i>Bathukamma pulu</i>	Diabetic	Stem powder	20 g of matured stem powder is given along with one glass of water once a day for a month
			Leucorrhoea	Flowers	Decoction of flowers (20 ml) is given internally to control white discharge during the menstrual time in women. (Many rural women)
55	<i>Cassia fistula</i> L. (Caesalpiniaceae)	Rela	Arthritis Stomach pain	Leave	Apply paste with made up of leaves externally during bedtime for 3-4 days.
			Fever	Stem barks	Collect 5g each stem barks of <i>Cassia fistula</i> , <i>Capparis zeylanica</i> , <i>Albizia amara</i> , <i>Azadirachta indica</i> , <i>Zizyphus oenoplia</i> and <i>Ricinus communis</i> . Dry them and make powder mix one tea spoonful of powder into 1 glass of water and boil it for 10minutes. Administer this decoction orally twice a daily for two days.
			Throat infection	Fruit	Decoction of fruit pulp is used to gargle to control throat infection
56	<i>Cassia occidentalis</i> L.(Caesalpiniaceae)	Kasinha,	Stomach pain	Root	50 ml root extract is mixed into 1 g powder of <i>Carum copticum</i> and it is given orally once daily till cured.
57	<i>Cassia tora</i> L. (Caesalpiniaceae)	Tagarisa, thydanta	Wounds	Leaves	Leaf paste is applied locally once daily for 3-4 days.
58	<i>Ceiba pentandra</i> (Linn) Gaertn.(Malvaceae)	Tella buruga	Impotency	Stem bark	10 ml of stem bark juice is given with goat milk every day during bedtime for a period of the month.

Table 1 Contd.,

59	<i>Celastrus paniculatus</i> Willd. (Celastraceae)	Jyothismathi	Arthritis	Seed	10 g seeds are crushed and boil it in 100 ml of sesame oil for 15 minutes and it is applied externally on the affected part once daily during bedtime till cured
60	<i>Celosia argentea</i> L. (Amaranthaceae)	Gunugu, Bathukamma puvvu	Scabies	Leaves	Leaf paste is applied locally twice daily till cured
			Night blindness	Leaves	Make chutney with fresh leaves and eaten twice in a week for two months.
61	<i>Centella asiatica</i> (Linn.) Urban. (Apiaceae)	Saraswati aku	Sun allergy	Leaves	Applied leaf juice externally on the affected part once daily for two days.
			Jaundice	Leaves	20 ml of leaf juice is given internally early in the morning once a day for 4-5 days.
62	<i>Cicer arietinum</i> L. (Fabaceae)	Senagalu, chanagalu	Immunity	Root	Sprouts are fried them with ghee and given to the patients along with root thrice a week for a month.
63	<i>Cissus vitiginea</i> L. (Vitaceae)	Kudidine, Golla diddi, Kurdandi,	Wounds:	Stem bark	Apply stem bark paste externally on affected part once daily till cured.
64	<i>Cissus quadrangularis</i> Linn. (Vitaceae)	Nalleda, nalleru, nallakada	Cold and	Tender shoots	10 ml tender shoots extract is given orally as a single dose.
			Cough Bone fracture	Fresh stem	Ground the fresh stem and mix with ghee and it is given orally a week to quickrecover from the fractured patient.
65	<i>Citrullus colocynthis</i> (L.) Schrad. (Cucurbitaceae)	Eetiputcha, Paparabundama, Verri pucha kaya	Jaundice	Root	5 g of root powder is mixed into 100 ml cow milk and it is given internally once a week for 3 weeks. Avoid eating chicken, mutton, and fish, etc.
67	<i>Cleistanthus collinus</i> (Roxb.) Bth. ex Hook. f. (Euphorbiaceae)	Billa godisa,	Fungus in fingers	Leave	Leaves paste is applied externally by adding little turmeric powder once daily for three days.
68	<i>Cleome gynandra</i> Linn. (Capparidaceae)	Thalati, vamiti	Ear ache:	Leave	Pour 2 -3 drop of leaf extract into the affected ear once daily for 2 days.
69	<i>Cleome viscosa</i> Linn. (Capparidaceae)	Thalati, vaviti	Headache:	Leave	Crushed leaves (which have removed juice) should be placed on head and tie with cloth for an hour, repeat it after 4 hours if necessary
70	<i>Clerodendrum multiflorum</i> (Burm. f.) O. Ktze. (Verbenaceae)	Thakkali chettu	Stomach pain	Leave	Grind handful leaves along with 5g of <i>Trachyspermum ammi</i> to make pills, 10g size pill is given internally twice a day for one day.
			Arthritis		Leaf paste is applied externally on the affected part once a day for two days
71	<i>Clerodendrum serratum</i> (Linn.) Moon (Verbenaceae)	Gantubharangi	Fever	Roots	Make decoction with 50 g roots along with 20 g of <i>Andrographis paniculata</i> , and 3 black pepper. A 20ml decoction is given internally twice daily for 3 days.
72	<i>Clitoria ternatea</i> Linn. (Fabaceae)	Shankhapushpi	Psoriasis	Leaf	Make root paste and applied along with leaf pulp of <i>Aloe vera</i> externally once daily for 3-4 weeks.

Table 1 Contd.,

73	<i>Coccinia grandis</i> (L.) Voigt (Cucurbitaceae)	Kakidonda, Adavidonda	Diabetics	Fruit	10 ml fruit juice is given internally once a week.
74	<i>Cocculus hirsutus</i> (L.) Diels (Menispermaceae)	Dusudu teega, Dusara teega, Telladusura	Venereal disease	Leave	20 ml leaf juice is given orally once a day for a month
			Leucorrhoea		Leaf juice is given by adding sugar internally once daily for 15 days.
			Red discharge		Grind handful leaves along with 10g of <b>crystalline suger</b> (misri) and it is given internally once a day for 15 days.
75	<i>Cochlospermum religiosum</i> (Linn.) Alston (Cochlospermaceae)	Konda gogu	Cough	Stem bark	Make a powder with stem barks of <i>Cochlospermum religiosum</i> and <i>Terminalia chebula</i> . Mix 2g powder into 100ml hot water. 100ml medicine is given internally once in the early morning for a week.
76	<i>Cocos nucifera</i> L. (Arecaceae)	Kobbari, tenkai	Dehydration	Fruit	500 ml of coconut water given twice daily for 2-3 days along with salt water.
77	<i>Cordia dichotoma</i> Forst. f.(Boraginaceae)	Chinna-nakkeru, Banka nakkeru, Iriki	Diarrhoea	Fruit	Semi burnt fruits are given internally for three times a day.
78	<i>Coriandrum sativum</i> L. (Apiaceae)	Dhaniyalu, kothmeera	Stomach pain	Leaves	Make chutney with leaves and eaten twice a day for easy digestion.
79	<i>Croton bonplandianum</i> Baill. (Euphorbiaceae)	Galivana alam	Sprains and Swellings	Leaves	Apply milk sap on the affected part once daily for 3-4 days.
80	<i>Cryptolepis buchananii</i> Roem.&Schult. (Asclepiadaceae)	Adavi pala teega	Arthritis:	Leaves	Make chutney with leaves of <i>Cryptolepis buchanani</i> and <i>Cissus quadrangularis</i> and given to eat like chutneytwice a week for 3-4 weeks.
81	<i>Cuminum cyminum</i> L.(Apiaceae)	Jeelakarra/ jeera	Fever	Leaves	Grind 5g each of <i>Cuminum cyminum</i> , <i>Carum copticum</i> , <i>Piper nigrum</i> and <i>Zingiber officinalis</i> altogether to make juice. Two tea spoons are given daily in the morning and evening for two days.
82	<i>Curculigo orchioides</i> Gaertn. (Hypoxidaceae)	Nela thadi	Impotency	Root	5 g roots powder is given internally along with 100ml goat milkonce daily during bedtime for 15 days.
83	<i>Curcuma longa</i> L. (Zingiberaceae)	Pasupu	Cold Cuts and	Rhizome	Rhizome paste is applied on the top of the head of child red through mixing castor oil twice a day for 3 days.
			Wounds		Rhizome paste is applied immediately on the place of cut to control bleeding.
84	<i>Cymbopogon martini</i> (Roxb.) Wets. (Poaceae)	Nimma gaddi, Kashy gaddi	Lice on head	Leaves	Grind the leaves of <i>Cymbopogon martini</i> and <i>Annona squamosa</i> together to make a paste and it is applied to the hair once daily for 2-3 days.
85	<i>Dalbergia paniculata</i> Roxb. (Fabaceae)	<i>Pachari</i> , <i>pacharugu</i>	Hair fall and dundraf	Stem bark	Stem bark paste is applied to the hair once in a week to control hair fall due to dandruff.

**Table 1 Contd.,**

86	<i>Datura metel</i> L. ( <i>Solanaceae</i> )	Ummetha, Nalla ummetha	Arthritis	Leaves	Leaves paste is applied on the affected part once a day for 2 days
87	<i>Desmodium gangeticum</i> (L.) DC.( <i>Fabaceae</i> )	Deyyam jada	Fever	Root	Decocted 50g fresh roots along with 3 pepper in 200ml of water and 10ml of this decoction is given internally twice daily for 3- 4 days.
88	<i>Dioscorea bulbifera</i> L. ( <i>Dioscoreaceae</i> )	Nela dumpa	Tumors	Tuber	Tuber paste is applied externally once daily for 3-4 days.
89	<i>Dioscorea pentaphylla</i> L.( <i>Dioscoreaceae</i> )	Genusugaddalu	Indigestion	Tuber	20ml tuber juice is given internally twice daily for 2 days.
90	<i>Dodonaea angustifolia</i> L.f., Suppal ( <i>Sapindaceae</i> )		<i>Sprains</i>	Leaves	Rousted fresh tender leaves are placed on the affected part of the body once daily for 3-4 days.
91	<i>Dolichos lablab</i> L. ( <i>Fabaceae</i> )	Chikkudu	Ringworm	Leaves	Fresh leaf juice is applied externally on the affected part once daily for 3- 4 days.
92	<i>Eclipta prostrata</i> (L.) L.( <i>Asteraceae</i> )	Gunta galijeru, Gunta kalagaraaku	Stress relief	Leaves	Leaf paste are applied to the hair for one time only
			Anaemia		Make chutney with leaves and eaten along with rice once a week for 3-4 weeks
			Hair fall and white hair		Leaf paste is applied once a week to control white hair and hair fall.
93	<i>Eleusine coracana</i> (L.) Gaertn ( <i>Poaceae</i> )	Thy dalu,ragulu	Tooth pain in children		100ml of grain flour is given internally daily for a month.
94	<i>Emblica officinalis</i> Gaertn. ( <i>Euphorbiaceae</i> )	Usiri	Indigestion	Fruit powder	5g fruit powder is given internally after food for 2-3 times a day
			Burning sensation while urination		10g fruit powder is given with sugar internally morning and night until ured.
95	<i>Enicostemma axillare</i> (Lam.) Raynal ( <i>Gentianaceae</i> )	Resika	Stomach pain	Whole plant	5ml plant extract is given along with 2 g of black pepper powder internally as a single dose.
96	<i>Euphorbia hirta</i> L. ( <i>Euphorbiaceae</i> )	Palalam, Pacha botla	Conjunctivitis	Leaves	One or two drops of milk sap is applied to the affected eye once a day for three days
			Menstrual pains		20ml leaf juice is given internally once daily during the menstrual period.
			Scabies		Leaf juice is applied by mixing 1g of sulphor externally on the affected part of the body once daily 3-4 days.
97	<i>Euphorbia tirucalli</i> L. ( <i>Euphorbiaceae</i> )	Piddakajameda, Manchi jemudu	Piles	Milk sap	Milk sap is mixed with turmeric powder and applied on the affected part once a day for a week to complete cure of pile in children.
98	<i>Feronia elephantum Correa.</i> ( <i>Rutaceae</i> )	Velaga, velama	Diarrhoea:	Fruit	Young fruit pulp is given internally for one time only
99	<i>Ficus bengalensis</i> L.( <i>Moraceae</i> )	Marri	Impotency	Fruit	Handful of young leaf buds are shade dried and make powder and it is mixed into

Table 1 Contd.,					
100	<i>Ficus hispida</i> L. f. (Moraceae)	Brahma medi,	Mad dog bite (Verri kukka katu)	Fruit	20ml fruit juice is given internally once daily for two days.
101	<i>Ficus religiosa</i> L. (Moraceae)	Ravi chettu	Impotency	Fruit	5g fruits powder is given along with cow milk daily once for a month
			Skin diseases	Stem bark	Stem bark paste is applied on the affected part once daily till cured
102	<i>Gardenia gummifera</i> L. (Rubiaceae)	:Chit-mit	Stomach pain	Stem bark	5ml of stem bark juice is given orally once to cure stomach pain
103	<i>Gloriosa superba</i> L.(Liliaceae)	Venkayya puvvu, Nabhi pulu	Swellings:	Corn	Corn paste is applied externally on the affected part once a day for three days
104	<i>Gmelina arborea</i> Roxb. (Verbenaceae)	Gummudu Pedda gummudu.	Back pain	Root	10 ml root extract is given internally once a day for a week.
105	<i>Gymnema sylvestre</i> (Retz.) R. B (Asclepiadaceae)		Diabetic	Leaves	10ml leaf decoction is given internally early in the morning for 30 days
106	<i>Haldinia cordifolia</i> (Roxb.) Ridsdale (Rubiaceae)	Bandaru	Dysentery	Stem bark	20ml stem bark juice is given internally twice daily till cured
107	<i>Helicteres isora</i> L.(Sterculiaceae)	Nuli thada	Scabies	Fruit	Sundry the fruits to make powder. Apply powder by mixing coconut oil externally on the affected part once daily till cured.
109	<i>Heliotropium indicum</i> Linn. (Boraginaceae)	Thelu kondi, Naga danthi	Scorpion sting	Leaves	Leaf juice is applied externally on the affected part once daily for 3 days.
110	<i>Hemidesmus indicus</i> (L.) Schult	Sugandi pala	Weakness	Stem	One tea spoonful of powder is mixed in a cup of tea and it is given to drink daily for a month.
111	<i>Hibiscus rosa-sinensis</i> L. (Malvaceae)	Mandara	Control Hair fall	Leaves	Fry handful petals and soak them in 100ml coconut oil and it is applied to the hair every day.
			Dandruff		Flowers are boiled in coconut oil for 15 minutes and cooled, apply this oil to the hair once daily to control dandruff
112	<i>Holarrhena pubescens</i> (Buch.-Ham.) Wall. Ex G. Don(Apocyanaceae)	Nallapalagodisa	Cuts and wounds	Milk sap	Milk sap is applied externally on the portion of the cut or wound to control bleeding and apply fresh turmeric paste in case of small cuts.
113	<i>Holoptelea integrifolia</i> (Roxb.) Planch.(Ulmaceae)	Nemalinara, nermalichettu	Arthritis:	Stem bark	Make stem bark paste and boil with sesame oil for 30 min and apply externally when it is lukewarm once daily till cured.
114	<i>Holostemma adakodien</i> Schultes (Asclepiadaceae)	Adavi palateega	Sprains	Latex	Applied latex externally on affected part, once-daily till cured.
			Wounds:	Leaves	Applied leaf paste externally on wounds once daily till cured
115	<i>Jatropha curcas</i> L. (Euphorbiaceae)	Adavi-amudamu, Nepalam	Cuts	Leaves	Make leaf paste and applied externally on cuts to control bleeding.

Table 1 Contd.,

116	<i>Jatropha gossypifolia</i> L.(Euphorbiaceae)	Chitti nepalam	Scabies	Leaves	Leaf paste is applied externally on the affected part once daily till cured.
117	<i>Justicia adathoda</i> L.(Acanthaceae)	Addasaram	Cough	Leaves	: 100ml leaf decoction is given along with honey internally morning and evening to get relief from cough.
118	<i>Justicia procumbens</i> L (Acanthaceae)	Papadaku	Arthritis:	Whole plant	20 g of the whole plant is ground and boil it in 100ml of coconut oil for five minutes and apply externally on the affected part till cured
119	<i>Lagerstroemia parviflora</i> Roxb. (Lythraceae)	Chennangi	Cracked sole	Leaves	Apply leaf paste on the affected part once in the night before sleep till cured
120	<i>Lannea coromandelica</i> (Hout t.) Merr. (Anacardiaceae)	Gumphena	Dysentery	Stem bark	10ml stem bark juice is given internally once daily for 2-3 days
121	<i>Lantana camara</i> L. (Verbenaceae)	Murikimalle	Cuts and wounds:	Leaves	Grind handful leaves with turmeri and it is applied externally twice daily 2-3 days.
122	<i>Lawsonia inermis</i> L. (Lythraceae)	Mydaku, gorintaku	Arthritis:	Stem bark	Make a paste out of stem bark and apply this paste externally once daily for two weeks.
123	<i>Lawsonia inermis</i> L. (Lythraceae)	Mydaku, gorintaku	Arthritis:	Stem bark	Make a paste out of stem bark and apply this paste externally once daily for two weeks.
124	<i>Leonotis nepetiifolia</i> (L.) R. Br.(Lamiaceae)	Rana bheri	Skin allergy	Root	Apply root paste on affected part once a day for three days.
125	<i>Leucas aspera</i> (Willd.) Link (Lamiaceae)	Thummi	Abdominal pain	Whole plant	Whole plant is boiled into 500ml water for 5 minutes. 20ml of this filtered decoction is given for one time
			Psoriasis	Leaves	Leaf juice is boiled in coconut oil and it is applied externally on the affected part once daily till cured
126	<i>Tamarindus indica</i> L. (Caesalpiaceae)	Chintha chettu	Cracked sole	Fruit	Fruit pulp is applied externally on affected part once daily till cured
127	<i>Terminalia arjuna</i> (Roxb. ex D. C.)Wt. & Arn. (Combretaceae)	Etimaddi, Eru maddi, Tella maddi	Anaemic	Stem bark	1 tea spoon powder is given with one glass of water or cow/goat milk for three months
			Cardiac tonic		Stem bark extract is given daily to strengthening the hart functions as a cardiac tonic.
125	<i>Terminalia bellerica</i> (Gaertn)Roxb. (Combretaceae)	Thani, thade, tandra	Stomach pain:	Seed	One tea spoonful seed powder is given with sugar or honey thrice a day for two days
126	<i>Terminalia chebula</i> Retz. (Combretaceae)	Karaka chettu,	Dry cough	Fruit	One tea spoonful fruit powder of <i>Terminalia chebula</i> is given twice daily for three days.

Table 1 Contd.,					
127	<i>Tribulus terrestris</i> L., (Zygophyllaceae)	Palleru	Impotency	Seed	Ground 10g seeds with 10g dry roots of <i>Withania somnifera</i> to make powder. One tea spoonful powder is given internally daily with milk during bedtime for 30 days.
128	<i>Tribulus terrestris</i> L., (Zygophyllaceae)	Palleru	Impotency:	Seed	Ground 10g seeds with 10g dry roots of <i>Withania somnifera</i> to make powder. One tea spoonful powder is given internally daily with milk during bedtime for 30 days.
129	<i>Tridax procumbens</i> .(Compositae)	Gayamkura, Belapaku, Nallaalam	Fresh cuts	Seed	Seed paste is applied along with turmeric powder twice daily for 3-4 days.
130	<i>Trigonella foenum-graecum</i> L.(Fabaceae)		Diarrhoea	Seed	5g Seeds are chewed to cure diarrhoea twice daily for two days.
131	<i>Tylophora indica</i> (Burm.f.) Merrill (Asclepiadaceae)	Meka meyani teega	Venereal disease	Seed	Ground 7 leaves along with 7 fruits of black pepper to make a pill. 5 g size of the pill is given orally once a day for 5 days.
132	<i>Vitex negundo</i> L. (Verbenaceae)	Vayilaku	Paralysis	Leaves	Ground 50g leaves along with 2g of <i>Piper nigrum</i> , one fruit of <i>Woodfordia fruticosa</i> , and 7leaves of <i>Piper betle</i> and make a bolus. 20 g bolus is given in the morning of every alternative day. Avoid eating fish during medication
			Arthritis		Leaves paste is applied externally once daily till cured.
133	<i>Wattakaka volubilis</i> (L. f.) Stapf. (Asclepiadaceae)	Bandi gurija	Swellings:	Leaves	Leaves are decocted with water and applied externally on the affected part when it is slightly warm.
			Arthritis:		50 ml leaves decoction is given orally once daily for 30 days.
134	<i>Withania somnifera</i> (L.) Dunal (Solanaceae)	Aswagandha, Panneru gadda, Dommadolu gadda	Impotency	Root	20g root powder is given with one glass of cow milk before sleep at night daily for 30 days.
			Back ache and muscular pains		10 g root powder is given with honey once daily for 15 days
			Fitness		10 g root powder is given with goat milk daily for two weeks
			Tumors		Apply castor oil to the green leaves and heat them on fire and placed them on the affected part once daily for 3-4 days
			Obesity		Roots are fried with ghee and given to the patient for 30 days.

Table 1 Contd.,					
135	<i>Woodfordia fruticosa</i> (L.) Kurz(Lythraceae)	Jaji Jajuki vayila,	Gastrouble	Flower	10 ml of flower juice is given internally once daily for two days.
			Paralysi	Fruit	Ground 1 fruit along with 50g leaves of <i>Vitex negundo</i> , 2g of <i>Piper nigrum</i> , and 7 leaves of <i>Piper betle</i> to make a bolus. 20 g bolus is given in the morning of every alternative day for a month. Fish meat is avoided during the course of treatment
136	<i>Wrightia tinctoria</i> Br.(Apocynaceae)	Ankudu, Tellapala kodise	Psoriasis:	Leaves	Leaves are decocted with coconut oil and applied externally once daily till cured
137	<i>Zingiber officinalis</i> Rosc.(Zingiberaceae)	Allamu, Sonti (dried ginger)	Cough:	Rhizome	5ml extract of fresh rhizome is given internally in the early morning for 3 days
			Sexually transmitted disease		1 g rhizome is decocted along with 2 g of <i>Piper nigrum</i> 10g root bark of <i>Plumbago zeylanica</i> , 1 seed of <i>Semecarpus anacardium</i> in half liter water, 20 ml decoction is given internally by adding tea spoonful of cow ghee once daily for 3 days.
138	<i>Zizyphus oenoplia</i> (Linn.) Mil (Rhamnaceae)	: Pariki	Fever	Stem bark	Crush 5 g stem bark with equal quantity stem barks of <i>Albizia amara</i> , <i>Azadirachta indica</i> , <i>Capparis zeylanica</i> , <i>Ricinus communis</i> , and <i>Cassia fistula</i> and boiled in 100ml water for 15 minutes. 20 ml is given orally twice daily for two days.

## DISCUSSIONS

The present study deals with the documentation and evaluation of medicinal plants used by the tribal people in the primary health care in and around Vikarabad and Dharur mandals of Vikarabad Dist, T.S. About 40 villages have been chosen for the study and yielded a valuable knowledge of plant medicine of the locals. The herbal remedies mentioned are of certain general and specific ailments, such as snake bite, cough, and scorpion sting, headache, back pain body pains, colds, dandruff, dog bite, fever, hair loss, jaundice, inflammation, joint pains, lice killer, skin ailments, ear pains, eye problems, red and white discharge in women, loss of semen in urine in men, toothache and gum problems, stomach ache, bone fractures, conception and menstrual problems and wound healing. The resource persons are mostly lambdas, chenchus and some elderly people of local villages. The people practice and cure almost all ailments or diseases or wounds very effectively with simple locally available plants without involving much financial commitment, in the majority of the cases they treat freely. The study started in the month of May 2016 and went on up to May 2018. It revealed valuable information about the ethnomedicine of the local tribal of this Dist. It is invaluable and has immense potential for the primary health care of the people in this area. About 138 plant species of 36 families have been documented in this study and an itinerary is prepared according to the alphabetical order of the diseases, families along with the vernacular names, botanical; names, drug formulation of drug formulation and methods of drug administration as told by the herbal practitioners. The Practitioners also felt that of late their practice is dwindling due to non-availability of plants which were

plenty till recently, due to loss of habitat and forest cover in this area. The method of herbal practice is also decreasing as the practitioners are not passing the knowledge to the next generations before their death and also due to lack of proper written documentation. They felt that proper documentation of the knowledge of herbal practitioners should be taken up immediately in all the areas of the Dist before it disappears and conservation of medicinal plants in the area is very much in need. The present study elicits the importance of local herbal practices and availability of medicinal plants in the area, which will help in self-sufficiency for their primary health care practices. Though this is a small inventory which helped in identifying the gravity of the situation of loss of medicinal biodiversity of the area and subsequently non-availability of the treatment by the herbal practitioners to the local poor people of the area, unless otherwise the conservation and afforestation practices are taken. The present type of survey documentation must be continued involving many more villages and traditional practitioners so that we can have a concrete picture of the richness of the medicinal flora and as well as the availability of folklore medicinal treatment to the local people.

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