



## Review on ethnobotanical utilities of plants against various skin diseases in Nashik district, Maharashtra, India

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### Abstract

This article includes and evaluates the ethnobotanical data currently available on medicinal plants traditionally used against different skin disease by the peoples of Nashik district of Maharashtra, India. About 26 ethnobotanical studies on traditional medicinal plants sources from Nashik were reviewed. The traditional knowledge related to various treatments of skin diseases has provided leads to develop active molecules. According to the sources, 102 medicinal plants species for various skin diseases were recorded. Different parts of plant i.e. root, leaf, stem, fruit, bark, flower etc. were used to prepare different types of recipe i.e. paste, oil, powder, pellets, fumes, extract, juice etc. prepared against the skin ailments. Crushing was the frequently used method of preparation.

**Keywords:** ethnobotanical utilities, ethnobotanical data, medicinal plants

### Introduction

Harshberger (1885) <sup>[1]</sup> used the 'Ethnobotany' for the first time. Since then the definition of this term has evolved and elaborated by the contemporary eminent in natural sciences. The science of ethnobotany, as in the present wider context, denotes the entire realm of useful traditional relationship between man and plants. It thus emphasizes total relationship of man and plants, inclusive of pet animals. Intimate relationship and familiarity with bio resources has become an integral part of our traditions. Man, since time immemorial, thought the plants as his partners in collective management of the plant wealth. The convention on biological diversity realized the significance of traditional knowledge. This has helped further to make aware about our cultural practices, life-cycles, and economic measures and customary/ traditional uses. This, in turn, enforced the biologists to look at plants and animals as sources of genes and chemicals for his benefit.

The traditional knowledge related to various treatments of diseases has provided leads to develop active molecules. These are being developed by the technology-rich nations. The informal knowledge of traditional societies which contribute directly or indirectly to many inventions or production of patentable products, was unrecognized in past.

### About Nashik district

Nasik is a northwestern district of state of Maharashtra. The ranges of Western Ghats extend in the district. The forests in the region vary from evergreen to dry deciduous types. It is a pre-eminently tribal district. Bhils, Katkaris, Kunabi-Kokana, Thakur, Warli and Mahadeo Koli constitute major segment of tribal population. They have their own socio-cultural traditions and way of life. The forests, forest products and traditional crop plants are the main source of their livelihood. (Geography, soil, climate, people etc)

### Ethnobotanical studies in Nashik

Nasik is a northwestern district of state of Maharashtra. The ranges of Western Ghats extend in the district. The forests in the region vary from evergreen to dry deciduous types. It is a pre-eminently tribal district. Bhils, Katkaris, Kunabi-Kokana, Thakur, Warli and Mahadeo Koli constitute major segment of tribal population. They have their own socio-cultural traditions and way of life. The forests, forest products and traditional crop plants are the main source of their livelihood. Sharma and Laxminarsimhan (1986) <sup>[2]</sup> Ethnobotanical studies on the tribals of Nasik District, Patil and Patil (2006) <sup>[3]</sup> made survey of ethnobotanical studies on tribals of Nashik. Ethnobotany was initiated by Dr. Janki Annal (1897-1984) She studied food plants of certain aborigines of south India. Lakshminarsimhan and sharma (1991) <sup>[4]</sup> surveyed the district floristically, gave some information on ethnobotanical line as a part of their routine floristic studies. As far as state of Maharashtra is concerned, it was Late Dr. Vartak (1959, 1970, 1982) <sup>[5]</sup> his associates and students extended ethnobotanical observations in the western part of Maharashtra. The data on ethnobotany in Maharashtra is largely available through their efforts (cf. Vartak and Gadgil 1980 <sup>[4]</sup>, Ghate 1998, Ghate and vartak 1996, Ghate, Vartak and Kumbhojkar 1990, Sharma and Lakshminarsimhan 198, Jain 1968, Kirtikar, Basu 1984 <sup>[9]</sup>, Kulkarni and Kumbhojkar 1992, Cherian and Pataskar 1971, 1972 <sup>[2]</sup> the survey of pertinent literature suggest that Nasik districts has largely remained untapped ethnobotanically.

### Variouse skin diseases in the district

Different ethnobotanical surveys in the Nashik district were conducted by the various authors indicates different types are skin diseases found in the peoples of the district. Leprosy and Eczema is the most common skin disorder in the area while acne, itching, sunburn, contact dermatitis,

cold sore, blister, hives, latex allergy, psoriasis, measles chickenpox are also recorded in the region.

### Mode of administrations: (Dosage, quantity of drugs administered)

Various parts of the medicinal plants processed into proper recipes like paste, powder, ash, decoction, infusion, extract, juice, oils, fumes, pellets etc. Some domestic substances such as whey, milk, curd, other consumable oils, jaggery, sugars, honey, ghee, urine and few others are used while preparing the different aforesaid recipes. It is also noted that in few cases entire plants are employed to prepare medicine.

### Recipes for the treatment

The peoples of the Nashik district prefer recipes to treat skin diseases like paste, powder, ash, decoction, infusion, extract, juice, oils, fumes, pellets etc. Some domestic substances such as whey, milk, curd, other consumable oils, jaggery, sugars, honey, ghee, urine and few others are used while preparing the different aforesaid recipes. It is also noted that in few cases entire plants are employed to prepare medicine.

### Plant parts used for the treatment

Leaves and roots are the most commonly used plant parts in the preparation of remedies. They use plant parts like leaves (61 use-reports), stem-bark (05 use-reports), roots (18 use-reports), flowers (12 use-reports), seeds (17 use-reports),

fruit and latex(27 use-reports). Leaves and roots constitute a major share in their recipes.

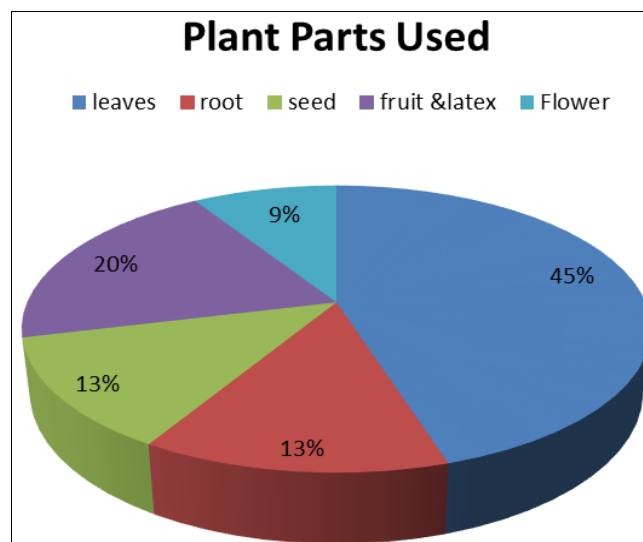


Fig 1

### Plants used in the treatment of skin diseases

Ethnobotanical surveys in the region indicates that about 95 angiospermic species which belong to 88 genera under 52 families employed variously locally.

Table 1

Sr. no.	Botanical name	Reff.	Local Name	Family	Origin	Plant part Used	Ethanobotanical Value
1.	<i>Acacia catechu</i> (L.) Willd	Reff-3	Khair	Leguminosae	southern Asia	Leaves, heartwood	Bark powder made in to paste and used against eczima
2.	<i>Acacia sinuata</i> (Lour.) Merr.	Reff 4	Shikai, Shikakali	Mimosaceae		Pods	Powdered pods are used in all cases of skin diseases.
		Reff 11	Shikai, Shikakali	Mimosaceae		Pods	Pods Powdered pods are used in all cases of skin diseases.
3.	<i>Acacia torta</i> (Roxb.)	Reff. 7	Chilar	Mimosaceae		Bark	Bark powder is used to kill germs in wounds.
4.	<i>Acampe praemorsa</i> (Roxb.) Blatt. & McCann	Reff.-2	Bagura	Orchidaceae	India	Fibres	Extract of fibres used to healing wound.
5.	<i>Aegle marmelos</i> L.	Ref 14	Bel	Rutaceae		Fruit	Young fruit is crushed with a piece of turmeric which is applied externally in case of pimples.
6.	<i>Aeride crispum</i> Lindl.	Reff 6	ketki	Orchidaceae		Seed	Seed powder is mixed in coconut oil, paste is prepared and applied on injuries till cure.
		Reff 9	Vinchu, Bandgul	Orchidaceae		Seed	Seed powder is applied on injuries. Plant material used is collected if it is epiphytic on <i>Mangifera indica</i> L. exclusively.
		Reff. 5	Vinchu, Bandgul	Orchidaceae		Seed	Seed powder is applied on injuries.
7.	<i>Agave Americana</i> L.	Reff. -3	Ghaypat	Agavaceae	Mexico	Leaves	Skin disease
8.	<i>Agave sisalana</i> Perr.	Reff. -2	kekti	Agavaceae	India	Root	Wound
9.	<i>Ageratum conyzoides</i> L.	Ref 14	Goat weed	Asteraceae		Leaf	Leaf is used as blood coagulant and to heel the wounds, leprosy, skin diseases.
		Reff 9	Goat weed	Asteraceae		Leaf	Leaf is used as blood coagulant and to heel the wounds, leprosy, skin diseases.
10.	<i>Aloe vera</i> (L) Burm.f.	Reff.-3	Sculent plant	Liliaceae	Arabia	Korphad Leaves	Stomach ache and skin disease
11.	<i>Alternanthera triandra</i> Lam.	Reff 6	Kanchari	Amaranthaceae		Leaves	triandra KanchariAmaranthaceae Herb Leaves diarrhoea, skin diseases, night blindness, indigestion, and fever
12.	<i>Amaranthus hybridus</i> L.	Reff 7	Rajgira	Ammaranthaceae		Leaves	Leaves are crushed in coconut oil, this paste is applied on eczema wound till cure.
13.	<i>Anacardium occidentale</i> L.	Reff 9	Kaju	Anacardaceae		Bark, Apple, Shell oil and seed.	Bark, Apple, Shell oil and seed. Leprosy, ringworm, ulcers, elephantiasis the seed oil is an excellent emollient and used in

							gastroenteritis.
14.	<i>Annona reticulata</i> L.	Reff 8	Ramphal	Annonaceae		Leaves, Wood, Fruits, Seeds	Seeds and leaves are crushed in water and the paste is applied externally on animals to remove ticks and mites. Leaf poultice used in wound healing.
15.	<i>Annona squamosa</i> L.	Reff 7	Sitaphal	Annonaceae		Leaves	Leaves are crushed and made into paste. Paste is used to cure wounds.
		Reff 8	Sitaphal	Annonaceae		Leaves, Fruits	Leaf paste and decoction is applied on wounds of animals to expel worms. Leaves are boiled in water for few minutes and rubbed on floor of hens nest to repel lice.
16.	<i>Anogeisus latifolia</i> (DC.) Wallich ex Guill. & Perr.	Reff 8	Dhamoda	Combretaceae		Gum, Bark, Seed	Seed powder is boiled and decoction is used for domestic animals bath or sprayed in cattle shed.
17.	<i>Argerea nervosa</i> (Burm.f.) Bojer	Reff 12	Samudrashoka	Convolvulaceae		Tuber	Decoction made from tuber and given in irregular menstrual cycle. Tuber is warmed and gently applied on swelling and inflammation in thighs.
18.	<i>Artemissia vulgaris</i> Linn.	Reff 9	Indian worm weed	Asteraceae		Leaf	Leaf is used as laxative. Flower is used in exelling round worm & on wounds.
		Ref 14	Indian worm weed	Asteraceae		Leaf	Leaf is used as laxative. Flower is used in exelling round worm & on wounds.
19.	<i>Artocarpus heterophyllus</i> Lam.	Reff. 5	Phanas	Moraceae		leaves	The ash obtained from bar of this plant and leaves of <i>Amaranthus spinosus</i> L. is mixed coconut oil. It is applied for echzema.
20.	<i>Azadirachta indica</i> A.Juss.	Reff 9	Neem	Meliaceae		Leaves, Bark, Leaf, and fruit.	Leaves are used as insect repellent. Bark, leaf and fruit is antiseptic used in ulcers, skin diseases. Seed used for treatment of intestinal worms.
		Reff 7	Neem	Meliaceae		Leaves	Leaves are boiled in water to get a green extract and it is applied externally on the whole body. It protects skin from any kind of skin infection, pimples.
		Ref 14	. Neem	Meliaceae		Leaves, Bark, Leaf and Fruit.	Leaves are used as insect repellent. Bark, leaf and fruit is antiseptic used in ulcers, skin diseases. Seed used for treatment of intestinal worms.
21.	<i>Balanities roxburghii</i> Planch	Reff 12	Hinganbet	Balannitaceae		Root, Fruit, Seed.	Root infusion given twice a day to treat leucoderma. Fruit powder is given twice a day in cough, cold and fevers. Seed oil applied on burns and wounds.
22.	<i>Butea monosperma</i> (Lam). Taub	Reff 7	Palas	Papilionaceae		leaves and bark	Fresh juice of leaves and bark of this plant is mixed with honey in 3:4 ratio and apply on face. It increases smoothness of skin and prevents pimples.
		Reff 4	Palas	Fabaceae		Seeds	Seed paste is applied to various skin diseases.
		Reff 9	Palash	Fabaceae		Root, Seed.	Root used to cure fever. Seed is used against roundworm and skin diseases. It is also used to cure diarrhea and dysentery
		Reff 11		Fabaceae		Seeds	Palas Seeds Seed paste is applied to various skin diseases.
23.	<i>Calatropis procera</i> W.T. Aitm	Ref 14	Rui	Asclepidaceae		Root	Root is used to cure tuberculosis, cough, bronchitis, asthma, dysentery and skin diseases. Latex is used as antidote to scorpion bite.
		Reff 9	Rui	Asclepidaceae		Root.	Root is used to cure tuberculosis, cough, bronchitis, asthma, dysentery and skin diseases. Latex is used as antidote to scorpion bite.
24.	<i>Calycopteris floribunda</i> (Roxb.) Lam. ex Poir.	Reff 8	Ukshi	Combretaceae		Stem, Leaves	Woody stem powder applied around the neck of cattle's to expel parasitic flies. Leaves are crushed and the poultice is applied on animal's wounds and skin diseases.
25.	<i>Carica Papaya</i> L.	Reff 6	Papai	Caricaceae.		Leaves and Fruit	Acne and skin infection, Improve and preserve good vision, anti- aging.
		Reff 3	Papai	Caricaceae	America	Leaves and Fruit	Skin diseases
		Reff 7	Papai	Cariaceae		fruit	Pulp of ripen fruit is made into paste is applied on body to cure skin rashes.

26.	<i>Cassia occidentalis</i> L.	Reff.5	Rantarota	Caesalpiniaceae		Leaves	Leaves are burnt and the soot is collected on a plate applied with coconut oil. It is then applied onto eyebrows to induce sleep
27.	<i>Cheilanthes farinosa</i> (Forssk.) Kaulf.	Reff 12	Morjiva	Cheilanthaceae			Whole plant decoction given once a day in chest pain. Roots are boiled in water by adding pinch of salt and given twice a day to treat stomachache. Root paste applied to reduce itchy inflammation of the skin.
28.	<i>Chenopodium album</i> L.	Reff 7	Chill Bhaji	Chenopodiaceae		leaves	A paste is made from leaves in coconut oil is applied on skin to treat psoriasis till cure.
29.	<i>Cissampelos pareira</i> Linn.	Reff.-2	Tanyal	Menispermaceae	India	Root	Wound
30.	<i>Citrus aurantifolia</i> (Christm) Swingle	Reff 7	Limbu	Rutaceae		fruits	Slices of fruits are rubbed on the skin of the whole body, which makes smooth skin and spotless.
31.	<i>Clematis gauriana</i> Roxb.ex.	Reff 8	Gomati/ Morvel	Ranunculaceae		Stem, Leaves	Stem decoction is used as detergent to wash domestic animals. Leaf paste and stem boiled in water and used to treat lice and other parasites on animals. Leaves are rubbed and applied on wounds and skin diseases.
32.	<i>Cleome viscosa</i> L	Reff.-2	Shengalvehadya	Cleomaceae	India	Leaf	Wound
		Ref 13	piwalitilwan	Capparidaceae		leaf	ear relief, skin irritant
33.	<i>Cocos nucifera</i> L.	Reff 6	Naral	Arecaceae		Fruit	Ring worms, candidiasis, psoriasis, sores, skin burns, sunburns, toothache, sore throat and ulcers
34.	<i>Crinum defixum</i> KerGawl.	Reff 9	Kumbh	Amaryllidaceae		Leaves	Leaves used pimples and body swelling. Smoke passed over body.
35.	<i>Cryptolepis buchanani</i> Roemer & Schultes	Reff 5	Bhuikawali	Asclepiadaceae		Roots	paste it is applied for skin disease like itching (Waghchevda), swelling (Uthav,) bruises (Phodwa).
36.	<i>Cuccuma domestica</i> L.	Reff 7	Halad	Zingiberaceae		Rhizome	Rhizome powder is applied on wound of eczema till cure.
37.	<i>Cucumis melo</i> L.	Reff 6	Kharbuj	Cucurbitaceae		Leaves, fruit and Seed	Skin Disorder,
38.	<i>Curcilaigo orchiodes</i> Gaertn.	Reff 12	Kali Musali	Hypoxidaceae		Root	Root powder is given with milk in white discharge in menstrual cycle. Root paste applied on injuries and septics.
		Reff 5	Kalacheda	Hypoxidaceae		Root	Root paste is applied onto injuries to expel worms and also in case of septics.
		Reff 9	Kalacheda	Hypoxidaceae		Root	Root paste is applied onto injuries to expel worms and also in case of septics.
39.	<i>Curcuma longa</i> L.	Reff 10	Halad	Zingibaraceae		Rhizome	Rhizome Half part of halad powder and one part of alum powder mix it and boil in equal amount of water and paste on the swelling or oedma.
		Reff 15	Halad	Zingibaraceae		Rhizome	Half part of halad powder and one part of alum powder mix it and boil in equal amount of water and paste on the swelling or oedma.
40.	<i>Cynodon dactylon</i> (L.) Pers.	Reff 7	Durva	Poaceae		leaves	Paste of leaves mixed with coconut oil is applied on wounds and cuts till cure.
41.	<i>Dalbergia sissoo</i> Roxb.	Reff 6	Shisav	Fabaceae		Seeds and Leaves	skin diseases, leucoderma, vitiligo vomiting, worm infestation lower abdominal pain, urinary tract disorders, Ulcers, wounds
42.	<i>Datura metel</i> L.	Reff 10	Dhotra	Solanaceae		Leaves and Fruit	Leaves and fruits The dried leaves of this species smoked in the treatment of asthma and bronchitis. The fruit juice is taken as a preventative against dandruff and hair fall.
43.	<i>Deospyros melanoxyton</i> Roxb.	Ref 14	Tendu	Ebenaceae		Bark and Leaf.	Bark is used diarrhea. Leaf is used in skin and blood diseases Seed used for dysentery.
44.	<i>Diplocyclus palmatus</i> (L.) Jeffery	Reff. 5	Shivlingi, Patnari	Cucurbitaceae		Entire plant	Entire plant along with fruits is crushed and made into paste. It is applied against septics.
		Reff 7	Shivlingi	Cucurbitaceae		Whole plant with fruits	Whole plant with fruits is crushed and make paste in coconut oil, it is useful against septics
45.	<i>Eclipta alba</i> (L) L.	Reff 3	maka	Asteraceae	Southeast Asia	Leaves	Hair growth
46.	<i>Eclipta prostrata</i> L.	Reff 11	Bhangaru	Asteraceae		Whole plant	Whole Plant Plant extract is used for the treatment of dandruff.
47.	<i>Embllica officinalis</i> Gaertn.	Reff	Amala	Euphorbiaceae			Triphla, Skin,Tannins

		15					
		Reff 7	Awala	Euphorbiaceae		Leaves	Leaves are burnt and powdered; mixed with coconut oil and applied in injury caused due to burns.
48.	<i>Euphorbia nerifolia</i> L.	Reff. 5	Sabar	Euphorbiaceae		Peels	The extract is them obtained which is dropped I ears to treat ear –ache.
49.	<i>Ficus benghalensis</i> L.	Reff 6	Vad	Moraceae		Leaves and fruit.	Wound and swelling for quick relief.
50.	<i>Ficus exasperate</i> Vahl.	Reff 12	Bhui – umbar	Moraceae		Fruit, Wood.	Fruit decoction is given to treat sterility in women. Wood ash or charcoal is applied on lesions caused by leprosy and on wounds.
51.	<i>Geodorum densiflorum</i> (Lam).	Reff. 5	Haryakand	Orchidaceae		Rhizomes	Dry rhizomes are powdered which is applied on swellings
		Reff 9	Haryakand	Orchidaceae		Rhizomes	Dry rhizomes are powdered which is applied on swellings.
52.	<i>Gliricidia sepium</i> (Jacq.) Steud.	Reff 8	Undirmari	Fabaceae		Leaves	Leaves are crushed and paste is used to wash livestock's to remove external parasites. Green leaves are burnt in cattle shade for fumigation to repel mosquitoes.
53.	<i>Heterophragma quadriloculare</i> (Roxb.)	Reff. 5	Waras	Bignoniaceae		bark	Paste of fresh bark is applied on injury caused accidentally due to axe.
		Reff 9	Waras	Bignoniaceae		Bark	Paste of fresh bark is applied on injury caused accidentally due to axe.
54.	<i>Holoptelia integrifolia</i> (Roxb.)	Reff 8	Papada	Ulmaceae		Bark, Leaf	Bark powder and stem pieces are tied around the neck of the cattle for healing wounds. Bark paste mixed with coconut oil and garlic and applied externally to treat inflammation, eczema, ringworm and skin diseases.
55.	<i>Ipomea aquatic</i> Forssk.	Reff 6	Nalichi Bhaji	Convolvulaceae		Leaves, Root	Anti-toxic, skin disease
56.	<i>Ipomea illustris</i> (C. B. Cl.) Prain	Reff. 5	Gogveli	Convolvulaceae		leaves	The fumes after burning the leaves are passed over the body of a child suffering from chicken-pox.
		Reff 9	Gogveli	Convolvulaceae		Leaves	The fumes after burning the leaves are passed over the body of a child suffering from chicken-pox.
57.	<i>Jatropha gossypifolia</i> L.	Reff 8	Chandrajyot	Euphorbiaceae		Leaves, Stem, Seeds	Leaves are boiled in water and the decoction is used to wash the wounds of domestic animals and to control parasites. Seed oil is used to treat wound ring worm.
58.	<i>Lannea coromandelica</i> (Houtt.) Merr.	Reff 9	Modal	Anacardiaceae		Bark	Bark paste is tied on injuries for healing.
		Reff.5	Modal	Anacardiaceae		Bark	Bark paste is tied on injuries for healing.
59.	<i>Leonotis Nepetifolia</i> (L.) R.Br.	Reff.- 2	Bond	Labiatae	India	Crushed Inflorescence	Wound
60.	<i>Luffa cylindrica</i> (L.) Roem.	Reff 11	Ghadaghosali	Cucurbitaceae		Leaves	Leaves Leaf paste is used externally in the treatment of leprosy.
61.	<i>Mallotus phillipensis</i> (Lam.) Muell.Arg.	Reff 12	Lokhandi	Euphorbiaceae		Fruit	Fruit powder is mixed with sesame oil and used to treat skin disease like eczema and wounds.
62.	<i>Mangifera indica</i> L.	Reff.- 2	Amba	Anacardiaceae	India	Stem bark	Wound
		Reff 15	Amba	Anacardiaceae		Stem bark	Stem bark Wound healing.
		Reff 10	Amba	Anacardiaceae		Stem bark	Stem bark Wound healing
		Reff 9	Aam	Anacardiaceae		Root, Bark and Fruit.	The roots and bark used in wounds, ulcers, vomiting, diarrhea, dysentery, rheumatism. Fruits used as a cooling agent.
63.	<i>Mentha spicata</i> L.	Reff 7	Pudina	Lamiaceae		leaves	A paste is prepared from the leaves of this plant and applied on face before bedtime. In the morning washed with cold water. It removes the spots and pimples.
64.	<i>Meyna laxiflora</i> Robyns	Reff. 5	Aliv	Rubiaceae		leaves	Fresh leaves are smeared with coconut oil and then slightly heated. These are wrapped on goiter or swellings.
		Reff 9	Aliv	Rubiaceae		Leaves	Fresh leaves are smeared with coconut oil and then slightly heated. These are wrapped on goiter or swellings.
		Reff 12	Aaval	Rubiaceae		Fruit and Leaves.	The ill person lost their food taste so to improve food taste, fruits are eaten. Leaves are chewed to treat abdominal swelling. Ripe fruits are eaten and pickled.
65.		Reff-1	Sinclairhumb	Anonaceae	India	Unripe fruits	body swellings.
66.	<i>Miliusa tomentosa</i> (Roxb.) J. Sinclair	Reff. 5	Humb	Anonaceae		fruits	Unripped fruits are dried and crushed. They are burnt and the smoke is allowed to pass

							over the body of lad after delivery to reduce body swelling.
		Reff 9	Humb	Anonaceae		Fruit	Unripened fruits are dried and crushed. They are burnt and the smoke is allowed to pass over the body of lad after delivery to reduce body swelling.
67.	<i>Mirabilis jalapa</i> L.	Reff 3	Gulbaksha	Nyctagenaceae	America	Root and Rhizome	Skin disease
68.	<i>Mukia maderaspatana</i> (L.) M.Roem.	Reff. 5	Meka	Cucurbitaceae		leaves	The ash of the dried leaves is mixed in coconut oil. this paste is applied onto injuries locally called 'Chikhali' caused due to constant contact of mud or water
		Reff 9	Meka	Cucurbitaceae		Leaves	The ash of the dried leaves is mixed in coconut oil. This paste is applied onto injuries locally called 'Chikhali' caused due to constant contact of mud or water.
69.	<i>Mussaenda frondosa</i> L.	Reff 11	Sarvadi	Rubiaceae			Leaves Leaf juice is used as a poultice for dandruff.
70.	<i>Nerium indicum</i> Mill	Reff 7	Kanher	Apocynaceae		leaves	The decoction of leaves is used externally to reduce swelling and scabies.
71.	<i>Ocimum sanctum</i> L.	Reff 7	Tulas	Lamiaceae		Leaves	Leaves are crushed with sandalwood, paste is prepared and is applied on the black spots appear after the healing of burn wounds.
		Reff 9	Tulsi	Lamiaceae		Leaves	The leaves are used in treatment of skin diseases. Also used in cough and cold.
		Ref 14	Tulsi	Lamiaceae		Leaves	The leaves are used in treatment of skin diseases. Also used in cough and cold.
72.	<i>Pandanus odoratissimus</i> L.	Reff 11	Kevda	Pandanaceae		Leaves	Leaves Oil prepared from younger leaves is smeared in the burned portion in the case of burns.
73.	<i>Piliostigma malabaricum</i> (Roxb) Benth	Reff. 5	Shid	Cesalpiniaceae		Root	Rot paste is applied onto injuries caused due to weapons.
		Reff 9	Shid	Cesalpiniaceae		Rot	Rot paste is applied onto injuries caused due to weapons.
74.	<i>Pongamia pinnata</i> (L) Piperre.	Reff 3	Karanj	Cesalpiniaceae	Asia	Root and Seed oil	Skin disease, Mice bite and hair problems
75.	<i>Rubia cordifolia</i> L.	Reff 11	Manjita	Rubiaceae		Roots	Root paste mixed with rhizome paste of turmeric is applied to the affected portion in the treatment of skin diseases.
		Reff 4	Manjita	Rubiaceae		Roots	Root paste mixed with rhizome paste of turmeric is applied to the affected portion in the treatment of skin diseases
76.	<i>Rutachalepensis</i> L.	Reff 4	Satapa, Gundra	Rutaceae		Leaves	Leaf juice is used for smallpox and worm infection.
		Reff11	Satapa, Gundra	Rutaceae		Leaves	Leaves Leaf juice is used for smallpox and worm infection.
77.	<i>Santalum album</i> L.	Reff 7	Chandan	Santalaceae		Stem bark	Stem bark is powdered; paste is prepared used to treat scabies.
78.	<i>Semecarpus anacardium</i> L.f.	Reff 7	Bhilava	Anacardiaceae		Seed	Seed oil is applied on foot cracks till cure especially in winter.
79.	<i>Sesamum indicum</i> L.	Ref 14	Til	Pedaliaceae		Seed	Seed oil in medicinal and also used as hair oil.
80.	<i>Solanum tuberosum</i> L.	Reff 7	Batata	Solanaceae		potato	Boil the potato in water, cooled it and meshed it and apply on burning skin.
81.	<i>Solanum virginianum</i> L.	Reff 6	Kateringani	Solanaceae		whole plant, root, fruit Fever	Fever, skin diseases, cardiac disorders
82.	<i>Stemodia viscose</i> Roxb.	Reff. 5	Ramban	Scrophulariaceae		leaves	The hot leaves of stemodia viscose are immediately bandaged on white spots of human body, which are indicative of earlier stage of leprosy. This causes temporary injury on these spots.
83.	<i>Synadenium grantii</i> Hook.f.	Reff 2	Chandrya	Euphorbiaceae	India	Latex	Wound
84.	<i>Tamariandus indica</i> L.	Reff 10	Chinch	Caesalpiniaceae			^ Bark and Fruits The dry powdered bark of this species is given to relieve gastric pain. The fruits are used for tonic and are reportedly good for the curing of dandruff.
		Reff 15	Chinch	Caesalpiniaceae		Bark and Fruit.	^ Bark and Fruits The dry powdered bark of this species is given to relieve gastric pain.

							The fruits are used for tonic and are reportedly good for the curing of dandruff.
		Ref 13	chinch			fruit, Leaf	Fruit juice for acidity, Leaf paste for inflammation swell
85.	<i>Tectona grandis</i> Linn.	Reff 11	Sag	Verbenaceae		Bark, Leaves.	Leaves A decoction of bark and Juice of leaves is useful in leprosy.
86.	<i>Terminalia arjuna</i> L.	Reff. 5	Arjun Sadada	Combretaceae		Bark	Bark paste is applied to cure wounds.
87.	<i>Terminalia bellirica</i> Roxb.	Ref f11	Bedha	Combretaceae		Bark	Bark Infusion of bark is used as the treatment of leprosy.
88.	<i>Terminalia chebula</i> Retz.	Reff 12	Hirada	Combretaceae		Fruit	Fruits powder is kept on cavities in toothache. Unripe fruit juice applied on wound and injuries. Fruits are chewed in cough.
89.	<i>Tridax procumbens</i> L.	Ref 13	Ekdandi	Asteraceae		leaf	leaf juice used in cut and wound healing, skin disease
		Reff 10	Tantani	Compositae		Leaf	The leaf Juice is used in cuts and wounds
		Reff 15	Tantani	Compositae		Leaf	The leaf Juice is used in cuts and wounds.
		Reff 7	Ghavati	Asteraceae		leaves	The leaves are crushed in coconut oil; paste is applied on wounds till cure.
90.	<i>Woodfordia fruticosa</i> (L.) Kruz	Reff 10	Dhyati	Lythraceae		Bark	Bark powder is used externally for healing wounds and skin diseases
		Reff 15	Dhyati	Lythraceae		Bark	Bark powder is used externally for healing wounds and skin diseases.
91.	<i>Wrightia tinctoria</i> R.Br.	Reff 8	Kala-Kuda	Apocynaceae		Bark	Bark extract used to treat infectious diseases of skin in domestic animals such as cattle, sheep.
		Reff 12	Kala-Kuda	Apocynaceae			Bark is rubbed in small childrens urine and paste is applied on legs to cure rheumatism. Bark extract with Helicterisora fruits given twice a day in dysentery and stomach pain. Bark extract used to treat infectious diseases of skin in domestic grazing animals such as cattle, sheep. RESULT
92.	<i>Xanthum indicum</i> J.Koenig	Reff.- 2	Lepadi	Asteraceae	India	Leaf	Wound
93.	<i>Zingiber officinale</i> L.	Reff 3	aadrak	Zingiberaceae	Southern Asia	Rhizome	Skin diseases
94.	<i>Ziziphus mauritiana</i> Lam.	Reff 7	Bor	Rhamnaceae		Leaves	Leaves are crushed, extract 2-3 drops applied on wound till cure.
95.	<i>Ziziphus oenoplia</i> (L.)Miller	Reff.- 2	Barkati	Rhamnaceae	India	Leaves	Wound

## Conclusion

Majority of population of this region live in rural parts or villages, where medical facilities are unavailable, either due to unavailability of expert medical persons or cost effectiveness of medicine. So these people solve their health problems in traditional ways. Although some live in urban area, there are also populations in slum areas which fight for bread and butter. They also can not afford the so called modern medical facilities. These usually find some other ways of treatment. Senior men and women are of great help in such circumstances. They mostly use substances available in the kitchen and in their surroundings. Plant parts used for the treatment by the peoples indicates peoples having awareness to conserve plant. Other vegetative parts of various plants i.e. leaves, fruits, seeds, flowers, bark mostly used for the treatment rather than roots and rhizomes.

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