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# ETHNOMEDICINAL PLANTS USED BY THE VALAIYAN COMMUNITY OF PIRANMALAI HILLS (RESERVED FOREST), TAMILNADU, INDIA. - A PILOT STUDY.

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## Abstract

Herbal medicine is widely practiced from ancient period throughout the world. These medicines are safe and environment friendly. According to WHO about 80% of the world's population relies on traditional medicine for their primary health care. India, being one of the world's 12 mega biodiversity countries, enjoys export of herbal raw material worth of U.S. \$100-114 million per year approximately. Currently the Government of India, realizing the value of the country's vast range of medicinal plants, has embarked on a mission of documenting the traditional knowledge about medicinal plants and herbs. This investigation, in a small way, takes up the enumeration of plants with medicinal value, which are used by the *Valaiyans*, an ethnic group, residing in and around Piranmalai Hills, Tamilnadu, South India. This report elucidates a rich and unique profile of phytodiversity of the area surveyed, with 63 species of medicinal plants belonging to 59 genera and 38 families.

Key words: Traditional knowledge, Herbal medicines, Phytodiverisity

### Introduction

Mankind has been continuously using the plants in one or the other way in the treatment of various ailments. In India, the sacred Vedas dating back between 3500 B.C and 800 B.C give many references of medicinal plants. One of the remotest works in traditional herbal medicine is "Virikshayurveda", compiled even before the beginning of Christian era and formed the basis of medicinal studies in ancient India. The Rig Veda , dating between 3500 B.C. to 1800 B.C. , seems to be the earliest record available on medicinal plants<sup>1</sup>. Herbs seem to be very important component of medicine in other cultures too ; Greek , African and Chinese medicines., to mention a few .

Nearly 80% of the world population depends upon traditional system of health care. Allopathic drugs have brought a revolution throughout the world but the plant base medicines have its own status. Surveys had revealed that 50% of the top prescription drugs in the USA are based on natural products and the raw materials are locked up in the tropical world –interiors of Africa, Asia and Latin America. The local uses of plants as a cure are common particularly in those areas, which have little or no access to modern health services<sup>2</sup> such as the innumerable villages and hamlets in India.

The indigenous traditional knowledge of medicinal plants of various ethnic communities, where it has been transmitted orally for centuries is fast disappearing from the face of the earth due to the advent of modern technology and transformation of traditional culture. The collection of information about natural flora, classification, management and use of plants by the people holds importance among the ethno botanists. The local people and researchers face the challenging task of not only documenting knowledge on plants, but also applying the results of their studies to biodiversity conservation and community development<sup>3</sup>

With a deep concern and reverence for the vast diversity of flora that our country enjoys, and with sense of realization about the invaluable therapeutic properties of this phytodiversity, the current research is undertaken. This work concentrates on ethno medicinal value of plants and herbs commonly used by the Valaiyan Community of the area surveyed.

The study area concentrates in and around the Piranmalai hills which comes under Reserved forest ,located between Madurai and Siva Ganga Districts, Tamil Nadu, South India. The area lies approximately with in  $77^{\circ}81' - 78^{\circ} 2E$  longitude and  $9^{\circ}5' - 10^{\circ}5$  N latitude, the elevation of the area ranges from 1000' to 2000'. It has a good content of red and loamy soil; in higher elevation the soil is rocky with small to big boulders. The temperature ranges from  $18^{\circ}$ C during winter and about  $25^{\circ}$ C to  $30^{\circ}$ C in summer. The mean of annual rainfall recorded in the study site in 1000mm of which the highest rainfall is during October to December, while March - May are the driest months<sup>4</sup>.

### Methodology

Following the method of Jain and Goel (1995), the information regarding the usage of medicinal plants available in the local area for treating various ailments and diseases, was collected by directly contacting the elders, herbal doctors and the persons who have knowledge about these medicinal plants in the Valaiyan community inhabiting the hamlets, Oduvanpatti, Valaiyankulathupatti, Ammankovilpatti, Silambkkonpatti, Melavanayeirippu, S Puthur, which are situated around the Piranmalai Hills. Regular visits to the above mentioned places were made from June 2004 to February 2005. The plant material was collected and carefully handled for identification by authenticated source.

Most of the plant materials were preserved by making herbaria and all the specimen vouchers were carefully numbered and deposited. The medicinal value of each plant was enumerated in the following pattern: a)Binomial, b)Family, c)Vernacular Name, d)Parts used and e)Ethnomedicinal uses.

The identification of plants was done using the following references.

1. The flora of Tamil Nadu Carnatic by K.M. Mathew (1981,82).

- 2. Flora of Tamil Nadu, India series I, Vol .I by N.C Nair and A.N. Henry (1983).
- 3. Flora of Tamil Nadu, India, Series-I Vol II by Henry et al., (1987).
- 4. Flora of Tamil Nadu, India Series I Vol III by Henry et al., (1989).



# Results

The data on medicinal plants, which was collected from inhabitants in and around piranmalai hills, were pooled and analysed. The investigation revealed the medicinal plants of 63 species and 59 genera belonging to 38 families, which are commonly used for various ailments by Valaiyans of the area surveyed. The enumeration and utilization of these plants are described Table 1 below.

Table 1: Enemeration and utilization of plants

1	Binomial Family Vernacular Name	Acalypha fruticosa . Forssk . Euphorbiaceae Sinni
	Parts Used Ethnomedicinal Uses	Leaves <u>For stomach pain &amp; Dysentry</u> : The leaf paste mixed with salt and taken internally relieves stomach pain. Leaf decoction relieves Dysentry.
2	Binomial	Acalypha indica L . Sp. Pl.
	Family	Euphorbiaceae
	Vernacular Name	Kuppaimeni
	Parts Used	Leaves
	Ethnometicinal Uses	<i>For joint pains and Eczema</i> : Handful of leaves along with small amount of salt, made in to a paste, applied externally for joint pain and eczema.
3	Binomial	Aerva lanata (L.) Juss.
	Family	Amaranthaceae
	Vernacular Name	Kannupoolai or Kooraipoo
	Parts Used	Leaves
	Ethnomedicinal Uses	<u>Cobra bite:</u> Leaf juice is applied externally on bitten area.
4	Binomial Family	Albizia amara (Roxb.) Bovin Mimosaceae
	Vernacular Name	Usilai
	Parts Used	Leaves
	Ethnomedicinal Uses	<u>For Dandruff:</u> Leaves dried in shade and powdered are applied on the scalp.
5	Binomial	Allmania nodiflora (L.) R. Br. ex. Wight
	Family	Amaranthaceae

	Vernacular Name	Mannukeerai
	Parts Used	Leaves
	Ethnomedicinal Uses	For Stomach upset: Leaves salad for cooling effect for stomach
6	Binomial	upset. Anisomeles malabarica (L.) R . Br. Alangium salvifolium (L. f) Wang.
	Family	Lamiaceae
	Vernacular Name	Alangiaceae Peythumbai Alangi
	Parts Used	Leaves
7	Ethnomedicinal Uses Binomial	<u>Chronic wounds:</u> Mixture of the above two plant leaves made in to paste and applied externally. Aristolochia bracteolate Lam.
/		Aristolochia bracieolale Lam. Aristolochiaceae
	Family Vernacular Name	Aaduthinnapalai
	Parts Used	Leaves
		Dandruff and Fungal infection: Leaf paste applied over the scalp
8	Binomial	to relieve Dandruff and fungal infection Azadirachta indica A. Juss in Mem . Mus . Natl . Hist . Curcuma domestica . Valeton in Bull . Jard . Bot .
	Family	Meliaceae Zingiberaceae
	Vernacular Name	Vaembu Manjal
	Parts Used	Leaves
	Ethnomedicinal Uses	Rhizome <u>For Chicken pox:</u> small amount of the above two parts made in to paste, applied externally for Chicken pox.
9	Binomial Family	Blepharis maderaspatensis (L.) Heyne . Ex . Roth . Nov . Pl . Sp. Acanthaceae
	Vernacular Name	Vaychivettuthalai
	Parts Used Ethnomedicinal Uses	Leaves <u>Cuts/Wounds:</u> Handful of leaves, mixed with Onion Bulb, made in to paste and applied externally for Cuts.
10	Binomial Family	Borassus flabellifer L. Sp. Pl. Arecaceae
	Vernacular Name	Panai
	Parts Used	Male flower
	Ethnomedicinal Uses	<u>Cuts:</u> The male flower made in to a paste is applied externally for
11	Dinomial	cuts.
11	Binomial Eamily	Cadaba fruiticosa (L.) Druce
	Family	Capparaceae

	Vernacular Name Parts Used	Vizhivi Leaves
		<u>Snake Bite and fracture</u> : Leaf juice boiled in Castor oil applied for snake bite and fracture.
12	Binomial Family	Cardiospermum helicacabum L . Sp . Pl. Sapindaceae
	Vernacular Name	Mudakathan keerai
	Parts Used	Leaves
13	Ethnomedicinal Uses Binomial Family Vernacular Name Parts Used	<u>Rhematic pain:</u> Small amount of leaves mixed with water, cummin seeds and turmeric, made into a boiled infusion, taken internally to reduce the rhematic pain. Cassia auriculata . L . Sp . Pl. Caesalpiniaceae Aavarai Flower and leaves
		<u>Body heat:</u> Handful of leaves made in to juice, is taken internally to reduce body heat. <u>Cuts</u> : Paste of flower with small amount of Lime for cuts.
14	Binomial	Cissus quadrangularis L. Mant. Pl.
	Family	Vitaceae
	Vernacular Name	Pirandai
	Parts Used	Leaves
	Ethnomedicinal Uses	Stomach upset and Dysentry: Tender leaves are taken internally
15	Binomial	as curry, to relieve stomach upset and dysentry. Citrus medica (L.) Sp . Pl .
		Cleome gynandra L . Sp . Pl.
	Family	Capsicum frutescens L . Sp . Pl . Rutaceae Capparaceae Solanaceae
	Vernacular Name	Elumichai Thaiveatai Milagai
	Parts Used	Leaves
	Ethnomedicinal Uses	<u><i>Tooth ache:</i></u> The above mentioned leaves mixed in the form of paste and applied on the affected area.
16	Binomial	Commelina benghalensis L. Sp. Pl.
		Jasminum angustifolium (L.) Wild . Var .
	Family	Commelinaceae
	Vernacular Name	Oleaceae Pachai velukai
		Malligai
	Parts Used	Leaves

17	Ethnomedicinal Uses Binomial	<u>Rabies:</u> The above mentioned leaves juice taken 300 ml per day for three days for Rabies. Cortalaria pulchra . Andr . Bot . Retos .
17	Family	Papilionaceae
	Vernacular Name Parts Used	Kilukilupai Leaves
10	Ethnomedicinal Uses	<u>Stomach problems:</u> Handful of leaves mixed with seeds of coriander sativum made in to the form of extract, 200 ml per day for three days to relieve stomach problem.
18	Binomial Family	Croton bonpalandianum Baill in Adansonia. Euphorbiaceae
	Vernacular Name	Mannannaikozhai
	Parts Used	Latex
	Ethnomedicinal Uses	<u>Wounds:</u> Latex is applied externally for wounds.
19	Binomial	Curcuma domestica . Valeton in Bull . Jard . Bot . Buitenzorgser
	Family	Zingiberaceae
	Vernacular Name Parts Used	Viralimanjal Rhizome
20	Ethnomedicinal Uses Binomial	<u>Dysentry:</u> Fifty gram of Rhizome paste mixed with small amount of Lime, applied on clean cloth and allowed to warm up on fire. Small amount of this ash is mixed with 25 ml of water and taken internally, three times for children. Cymbidium aloifolium (L.) Sw. Nova. Acta Regiae. Soc. Sci. Upsal.
	Family	Orchidaceae
	Vernacular Name	Panaipulluruvi
	Parts Used Ethnomedicinal Uses	Leaves <u>For ear ache:</u> The leaf juice is poured in to the ear, two-three
		times a day.
21	Binomial	Dendrophthoe falcata (L.f) Eiting in Denkschr. Kaiserl. Akad.
	Family	Wiss. Loranthaceae
	Vernacular Name	Veppampulluruvi
	Parts Used	Leaves
22		<u>Chest Pain:</u> The leaf juice, 200 ml, taken orally for three days.
22	Binomial Family	Dodonaea viscosa (L.) Jacq. Enum. Pl. Carib. Sapindaceae
	Vernacular Name	Virali
	Parts Used	Leaves
		<i>Boils:</i> The leaf paste is applied on the boils and tied.
	Lamonicalemai OSCS	<u><b>Dons.</b></u> The loag public is applied on the bolis and hea.

23	Binomial	Dolichos trilobus. L.
	Family	Aristalochia indica L. Sp. Pl. Fabaceae
	Vernacular Name	Aristalochiaceae Kozhiavarai Thalaisurali
	Parts Used	Leaves
24	Ethnomedicinal Uses	<u>Stomach pain:</u> Handful of leaf juice of the above mentioned plants 500 ml per day for three days to relieve stomach pain $\sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_$
24	Binomial Family	<i>Eclipta Prostrata</i> (L.) L. Asteraceae
	Vernacular Name	Karichalai
	Parts Used	Leaves
	Ethnomedicinal Uses	<i>Jaundice:</i> Leaf juice is taken internally for Jaundice. <u>Tooth ache</u> : Leaf paste is applied on the affected area for tooth ache.
25	Binomial Family Vernacular Name	Enicostemma axillare (Lam.) Raynal in adansonia . Gentianaceae Vellaruku
	Parts Used	Leaves
	Ethnomedicinal Uses	<i>Joint Pain:</i> Small amount of leaf powder mixed with 50 ml of water, taken internally to relieve joint pain.
26	Binomial	Euphorbia antiqurum L. Sp. Pl.
	Family	Euphorbiaceae
	Vernacular Name	Kalli
	Parts Used	Latex
	Ethnomedicinal Uses	<i><u>Fracture:</u></i> The latex is collected on white cloth and tied around the broken bone.
27	Binomial Family	Euphorbia hirta L . Euphorbiaceae
	Vernacular Name	Amman pachcharsi
	Parts Used Ethnomedicinal Uses	Whole plant, Leaves <u>Stomach upset:</u> Entire plant paste in goat milk taken internally for stomach upset. <u>Lactation</u> : Two teaspoon of leaf powder two times a day, improves lactation in women
28	Binomial Family	Evolvulus alsinoides (L.) L. Sp. Pl. ed. Convolvulaceae
	Vernacular Name	Vishnukanthi
	Parts Used	Leaves
29	Ethnomedicinal Uses Binomial	<u>Fever:</u> Leaf juice is taken internally for three days for fever. Gardenia gummifera L.
	Family	Rubiaceae

	Vernacular Name	Namaku
	Parts Used	Tender leaves
		<u>Dandruff:</u> Tender leaf paste mixed with coconut oil is applied regularly to prevent Dandruff.
30	Binomial Family	Gloriosa superba L. Liliaceae
	Vernacular Name	Kalappai kizhangu
	Parts Used	Tuber
31	Ethnomedicinal Uses Binomial Family Vernacular Name Parts Used	<u>Abortifacient:</u> The paste of tuber is used as an abortifacient Glycosmis mauritiana (Lam.) Tanaka. Rutaceae Panchanthalai Leaves
32	Ethnomedicinal Uses Binomial	<u>Eczema and skin diseases:</u> Leaf paste is applied externally for Eczema and skin diseases. Gmelina asiatica L . Sp . Pl .
	Family	Verbenaceae
	Vernacular Name	Neelakumil
	Parts Used Ethnomedicinal Uses	Fruit <u>Dandruff:</u> Fruit juice applied externally for every three days in the morning on the scalp.
33	Binomial Family	Gymnema sylvestre (Retz). RBr. ex. Schultes. Asclepiadaceae
	Vernacular Name Parts Used	Sirukurinchan Leaves
	Ethnomedicinal Uses	<u>Sugar in the Blood:</u> Leaves dried in shade and powdered is taken for Diabetes to reduce Blood sugar.
34	Binomial Family	Hygrophila auriculata (Schum.)Heine. Acanthaceae
	Vernacular Name Parts Used Ethnomedicinal Uses	Neermulli Leaves <u>To relieve from Cough:</u> Handful of leaves mixed with seeds of Cumminum cyminum and made in to the form of Juice. 500 ml
35	Binomial Family Vernacular Name	per day for three days Jasminum angustifolium.(L.)Wild. Oleaceae Malligai
	Parts Used Ethnomedicinal Uses	Leaves and Flower <u>To remove the clot of Breast Milk:</u> Leaves and Flowers made in to a paste and applied externally to remove the clot of Breast Milk.
36	Binomial Family	Jatropha gossipifolia L. Euphorbiaceae

Vernacular Name Parts Used Ethnomedicinal Uses Binomial Family Vernacular Name Parts Used Ethnomedicinal Uses	Adalai Latex <u>Stomach Pain:</u> Latex Mixed with Goat Milk or Rice water, administered for stomach pain. Justicia tranquebariensis.L.f.Suppl.Pl. Acanthaceae Mozhi murungai Leaves <u>For Poisonous Bites:</u> Handful of leaves, made into juice, taken internally for 3 days . Paste made of the leaves applied externally
Family Vernacular Name Parts Used Ethnomedicinal Uses Binomial	on the swelling to reduce the pain. Lawsonia inermis.L Lythraceae Maruthani Leaves <u>To reduce Body Heat:</u> Handful of leaves, mixed with Onion bulb and made in to a juice, taken internally. Leucas aspera (Wild). Link.Enum.Pl.Hort.Berol Labiatae / Lamiaceae
Vernacular Name Parts Used	Labratae / LamaceaeThumbaiLeavesTo relieve Eye infection:(Madras-eye) The leaf extract is pourdin to dried Chilly Fruit case (after removing the seeds ) and leftover-night , one or two drops of the juice is poured in to both the
Family Vernacular Name	eyes. Mukia maderaspatana (L.)M.Roem.Syn.Monog. Cucurbitaceae Bommusutai
Ethnomedicinal Uses	Root <u>For Dysentry:</u> The root is made in to a paste and taken internally. <u>For Piles</u> : The root paste along with Allium sativam and Zingiver officinalis, taken internally for Piles Nelumbo nucifera. Gaertn. Nelumbonaceae Thamarai Dried Petals
Binomial Family Vernacular Name Parts Used Ethnomedicinal Uses	<u>For Snake Bite:</u> Dried petals, mixed with hot water and made in to paste is applied externally for Snake Bites Notonia grandiflora. D.C. Asteraceae Muyalkathu Leaves <u>Ear infection:</u> Two or three drops of the Leaf juice is poured in to the ear for two-three days. Ocimum basilicum.L
	Parts Used Ethnomedicinal Uses Binomial Family Vernacular Name Parts Used Ethnomedicinal Uses Binomial Family Vernacular Name Parts Used Ethnomedicinal Uses Binomial Family Vernacular Name Parts Used Ethnomedicinal Uses Binomial Family Vernacular Name Parts Used Ethnomedicinal Uses Binomial Family

	Family	Lamiaceae
	Vernacular Name	Nay thulasi
	Parts Used	Leaves
	Ethnomedicinal Uses	<u>To reduce Fits:</u> Handful of leaves made in to juice and taken
		internally for three days
44	Binomial	Oldenlandia umbellata L.
	Family Normanular Name	Rubiaceae
	Vernacular Name Parts Used	Impural Leaves
		<i>For Poisonous Bites</i> Handful of leaves, made into paste, applied
	Etimometicinal Oses	<i>externally on the affected area to relieve from poisonous bite.</i>
45	Binomial	Pedalium murex . L
-	Family	Pedaliaceae
	Vernacular Name	Aaninerunji
	Parts Used	Leaves
	Ethnomedicinal Uses	To reduce Body Heat: Handful of leaves, made in to a juice,
		taken internally, 50ml for three days.
46	Binomial	Pedilanthus tithymaloides (L.)Poir.in Ann. Mus. Hist. Nat.
	Family	Euphorbiaceae
	Vernacular Name	Kandai kalli
	Parts Used	Leaves
	Ethnomedicinal Uses	<u>To relieve fire burn:</u> Handful of leaves warmed on fire and tied
47	D:	around the affected area.
47	Binomial	Pergularia daemia (Forsskal) Chiov.
	Family Vernacular Name	Asclepiadaceae Vaeli Paruthi
	Parts Used	Leaves
	Ethnomedicinal Uses	
	L'infonteurennar eses	a paste, taken internally to relieve stomach pain.
48	Binomial	Phyla nodiflora (L.)Greene in Pittonia
	Family	Verbenaceae
	Vernacular Name	Poduthali
	Parts Used	Leaves
	<b>Ethnomedicinal Uses</b>	Stomach pain and Ulcer: The leaf salad mixed with butter taken
		internally for stomach pain and ulcer.
49	Binomial	Phyllanthus amarus .Schum. & Thonn. In Kongd. Danske
	л ч	Vidensk-selsk.skr.
	Family Verneeular Name	Euphorbiaceae
	Vernacular Name Parts Used	Kilanelli Leaves
	Ethnomedicinal Uses	<i>Jaundice:</i> The leaf paste mixed with baffalo urine, 200ml per day
	Etimometicinal Oses	for three days, taken internally to cure juandice.
50	Binomial	Plumbago zeylanica L.
2.0	Family	Plumbaginaceae
	Vernacular Name	Chitramoolam
	Parts Used	Root

	Ethnomedicinal Uses	<u>To relieve Body pain and arrest frequent urination:</u> The dried powdered root mixed with goat milk to relieve body pain and arrest frequent urination.
51	Binomial	Polycarpaea corymbosa (L.) Lam.
51	Family	Caryophyllaceae
	Vernacular Name	Nilachadachi or Malligaimottuchedi
	Parts Used	Root and Leaves
	<b>Ethnomedicinal Uses</b>	<i>For Cobra Bite: Root and leaves paste is applied externally.</i>
52	Binomial	Solanum torvum. SW. and
		Acalypha indica L . Sp. Pl.
	Family	Solanaceae
		Euphorbiaceae
	Vernacular Name	Malaisundai
		Kuppaimeni
	Parts Used	Leaves
	<b>Ethnomedicinal Uses</b>	To cure Eczema: The leaf paste of the above plants, mixed with
		salt, applied for curing Eczema.
53	Binomial	Sphaeranthus indicus (L.)
	Family	Asteraceae
	Vernacular Name	Kottai Karanthi
	Parts Used	Leaves
	Ethnomedicinal Uses	<u>For retaining pregnancy:</u> Handfull of leaves made in to juice, taken 200 ml internally for three days to retain pregnancy.
54	Binomial	Thespesia populnea (L.) Soland . ex correa in Ann . Mus . Natt . Hist . Nat
	Family	Malvaceae
	Vernacular Name	Poovarasu
	Parts Used	Tender fruit
	Ethnomedicinal Uses	<u>For Skin disease:</u> The tender fruit mixed with Castor oil and
	D:	made in to a paste, applied externally for skin disease.
22	Binomial Family	Trianthema decandra .L .
	Family Vernacular Name	Aizoaceae Mucarai
	Parts Used	Leaves
56	Binomial	<u>For Poisonous bites:</u> Handful of leaves, mixed with Beetle wine and made in to paste and applied externally. Tribulus terrestris. L.
	Family	Zygophyllaceae
	Vernacular Name	Nerunchi
	Parts Used	Leaves
	Ethnomedicinal Uses	<i>For chest pain:</i> The leaf juice, 100 ml per day taken internally for
		three days.
57	Binomial Family	Tridax procumbens . Linn . Asteraceae

	Vernacular Name	Venai poondu
	Parts Used Ethnomedicinal Uses	Leaves <u>For Poisonous: bites</u> Handful of leaves, mixed with small amount of Lime and made in to paste and applied externally.
58	Binomial Family	<i>Vitex negundo</i> . <i>L</i> . <i>Sp</i> . <i>Pl</i> . Verbenaceae
	Vernacular Name	Notchi
	Parts Used	Leaves
59	Ethnomedicinal Uses Binomial	<u>Head ache:</u> Inhale boiled leaves vapour to relieve head ache Wrightia tinctoria (Roxb.)R.Br
	Family	Apocynaceae
	Vernacular Name Parts Used Ethnomedicinal Uses	Nilapalai or Vetpalai Leaves <u>To cure Eczema:</u> The leaf paste mixed with Neem oil and applied externally for curing Eczema.

### Discussion

A number of organizations within India are concerned with maintaining India's Traditional Medicine Systems. In addition, there is a wide spread development network, an established pharmaceutical industry and a wealth of botanical experts in the country. Until now, however, there has been little effort to document the volume and impact of national or international trade in India's medicinal plants.

According to the latest figures, it costs around 800 million dollars to put a new drug on the market. When companies manufacture a product based on TK and convert it into a medicine, they "acquire" a product which is worth a few hundred million dollars (Jain, 1986). A USA based top pharmaceutical companies like MERCK and SHAMAN are the classical examples .Such is the enormous potential hidden in these plants gifted by Nature .

After lengthy discussions with the local doctors practising siddha, Ayurveda and unani (Indian alternative medical systems), it was learnt that these plants listed by the authors in this investigation are very much used by them in making various formulations for a variety of ailments. From the enumeration study, it is obvious that the Valaiyans, who either work as labourers or cultivate crops such as Paddy and Ground Nuts, inherit rich traditional knowledge about the flora investigated and apply this knowledge for making crude phyto- medicines to cure infections as simple as cold to as complicated as cancer. These crude herbal medicines are based not only on traditional knowledge but also on rituals and beliefs. For instance the treatment given by the herbal healer for a patient suffering from jaundice is paste of a particular herb and onion along with a copper coin tied religiously around the shoulder and it is believed that it has a magical cure!

Another remarkable feature of the study was the presence of sacred grooves in all the hamlets . Sacred groves are one of the most important and essential bio-resources of the country. It represents an ancient Indian conservation tradition, protected by the local people out

of reverence and respect, fear and sentiment for Nature and incarnation of Nature. They are home to local flora and fauna, a veritable gene pool and mini biosphere reserve. It is note worthy that Tamil Nadu from South India has the maximum number of sacred groves. It is observed with a sad note that this TK which formed the basis for origin of not only alternative medicine but also paved way to evolution of a gamut of new and novel modern medicines, is facing slow and natural death as these communities are eventually oriented more towards modern medicine as they believe it gives a quick remedy, while it is paradoxical to see the modern world of late, focusing more on alternative medicine which has herbal base predominantly. Presently very few elders in the community practice herbal cure, while the young and current generation knows little or nothing about the traditional herbal medicines. If this trend continues, a few years from now, there will not be even a single elder member in this community who knows TK on medicinal plants to welcome an ethno-botanist with "EVERYTHING GREEN IS MEDICINE".

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