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Ethnomedicinal wisdom from Ashammakunta Thanda, Near Appaipally, Kodangal mandal, Mahabubnagar Dist, Telangana, India.

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Abstract

An attempt has been made to evaluate plants used for medicare by the tribal people of Ashammakunta Thanda near Appaipally, Kodangal mandal, Mahabubnagar Dist, Telangana. Due to lack of modern healthcare facilities and poor economic conditions, the indigenous people of the Thanda fully or partially depend on locally available medicinal plants for their healthcare needs. In the present report a total of 24 ethnomedicinal plants sitchivated 23 genus and 24 species from 19 families were recorded. The detailed information i.e., Usage, targeted ailment, Parts used recorded. This is a first report from the Ashammakunta Thanda near Appaipally, Kodangal mandal. Ashammakunta thanda has rich in ethnomedicinal plants and indigenous communities with new usages. Documentation of traditional knowledge is the basic and essential templates for new drug designing.

Keywords: Ethno medicine, Tribal community, Ashammakunta Thanda, Kodangal, Mahabubnagar, Telangana.

1. Introduction

The ability of herbal treatment has extremely deep origin in Indian culture used the plants not only for curing diseases but also during several ceremony. Nowadays, there is an increasing aspiration to unravel the role of ethno-botanical studies in trapping the centuries old traditional folk knowledge as well as in searching new plants resources of food, drugs etc ^[1]. Among the natural resources the traditional knowledge on medicinal plants is considered as important sources of medicine, the diversity of medicinal plants and their rich therapeutic wisdom in Ashammakunta thanda, made us to think over the utility of this natures gift for the benefit of society. Since early times, man has used plants for medicine, fuel, timber and food. The ethnic knowledge on the use of plants as medicine is well documented ^[2-4]. Indigenous remedies have originated directly or indirectly from folklore's rituals and superstitions ^[5]. The interest in ethno botanical research has increased considerably for the last couple of decades. Many scholars directed towards the valorization of ethnobotanical patrimony because of the belief that such remedies may be useful sources for new therapeutic products ^[6-7]. About half of the population from Ashammakunta thanda have depending on traditional medicine as it is commonly available and does not any side effects at the optimum level. Since, no such detailed studies reported so far from Ashammakunta Thanda of Mahabubnagar Dist, Telangana, so the present work was carried out.

2. Materials and Methods

The documentation of ethnic knowledge of medicinal plants from Ashammakunta Thana was conducted during June 2014- Jan 2015. In this period the identification of the plants with the medicinal properties against various ailments was recorded. The farm families used the questionnaire based survey along with informal discussions to gather information regarding the use of medicinal plants for various ailments at home scale level 1 to 2 people in each home who are the experts or practitioners, were interviewed and the information on the use of medicinal plants was recorded. These plants species were identified and the herbarium specimens were deposited in the Department of Botany, MVS Govt. UG & PG College, Mahabubnagar ^[8-9]. Plant species used for different health problems, together with the local names, part used, method of preparation, form and the mode of utilization were recorded and compiled. This was done with the help of key informants, Thanda elders and local healers Thanda elders are the major key players, in the traditional health care system. They have always played a critical role in maintaining the health of the indigenous people ^[10].

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They are living libraries and repositories of the oral traditions for ceremonies, songs to sing for gathering the plants and medicines to use that will care their people^[11-13]. Of the 14 informants, 08 were men and 06 were women, whose age ranged from 43-90 years.

2.1 Study area

The study area Ashammakunta Thanda located near to Appaipally village, Kodangal Mandal, Mahabubnagar district,

Telangana State, India (Fig.1). It is also located near boarder of Karnataka state. This Thanda sitchivated in the center of the forest. There is no roadline till today. The people of the study area were economically very much backward. They can speak three languages Lambadi, Telugu, Hindi. The plant diversity is very rich because this area included in Appaipally, Juntipally forests and a good number of medicinal plants are being used in the treatment of various diseases.

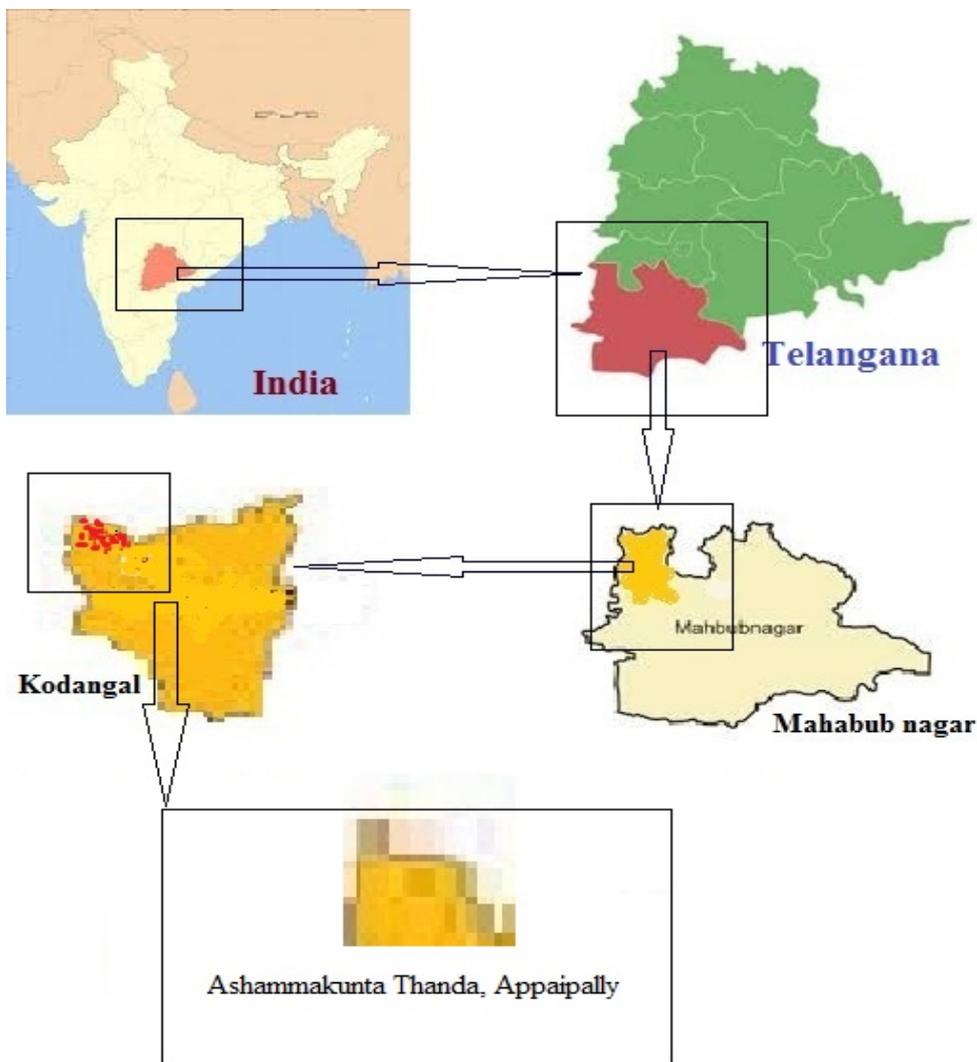


Figure 1: Study area Ashammakunta Thanda Appaipally, Kodangal mandal, Mahabubnagar Dist, Telangana, India.

3. Results and Discussion

In the present report a total of 24 ethnomedicinal plants sitchivated 23 genus and 24 species from 19 families were recorded. The detailed information, i.e., Usage, targeted ailment, Parts used recorded. This is a first report from the Ashammakunta Thanda near Appaipally, Kodangal Mandal. Ashammakunta thanda has rich in ethnomedicinal plants and indigenous communities with new usages. Documentation of traditional knowledge is the basic and essential templates for new drug designing.

In the present ethnomedicinal wisdom documented report, a total of 24 ethnomedicinal plants sitchivated 23 genus and 24 species from 19 families were recorded. The detailed information, i.e., Usage, targeted ailment, Parts used recorded.

The authenticated data was using for in the treatment of different ailments, were arranged in alphabetical order by their scientific name, followed by local names, family, part used, usage and targeted ailments (Table 1). Some the medicinal plants are used to cure more than 34 major diseases like, Tuberculosis, Paralyzes, Sevier jaundice, Bone fracture, Snake bite, Rabies, Diarrhoea, Kidney problem, Liver problem, Arthritis, Bone fever, wounds, cuts, etc.

From earliest times people have made use of plants for their basic needs, sustenance, medicare and livelihood. Some plants used by people are cultivated, while others grow in wild conditions. The tribes depend predominantly on plant, for food, clothing, housing, medicine, oil, agriculture implements, art, crafts and coloring and a host of other requirements^[14].

Table 1: Ethno-medicinal plants profile of Ashammakunta Thanda, near Appaipally, Kodangal mandal, Mahabubnagar District, Telangana, India.

Scientific Names & local names	Family	Part used	Mode of preparation & method of usage	Targeted ailment
<i>Abrus precatorius</i> Linn. Guriginja theega	Fabaceae	Roots	Decoction administered once daily for 2 to 3 days.	Abortion
		Root	Root decoction taken to once avoid sleeping in the same night.	Snake bite
<i>Aloe vera</i> (L) N.Burm.	Liliaceae	Leaf	Leaf juice taken orally 2 times for 3 days.	Viral jaundice
Kalabanda chettu			Leaf juice applied on the face directly for skin softener and smoothness daily once.	Beauty
			1 glass juice daily taken internally twice a day	Intestinal worms
<i>Argemone mexicana</i> Linn. Jeeripothu Alaamu	Papaveraceae	Roots	Pasted mixed with turmeric powder and eaten Empty stomach in morning once a day till cure.	Sexual disease
		Leaves	Leaf paste mixed with half glass of water and drunk before meals.	Cough
<i>Azadirachta indica</i> A.juss.	Meliaceae	Leaf	Leaf paste mixed in warm water while bathing.	Chicken fox
Vepa chettu			Leaf paste applied on infected part daily till cure	Skin disease Pimples wounds
			Fresh leaves mixed in food grains like Jawar, wheat, Rice etc.	Anti pathogen
<i>Calotropis gigantea</i> Linn. Jilledu chettu	Asclepiadaceae	Leaf	Leaf paste heated mixed with pigeon blood and applied paralyses part.	Paralyses
		Latex	Latex milk applied on inserted part.	Thorn insert
			Latex applied directly to septic wound	Wound
		Flower	4-5 flowers bellam (Gud) and pea crushed made pills two pills given twice a day.	Hydrophobia Dog bite, Rabies
<i>Carica papaya</i> Linn. Popaya chettu	Caricaceae	Fruit	Fruit pulp with bellam administered once for 2 days.	Abortion Stomachic
			Dried flower used to smoothen the mutton it makes digestion problems.	Digestion
		Latex	Latex with garlic applied on skin diseased part.	Skin disease (Tella machallu)
			Latex teaspoonful mixed with sugar Administered 3 times a day for 30 days.	Liver problems
<i>Carthamus tinctorius</i> Linn. Tella Kusuma.	Asteraceae	Seed	Used as cooking oil, Massage, bone fracture ailment of domestic animal.	Bone fracture
		Leaf	Leaf chewed with salt.	Mouth ulcer
		Flower	Paste with the neem leaf paste applied directly to boil pot.	Boils
<i>Cassia tora</i> Linn. Advi thangedu	Caesalpiniaceae	Leaf	Leaf paste papaya juice used daily morning a decoction before going bathroom for 1 week.	Intestinal pathogen
			Leaf paste applied on the infected part of the skin.	Itch
		Seed	Seed eaten raw, prayed seed applied salt given for 1 month.	Liver problem
			Seed paste mixed with lime juice and sugar daily once for 45 days.	fever Problem
		Stem, seeds	Wash, stem and seeds boil in clean water one glass of clean juice given orally 3 times a month.	Anti -asthmatic
<i>Coriandrum sativum</i> L. Kothimera	Apiaceae (Umbelliferae),	Leaf	Fresh leaf juice is externally applied over forehead daily once for 10 days.	Migrane
			Leaf paste is applied on the face as bleach and blooms the complex.	Skin
<i>Datura stramonium</i> Linn. Ummmenta	Solanaceae	Leaf	Dried leaf and tobacco smoked as cigarettes.	Bronchitis Asthma
			Leaf paste with neem leaf paste applied externally daily, twice for 1 week.	Skin disease
		Leaf, flower	Leaf and flower paste mixed with goat milk & applied externally on the forehead once a day.	Cough cold
		Seed	Seed powder 100g used to kill domestic diseased animals.	Poison

<i>Emblica officinalis</i>	Euphorbiaceae	Bark , Fruit	Fruit powder bark juice Administered 3 times daily till cure. Mixed given once daily for 2 days.	Vomiting Stomach Problem
Usiri		Fruit	Eaten raw only 5 or 6 fruits.	Mouth freshener
			Fruit eaten raw or prepared as pickle eaten 2 times a day.	Hair growth
<i>Lawsonia inermis L.</i>	Lythraceae	Leaf	Leaf past, neem leaf paste and those paste mixed with curd and administered over 1 hour of meals. For 2-3 days.	Gastrointestinal ulcers
My daaku chettu			Leaf paste, coffee, curd, lemon nicely mixed	Dandruff, Hair smoothness Coolness, Hair fall
<i>Ocimum santum L.</i>	Santalaceae	Leaf	Leaf soak in water for 10 h and taken internally once a day	Good health
Thulasi			Leaves mixed with neem leaves spread over the food grains.	Against pest
		Whole plant	A plant cultivated in front of the house to avoid microbes.	Microbes
<i>Rauwolfia serpentine (L) Benth.</i>	Apocynaceae	Root	Dried root powder with water administered once daily for a week.	Combat hypertion
Sarpagandha			Root piece deepen in water and pasted on injury.	Burt
			Root paste with jowar roti for 3 days given to children.	Stomachache, Expel tape worms
			Root juice boiled and cooled taken for 3 days early morning.	Fever, Down body, Temperature
		Leaf	Leaf juice dropped in eyes twice a day for one week.	Cornea, Opacity
<i>Ricinus communis L.</i>	Euphorbiaceae	Leaf	Young leaf paste mixed with goat milk administered twice a day with empty stomach for 3 weeks.	Sevier Jaundice
Aamudamu		Seed	Seed oil mixed with decoction tea and administered early morning for 2 days.	Gastric problem
<i>Sida acuta Burm.</i>	Malvaceae	Root	Paste mixed with mustard oil and frayed applied for 4 to 5 days.	Waist pain
Nagabala		Plant	Paste with honey and glycerin applied till it cure.	Burn
		Whole Plant	Whole Plant Paste applied around septic wound.	Remove Pus, Pain
<i>Solanum melangena L.</i>	Solanaceae	Fruit	Fruit along with bellam (gud) eaten in the morning with empty stomach for 7 days.	Dog bite
Vankaaya			Used as vegetable and cures mouth rashes.	Mouth rashes.
			Fruit roasted and raw eaten as dietary supplement once a week.	Dietary supplement
<i>Solanum Khasianum.C.B. Clarke. Kaashi Vankaaya</i>	Solanaceae	Leaf	Leaf powder mixed with ghee, Ashwagandha leaf powder, and honey, administered daily morning for two weeks.	Sexually sperm growth
<i>Terminalia arjuna.</i>	Combretaceae	Stem bark	Powder mixed in castor oil massaged on fractured part.	Bone fracture
Tella maddi			Decoction of bark with milk every morning empty stomach.	Heart attack
		Bark	Decoction of bark with milk and Bellam (Gud) early morning empty stomach.	Dropsy
			Decoction of bark with honey taken twice a day.	Diarrhea, Dysentery
			Stem bark powder mixed with honey applied on affected area.	Acne
<i>Tribulus terrestris.L.</i>	Zygophyllaceae	Whole plant	Powdered with ashvagandha leaf mixed in coconut oil and taken once early morning.	Kidney stone
Palleru kayala alaamu		Seeds	Powdered with neem leaf and salt taken orally.	Stomachic
<i>Tinospora cordifolia (Willd) Miers.</i>	Menispermaceae	Leaf stalk	Leaf stalk powder mixed with neem paste	Diabetes
Thippatheega		Leaf	Juice of 10-15 leaves 3 spoons of honey Mixed with sugarcane juice administered early Morning	Jaundice

			for 1 month till get recovery.	
<i>Tylophora asthmatica</i> (Burm.f) Merr.	Asclepiadaceae	Leaf	Handful of leaves crushed in urine of snake bitted person and the extract (2-3 drops) is passed through nostrils only once.	Snake bite
Meka meyani aaku			Extract of five leaves taken initially vomiting occurs only once.	Food Poisoning
<i>Vitex nigundo</i> L.	Verbenaceae	Leaf	Leaf boiled in water & vapor is inhaled (twice a day).	Bronchial disorders
Vaayili			Leaf paste along with Ginger is applied on the forehead to relieve (once a day).	Headache
			Smoking of leaf powder (1day).	Asthma
		Root	Root powder administered with carrot piece.	Piles, Dysentery
<i>Withania somnifera</i> L, Dunal.	Solanaceae	Root	Root paste with boiled egg eaten empty stomach early morning till cure.	Tuberculosis
Ashvagandha,			Root powder 1 tea spoonful sugar long pepper and ghee mixed nicely and administered for 5 month.	Cancer
		Root	Taken orally and applied soon after swelling, daily once for a week.	Swelling

The data was compared with the available literature in different regions of India on medicinal plants [15-19], and many plant usage listed are not recorded earlier [20-21]. In some neighbor states of India [22-25].

However, in Ashammakunta thanda, no studies on ethanol medicinal have been carried out. This is a first and exclusive report from the study area. The formulation and standardization of these effective phytomedicine should be encouraged for their sustainable uses. The data accrued is expected to serve as a basic source for the development of herbal drug industries to improve tribal and rural economy.

The ethnic medicinal practitioners from the study area, plants are used either single or in combination. In the present reocords the different parts of the tree were used with many variations in the method of preparation when compared with prvious reports of M. Sala Uddin *et al.*, [20], Wandee Gritsanapan [21].

Frequency in distribution sources, Percentage in distribution of growth forms, distribution of ethno-medicinal plants into taxonomic groups, Frequency in distribution of plant parts of ethno-medicinal plants against vsarious ailments was analyzed.

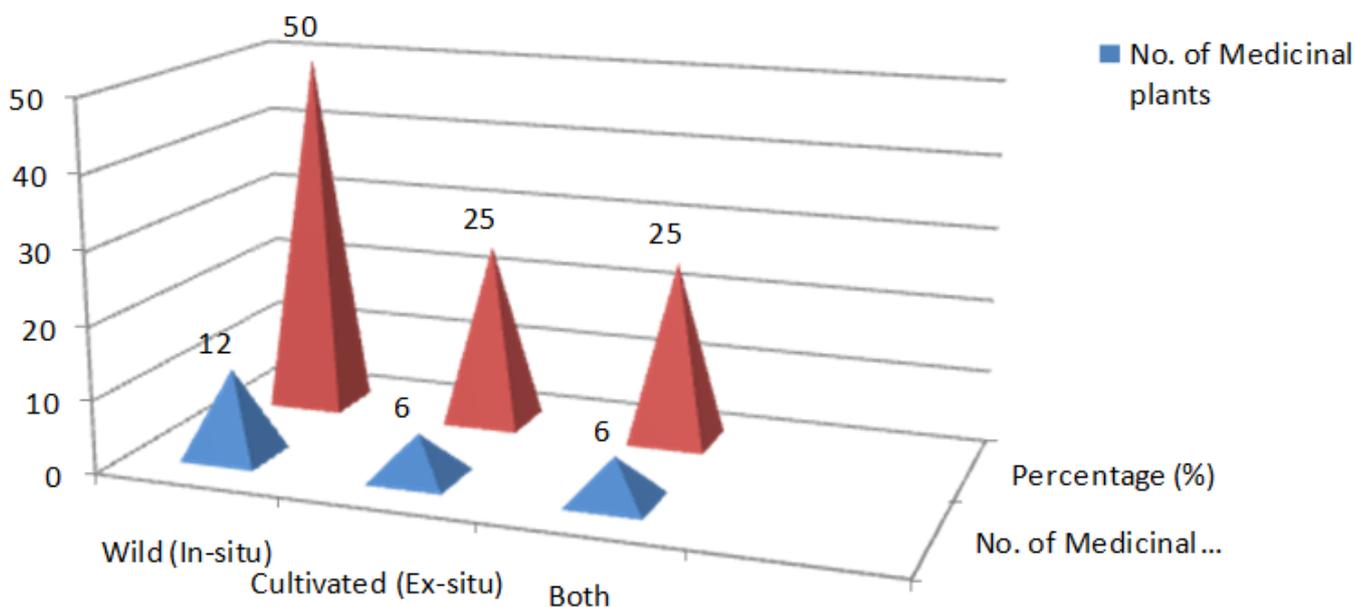


Fig 2: Frequency distribution of sources of ethno-medicinal plants in the study area.

Frequency distribution sources of medicinal plants in the study area against mouth ulcers shown in fig.1. Of 24 plants species documented, shows that the Wild share the largest proportion

with 12 species (50%) followed by both both the Cultivated and both (In-situ & ex situ) each with 06 species (25%).

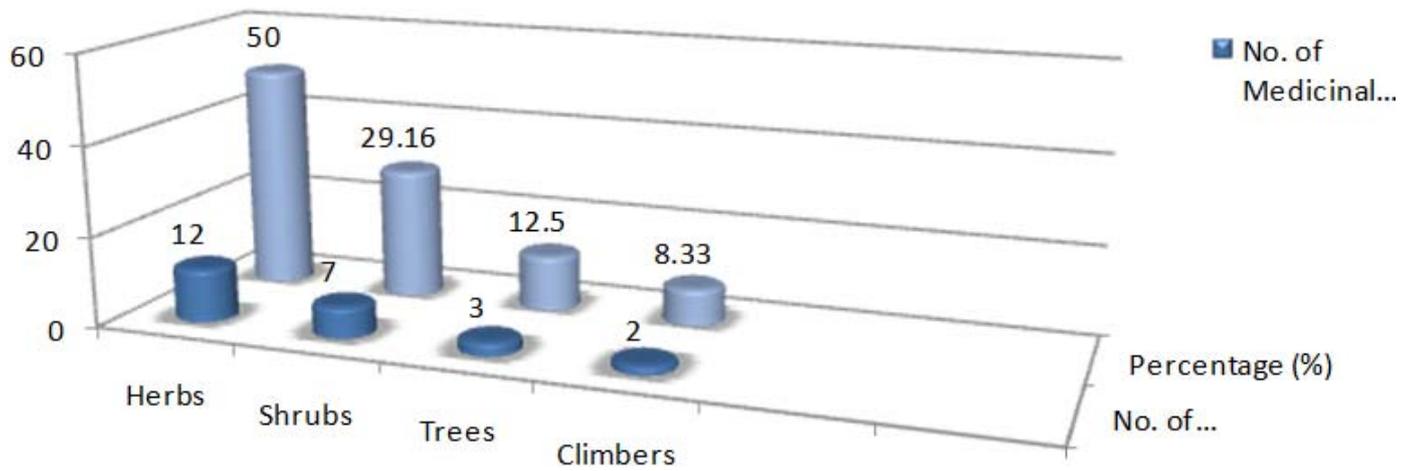


Fig 3: Percentage distribution of growth forms of ethno-medicinal plants.

The analysis of habits (Fig. 1) of plants documented, shows that herbs share the largest proportion with 12 species (50%) followed by shrubs with 07 species (29.16%), Trees with 03 species (12.5%) and climbers with 2 species (08.33%). The genus *Solanum* has 2 species. The remaining genera with one species each. With respect to families, Solanaceae was shared the largest proportion, i.e. Consisted of 4 species each,

followed by Euphorbiaceae and Asclepiadaceae 2 species each, the remaining 16 families i.e., Fabaceae, Lythraceae, Papaveraceae, Miliaceae, Caricaceae, Asteraceae, Santalaceae, Apocynaceae, Malvaceae, Combretaceae, Zygophyllaceae, Menispermaceae, Verbenaceae, Lythraceae were shown single species each.

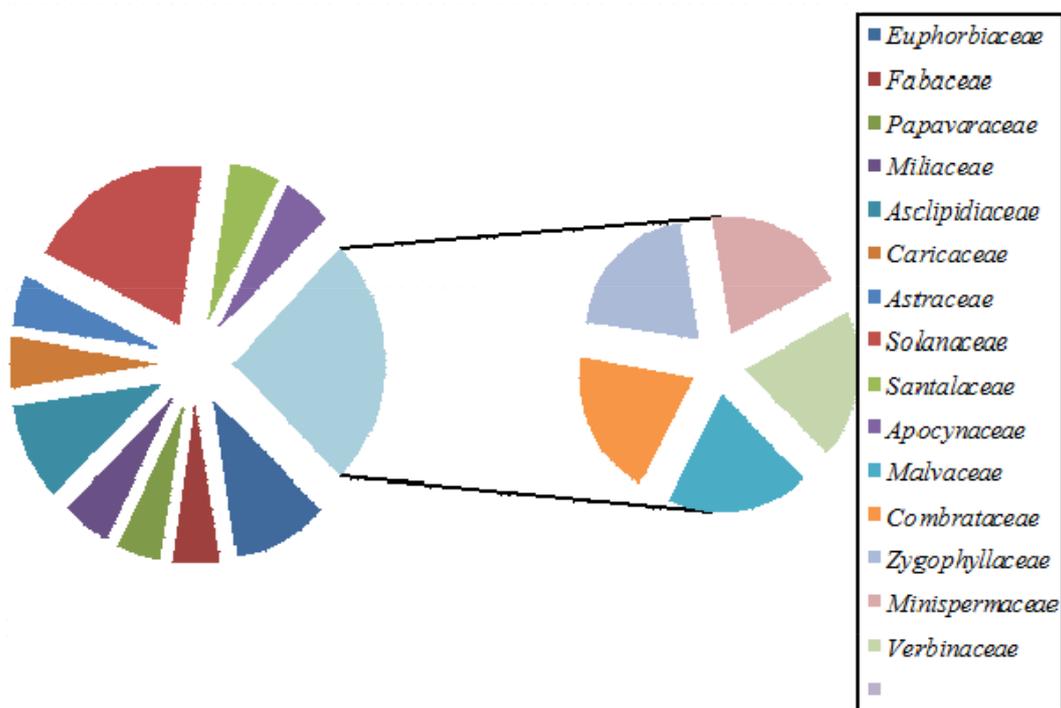


Fig 4: Ethnic-medicinal plants distribution family wise.

4. Conclusion

The present report improved to the earlier wisdom of ethnomedicinal uses regarding the use in the treatment of various ailments. This is the first report from the Ashammakunta thanda, here the formulation usage wisdom maximum newly reported. This will be basis for further phytochemical, pharmacological studies and drug designing.

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