

# Documentation of tribal's traditional knowledge of medicinal plants from Renlagadda Thanda, Kodangal mandal, Mahabubnagar Dist, Telangana, India

Shivakumar Singh<sup>1\*</sup>, Rajender Singh<sup>2</sup>

<sup>1</sup>Department of PG Studies and Research in Botany, MVS Govt. Degree and PG College, Mahabubnagar, Telangana, India.

<sup>2</sup>Department of Studies and Research in Botany, SV Arts and science, Degree and PG College, Palem, Mahabubnagar, District, Telangana, India.

\*E-mail address: shivakumarsinghp@gmail.com

## ABSTRACT

The aim of this report is giving the importance in need of ground level documentation of medicinal plants, their ingredients and usage. To be effort has been made to evaluate plants used for medicare by the tribal people of Renla Gadda Thanda, Kodangal mandal, Mahabubnagar Dist, Telangana. Due to be deficient in of modern healthcare facilities and poor economic conditions, the tribal people of the Thanda fully depend on in the vicinity available medicinal plants for their healthcare needs. In the present report a total of 24 ethnomedicinal plants from 23 genus and 24 species occupied 18 families were recorded. The thorough information i.e., Usage, to be treated disorder, Parts used recorded. This is a first report from the Renlagadda Thanda of Kodangal mandal. The study area having wealthy in medicinal plants flora and tribal communities with latest usages. Documentation of traditional knowledge on medicinal plants from the village or thanda level is the elementary and necessary samples for novel medication.

**Keywords:** Tradition medicinal plants; Tribal community; Renlagadda Thanda; Kodangal; Mahabubnagar; Telangana

## 1. INTRODUCTION

The tribal medicinal system extremely deep rooted in Indian culture. The usage of plants in India is very difficult to separate from there culture. Herbs are using not only for curing diseases but also during several ceremony, they believe green should gives victory. Today, there is growing ambition to unravel the role of traditional medicinal plants studies in trapping the centuries elder conventional folk knowledge as well as in searching new plants resources of food, drugs, shalter etc (S.K. Jain 1987). 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 Renlagadda 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 (Anonymous 1994, J.K. Maheswari 2000, R.N. Chopra et al.,

1956). Indigenous remedies have originated directly or indirectly from folklore's rituals and superstitions (Mitra Roma 1989). 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 (F. Lentini 2000, H.K. Sharma 2001).

To day there is in need to document and report at village or thana like basic level. Usually all most all reports choosing huge areas but they were not covered all the selected area, if once they covered it may some missings also happened. So the keeping aim of this object the present documentation desined and completed. About 90% of the people of Renlagadda thana have depending on traditional medicinal plants as it is commonly available and does not have any side effects at the optimum level. Since, no such detailed studies reported so far from Renlagadda Thanda of Mahabubnagar Dist, Telangana, so these documented results here reporting.

## 2. MATERIALS AND METHODS

The documentation of traditional knowledge on medicinal plants from Renlagadda Thana was conducted during June 2014- Dec 2014. In this period the frequent visitings was made to study area on the basis of tribals interview the collection, identification and authentication of the medicinal plants with their therapeutic 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 single people in each or in two homes who are the expert or practitioners, were interviewed. These plants species were deposited in the Department of Botany, MVS Govt UG & PG college, Mahabubnagar (J.S. Gamble et al., 1957, Y.N. Seetharam et al., 2000). Plant species used for diverse 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 young 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 aboriginal people (L.A. Colomeda et al., 2000). They are living reservoirs and depositories of the oral traditions for ceremonies, songs to sing for gathering the plants and medicines to use that will care their people (V.L. Kuletz et al., 1998, J.B. Alcorn 1981A, J.B. Alcorn 1981B).

## 3. STUDY AREA

The study area Renlagadda Thanda located in Juntupally forest. Its near to Kodangal Mandal, Mahabubnagar district, Telangana State, India (Fig.1). It is also located near boarder of Sedam taluk, Karnataka state. This Thanda located in the midpoint of the forest. There is no sufficient way for transportation till the day. The people of the study area were financially very much backward, more than 80% of the thana people were illitrates. They can speak three languages Lambadi, Telugu, Hindi. The plant assortment is very rich because this area located in heart point of Juntipally forest and a excellent amount of medicinal plants are available.

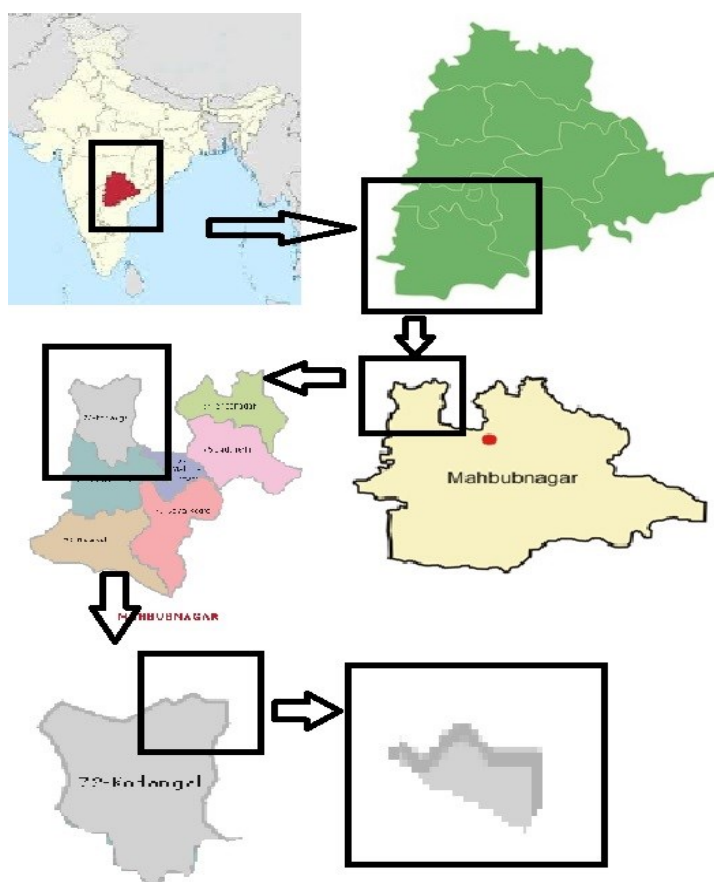


Figure 1: Study area Renla Gadda Thanda, Kodangal Mandal, Mahabubnagar District, Telangana State, India.

#### 4. RESULTS AND DISCUSSION

The study area (Figure 1) comprises huge forest and small reservoir i.e., Juntupally. So the Thanda not having convenient transportation till the day. In the event of documentation a total of 24 ethnomedicinal plants from 23 genus and 24 species occupied 18 families were recorded. Solanaceae represented 03, followed by Euphorbiaceae and Asclipidiaceae represented each two, the remaining 15 families represented single species each (Figure 4). The thorough information i.e., family, scientific name, local names, part used, usage and to be treated disorder were arranged in chronological order (Table 1).

This is a first report from the Renlagadda Thanda of Kodangal mandal. The study area having wealthy in medicinal plants flora and tribal communities with latest usages. A total number of 14 tribal practitioners of (09 men, 05 women) were interviewed whose age ranged from 35-90 years. A common 33 different diseases like snake bite, bone fracture, asthma, cough, fever, jaundice, rheumatic pains etc., were frequently treated by the 14 tribal practitioners. Documentation of traditional knowledge on medicinal plants from the village or thanda level is the elementary and necessary samples for novel medication.

In details discussion and data interpretation was done by various parameters like frequency distribution of sources, Percentage distribution of growth forms, family wise distribution and percentage, distribution of habitat forms, ailments treatment percentage

distributions. From initial period people have prepared usage of plants for their basic needs, sustenance, medicare and livelihood. Some plants used by people are cultivated, while others grow in wild conditions. Useally the tribes depend principally on plants, for food, clothing, housing, medicine, oil, agriculture implements, art, crafts and coloring and a host of other requirements (J. Maheshwari 1995).

The aim of this report is giving the importance in need of ground leavel documentation of medicinal plants, their ingrediants and usage. To be effort has been made to evaluate plants used for medicare by the tribal people of Renla Gadda Thanda, Kodangal mandal, Mahabubnagar Dist, Telangana. Due to be deficient in of modern healthcare facilities and poor economic conditions, the tribal people of the Thanda fully depend on in the vicinity available medicinal plants for their healthcare needs.

**Table 1.** Tradtional knowledge on medicinal plants of Renlagadda Thanda, Kodangal mandal, Mahabubnagar district, Telangana, India.

Family	Scientific Names & local names	Part used	Mode of preparation & method of usage	Ailment
Fabaceae	<i>Abrus precatorius</i> Linn. Guruginja theega	Seed	Dried seeds after roasted with chilly eaten	Sexual stimulant
Liliaceae	<i>Aloe vera</i> (L) N.Burm. Kalabanda chettu	Leaf	Leaf paste along with Turmeric powder is taken internally once a day for 3 days. Leaf paste with sugar is taken internally thrice a day for 2 days.	Chest pain Body heat
Papaveraceae	<i>Argemone mexicana</i> Linn. Jeeripothu Alaamu	Seed	Powdered applied inserted into the fish and prayed taken empty stomach. Powder and turmeric applied on infected skin. A powder used as a tooth powder.	Asthma Skin disease Leprosy Dental caries
Meliaceae	<i>Azadirachta indica</i> A.juss. Vepa chettu	Leaf	Dry leaves burnt with dried Toulouse leaves at night in the room. Twig made brushes used daily morning.	Mosquito's, skin diseases Bleeding gums Mouth ulcers
Asclepiadaceae	<i>Calotropis gigantea</i>	Leaf	Leaf crushed with neem leaf mixed in honey administered	Sevier burn Injury,

	Linn.		on part till cure.	swelling
	Jilledu chettu		Leaves warmed, over fire applied on chest	Rheumatic pain
Caricaceae	<i>Carica papaya</i> Linn. Popaya chettu	Leaf	Leaf paste with sugarcane juice and neem leaf paste mixed administered orally at early morning for 15 days.	Sevier jaundice
Asteraceae	<i>Carthamus tinctorius</i> Linn.	Flower	Flower Juice, sugar, turmeric mixed in half glass water administered once a day for 1 week.	Fever
	Tella Kusuma.		Flower paste applied to infected part 2 times a day for 6 days.	Skin disease
Caesalpinicaeae	<i>Cassia tora</i> Linn.	Root	Ox horn powder, root paste mixed in half glass water, administered orally twice daily for 35 days.	Bone fever, Dum & Duff
	Advi thangedu	Seed	Seed paste, curd given daily 2 spoonful after meals for 2 days.	Ring worm
			Seed powder mixed in tea given 2-3 times daily for 2 days.	Cough, Headache
Apiaceae	<i>Coriandrum sativum</i> L.	Leaf	Teaspoonful of fresh juice of leaves taken every night with honey.	Vitamin Deficiency
(Umbelliferae),	Kothimera		Leaf juice 1-2 teaspoon mixed with a glass of fresh buttermilk is given 2-3 times daily.	Indigestion
Solanaceae	<i>Datura stramonium</i> Linn. Ummenantha	Flower	Flower and root paste with <i>Adansonia digitata</i> L. Leaf paste applied on fractured part covered with ties bamboo sticks around it with human hairs twice in 1 month till it cures.	Bone fracture
Euphorbiaceae	<i>Emblica officinalis</i> Usiri	Fruit	Fruit mashed, filtered, mixed with glycerin and administered, twice daily for one week.	Eye infections

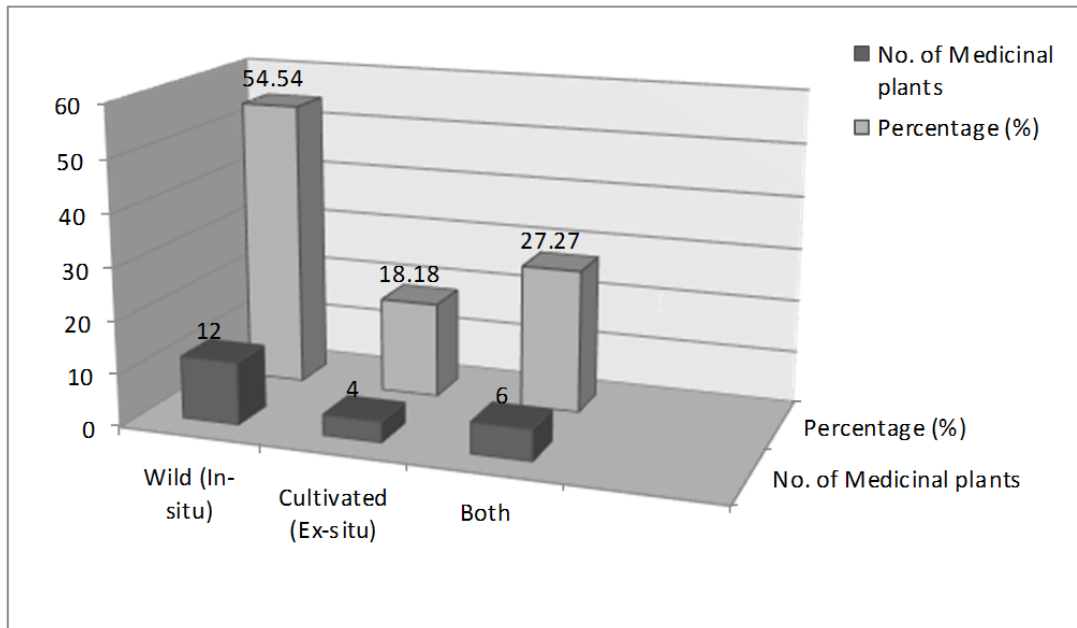
Lythraceae	<i>Lawsonia inermis</i> L.	Leaf	Leaf and Nilgiri oil mixed applied on four heads for 30 minutes for once a week.	Migraine Headache
	Mydaaku chettu		Leaf paste used in dying, coloring and decorations in various ceremonies.	Coloring
Santalaceae	<i>Ocimum santum</i> L.	Whole plant	Leaves are eaten raw to treat fever and for Weakness for trice a day.	Weakness
	Thulasi			
Apocynaceae	<i>Rauwolfia serpentine</i> (L) Benth.	Root	Root decoction administered early morning once a day for 1 month.	Nervous disorders
	Sarpagandha		Root decoction given orally once avoid sleep for 1 night.	Snake bite
Euphorbiaceae	<i>Ricinus communis</i>	Seed	Seed oil massaged to children, Old age person daily morning before bath.	Strengthen the bone
	Aamudamu			
Malvaceae	<i>Sida acuta</i> Burm.	Leaf	Leaf paste and shoots powdered mixed with coconut oil administered 2 times for 2 weeks.	Boil skin diseases
	Nagabala		Root paste directly applied with <i>Tridax procumbens</i> leaf paste for 2 times a day for 5 days.	Severe wounds
Solanaceae	<i>Solanum melangena</i> L.	Fruit	Fruit pieces of fruit are soaked in water for 30 min. and wash the hands before sleeping.	Perspiration
	Vankaaya			
Combretaceae	<i>Terminalia arjuna</i>	Leaf	Leaf juice 2 to 3 drop twice day.	Eye infection
	Tella maddi	Fruit	Fruit pulp salt long pepper and honey mixed given without water.	Cough
			Fruit fried covered with jowar flour fried with salt and administered once daily morning.	Catarrh

Menispermaceae,	<i>Tinospora cordifolia</i> (Willd) Miers.	Leaf	2 spoon leaf powder 2 gm <i>emblica officinalis</i> fruit powder mix with honey administered for 1 month.	Hair fall
	Thippatheega	Fruit	Powder, pulp of pomegranate made decoction Consumed once a day for 2 weeks.	Cough
Asclepiadaceae	<i>Tylophora asthmatica</i> (Burm.f) Merr.	Root	Bark decoction is given with black	Malaria
	Meka meyani aaku		Pepper leaf powder is mixed with honey.	Asthma
Verbenaceae	<i>Vitex nigundo</i> L. Vaayili	Twig	Use of soft twig as toothbrush for bad breath.	Healthy
			Hot fomented leaf Along with salt in a muslin cloth is placed on affected region.	Arthritis
Solanaceae	<i>Withania somnifera</i> L, Dunal.	Leaf	Leaf paste mixed in vanaspati mixed nicely and applied on wounds once a day for week.	Bedsores Wounds
	Ashvagandha		Root leaf paste mixed in turmeric	Ulcers

The data was constrate with the existing literature in different regions of Telangana and India on medicinal plants (K.R. Kirtikar & B.D. Basu 1935, V.S. Agarwal 1986, G. Watt 1972, S.J. Ali et al., 1989, R.N. Chopra et al., 1969) and many plant formula listed are not recorded earlier (M. Sala Uddin et al., 2015, W. Gritsanapan 2010). In some neighbor states of India (I. K. Sundaram 1998, S.N. Yoganarasimhan et al., 1991, M.J. Bhandari et al., 1995, V.H. Harsha et al., 2003). Nevertheless, in Renlagadda thanda, no study on documentation of traditional medicinal have been carried out. This is a foremost and exclusive report from the study area. The recipe and consistency of these efficient phytomedicine should be confident for their sustainable uses. The data accrued is expected to serve as a basic source for the growth of herbal drug industries to recover tribal and rural wealth.

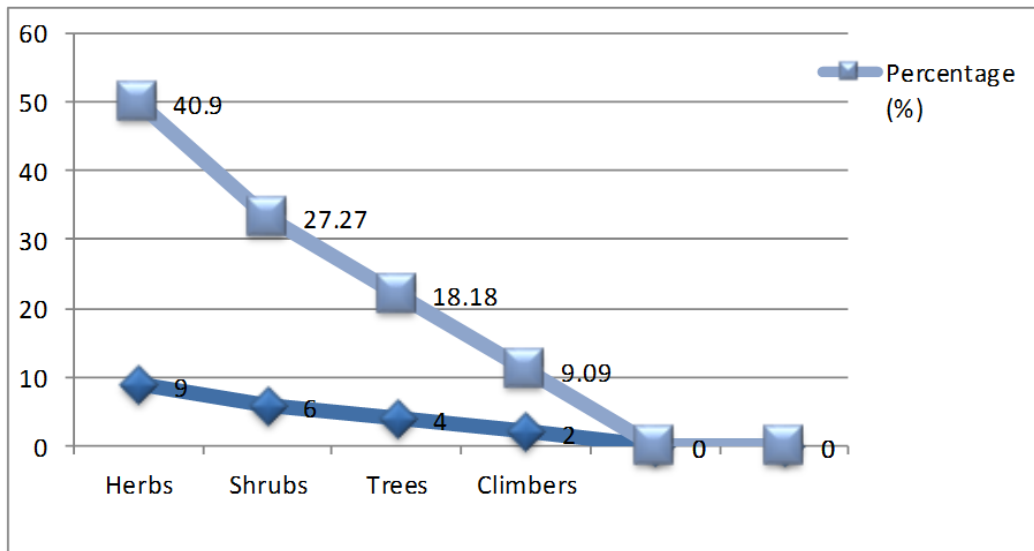
The traditional medicinal healers from the reported region, frequently the plants are used either single or in combination. In the present documentation the different parts of the plants were used with numerous variation in the technique of preparation when compared with prvious reports of M. Sala Uddin et al., (2015), Wandee Gritsanapan (2010).

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 various ailments was analyzed.



**Fig. 2.** Frequency distribution of sources of Tribal-medicinal plants in the study area.

Frequency distribution sources of medicinal plants in the study area shown in fig.2. Of 22 plants species documented, shows that the Wild share the largest proportion with 12 species (54.54%) followed by Cultivated 4 (18.18 %) and both (In-situ & ex situ) each with 06 species (27.27%).



**Fig. 3.** Percentage distribution of growth forms of Tribal-medicinal plants.

The analysis of habits (Fig. 3) of plants documented, shows that herbs share the largest proportion with 09 species (40.9%) followed by shrubs with 06 species (27.27%), Trees with 04 species (18.18%) and climbers with 2 species (09.09%).



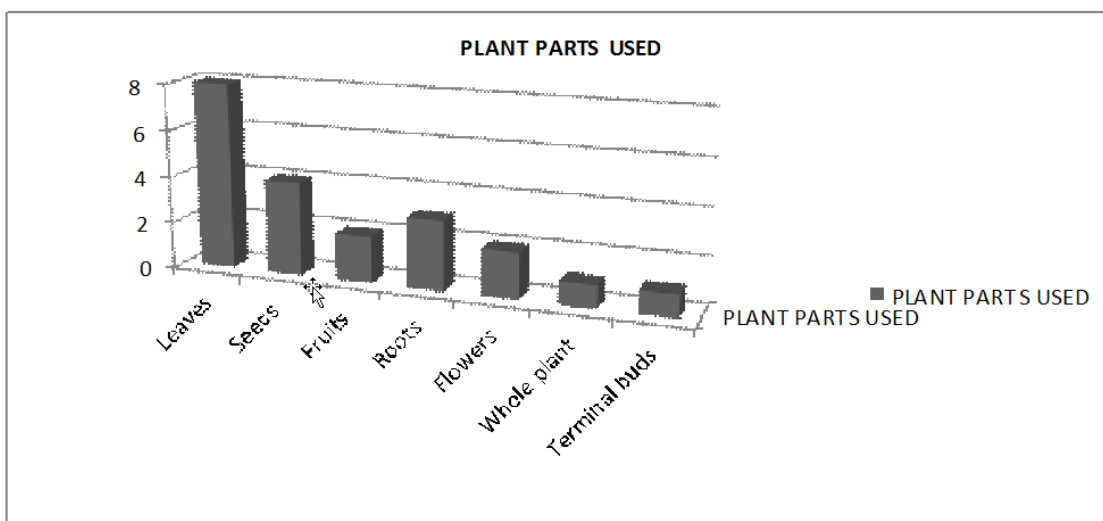


Fig. 4. Plant parts used in Renla Gadda Thanda for traditional treatments.

In the part of documentation 07 types of parts is being used treating in various ailments. The number and percentage given in figure 7.

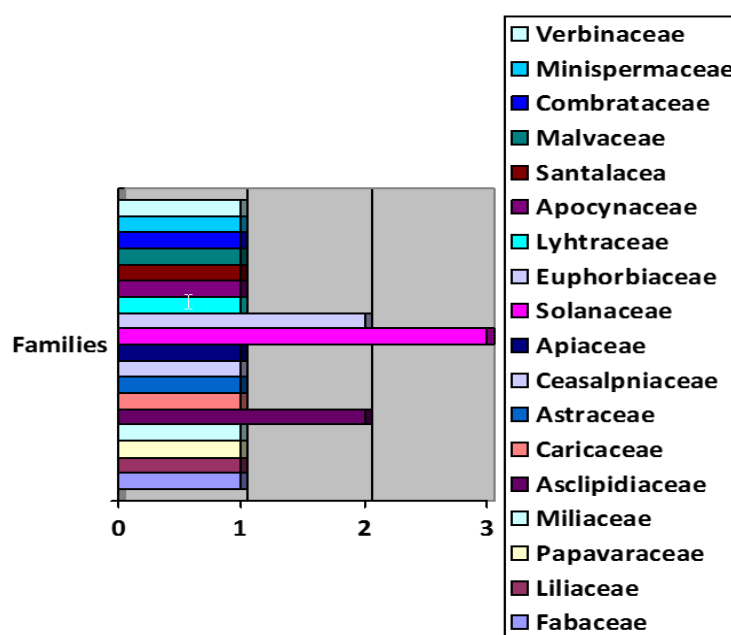
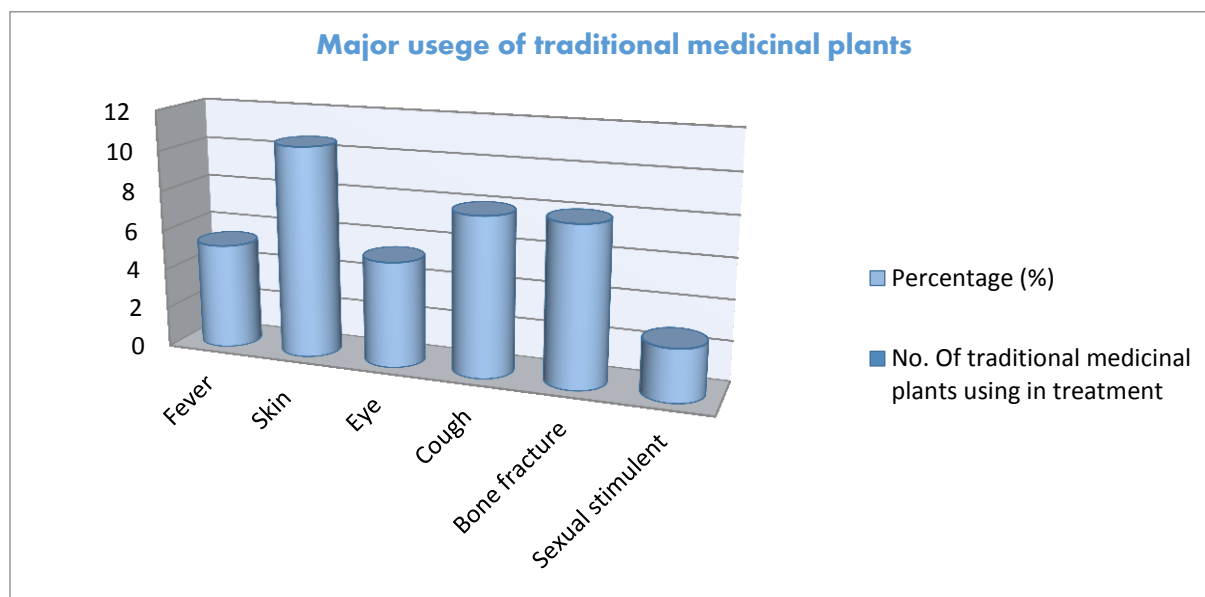


Fig. 4. Tribal-medicinal plants distribution family wise.

The documented results was analysed families wise, where the total 18 families recorded. The dominated families like Solanaceae followed by Euphorbiaceae and Asclipidiaceae. While the remaining 15 families representing single species of each (Figure 4).



**Fig. 6.** Tribal medicinal plants used in Renla Gadda Thanda for various disorders treatments.

The distribution of 22 medicinal plants curing 33 ailments. Majorly with 10.52% of plants using against skin ailments followed by 7.89% bone fracture, cough, 5.26% against eye disorders, fever. While the 28 diseases treated by single tribal plants.

## 5. CONCLUSION

The present report successfully completed ground level documentation of selected small study area. This is the basic report from the Renlagadda thanda, here the formulation usage knowledge utmost newly reported. This will be foundation for auxiliary phytochemical, pharmacological studies and in drug design.

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