

Full Length Research Paper

Plant Diversity Studies and Role of Halakki Community in Agroforestry Homegardens of Uttara Kannada District, Karnataka, India

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Abstract

Homegarden is an integrated production system and a stable ecosystem that maintains the diversity of life as well as biological wealth. A study of home gardens maintained by Halakki vokkaliga community was conducted in 09 villages of Uttara Kannada District, Karnataka from August 2013 to August 2014 to document their plant biodiversity and associated knowledge. A total of 231 plant species were recorded in 50 Home gardens which are distributed among 71 families. The most represented families are Fabaceae (15 spp), Rubiaceae (14 spp), Apocyanaceae (12 spp), Cucurbitaceae (12 spp), Euphorbiaceae (10 spp), Acanthaceae (09 spp), Asteraceae (09 spp) Rutaceae (08 spp) Solanaceae (08 spp) and Verbenaceae (07 spp), in order of decreasing number of species. The minimum number of plant species recorded in a single garden is 58 and the maximum number is 122. Species diversity depends on the size of the garden and maximum percentages of gardens (40%) have species numbers ranging from 71 to 80. The survey reveals the occurrence of different utility categories of plants such as medicinal (49spp), ornamental (88spp), vegetables (43spp), fruit yielding (31spp) and miscellaneous uses (20spp). The role played by men and women in homegarden activities varies; such as land preparation, material procurement, sowing, fertilizing, weeding, irrigation, seed processing, and storage. But men actively participating in pre-harvesting work and women in post harvesting work most of the time. Homegardens maintained by the Halakki community is semi commercial in nature.

Key words: Homegarden, Plant Diversity, Halakki Vokkaliga, Uttara Kannada

Introduction

The Halakki's are predominantly found in Uttara Kannada district. They are also known as 'Grama Vokkaligas' living in the foot of Western Ghats in the east and the expanded of the Arabian sea in the west. Their way of living is still ancient; the women adorn themselves with black beads and necklaces. They are agriculturists living on farm lands located at the outskirts of the coastal towns. Their population is nearly 75, 000. (2011 Census). They will speak in Halakki Kannada" refers to the dialect of the state language and have a rich folklore. They will grow some common crops such as Paddy, Finger millet, commercial crops like sugarcane, Ground nut, sweet potato and Black gram in their crop lands and grow many fruit yielding, medicinal, ornamental plants and vegetables throughout the year in their home gardens. Home gardens are recognized as one of the oldest form of managed land use system and are considered to be an epitome of sustainability. Homegardens have been considered as a 'living gene banks' in which traditional crop varieties and other useful plants has been conserved through generations by the family labors. Dooryard gardens and house gardens abound in the tropics (Kumar and Nair 2004). It is one of the most ancient food production practices and are commonly practiced throughout the world.

It provides a diverse and stable supply of socio-economic products and services such as food, medicine, firewood, fodder, timber, etc. to the families that maintain them and are also recognised as an important *in situ* sites for biodiversity conservation, especially of agro- biodiversity. They also invite the attention of researchers as interesting models of sustainable agroecosystems characterised by efficient nutrient recycling, low external inputs, soil conservation potential, eco-friendly management practices, etc (Torquebiau 1992, Jose and Shanmugaratnam 1993).

Homegardens have been reported mainly from the tropical and sub-tropical regions of Asia, Africa and Meso-america and also from other regions like North America and Europe (Nair and Kumar 2006). In India, research on home gardens have been mainly concentrated in Kerala (Kumar *et al* 1994, Puskarana 2002), Assam (Das and Das 2005), Andaman islands (Pandey *et al* 2006, 2007) and in Uttara kannada district of Karnataka (Bhat *et al* 2014, Bhat and Rajanna 2014). A study of tree species in the village ecosystems was carried out by Shastri *et al* in 2002. No scientific data is available from Karnataka State for the Homegardens of Halakki community so far. Hence the present study is aimed at obtaining information to contribute to existing knowledge about

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the usage and floristic composition, management practices and gender participation in homegardens of Halakki community of Uttara kannada district, Karnataka, India.

Materials and Methods

Study area

The study area is located in the west coast of India, Karnataka. The study was carried out in the three villages of Honavar Taluk (Karki, Haladipur, Kujalli), three villages of Kumata Taluk (Bhavikodlu, Banki kodlu and Murur), one village called Belase of Ankola Taluk and two villages of Karwar (Arga and Amadalli) of Uttara Kannada district of Karnataka, India (Fig. 1)

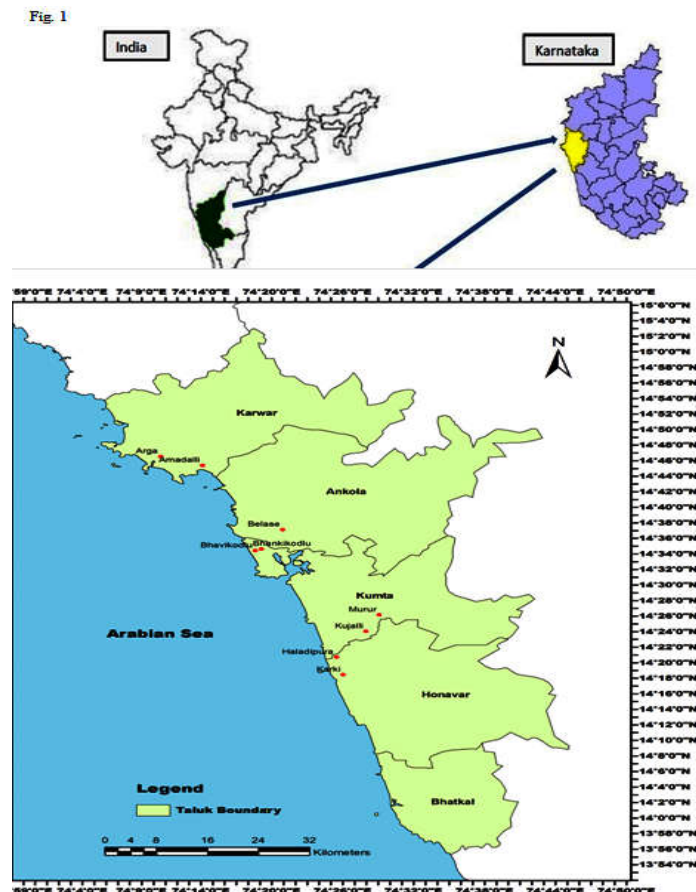


Fig. 1 Study area

Methodology

Frequent field trips were undertaken to collect information about the homegardens and plant diversity from August 2013 to August 2014. A total of 50 Home-gardens of Halakki vokkaliga community were selected for the present study. Detailed survey of the plant species were made and collected from the homegardens of each household (Taking each home garden as a sampling unit). The household members were interviewed in Kannada (local language) to gather information about the local names, part used and the uses of plant species and market access. Later the plant species were classified according to their usage in to the categories such as fruits, vegetables, ornamental, medicinal and multipurpose plant species (with more than three uses). Plants were then identified with the help of local flora, and other relevant literature (Cooke-1967, K. Gopalkrishna Bhat, 2003). Senior most people in the family were interviewed to know about gender participation, management practices and economic out puts of the Homegardens.

Results

Species diversity

Homegardens are proved to be a basic agro-forestry system meant mainly for food, medicinal and ornamental plants. All the species documented are useful for several purposes. The sizes of homegardens studied were ranged from 0.01 hectare to 0.05 hectare and the average size being 0.02 ha. Of the total 50 home gardens surveyed, 231 plant species were recorded and are distributed among 71 families (Table 7). The most represented families are Fabaceae (15 spp), Rubiaceae (14 spp), Apocyanaceae (12 spp), Cucurbitaceae (12 spp), Euphorbiaceae (10 spp), Acanthaceae (09 spp), Asteraceae (09 spp) Rutaceae (08 spp) Solanaceae (08 spp) and Verbenaceae (07 spp) (Table 2) in the order of decreasing number of species. The minimum number of

plant species recorded in a single garden is 58 and the maximum number is 122. Species diversity depends on the size of the garden and maximum percentages of gardens (40%) have species numbers ranging from 71 to 80 (Table 1). The survey reveals the occurrence of different utility categories of plants such as medicinal (21%), ornamental (38%), vegetables (19%), fruit yielding (13%) and miscellaneous uses (09%) (Fig.2).

Growth habit analysis of the plant species (Fig 3.) indicated that shrubs are the predominant forms with 71 species which account for 30.74% of the total recorded species. 66 species are trees (30.30%), 48 herbs (20.78%) and 36 species are climbers (17.75%). The tree species forms a canopy and gives shade to other plants. Some of the plants like ginger, turmeric, arrow root, *Colocasia* are cultivated under the shade of mango, jackfruit and tamarind trees.

Table 1. Species Range

Sl. No.	Range	No. of HG	% of Species
01	51-60	01	02
02	61-70	08	16
03	71-80	20	40
04	81-90	16	32
05	91-130	05	10

Table 2. Top 10 Families

Sl. No.	Family	No. of Species
01	Fabaceae	15
02	Rubiaceae	14
03	Apocyanaceae	12
04	Cucurbitaceae	12
05	Euphorbiaceae	10
06	Acanthaceae	09
07	Asteraceae	09
08	Rutaceae	08
09	Solanaceae	08
10	Verbenaceae	07

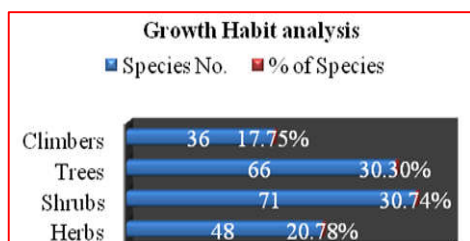


Fig. 2 . Usage category of Plants

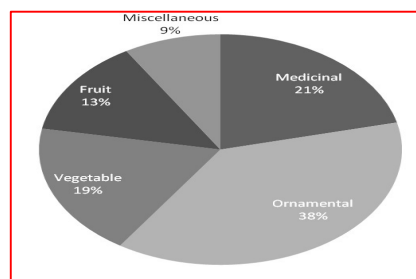


Fig. 3. Growth Habit

Traditional Management Practices

The diversity of useful plants in the homegardens of Halakki community is relatively rich due to management practices that are adopted for planting and protection of annual and perennial herbs, shrubs and woody perennials. The soil fertility is increased due to the regular usage of cow dung, litter manure, excreta of sheep, goat and chicken. Age of the members of the family in maintaining the homegarden ranging from 13- 80. Even school students were participating in home garden work during their school holidays and other free time. The role played by men and women in agricultural activities varies; such as land preparation, material procurement, sowing, fertilizing, weeding, irrigation, seed processing, and storage(Table 5). Apart from land preparation, material procurement and harvesting of tuberous crops, fruits of large trees like Mango, Jack fruit and Bread fruit done by men and all other tasks can easily be done by women and this should not hamper their other daily household activities. But men participate actively in pre-harvesting work and women carryout most of the post- harvesting work (Table 5). The involvement of women in home gardening provides an opportunity for them to earn additional income. Market access encourages people in some of the villages viz., Banki kodlu, Karki, Bavikodlu, Chendiya because these villages are located close to National Highway -66 and Taluk centers to maintain semi commercial homegardens. In such homegardens, plant species composition is influenced by market demands. For example- seasonal commercial vegetables like, bread fruit, tuber and leaf petioles of *Colocasia*, drum stick, radish, jack-fruit, papaya, cucumber, ridge guard, lady’s finger etc. Income from homegardens can thus improve the welfare and nutritional status of the family as well as the empowerment of women. In most of the families women handles marketing aspects and man handles his homegarden most of the time. Individual families are more common than the joint families in Halakki’s. Maximum numbers of families with 5-10 members (70%) (Table 3).The main interest towards homegardens are not only for

providing a diverse and stable supply of socio-economic products and services such as food, medicine, firewood, fodder, timber, etc. to the families that maintain them and are also recognised as an important *in situ* sites for biodiversity conservation, especially of agro- biodiversity (table 4 and 6).

Table 3. Family Size of the Respondent

Category	No. of Home gardens	Percentage
2-4 members	14	28
5-10 members	35	70
>10 members	01	02

Table 4. Occupation of the respondent

Category	Partial involvement	Complete involvement
Agriculture	03	42
Business	01	-
Daily Labour	03	-
Govt. Employee	01	-

Table 5. Gender Role in Home garden Activities in %

Sl. No	Activity	Men	Women	Children	All
I	PRE HARVEST				
01	Plot Selection	76	24	-	-
02	Clearance	60	40	-	-
03	Compost preparation	52	48	-	-
04	Fencing	76	20	04	-
05	Land preparation	70	20	10	-
06	Planting	56	44	-	-
07	Crop selection	50	50	-	-
08	Fertilizing	72	20	04	04
09	Nursery preparation	48	36	06	10
10	Watering the plants	40	50	06	04
11	Supporting the climbers to spread	44	40	06	06
12	Weed removal	08	76	12	04
13	Pest control	92	08	-	-
14	Harvesting	38	44	14	04
II	POST HARVEST				
01	Sorting for seeds	04	80	12	04
02	Marketing	06	94	-	-
03	Seed storage	10	90	-	-

Table 6. Reasons for Interest in Conservation of Homegardens

Sl. No	Reasons	Number	%
01	Source of food	06	12
02	Save money	08	16
03	Source of income	36	72

Discussion and Conclusions

Homegardens show actual and potential values in the provision of food, medicine and other household necessities as well as in the conservation of the plant genetic diversity. The perceived threat of genetic erosion to plant resources for food and agriculture can be reduced through homegardens, since they ensure conservation of useful plant (Godbole, A.1998). This potential of homegardens can be achieved when they are managed properly. The species diversity of the rural homegardens maintained by Halakki community of Uttar kannada appears to be considerably high (231 species) when compared to the other parts of India. Das and Das (2005) reported 122 species of plants from the gardens of Barak Valley, Assam, and trees being the dominant forms. Number of plants reported from the Kerala home gardens by different workers ranges from 65 to 127 (Nair and Shreedharan 1986, Kumar et al 1994, John and Nair 1999). However, higher diversity is found in the homegardens of Northern Thailand (230 species, Black et al 1996), Nicaragua (324 species, Mendez et al 2001) and West Java (602 species, Karyona 1990). Plant species diversity in the rural home gardens of Honnavar of utara kannada district of Kanataka is 193 (Bhat and Rajanna 2014) and Karwar is 210 (Bhat et al 2014).

The most common plants occurring in all of the 50 gardens studied are Areca palm (*Areca catechu*), Coconut palm (*Cocos nucifera*), Mango tree (*Mangifera indica*), Banana (*Musa paradisiaca*), Hibiscus (*Hibiscus rosa-sinensis*) and holy basil (*Ocimum tenuiflorum*). Areca palm, Coconut palm and Banana plants are also the most dominant and important species in the gardens of Kerala (Jose and Shanmugaratnam 1993), Assam (Das and Das 2005) and Andamans (Pandey et al 2006).

The species of plants in the home gardens of Halakki's can be assigned into five major use categories as ornamental, medicinal, fruit yielding, vegetable and others or miscellaneous which includes plants used as firewood source, timber yielding, fencing, etc.(Fig.2). This categorization is based on the main use of the plant as defined by the homegarden owners. In the present study, ornamental plants are the most important use category with 38% of the recorded species belonging to this group which out numbers both food yielding categories of fruit and vegetable plants which together form only 32% of the species. 21% of the plants are mainly used for medicinal purposes. This is in contradiction to the general observation that food plants are the most common species in most homegardens throughout the world (Nair and Kumar 2006). The greater abundance of ornamental and commercial plants in the homegardens has been recognized as an indication of high levels of urbanization and modernization of the home gardening families (Karyona 1990, Drescher 1996). In most of the cases (29 sample units) Halakki women are the decision makers for the crops to be grown in their homegardens in a particular season. It indicates that the importance of women decision in management and maintenance of homegardens plays crucial role in many aspects (Kiran Bargali 2015). Homegardens are examples of women's enterprises that functions based on inter-intra household knowledge, labour and exchange of plant materials and marketability of produce (Patterson 2000).

Conclusion

The species diversity of the rural homegardens maintained by Halakki community of Uttar Kannada appears to be considerably high (231 species) when compared to the other parts of India. The role played by men and women in homegarden activities varies in land preparation, material procurement, sowing, fertilizing, weeding, irrigation, seed processing, and storage. But men actively participating in pre-harvesting work whereas women in post harvesting work most of the time. Homegardens maintained by the Halakki community is semi commercial in nature.

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Ethics

All the authors read and approved the manuscript and no ethical issues involved.

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Appendix (Table – 7) : List of all Plants of Halakki Homegardens

Botanical name	Family	Local Name	Habit	Uses
<i>Abelmoschus esculentus</i> (L) Moench	Malvaceae	Bendekayi	Shrub	Veg
<i>Abrus precatorius</i> L.	Fabaceae	Gulugunji	Climber	Misc
<i>Acacia aureculiformis</i> A.Cunn.	Fabaceae	Acacia	Tree	Misc
<i>Acalypha hispida</i> Burm.f.	Euphorbiaceae	Bekkina baala	Shrub	Orn
<i>Acorus calamus</i> L.	Araceae	Bhaje	Herb	Med
<i>Adenanthera pavonia</i> L.	Fabaceae	Chennekai	Tree	Misc
<i>Adhatoda zeylanica</i> Medikus	Acanthaceae	Aadusoge	Shrub	Med
<i>Aegle marmelos</i> (L.)Correa	Rutaceae	Bilva	Tree	Med
<i>Aerva lanata</i> (L.)Juss.	Amaranthaceae	Bilihindi soppu	Herb	Med
<i>Allium cepa</i> L.	Liliaceae	Neerulli	Herb	Veg
<i>Allamanda cathartica</i> L.	Apocynaceae	Mithaihoo	Climber	Orn
<i>Allamanda blanchetii</i> A. DC	Apocynaceae	Sanna Mithai	Climber	orn
<i>Alocasia macrorrhiza</i> (L.) G.Don	Araceae	Marasanige	Shrub	Veg
<i>Aloe vera</i> (L.)Burm.F.	Liliaceae	Lolesara	Herb	Med
<i>Alstonia scholaris</i> (L.)R.Br.	Apocynaceae	Haalemara	Tree	Med
<i>Alternanthera dentata</i> L.	Amaranthaceae	Rudrakshi hoo	Herb	Orn
<i>Amaranthus hybridus</i> L.	Amaranthaceae	Bili harige	Shrub	Veg
<i>Amaranthus tricolour</i> L.	Amaranthaceae	Harive soppu	Herb	Veg
<i>Amorphophallus ommutatus</i> (Schott)Engl	Araceae	Suvarnagadde	Shrub	Veg
<i>Anacardium occidentale</i> L.	Anacardiaceae	Geru mara	Tree	Fr
<i>Ananas comosus</i> (L.)Merr.	Bromaliaceae	Parangi	Tree	Fr
<i>Andrographis paniculata</i> (Burm.f.)Wall	Acanthaceae	Kirath kaddi	Herb	Med
<i>Anethum graveolens</i> L.	Apiaceae	Sabbasige	Herb	Veg
<i>Angelonia salicariifolia</i> Humb&Bonpl	Scrophulariaceae	Aame hoo	Herb	Orn
<i>Annona muricata</i> L.	Annonaceae	Hanumaan phala	Tree	Fr
<i>Annona reticulate</i> L.	Annonaceae	Ramphala	Tree	Fr
<i>Annona squamosa</i> L.	Annonaceae	Seetaphala	Tree	Fr
<i>Areca catechu</i> L.	Arecaceae	Adike	Tree	Fr
<i>Artocarpus comensi</i> L.	Moraceae	Neeru Halasu	Tree	Veg
<i>Artocarpus gomezianus</i> Wall.	Moraceae	Vaate huli	Tree	Misc
<i>Artocarpus heterophyllus</i> Lam.	Moraceae	Halasu	Tree	Fr
<i>Artocarpus incisus</i> L.f.	Moraceae	Beru halasu	Tree	Fr
<i>Asparagus racemosus</i> Willd.	Liliaceae	Shatavari	Climber	Med
<i>Asystasia gangetica</i> (L.)Anders	Acanthaceae	Maithaalkaddi	Herb	Orn
<i>Averrhoa bilimbi</i> L.	Oxalidaceae	Bimbuli	Tree	Veg
<i>Averrhoa carambola</i> L.	Oxalidaceae	Karabalu	Tree	Fr
<i>Azadirachta indica</i> A.Juss.	Meliaceae	Kahi Bevu	Tree	Med
<i>Bambusa arundinacea</i> (Retz.)Roxb.	Poaceae	Bidiru	Tree	Veg
<i>Barleria cristata</i> L.	Acanthaceae	Gorate	Shrub	Orn
<i>Barleria prionites</i> L.	Acanthaceae	Mullu gorate	Shrub	Orn
<i>Basella alba</i> L.	Basellaceae	Basale soppu	Climber	Veg
<i>Bauhinia acuminata</i> L.	Fabaceae	Bili mandara	Tree	Orn
<i>Bauhinia tomentosa</i> L.	Fabaceae	Mani mandara	Tree	Orn
<i>Bauhinia purpurea</i> L.	Fabaceae	Gulabi mandara	tree	orn
<i>Benincasa hispida</i> (Thunb.)Cogn.	Cucurbitaceae	Boodukumbala	Climber	Veg
<i>Beta vulgaris</i> L.	Chinopodiaceae	Beet root	Herb	Veg
<i>Bixa orellana</i> L.	Bixaceae	Sindhoorikai	Shrub	Misc

<i>Bougainvillea spectabilis</i> L.	Nyctaginaceae	Kaagadadahoo	Shrub	Orn
<i>Brassica oleraceae</i> var. <i>Gongyolodes</i>	Brassicaceae	Navilakosu	Herb	Veg
<i>Brophyllum pinnatum</i> (Lam.) Oken	Crassulaceae	Kaadu Basale	Herb	Med
<i>Caesalpinia pulcherrima</i> (L.)Swart.	Fabaceae	Huli Meesehoo	Tree	Orn
<i>Caladium bicolor</i> (Aiton) Vent.	Araceae	Bannada kesu	Herb	Orn
<i>Calotropis gigantea</i> (L.)R.Br.	Asclepiadaceae	Ekke	Shrub	Med
<i>Calophyllum inophyllum</i> L.	Calophyllaceae	Honne Kayi	Tree	Med
<i>Canavalia ensiformis</i> (L.)DC.	Fabaceae	Katti avare	Climber	Veg
<i>Canna indica</i> L.	Cannaceae	Kabaale	Shrub	Orn
<i>Capsicum annum</i> L.	Solanaceae	Kempu menasu	Shrub	Veg
<i>Capsicum minima</i> L.	Solanaceae	Nuchhu menasu	Shrub	Veg
<i>Cardiospermum halicacabum</i> L.	Sapindaceae	Agni balli	Climber	Med
<i>Carica papaya</i> L.	Caricaceae	Pappale	Tree	Fr
<i>Catharanthus roseus</i> (L.)G.Don	Apocynaceae	Nityapushpa	Shrub	Orn
<i>Cereus repandus</i> (L.) Mill.	Cactaceae	Bili kalli	Shrub	Misc
<i>Centella asiatica</i> (L.)Urban	Apiaceae	Ondelaga	Herb	Med
<i>Cestrum nocturnum</i> L.	Solanaceae	Raatri raani	Shrub	Orn
<i>Chrysanthemum indicum</i> L.	Asteraceae	Sevantigehoo	Herb	Orn
<i>Cinnamomum verum</i> J.Presl	Lauraceae	Daalchini	Tree	Misc
<i>Cissus quadrangularis</i> L.	Vitaceae	Sandhu vaata Balli	Climber	Med
<i>Citrullus lanatus</i> (Thunb.)Matsum&Nakai	Cucurbitaceae	Kallangadi	Climber	Fr
<i>Citrus aurantifolia</i> Swingle	Rutaceae	Nimbe	Shrub	Med
<i>Citrus grandis</i> (L.)Osbeck	Rutaceae	Sakkarakanchi	Tree	Fr
<i>Citrus medica</i> L.	Rutaceae	Maadala	Shrub	Fr
<i>Citrus sinensis</i>	Rutaceae	Kittale	Tree	Fr
<i>Cleome speciosa</i> L.	Capparaceae	Meese Huvu	Shrub	Orn
<i>Clerodendrum calamitosum</i> L.	Verbenaceae	Kaadu mallige	Shrub	Orn
<i>Clerodendrum inerme</i> Gaerth	Verbenaceae	Vishamadhari	Shrub	Orn
<i>Clerodendrum philippinum</i> Schau.	Verbenaceae	Madras mallige	Shrub	Orn
<i>Clitoria ternata</i> L.	Fabaceae	Shankhapushpa	Climber	Orn
<i>Coccinia grandis</i> (L.)Voigt	Cucurbitaceae	Tonde balli	Climber	Veg
<i>Cocos nucifera</i> L.	Arecaceae	Tengu	Tree	Fr
<i>Codiaeum verigata</i> L.	Euphorbiaceae	Bannada Gida	Shrub	Orn
<i>Coffea arabica</i> L.	Rubiaceae	coffee	Shrub	Misc
<i>Coleus amboinicus</i> Lour.	Lamiaceae	Sambaarasoppu	Herb	Med
<i>Colocasia esculenta</i> (L.)Schott	Araceae	Kesu	Shrub	Veg
<i>Cordia oblique</i> Willd.	Boraginaceae	Challehannu	Tree	Misc
<i>Cosmos caudatus</i> Kunth	Asteraceae	Gonde Ketaki	Herb	orn
<i>Cosmos sulphurous</i> Cav.	Asteraceae	Ketaki	Shrub	Orn
<i>Costus speciosus</i> (Koenig)Smith	Zingiberaceae	Narikabbu	Shrub	Med
<i>Crossandra infundibuliformis</i> (L.)Nees	Acanthaceae	Abbalige	Shrub	Orn
<i>Cucumis sativus</i> L.	Cucurbitaceae	Mullu savate	Herb	Veg
<i>Cucumis melo</i> L.	Cucurbitaceae	Ibbudalu	Climber	Fr
<i>Cucurbita moschata</i> (Lam.)Duch.	Cucurbitaceae	Sihikumbala	Climber	Veg
<i>Curcuma amada</i> Roxb.	Zingiberaceae	Ambe kombu	Herb	Veg
<i>Curcuma longa</i> L.	Zingiberaceae	Arishina	Herb	Med
<i>Cyamopsis tetragonoloba</i> (L.) Taub.	Fabaceae	Chavali Kodu	Herb	Veg
<i>Cymbopogon citratus</i> (DC.) Stapf.	Poaceae	Majjige hullu	Herb	Med
<i>Cynodon dactylon</i> (L.)Pers.	Poaceae	Garike	Herb	Med
<i>Dalhea tuberosa</i> Desf.	Asteraceae	Derehuvu	Shrub	Orn
<i>Datura metel</i> L.	Solanaceae	Keppottu soppu	Shrub	Med
<i>Dioscorea alata</i> L.	Dioscoreaceae	Mundigenasu	Climber	Veg
<i>Dioscorea bulbifera</i> L.	Dioscoreaceae	Heggenasu	Climber	Veg
<i>Dombeya burgessiae</i> Harv.	Sterculiaceae	December huvu	Shrub	Orn
<i>Dracaena terniflora</i> Roxb.	Agavaceae	Dracena	Shrub	Orn
<i>Duranta erecta</i> L.	Verbenaceae	Duranta	Shrub	Orn
<i>Echeveria runyonii</i> Rose ex E.Walther	Crassulaceae	Kamala kalli	Herb	orn
<i>Emilia sonchifolia</i> (L.)DC.	Asteraceae	Ilikivi	Herb	Veg
<i>Ervatamia divaricata</i> (L.)Alston	Apocynaceae	Nandibattalu	Shrub	Orn
<i>Euphorbia nerijifolia</i> L.	Euphorbiaceae	Kodu Kalli gida	Shrub	Orn
<i>Ficus racemosa</i> L.	Moraceae	Attimara	Tree	Med
<i>Ficus religiosa</i> L.	Moraceae	Ashwattha	Tree	Misc
<i>Foeniculum vulgare</i> Mill.	Apiaceae	Bade soppu	Herb	Med

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<i>Garcinia indica</i> (Dupetit-Thouars) Choisy	Clusiaceae	Murugalu	Tree	Fr
<i>Gardenia thunbergia</i> L.	Rubiaceae	Nanjattale	Shrub	Orn
<i>Gliricidia sepium</i> (Jacq.) Walp	Fabaceae	Gobbara gida	Tree	Misc
<i>Gmelina arborea</i> Roxb.	Verbenaceae	Shivani	Tree	Med
<i>Gomphrena globosa</i> L.	Amaranthaceae	Umi gonde	Herb	Orn
<i>Gymnema sylvestre</i> (Retz.) R.Br.	Asclepiadaceae	Madhunashini	Climber	Med
<i>Hedychium coronarium</i> Koenig.	Zingiberaceae	Sugandi	Shrub	Orn
<i>Hibiscus mutabilis</i> L.	Malvaceae	Chandrakanti	Shrub	Orn
<i>Hibiscus radiates</i> Cav.	Malvaceae	Mullu Daasavala	Shrub	Orn
<i>Hibiscus rosa-sinensis</i> L.	Malvaceae	Daasavaala	Tree	Orn
<i>Hibiscus schizopetalus</i> (Mast.) Hook.f.	Malvaceae	Gante daasavaala	Shrub	Orn
<i>Hippeastrum puniceum</i> (Lam.) Voss	Amaryllidaceae	Phonehuvu	Herb	Orn
<i>Holarrhena pubescens</i> (Buch-Ham) Wall.	Apocynaceae	Kodasiga	Shrub	Med
<i>Holigarna arnotttiana</i> Hook.f.	Anacardiaceae	Holagere	Tree	Misc
<i>Hymenocallis littoralis</i> (Jacq.) Salisb.	Amaryllidaceae	Jedara lily	Herb	Orn
<i>Impatiens balsamina</i> L.	Balsaminaceae	Gouri Huvu	Herb	Orn
<i>Impatiens walleriana</i> Hook.f.	Balsaminaceae	Gouri Huvu (Fan)	Herb	Orn
<i>Impatiens gardneriana</i> Wight.	Balsaminaceae	Karna kundala	Herb	Orn
<i>Ipomoea hederifolia</i> L.	Convolvulaceae	Nakshatra Huvu	Climber	Orn
<i>Ipomoea purpurea</i> (L.) Roth	Convolvulaceae	Neeli Nakshatra	Climber	Orn
<i>Ipomoea batatas</i> (L.) Poir.	Convolvulaceae	Genasu/ Gonne	Climber	Veg
<i>Ipomoea quamoclit</i> L.	Convolvulaceae	Baaglu Torana	Climber	Orn
<i>Ixora brachiata</i> Roxb.	Rubiaceae	Bili gonchalu	Tree	Orn
<i>Ixora chinensis</i> Lam.	Rubiaceae	Ashoka	Shrub	Orn
<i>Ixora coccinea</i> L.	Rubiaceae	Kusumaale hannu	Shrub	Med
<i>Jasminum grandiflorum</i> L.	Oleaceae	Jaaji mallige	Climber	Orn
<i>Jasminum multiflorum</i> (Burm.f.) Andr.	Oleaceae	Sooji mallige	Climber	Orn
<i>Jasminum sambac</i> (L.) Ait	Oleaceae	Gundu mallige	Climber	Orn
<i>Jatropha curcas</i> L.	Euphorbiaceae	Audalu-haralu	Shrub	Misc
<i>Kalanchoe pinnata</i> (Lam.) Pers.	Crassulaceae	Kaadubasale	Herb	Orn
<i>Lagenaria siceraria</i> (Molina) Standl.	Cucurbitaceae	Sorekai	Climber	Veg
<i>Lantana montevidensis</i> (Spreng.) Briq.	Verbenaceae	Sanna Chadurangi	Shrub	Orn
<i>Lantana camara</i> L.	Verbenaceae	Chadurangi	Shrub	Orn
<i>Lawsonia inermis</i> L.	Lythraceae	Madarangi	Shrub	Orn
<i>Lablab purpureus</i> (L.) Sweet	Fabaceae	Avare	Climber	Veg
<i>Luffa acutangula</i> (L.) Roxb.	Cucurbitaceae	Heerekai	Climber	Veg
<i>Luffa cylindrical</i> (L.) Roem.	Cucurbitaceae	Boluheere	Climber	Veg
<i>Lycopersicon lycopersicum</i> (L.) Farwell.	Solanaceae	Tomato	Shrub	Veg
<i>Macaranga peltata</i> (Roxb.) Muell.-Arg.	Euphorbiaceae	Chandakalmara	Tree	Misc
<i>Malvaisicum penduliflorus</i> DC.	Malvaceae	Chhepu Dasavala	Shrub	Orn
<i>Mammelia suriga</i> (Buch-Ham.ex Roxb.) Kosterm.	Calophyllaceae	Suragi	Tree	Misc
<i>Mangifera indica</i> L.	Anacardiaceae	Maavu	Tree	Fr
<i>Manihot esculenta</i> Crantze	Euphorbiaceae	Maragenasu	Tree	Veg
<i>Manilkara zapota</i> (L.) P.Royen	Sapotaceae	Chikku	Tree	Fr
<i>Maranta arundinaceae</i> L.	Marantaceae	Araroot	Herb	Med
<i>Melia azedarach</i> L.	Meliaceae	Huchu Bevu	Tree	Med
<i>Michelia champaca</i> L.	Magnoliaceae	Sampige	Tree	Orn
<i>Mimusops elengi</i> L.	Ebenaceae	Renjalu-mara	Tree	Fr
<i>Mirabilis jalapa</i> L.	Nyctaginaceae	Madhyanha Malge	Herb	Orn
<i>Momordica charantia</i> L.	Cucurbitaceae	Haagalu	Climber	Veg
<i>Momordica dioica</i> Roxb.	Cucurbitaceae	Maadu-haagala	Tree	Veg
<i>Moringa oleifera</i> Lam.	Moringaceae	Nugge-mara	Tree	Veg
<i>Musa paradisiaca</i> L.	Musaceae	Baale	Shrub	Fr
<i>Mussaenda erythrophylla</i> Schum,&Thonn	Rubiaceae	Mussanda	Shrub	Orn
<i>Mussaenda phillipica</i> A.Rich	Rubiaceae	Mussanda	Tree	Orn
<i>Myristica fragrans</i> Houtt	Myristicaceae	Jaai-kaai	Tree	Med
<i>Neolamarckiana cadamba</i> (Roxb.) Merr.	Rubiaceae	Apathi Chakke	Tree	Med
<i>Nerium oleander</i> L.	Apocynaceae	Kanagile	Shrub	Orn
<i>Nyctanthes arbour-tristis</i> L.	Oleaceae	Paarijaata	Tree	Orn
<i>Ocimum basilicum</i> L.	Lamiaceae	Kaamakastoori	Herb	Med
<i>Ocimum sanctum</i> L.	Lamiaceae	Tulasi	Herb	Med
<i>Passiflora edulis</i> Sims.	Passifloraceae	Sharbath balli	Climber	Fr

<i>Phyllanthus acidus</i> (L.)Skeels.	Euphorbiaceae	Rajanelli	Tree	Fr
<i>Phyllanthus emblica</i> (L.)	Euphorbiaceae	Nellimara	Tree	Med
<i>Piper betle</i> L.	Piperaceae	Vilyada ele	Climber	Med
<i>Piper longum</i> L.	Piperaceae	Hippali	Climber	Med
<i>Piper nigrum</i> L.	Piperaceae	Kaalumenasu	Climber	Med
<i>Pistia stratiotes</i> L.	Araceae	Neerugulabi	Herb	Orn
<i>Plumbago indica</i> L.	Plumbaginaceae	Kempu chitramula	Shrub	Med
<i>Plumeria obtusa</i> L.	Apocynaceae	Kaadusampige	Tree	Orn
<i>Plumeria rubra</i> L.	Apocynaceae	Gosampige	Tree	Orn
<i>Polyalthia longifolia</i> (Sonn.)Thw.	Annonaceae	Madras ashoka	Tree	Orn
<i>Portulaca grandiflora</i> Hook.	Portulacaceae	Haali bachale	Herb	Orn
<i>Portulaca oleraceae</i> L.	Portulacaceae	Golisoppu	Herb	Veg
<i>Pseuderanthemum bicolor</i> (Schrank) R.	Acanthaceae	Motimallige	Shrub	Orn
<i>Psidium guajava</i> L.	Myrtaceae	Perale	Tree	Fr
<i>Psophocarpus tetragonolobus</i> (L.)DC.	Fabaceae	Mattivare	Climber	Veg
<i>Punica granatum</i> L.	Punicaceae	Dalimba	Shrub	Fr
<i>Quisqualis indica</i> L.	Combretaceae	Bobaymallige	Climber	Orn
<i>Rauwolfia serpentine</i> (L.)Benth.	Apocynaceae	Sarpagndha	Shrub	Med
<i>Rauwolfia tetraphylla</i> L.	Apocynaceae	Sarpagandha	Shrub	Orn
<i>Ricinus communis</i> L.	Euphorbiaceae	Haralu oudala	Shrub	Med
<i>Rosa centifolia</i> L.	Rosaceae	Gulabi	Shrub	Orn
<i>Ruellia tuberosa</i> L.	Acanthaceae	Beli Gadde Gida	Herb	med
<i>Ruta graveolens</i> L.	Rutaceae	Naga daali	Herb	Med
<i>Saccharum officinarum</i> L.	Poaceae	Kabbu	Shrub	Misc
<i>Salvia coccinea</i> Juss.	Lamiaceae	Salvia gida	Herb	Orn
<i>Sansevieria roxburghiana</i> Schult.f.	Agavaceae	Manjina naaru	Herb	Orn
<i>Sapindus laurifolius</i> Vahl.	Sapindaceae	Antuvaalakai	Tree	Misc
<i>Sauropus androgynus</i> (L.)Merr.	Euphorbiaceae	Chakramani	Shrub	Veg
<i>Spilanthes mauritiana</i> L.	Asteraceae	Gantalu Gonde	Herb	med
<i>Solanum americanum</i> Mill.	Solanaceae	Chavigida	Herb	Veg
<i>Solanum melongena</i> L.	Solanaceae	Badane	Shrub	Veg
<i>Solanum torvum</i> Sw.	Solanaceae	Gullabadane	Shrub	Veg
<i>Spondias dulcis</i> Soland	Anacardiaceae	Sihi amate	Tree	Fr
<i>Spondias pinnata</i> (L.f.)Kurz	Anacardiaceae	Huli amate	Tree	Fr
<i>Stachytarpheta jamaicensis</i> (L.)Vahl	Verbenaceae	Kaadu uttarani	Shrub	Orn
<i>Strelitzia reginae</i> (L.)Merr.	Srelitziaceae	Meenada Baala	Shrub	Orn
<i>Strychnos nux-vomica</i> L.	Loganiaceae	Kaasarka	Tree	Misc
<i>Syzygium aromaticum</i> (L.)Merr.&Perry	Myrtaceae	Lavanga	Tree	Med
<i>Syzygium caryophyllatum</i> (L.)Alston	Myrtaceae	Kuntu nerale	Tree	Fr
<i>Syzygium cumini</i> (L.)Skeels	Myrtaceae	Nerale	Tree	Fr
<i>Syzygium samarangense</i> (B1.)Merr.&Perry	Myrtaceae	Jambe hannu	Tree	Fr
<i>Tagetes erecta</i> L.	Asteraceae	Gonde hoovu	Shrub	Orn
<i>Tamarindus indica</i> L.	Fabaceae	Hunase	Tree	Misc
<i>Tectona grandis</i> L.f.	Verbenaceae	Saagavaani	Tree	Misc
<i>Thespesia populnea</i> (L.) Sol.ex Correa	Malvaceae	Hoovarasi	Tree	Orn
<i>Thevetia peruviana</i> (Pers.)Merr	Apocynaceae	Karaveera	Tree	Orn
<i>Thunbergia alata</i> Bojer ex Sims	Acanthaceae	Kesari Krishna Huvu	Climber	orn
<i>Thunbergia erecta</i> (Benth.) T. Anderson	Acanthaceae	Krisna Huvu	Shrub	orn
<i>Thunbergia grandiflora</i> Roxb.	Acanthaceae	Neeli Huvu	Climber	Orn
<i>Tinospora cordifolia</i> (Willd.)Hook.	Menispermaceae	Amratha balli	Climber	Med
<i>Tithonia rotundifolia</i> (Mill.) S.F. Blake	Asteraceae	Jenia Huvu	Shrub	orn
<i>Trichosanthes cucumerina</i> L.	Cucurbitaceae	Padavala Kaayi	Climber	Veg
<i>Turnera ulmifolia</i> L.	Turneraceae	Haldi Huvu	Shrub	Orn
<i>Vanilla planiflora</i>	Orchidaceae	Vanilla	Climber	Orn
<i>Vitex negundo</i> L.	Verbenaceae	Nukki gida	Shrub	Med
<i>Wedelia trilobata</i> (L.)A.S.Hitchc.	Asteraceae	Kaadu sevantige	Climber	Orn
<i>Zanthoxylum rhetsa</i> (Roxb.)DC.	Rutaceae	Jummana kaai	Tree	Med
<i>Zingiber officinale</i> Roscoe	Zingiberaceae	Shunti	Herb	Med
<i>Ziziphus mauritiana</i> Lam.	Rhamnaceae	Bore hannu	Tree	Fr