

## UTILIZATION AND CONSERVATION OF FLORA IN THE HOME GARDENS OF SOME RESIDENTIAL AREAS, COIMBATORE

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### ABSTRACT

Home garden can serve as an important source of both food and cash income for vulnerable households. The objectives of this study were to documenting the flora of the home gardens, obtaining their frequency and to categorize the plants into medicinal/other economically important species according to their utility value in 10 different residential areas of Coimbatore city. The home garden surveys revealed that totally 90 species, were enlisted in the sampled areas and of them the higher species richness of 26 were found in Vadavalli residential area. Overall 47 families were recorded, among them Acanthaceae and Apocyanaceae were more dominant families in the study sites. In the species content 72 were recognized as medicinally important and 18 as ornamental. It was further known that the residents of middle class earned sizeable income through vegetables in addition to fulfilling their day to day need while the residents of upper class highly preferring ornamental species. Few species like *Saraca indica*, the endemics are well protected by cultivation in homegardens. Thus the present study presumes that home gardens satisfy various household needs and conserve medicinally valuable species.

**Keywords:** Home gardens, residential areas, Coimbatore, frequency.

### 1. INTRODUCTION

Home gardens are species-rich agroforestry systems maintained on the basis of choice, needs and importance of plants. It is a traditional land use practice around a homestead where several plant species are maintained by members of the house hold and their products are intended to be an economically consumption (Shrestha *et al.*, 2001). Compared to other agricultural or horticultural ecosystems, home gardens are having rich species content and well suited for *ex situ* conservation of many rare/ endangered species, besides fruit and timber trees. Home garden structure also varies from place to place according to the local physical environment, ecological characteristics, socioeconomic and cultural factors (Abdoellah, 1990; Kumar and Nair, 2004).

Coimbatore is the leading industrial city in southern India. The industrial areas, educational institutions and residential areas are maintaining home gardens almost in all parts of the city. Generally, greens and other vegetable crops are maintained to meet the demand of day to day life. However, many upper economic class people and educated people maintained their home gardens with many ornamental plants and some plants of red listed categories also. Despite the well establishment of home gardens no taxonomical and ecological

studies have been made so far in Coimbatore city. To address this lacuna, the present study has been carried out in 10 houses which spread all over the Coimbatore city in different locations and aimed to document the flora of the home gardens, calculating their frequency and to categorize the plants based on their utility value.

### 2. MATERIALS AND METHODS

#### 2.1. Sampling places

A total number of 10 home gardens with different sizes located in the places *viz.*, R.S. Puram, Race course, G.N. Mills, Viswasapuram, Ganapathy, Vadavalli, Manikarapalayam, Mettupalayam, Nava India and Saravanampatti were selected for the present study in Coimbatore city. The home gardens selected were explored for the plant species for the informations on habit, family, parts used and medicinal/other economic uses. The degree of distribution of various plant species among the home gardens was determined as per the following formula:

$$\text{Frequency (\%)} = \frac{\text{Number of home gardens in which the species present}}{\text{Total number of home gardens sampled}} \times 100$$

The medicinal and other economic uses of the plant species present in the home gardens of sampling places were documented on the basis of

personal interview with the respective gardener of the institutions, local public and the owners of the residential homes and by available literature. The red listed and endemic plants were enlisted according to Ahmedullah and Nair (1987).

### 3. RESULTS AND DISCUSSION

For the present study, all over the city of Coimbatore, 10 home gardens in 10 different residential areas have been selected to enumerate the species taxonomically and to evaluate ecologically (Table 1 and Fig. 1). The sizes of the home gardens sampled were also varied much between ca. 25m<sup>2</sup> and 225m<sup>2</sup>. In this range most of the home gardens were within the global inventory range of other tropical home gardens (Fernandez and Nair, 1986). The number of species and their numerical strength were not in accordance with the size of the home gardens studied in Coimbatore city. Studies of home gardens in Mexico (Rico Gray *et al.*, 1991) and Indonesia (Abdoellah *et al.*, 2006) indicated that the number of species or individuals is not related to home garden size. The species richness was noted to be varied between the home gardens studied. The higher species richness of 26 was present in the home garden of Vadavalli residential area. On the other hand, the lower species richness of 11 was noted in the residential areas of R.S. Puram.

Altogether, 90 plant species belongs to different life forms were noted to be present in the studied home gardens. A higher number of 46 species (51.1%) were in the form of herbs followed by the shrubs with 26 species (28.9%), trees with 14 species (15.6%) and climbers with 4 species (4.4%) (Table 1). This may be due to the need and individual option. The most grown herbs in the gardens are mainly for the purpose of supplying requirements to their day to day life as vegetables, greens and medicinal plants.

In addition to higher species diversity, the diversity of families was noted to be most noteworthy (Table 2). A total number of 47 families with the contribution of 90 species were present in the home gardens. The family, Acanthaceae contributed the higher number of 7 species (7.8%) followed by the family, Apocyanaceae with 6 species (6.7%) and Asteraceae, Amaranthaceae and Solanaceae with 5 species (5.6%) each to the communities of home gardens. The remaining families have contributed 1, 2 or 3 species only to home garden communities. It indicates the diverse utility of the plant resources particularly the

preferences towards medicinal uses (Kumar *et al.*, 1994). The high floristic diversity is perhaps the reflection of the potential of home gardens to serve as repositories of genetic diversity as well (Esquivel and Hammer, 1992). Kabir and Webb (2008) also reported the predominance of herbs and trees in the home gardens of south western Bangladesh.

The degree of distribution of the various enumerated plant species was very low and it was ranging between 10 and 50% only (Table 1). The species namely, *Adenium obesum*, *Anthurium spathyphyllum*, *Aloe vera*, *Ficus benjamina*, *Plumbago auriculata* and *Plumeria rubra* have registered 50% frequency which indicates that these species have distributed comparatively in higher number of home gardens (Fig. 2). Other species have recorded below 50% frequency and hence these species have restricted distribution in few home gardens only. The total number of individuals maintained for the constituent species in the home gardens was widely varied (Table 1 and Figs. 3 and 4). Pandey *et al.* (2006) also reported the lower distribution level of many home garden plants in South Andaman and he explained that the selective cultivation of species with the home gardens is mainly due to the utility value of the species. The endemic plant species, *Saraca indica* was represented by only one individual at Ganapathy residential area. It ensures the expansion of the geographical area for this species. Similarly, the species such as *Artocarpus heterophyllus*, *Dracaena sp.*, *Ficus benghalensis*, *Hamelia patens*, *Jasminum grandiflorum*, *J. sambac*, *Momordica charantia*, *Musa paradisiaca*, *Sansevieria roxburghiana*, *Saraca indica*, *Thunbergia mysorensis* and *Taxus wallichiana* have also been represented by only one individual (Fig. 4).

The economic importance including the medicinal uses of the various plant species present in the sampled home gardens of Coimbatore city is presented in Table 2. In the account of 90 species, 72 (80%) were recognized as medicinally important and 18 (20%) as ornamentals. The medicinal uses of the plant species are multidimensional. A greater number of 16 species are used to treat inflammation related diseases, 13 species prescribed for skin problems, 10 species are suggested for diabetics and 8 species are used for anticancer. Ecological and socioeconomic factors, including geographic location, climate, water availability, garden size and history, agricultural policy, market needs, food cultivars and house hold preferences influence the species diversity and utilization of the product of traditional home gardens (Gajaseni and Gajaseni, 1999; Trinh *et al.*, 2003).

**Table 1. Number of individuals of constituent plant species and their frequency in the sampled home gardens of Coimbatore city.**

S.No.	Name of the species	Habit	Home gardens*										Frequency (%)
			1	2	3	4	5	6	7	8	9	10	
1.	<i>Acalypha wilkesiana</i> Hort.	Shrub	-	-	-	-	-	-	10	-	-	-	10
2.	<i>Adenium obesum</i> (Forsk.) Roem. et Schult.	Shrub	-	2	-	-	3	4	-	5	-	3	50
3.	<i>Anthurium spathiphyllum</i> Schott.	Herb	-	-	3	5	3	2	3	-	-	-	50
4.	<i>Allamanda cathartica</i> L.	Shrub	-	2	-	-	-	3	-	-	-	-	20
5.	<i>Aloe vera</i> (L.) Burm.f.	Succulent herb	2	5	6	4	-	-	3	-	-	-	50
6.	<i>Aphelandra squarrosa</i> Nees.	Herb	-	-	-	-	-	-	7	-	-	-	10
7.	<i>Aralia</i> sp. L.	Herb	-	-	-	-	-	-	-	5	-	-	10
8.	<i>Arcotis frutescens</i> L.	Shrub	-	-	-	-	6	-	-	-	-	-	10
9.	<i>Arctotis hirsuta</i> (Harv.) Beauverd.	Herb	-	-	-	-	-	-	-	-	-	12	10
10.	<i>Argyranthemum frutescens</i> L.	Herb	-	-	-	-	94	-	-	-	-	-	10
11.	<i>Araucaria excelsa</i> R.Br.	Tree	-	-	-	-	-	-	3	-	-	-	10
12.	<i>Achyranthes aspera</i> L.	Herb	-	-	20	-	-	-	-	15	-	-	20
13.	<i>Amaranthus spinosus</i> L.	Herb	-	-	-	-	-	-	-	34	-	-	10
14.	<i>A. caudatus</i> L.	Herb	-	-	-	-	-	-	-	31	-	-	10
15.	<i>Azardica indica</i> A. Juss.	Tree	-	-	-	-	-	1	-	-	-	1	20
16.	<i>Artocarpus heterophyllus</i> Frost.	Tree	-	-	-	-	-	1	-	-	-	-	10
17.	<i>Barleria grandis</i> Hochst. ex Nees.	Herb	-	-	-	-	-	-	-	-	12	-	10
18.	<i>Bougainvillea glabra</i> Choisy.	Creeper	-	-	-	6	-	-	-	-	-	-	10
19.	<i>Callistemon citrinus</i> (Curtis) Skeels.	Shrub	-	-	-	2	-	-	-	-	-	-	10
20.	<i>Calliandra cyanometroides</i> Bedd.	Herb	17	-	-	-	-	-	-	12	-	-	20
21.	<i>Campsis radicans</i> Seem.	Herb	-	-	12	9	-	-	-	-	-	-	20
22.	<i>Capsicum annuum</i> L.	Shrub	-	-	-	5	-	-	-	-	-	-	10
23.	<i>Catharanthus roseus</i> L.	Sub shrub	-	21	-	-	-	-	14	-	-	-	20
24.	<i>Celosia cristata</i> L.	Shrub	-	-	-	-	-	5	-	-	-	1	20
25.	<i>Cereus pterogonus</i> Lem.	Herb	-	-	-	-	-	4	-	-	-	-	10
26.	<i>Cestrum nocturnum</i> L.	Herb	-	50	43	-	-	-	-	-	-	-	20
27.	<i>Chlorophytum variegatum</i> Ker.	Herb	-	-	2	-	1	2	-	-	8	-	40
28.	<i>Chrysanthemum carinatum</i> L.	Herb	-	-	-	-	-	-	6	-	-	3	20
29.	<i>C. odoratum</i> L.	Herb	-	-	64	82	-	-	-	-	-	41	30
30.	<i>Clitoria ternatea</i> L.	Herb	-	-	-	-	19	-	-	-	-	-	10
31.	<i>Clerodendrum thomsoniae</i> Balf.	Shrub	-	-	-	-	-	5	-	-	-	-	10

32.	<i>Coleus aromaticus</i> Benth.	Herb	-	-	-	-	-	15	12	5	-	-	30
33.	<i>Cordyline stricta</i> L.	Herb	-	-	5	-	-	-	-	-	-	-	10
34.	<i>Cosmos bipinnatus</i> Cav.	Herb	-	-	74	-	-	-	50	-	-	-	20
35.	<i>Crassula</i> sp. L.	Herb	-	-	-	-	-	-	10	-	13	5	30
36.	<i>Crossandra infundibuliformis</i> L. Salib.	Herb	-	-	-	-	-	-	-	-	-	10	10
37.	<i>Cucumis pepo</i> DC.	Climber	-	-	-	-	-	5	-	-	-	-	10
38.	<i>Curcuma longa</i> L.	Herb	-	3	-	-	-	3	-	-	-	5	30
39.	<i>Calotropis gigantea</i> R.Br.	Shrub	2	-	-	-	-	-	-	1	-	-	20
40.	<i>Carica papaya</i> L.	Tree	-	-	-	1	-	-	-	1	-	-	20
41.	<i>Coriandrum sativum</i> L.	Herb	-	-	24	-	-	-	-	-	-	-	10
42.	<i>Cardiospermum halicacabum</i> L.	Herb	-	3	-	-	-	-	-	-	-	-	10
43.	<i>Cycas siamensis</i> Miq.	Tree	-	-	-	-	-	2	-	-	-	1	20
44.	<i>Dracaena</i> sp. Lam.	Shrub	1	-	-	-	-	-	-	-	-	-	10
45.	<i>Duranta repens</i> L.	Shrub	-	-	-	-	2	-	-	-	-	-	10
46.	<i>Damascus carota</i> Nayeem Ket.	Herb	-	-	-	-	11	6	3	-	-	-	30
47.	<i>Euphorbia pulcherrima</i> Willd. ex Klotz.	Shrub	-	10	-	-	-	-	-	-	-	-	10
48.	<i>Ficus benghalensis</i> L.	Tree	-	1	-	-	-	-	-	-	-	-	10
49.	<i>F. benjamina</i> L.	Tree	6	-	-	8	4	2	-	-	-	2	50
50.	<i>F. microspora</i> Wight.	Tree	-	2	-	-	-	-	-	-	2	4	30
51.	<i>Geranium domesticum</i> Roxb.	Herb	9	-	-	-	-	-	-	-	-	-	10
52.	<i>Gomphrena globosa</i> Jacq.	Herb	105	95	-	-	-	-	-	-	-	-	20
53.	<i>Grevillea robusta</i> A. Cunn. ex R.Br.	Shrub	-	-	-	-	4	2	-	-	-	-	20
54.	<i>Hamelia patens</i> Jacq.	Shrub	-	-	-	-	1	-	-	-	-	-	10
55.	<i>Hibiscus rosa sinensis</i> L.	Shrub	-	-	-	-	2	1	-	-	5	-	30
56.	<i>H. syriacus</i> L.	Shrub	-	1	-	1	-	-	-	-	-	-	20
57.	<i>Inga cyanocetroides</i> L.	Shrub	1	-	-	-	-	2	-	-	-	2	30
58.	<i>Ixora coccinea</i> L.	Shrub	-	-	2	-	-	-	-	-	-	-	10
59.	<i>Jacquemontia pentantha</i> Choisy.	Herb	-	-	29	-	48	-	-	-	-	-	20
60.	<i>Jasminum grandiflorum</i> L.	Herb	1	-	-	-	-	-	-	-	-	-	10
61.	<i>J. sambac</i> Ait.	Herb	-	-	-	-	-	-	-	1	-	-	10
62.	<i>Kalanchoe fentchokoi</i> Adans.	Herb	-	-	-	-	-	-	-	-	-	10	10
63.	<i>Lablab purpureus</i> (L) Sweet.	Vine	-	-	-	2	8	-	-	-	4	3	40
64.	<i>Lawsonia inermis</i> L.	Tree	-	-	-	-	-	1	1	-	-	-	20
65.	<i>Mangifera indica</i> L.	Tree	-	-	-	-	-	1	-	-	1	-	20
66.	<i>Miranda leucophyllum</i> Harts.	Tree	-	-	12	-	-	-	-	-	-	-	10
67.	<i>Momordica charantia</i> L.	Herb	-	-	-	-	1	-	-	-	-	-	10

68.	<i>Musa paradisiaca</i> L.	Tree	-	1	-	-	-	-	-	-	-	-	10
69.	<i>Nephrolepis</i> sp. Schot.	Herb	-	-	-	-	-	-	8	-	-	-	10
70.	<i>N. tuberosa</i> Bory ex Willd.	Herb	1	-	-	-	-	-	-	-	1	-	20
71.	<i>Nerium oleander</i> L.	Shrub	-	-	-	-	1	-	2	-	-	-	20
72.	<i>Nymphaea pubescens</i> Willd.	Succulent herb	5	3	-	-	2	-	-	-	-	-	30
73.	<i>Ocimum basilicum</i> L.	Herb	-	-	-	-	-	-	-	-	4	-	10
74.	<i>Plumbago auriculata</i> Lam.	Herb	2	-	-	-	-	2	2	-	11	3	50
75.	<i>Plumeria rubra</i> L.	Shrub	-	1	-	2	-	1	1	-	1	-	50
76.	<i>Piper betle</i> L.	Creeper	-	-	-	-	-	-	38	-	-	-	10
77.	<i>Ravenala madagascariensis</i> Sonn.	Herb	-	-	1	-	-	-	-	-	-	1	20
78.	<i>Rosa</i> sp. W.	Shrub	-	-	-	3	-	-	-	-	-	4	20
79.	<i>Salvinia officinalis</i> L.	Herb	-	-	-	-	-	2	-	-	1	-	20
80.	<i>Sansevieria roxburghiana</i> Schult.	Herb	-	1	-	-	-	-	-	-	-	-	10
81.	<i>Solanum xanthocarpum</i> Sch and wend.	Herb	2	3	-	-	-	-	-	-	-	-	20
82.	<i>S. melongena</i> Pr.	Herb	-	-	-	2	-	-	-	-	-	-	10
83.	<i>S. lycopersicum</i> L.	Herb	-	-	-	-	3	-	-	-	-	-	10
84.	<i>Saraca indica</i> L.	Tree	-	-	-	-	1	-	-	-	-	-	10
85.	<i>Thuja occidentalis</i> L.	Shrub	-	-	-	-	2	-	3	2	1	-	40
86.	<i>Thunbergia erecta</i> Roxb.	Shrub	-	-	-	-	-	10	-	-	-	-	10
87.	<i>T. mysorensis</i> T.and Roxb.	Shrub	-	-	-	-	-	1	-	-	-	-	10
88.	<i>Tabernaemontana divaricata</i> R.Br. ex Roem. & Schult.	Shrub	-	-	-	-	-	1	-	2	-	-	20
89.	<i>Taxus wallichiana</i> L.	Tree	-	-	-	-	-	-	-	1	-	-	10
90.	<i>Zephyranthes carinata</i> L.	Herb	-	-	-	-	-	16	-	-	-	-	10

\* 1. R.S. Puram; 2. Race course; 3. G.N. Mills; 4. Viswasapuram; 5. Ganapathy; 6. Vadavalli; 7. Manikarapalayam; 8. Mettupalayam; 9. Nava India; 10. Saravanampatti.

**Table 2. The included family useful part, medicinal and other economic uses of various plant species in the home gardens of Coimbatore city.**

S.No.	Name of the species	Family	Parts used	Medicinal/Other economic uses
1.	<i>Acalypha wilkesiana</i>	Acanthaceae	Leaf	The extract of the flower inhibits the ovarian function and stimulate the uterine. Roots are used in the treatment of diabetics, antipyretic, abortifacient, demulcent and useful to relieve chest pain.
2.	<i>Adenium obesum</i>	Apocynaceae	Bark and sap	The plant sap and bark are used as remedy for bone dislocation, rheumatism, sprains, paralysis, swellings and skin infections.
3.	<i>Anthurium spathiphyllum</i>	Araceae	Whole plant	Cleans indoor air of many environmental contaminants, including benzene, formaldehyde and other pollutants.
4.	<i>Allamanda</i>	Apocynaceae	Flower	Flower has been used to treat liver tumors, jaundice, splenomegaly and malaria.

	<i>cathartica</i>			
5.	<i>Aloe vera</i>	Liliaceae	Leaf	It is a remedy for coughs, wounds, ulcers, gastritis, diabetics, cancer, arthritis, immune-system deficiencies and many other conditions when taken internally.
6.	<i>Aphelandra squarrosa</i>	Acanthaceae	-	Ornamental plant
7.	<i>Aralia sp.</i>	Araliaceae	-	Ornamental plant
8.	<i>Arcotis frutescens</i>	Asteraceae	Whole plant	Plants used to treat of opportunistic fungal infections in HIV/AIDS patients.
9.	<i>Arctotis hirsuta</i>	Acanthaceae	-	Ornamental plant
10.	<i>Argyranthemum frutescens</i>	Asteraceae	Flower and leaf	Flower in tonics as an ophthalmic and purgative, fresh or dried flowering heads are normally used in the treatment of rheumatism, arthritis, liver and kidney disorders, as a blood purifier, etc. Daisy leaves cures mouth ulcers.
11.	<i>Araucaria excelsa</i>	Araucariaceae	Leaf	It reduces the bacterial contaminants.
12.	<i>Achyranthes aspera</i>	Amaranthaceae	Leaf and seed	It is used to improve appetite and to cure various types of gastric disorders. It is useful in haemorrhoids. Leaves and seeds are emetic, hydrophobia, carminative, resolve swelling, digestive and expel phlegm.
13.	<i>Amaranthus spinosus</i>	Amaranthaceae	Leaf	Plant is used as a digestive, laxative, diuretic, stomachic, antipyretic, to improve appetite, biliousness, blood diseases, burning sensation, leprosy, bronchitis, piles and leucorrhoea. The boiled leaves and root are given to children as a laxative.
14.	<i>A. caudatus</i>	Amaranthaceae	Leaf, stem and root	The roots are used to cure kidney stones. The leaves used to cure cuts, leprosy, boils, burns and fever. Decoction of the stem used to treat jaundice.
15.	<i>Artocarpus heterophyllus</i>	Meliaceae	Whole plant	Leaves, bark, flowers, fruits, seed, gum, oil and neem cake are used to have antiallergenic, antidermatic, antifeedent, antifungal, antiinflammatory, antipyorrhoeic, antiscabic, cardiac, diuretic, insecticidal, larvicidal, nematicidal, spermicidal and other biological activities.
16.	<i>Azadirachta indica</i>	Moraceae	Leaf and fruit	The leaves are useful in fever, ulcers, boils, wounds, skin diseases, antidiarrhoeal, analgesic and as immuno modulator. The ripe fruits are sweet cooling, laxative, aphrodisiac and tonic. The seeds used for diuretic, aphrodisiac and constipation. Leaf extract treats for hepatic disorders, gastrointestinal disorders, skin disorders, snake bites, cuts and wounds, sexually transmitted diseases, pain, fever, respiratory tract disorders, paralysis, diabetics, rheumatoid arthritis, impotency and bone fractures.
17.	<i>Barleria grandis</i>	Acanthaceae	Leaf	The leaves used for a variety of disorders such as diarrhoea, stomach ulcers, cough and hepatitis. A decoction of dried stems and flowers used as treatment for low blood pressure.
18.	<i>Bougainvillea glabra</i>	Nyctaginaceae	Flower	It is used to treat hemorrhoids.
19.	<i>Callistemon citrinus</i>	Myrtaceae	Leaf	Ornamental plant
20.	<i>Calliandra cyanometroides</i>	Myrtaceae		
21.	<i>Campsis radicans</i>	Bignoniaceae	Leaf	Leaf extract having antiinflammatory, antibacterial and antifungal properties. It is used as syrups, infusions, typhoid, anaemia, malaria and headache.

22.	<i>Capsicum annuum</i>	Solanaceae	Fruit	It is used as carminative, appetizer and cure stomachic. Externally, it is used as a counter irritant and also in the treatment of rheumatism and neuralgia.
23.	<i>Catharanthus roseus</i>	Apocynaceae	Whole plant	Minimizing the adverse effects of chemotherapy, carcinogenic agents and controls bacterial, fungal and viral infections.
24.	<i>Celosia cristata</i>	Amaranthaceae	Leaf flower and seed	It is used for the treatment of diarrhoea, piles, bleeding nose, disinfectant, inflammation, haematological and gynaecologic disorders.
25.	<i>Cereus pterogonus</i>	Cactaceae	-	Ornamental plant
26.	<i>Cestrum nocturnum</i>	Solanaceae	Leaf	Leaves are used for their pharmacological significance in burns and swellings. It is also used for treating epilepsy and as stupefying charm medicine. It is used to prevent malaria.
27.	<i>Chlorophytum variegatum</i>	Liliaceae	-	Ornamental plant
28.	<i>Chrysanthemum carinatum</i>	Asteraceae	Flower	The leaves are used medicinally to cure influenza symptoms, liver and menstrual disorders and have antiinflammatory and antispasmodic properties.
29.	<i>C. odoratum</i>	Asteraceae	Flower	Flowers are used for antihypertensive, serotonin antagonist, anticancer, antispasmodic, antioxidative and antimicrobial activities. It prevent cancer and lower blood pressure as well as improve the digestive system in human.
30.	<i>Clitoria ternatea</i>	Fabaceae	Whole plant	The herb is effective in curing fever and acts as asthma and bronchitis etc. A paste of the whole plant can be applied over the infected area and decoction of the plants is very effective in cleaning the wound.
31.	<i>Clerodendrum thomsoniae</i>	Verbenaceae	Leaf and flower	Leaf aqueous extract is traditionally used by people to alleviate symptoms of diabetics, obesity and hypertension.
32.	<i>Coleus aromaticus</i>	Lamiaceae	Leaf	The leaves are used for the treatment of cough, throat infection and nasal congestion.
33.	<i>Cordyline stricta</i>	Asparagaceae	Leaf	It is used to treat dysentery and skin diseases. It breaks fever and headache. The leaves consumed as greens.
34.	<i>Cosmos bipinnatus</i>	Asteraceae	Flower and leaf	Leaves are used for fever, flue, cough, asthma, digestive troubles, piles, diabetics, urinary diseases, male sexual diseases, gynecological diseases antiinflammatory, ear diseases, skin diseases and miscellaneous uses.
35.	<i>Crassula sp.</i>	Crassulaceae	-	Ornamental plant
36.	<i>Crossandra infundibuliformis</i>	Acanthaceae	Leaf and latex	In is used to treat infectious diseases while simultaneously mitigating many of the side effects.
37.	<i>Cucumis pepo</i>	Cucurbitaceae	Leaf, fruit and seed	Seeds are used as a diuretic. Leaves are used as a painkiller, a treatment for nausea, and a boost to haemoglobin content of the blood. The fruit is used for cooling and astringent to the bowels, increases appetite, cures leprosy and purifies the blood.
38.	<i>Curcuma longa</i>	Zingiberaceae	Rhizome	A fresh juice is commonly used in many skin conditions, including eczema, chicken pox, shingles, allergy, and scabies. The active compound curcumin have antiinflammatory, antioxidant, antitumour and antiviral activities.
39.	<i>Calotropis gigantea</i>	Asclepiadaceae	Leaf and	The powdered root is used to treat bronchitis, asthma, leprosy, eczema,

			latex	elephantiasis while the latex is used to treat vertigo, baldness, hair loss, toothache, intermittent fevers, rheumatoid/joint swellings and paralysis.
40.	<i>Carica papaya</i>	Caricaceae	Leaf, fruit and root	It increase appetite, ease menstrual pain, meat tenderizer and relieve nausea
41.	<i>Coriandrum sativum</i>	Apiaceae	Seed, root and leaf	The seeds were included in a host of prescriptions for fever, diarrhoea, vomiting, indigestion as in stomach and carminative. Leaves are given for biliousness, intestinal irritations, heartburn, thirst and nausea. Volatile oil is carminative.
42.	<i>Cardiospermum halicacabum</i>	Sapindaceae	Leaf and fruit	The tender shoots are used as a diuretic, stomachic and rubefacient. It is used in rheumatism, lumbago, nervous diseases and as a demulcent in arthritis and in dropsy.
43.	<i>Cycas siamensis</i>	Cycadaceae	-	Ornamental plant.
44.	<i>Dracaena sp.</i>	Asparagaceae	Fruit	The fruits are used in the treatment of malarial and kill intestinal worms.
45.	<i>Duranta repens</i>	Verbenaceae	Leaf and fruit	The roots are stimulant for indolent ulcer. Different parts of the carrot have been used in medicine for the treatment of kidney dysfunction, asthma, dropsy, inflammation, leprosy etc.
46.	<i>Damascus carota</i>	Apiaceae	Leaf and latex	The latex is used as a pain reliever, antibacterial agent, emetic and remedies for skin warts and toothache.
47.	<i>Euphorbia pulcherrima</i>	Euphorbiaceae	Leaf and bark	Decoction of the bracts and flowers are taken as galactagogue by nursing women to increase milk flow. The leaves are applied as poultice and used as emeto cathartic causing vomiting and bowel movement.
48.	<i>Ficus benghalensis</i>	Moraceae	Leaf	It is used for the treatment of skin diseases and enlargement of liver.
49.	<i>F. benjamina</i>	Moraceae	Leaf, bark and root	It is used for the treatment of certain skin disorders, stomachic and antidysentery. Leaf, bark and fruits are used as antiinflammatory, antinociceptive, antipyretic and cytotoxic activity.
50.	<i>F. microspora</i>	Moraceae	Leaf and bark	It has been used for intestinal problems, wounds and respiratory ailment. Oil is considered a relaxant in aroma therapy.
51.	<i>Geranium domesticum</i>	Geraniaceae	Seed and leaf	Ornamental plant
52.	<i>Gomphrena globosa</i>	Amaranthaceae	Leaf and flower	It is used for bronchial asthma, acute and chronic bronchitis, chin cough, haemoptysis of pulmonary tuberculosis, dizziness, blurring of vision, dysentery, whooping cough and headache.
53.	<i>Grevillea robusta</i>	Proteaceae	-	Ornamental plant
54.	<i>Hamelia patens</i>	Rubiaceae	Leaf and flower	It regulates menstruation and stimulate blood circulation. The flower extract has been traditionally used for liver disorders, high blood pressure and as an aphrodisiac. Young leaves and flowers are used in the case of headache.
55.	<i>Hibiscus rosasinensis</i>	Malvaceae	Flower, root and leaf	It is used in antiinflammatory and ingredients for cosmetics.
56.	<i>H. syriacus</i>	Malvaceae	Leaf and	It cures skin diseases.



			flower	
57.	<i>Inga cyanometroides</i>	Fabaceae	Leaf	It is used for hepatic disorder, cancer, microbial infection, antioxidant, pain and inflammation. The flowers were used for the treatment of cancer, leucorrhoea, dysentery, dysmenorrhoea, haemoptysis and hypertension.
58.	<i>Ixora coccinea</i>	Rubiaceae	Leaf, root and flower	The leaves are used as an emetic in cases of poisoning. The roots are bitter, acrid and are useful for external application in ringworm and herpes infestations and are recommended for ophthalmopathy, ulcerative stomatitis, leprosy and wounds.
59.	<i>Jacquemontia pentantha</i>	Convolvulaceae	-	Ornamental plant
60.	<i>Jasminum grandiflorum</i>	Oleaceae	Leaf and root	Leaves are used in the treatment of leprosy, skin disease, ulcers, wounds and corns.
61.	<i>J. sambac</i>	Oleaceae	Leaf, flower and root	The plant is used for cooling, skin disorders, leprosy, ulcers, in cases of insanity, weakness of sight and affections of mouth and opium for gangrenous ulcers of the gums.
62.	<i>Kalanchoe fentchokoi</i>	Rubiaceae	-	Ornamental plant
63.	<i>Lablab purpureus</i>	Fabaceae	Leaf	It has antioxidant, anticancer, antiviral and antiinflammatory activities.
64.	<i>Lawsonia inermis</i>	Myrtaceae	Stem bark, root and leaf	It is used as a traditional medicine to treat various ailments such as rheumatoid arthritis, headache, ulcers, diarrhoea, leprosy fever, leucorrhoea, diabetics, hepatoprotective and colouring agent.
65.	<i>Mangifera indica</i>	Anacardiaceae	Fruit and leaf	Fruit is proposed as nutritional supplement (antioxidant) and an anti-inflammatory, analgesic and immunomodulatory treatment to prevent disease progress or increase the patient's quality of life in gastric and dermatological disorders, AIDS, cancer and asthma. Root bark is a bitter aromatic, and used for diarrhoea and leucorrhea.
66.	<i>Miranda leucophyllum</i>	Scrophulariaceae	-	Ornamental plant.
67.	<i>Momordica charantia</i>	Cucurbitaceae	Leaf, Fruit and root	Leaves are used for ulcers and as a bitter digestive aid for intestinal gas, bloating, stomachache, and sluggish digestion. Fruit pulp, leaf juice and seeds are used for antihelminthic. Leaf act as galactagogue and root is astringent.
68.	<i>Moringa oleifera</i>	Musaceae	Whole plant	Unripe bananas and plantain fruits are astringent and used to treat diarrhoea. The leaves are used for cough and bronchitis. The roots can arrest hemoptysis, strongly astringent and anthelmintic properties.
69.	<i>Nephrolepis sp.</i>	Nephrolepidaceae	-	Ornamental plant.
70.	<i>N. tuberosa</i>	Nephrolepidaceae	Whole plant	It is used as healing agents in inflammation, leucorrhoea, piles and as antidote. It possesses antiviral, antibacterial, antiparasitic effects, anti-inflammatory, antiulcer and antioxidant activity and used as diuretic.
71.	<i>Nerium oleander</i>	Apocynaceae	Flower, leaf, root and	The flower used as blood purifier and also used in the treatment of jaundice of diabetics, cancer, inflammation and eye disorders.

72.	<i>Nymphaea pubescens</i>	Nympheaceae	stem	
73.	<i>Ocimum basilicum</i>	Lamiaceae	Leaf	Both the leaves and the essential oils are used for culinary and medicinal purpose.
74.	<i>Plumbago auriculata</i>	Plumbaginaceae	Leaf	It cures cold, cough.
75.	<i>Plumeria rubra</i>	Apocynaceae	Root and leaf	The latex has been used for the treatment of itches, swellings, fevers, inflammations, arthritis and constipation. The root is used to cure abscesses, dysentery, syphilis and cough.
76.	<i>Piper betle</i>	Piperaceae	Root, bark and latex	The fruits are used in the treatment and prevention of cancer, cardiovascular disease, diabetics, dental conditions, erectile dysfunction, bacterial infections, antibiotic resistance and ultraviolet radiation induced skin damage.
77.	<i>Ravenala madagascariensis</i>	Strelitziaceae	Leaf	It cures cold and cough.
78.	<i>Rosa sp.</i>	Rosaceae	Leaf	Leaves are used for metrorrhagia, hemoptysis, large intestine hemorrhage, rheumatic arthritis and gynecologic disease.
79.	<i>Salvinia officinalis</i>	Lamiaceae	Flower	It has been used for maintaining health, boosting immune system function, various therapies and remission of cancer.
80.	<i>Sansevieria roxburghiana</i>	Asparagaceae	Leaf	The leaf sap is applied directly to sores, cuts and grazes and treatment for abdominal pains, ear ache, diarrhoea and hemorrhoids.
81.	<i>Solanum xanthocarpum</i>	Solanaceae	Flower	Paste of leaves can be applied to relieve pains. Seeds act as expectorant in cough and asthma. The roots are expectorant and diuretic, useful in the treatment of catarrhal fever, coughs, asthma and chest pain
82.	<i>S. melongena</i>	Solanaceae	Leaf and root	They are used for inflammatory, antioxidant, anti-allergic, hepatoprotective, and anticarcinogenic activities.
83.	<i>S. lycopersicum .</i>	Solanaceae	Fruit and leaf	Decoction of leaf is used to cure diabetics, leprosy, gonorrhoea, cholera, bronchitis, dysentery asthenia and haemorrhoids.
84.	<i>Saraca indica</i>	Caesalpiniaceae	Fruit	It is used in women related problems, such as leucorrhoea, menorrhagia, dysfunctional uterine bleeding and bleeding hemorrhoids.
85.	<i>Thuja occidentalis</i>	Cupressaceae	Leaf	It cures the diseases of eyes cold conjunctivitis, bleeding piles and bronchitis. The essential oil within the plant has been used for cleaners, disinfectants, hair reparations, insecticides, liniment, room sprays and soft soaps. Twigs to make teas and to relieve constipation and headache. It is externally applied tincture or ointment for the treatment of warts and ringworms.
86.	<i>Thunbergia erecta</i>	Acanthaceae	Leaf	Ornamental plant
87.	<i>T. mysorensis</i>	Acanthaceae	-	Ornamental plant
88.	<i>Tabernaemontana divaricata</i>	Apocynaceae	-	Ornamental plant
89.	<i>Taxus wallichiana</i>	Taxaceae	Leaf	Ornamental plant
90.	<i>Zephyranthes carinata</i>	Amaryllidaceae	Leaf and bark	The stem bark is used as a anticancer. This species is also used as fuel wood by the local communities.
			Flower	Ornamental plant



Fig. 1. The sampled home gardens of Coimbatore city.



*Anthurium spathiphyllum*

*Plumbago auriculata*

*Plumeria rubra*

Fig. 2. The species of higher degree of distribution among the home gardens.



*Argyranthemum frutescens*

*Chrysanthemum odoratum*

*Gomphrena globosa*

Fig. 3. Some species of relatively high density.



*Artocarpus heterophyllus*

*Saraca indica*

*Dracaena* sp.

Fig. 4. Certain species of relatively low density.

Although, the proportion of species used for different purposes vary, in general traditional home gardens contribute sustainably towards meeting the basic subsistence needs of their owners for product and services such as food including vegetables and fruits, medicines, forage, shade and ornamental (Albuquerque *et al.*, 2003). Presently many home gardens show a shift from subsistence oriented agriculture to market (Peyre *et al.*, 2006).

The study concludes that the home garden ensure crop diversification, provide diversified products though low in amount but nutritious in nature, conserve plant genetic resources and evolutionary processes in the Coimbatore city.

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