

**Information and analysis for sustainable forest management:
linking national and international efforts in South and Southeast Asia**

ASSESSMENT OF TREE RESOURCES IN THE HOME GARDENS OF SRI LANKA



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**EC-FAO PARTNERSHIP PROGRAMME
(2000-2002)**



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**ASSESSMENT OF TREE RESOURCES
IN THE HOME GARDENS OF SRI LANKA**

by
K.P. Ariyadasa

Introduction

Sri Lanka is a densely populated island with a land area of about 6.5 million ha. Topographically, the country consists of highlands in the south central part of the island, which rise to about 2 500 m, and lowland plains elsewhere. The climate is tropical and maritime. The country is divided into three climatic zones (dry, intermediate and wet) based on annual rainfall. The natural vegetation varies according to the climatic zones. Tropical rain forests are found in the wet zone while sub-montane forests occupy the central highlands. Dry monsoon forest predominates in the dry zone. Logging in natural forests has been banned since 1990 and Sri Lanka meets its timber and fuelwood demands mainly from home gardens, rubber and coconut plantations and forest plantations (Bandaratillake 2001).

Sri Lanka is administered through nine provinces (Eastern, Western, Northern, Southern, Central, Uva, North Central, North Western and Sabaragamuwa) consisting of 25 districts (Figure 1). Each district is divided further into divisional secretariat divisions (DS divisions) that are subdivided into Grama Niladhari divisions (GN divisions), which are the smallest administrative units.

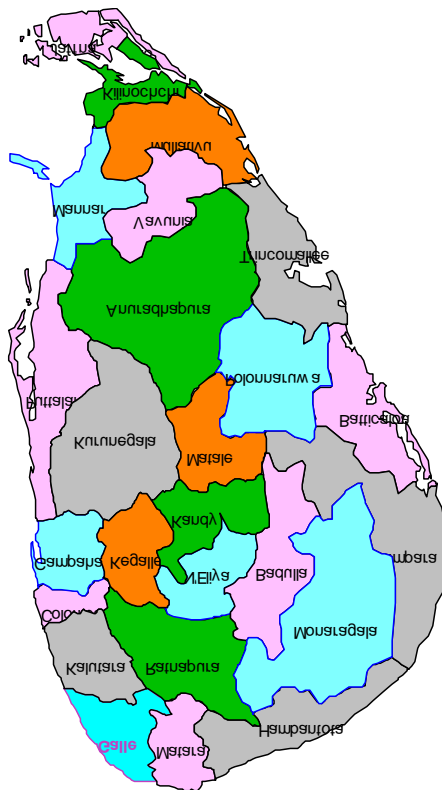


Figure 1. Administrative districts of Sri Lanka

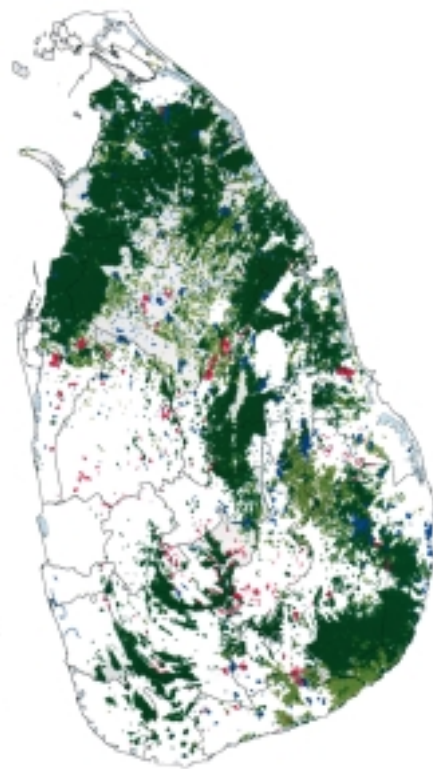


Figure 2. Forest cover of Sri Lanka

The current National Forest Policy formulated in 1995 emphasizes the strict conservation of the remaining natural forests for soil and water conservation and biodiversity while increasing tree cover in other areas to meet the demand for forest products and services. Participatory management has been identified as the key approach to forest resource management.

The Forestry Sector Master Plan (FSMP 1995) outlines the strategies for the development of the forestry sector until 2020 and identified home gardens as the main source of timber and fuelwood. Several studies on the structure, species composition and economics of home gardens have been conducted in parts of the country (McConnell and Dharmapala 1973; Jacob and Alles 1987; Perera and Rajapakse 1991). The earlier studies were confined to the wet hills and lowland home gardens, better known as “Kandyan Forest Gardens”. A comprehensive assessment of the true

potential of home gardens to supply industrial timber and other forest products and services is lacking. An attempt to assess the tree resources in home gardens throughout the country was made in 1996 by the Ministry of Forestry and Environment. The survey was carried out by the Grama Niladaries (headmen) under the direction of the divisional secretaries. The collected data are available in tabular form. Unfortunately, the data were never analysed and therefore valuable information on trees in home gardens has not been disseminated. This report provides an analysis of the 1996 data.

Tree resources in Sri Lanka

Natural forests

In 1956, at the time of the first forest inventory, 44 percent of Sri Lanka was covered by forests. In 1992, the closed canopy forest cover had declined to about 24 percent. The total forest cover today, including sparse forests, is around 30.9 percent. Deforestation has been caused mainly by conversion to other land uses and shifting cultivation. The remaining forest cover of about two million ha consists mostly of dry monsoon, sparse and fragments of tropical rain forests (Table 1).

Table 1. Natural forest types in Sri Lanka (hectares)

District	Land area	Montane forest	Submontane Forest	Lowland rain forest	Moist monsoon forest	Dry monsoon forest	Riverine dry forest	Mangrove	Sparse forest	Total
Ampara	450 031				45 190	69 265	10 160	292	41 760	166 667
Anuradhapura	722 178					180 083	0	0	116 693	296 776
Badulla	285 673	93	3 888	1 577	17 517	3 353	0	0	27 843	54 271
Batticaloa	263 983				13 302	21 770	0	1 421	16 325	52 818
Colombo	68 469			1 832	0	0	0	0	36	1 868
Galle	161 256			18 903	0	0	0	187	1 699	20 789
Gampaha	141 890			273	14	0	0	122	20	429
Hambantota	262 307			220	739	19 169	3 710	539	55 077	79 454
Jaffna	107 848					822	0	260	298	1 380
Kalutara	164 391			20 240	0	0	0	70	1 266	21 576
Kandy	192 808	935	8 504	14 258	3 545	0	0	0	5 980	33 222
Kegalle	168 328		3 655	11 791	0	0	0	0	492	15 938
Kilinochchi	132 499					32 373	0	312	6 042	38 727
Kurunegala	489 787				1 827	8 153	0	0	14 766	24 746
Mannar	200 148					111 389	795	1 261	11 762	125 207
Matale	206 050	89	5 314	12 831	41 337	15 237	0	0	9 207	84 015
Matara	130 829		519	16 686	2 174	516	0	6	2 076	21 977
Moneragala	576 763		65	768	63 558	113 627	4 584	0	52 569	235 171
Millaitivu	260 946					153 769	0	463	17 987	172 219
Nuwara Eliya	174 109	1 943	31 078	3 977	2649	0	0	0	3 273	42 920
Polonnaruwa	344 988				47 266	68 093	523	0	22 949	138 831
Puttalam	315 485					79 452	814	2 264	17 104	99 634
Ratnapura	327 034	48	15 816	38 194	4 755	3 545	0	0	4 491	66 849
Trincomalee	267 991				4	110 491	1 826	1 491	17 629	131 441
Vavuniya	200 836					103 182	0	0	16 504	119 686
Total (ha)	6 616 627	3 108	68 839	141 550	243 877	1 094 289	22 412	8 688	463 848	2 046 611

Source: Legg and Jewell, 1995

Forest plantations

Forest plantation establishment commenced in the 1870s. Over the past 100 years the Forest Department has established nearly 93 000 ha of forest plantations mainly with teak, eucalyptus, pine and mahogany. The initial plantation establishment activities (from 1890 to 1950) focused on replacing the natural forest areas that had been lost owing to shifting cultivation. Most teak and mahogany plantations were established during this period under the Cooperative Reforestation System (modified *Taungya* system). The planting of pines and eucalypts in the wet zone and up-country was started in 1939 in line with the policy of planting *patana* grasslands, which are composed mainly of *Cymbopogon confertiflorius*, *Themeda tremula*, *Chrysopogon*, *Pollinia* and *Arundinella* grasses.

This trend was continued until the policy change in 1953. The new policy emphasized the production of fuelwood and timber as the main role of forest plantations to alleviate the pressure on natural forests. As a result, large-scale plantations of teak and eucalyptus in the dry zone and pines in the wet zone were established until the 1980s.

Environmental and social aspects of plantation development were discussed widely and the importance of the participation of local people in tree growing was recognized during the mid-1980s. When the Community Forestry Project (CFP) started in 1982, the approach to tree growing changed somewhat. This project was funded by the Asian Development Bank (ADB) and implemented in five administrative districts (Badulla, Nuwara Eliya, Kandy, Matale and Batticaloa). The main objectives of the six-year project were to establish fuelwood plantations and community woodlots with the participation of local people. The project was followed by the Participatory Forestry Project (PFP), which was also funded by the ADB and implemented throughout the country between 1992 and 1999. The main components of the PFP were similar to those of the CFP but the earlier block fuelwood plantation component was not included. All the components were implemented with more participation by local communities. Both the CFP and PFP were implemented by the Forest Department.

The total area under productive forest plantations is around 93 000 ha to date (Table 2).

Table 2. Forest plantations by species (hectares)

Species	Extent
Conifers (<i>Pinus</i>)	16 440
Eucalyptus and acacias	27 500
Teak	31 713
Mahogany	2 800
Miscellaneous	14 547
Total	93 000

Trees outside forest areas

There are different types of tree resources outside the traditional forest areas. Home gardens, coconut plantations, rubber plantations, shade trees in tea plantations, roadside plantations, trees on farmlands and other perennial plantations provide more than 70 percent of the industrial timber and more than 80 percent of the biofuel demand.

Home gardens

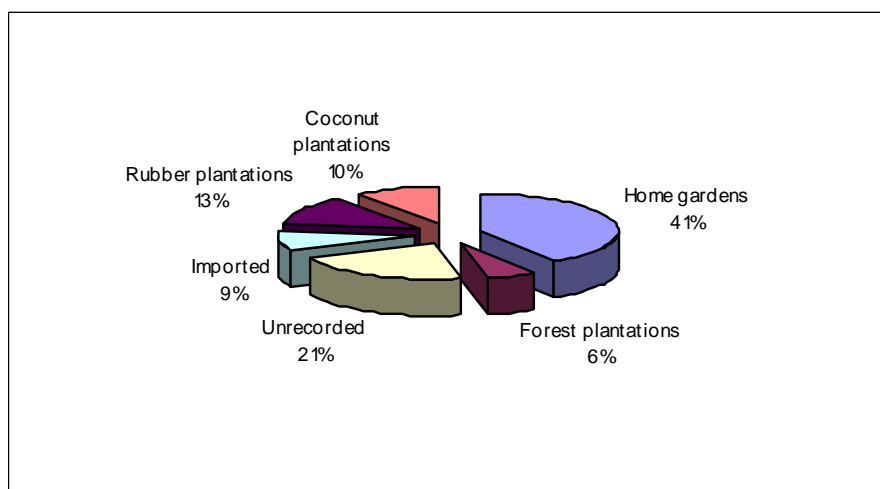
Home gardens are perhaps the best-developed agroforestry system in Sri Lanka. This system of perennial cropping has been practised for centuries. It is essentially mixed cropping with a variety of tree species that provide food, fruits, timber, medicine and spices. Home gardens are widespread and vary in species composition and tree density. According to FSMP estimates, home gardens covered about 858 000 ha in 1992. Their extent is increasing by about one percent annually.

Table 3 shows the distribution of home gardens by district based on Landsat TM data (Jewell 1995). The districts of the north (Jaffna, Kilinochchi, Mulativu, Mannar, and Vavunia) were not included in the study.

Home gardens in Sri Lanka produce 41 percent of national sawlogs and 26 percent of the biofuel demand (FSMP 1995) (Figures 3 and 4). The National Forest Policy of 1995 has recognized their important role by stating that “Trees growing on homesteads, and other agroforestry, will be promoted as a main strategy to supply wood and other forest products for meeting household and market needs”. According to the FSMP estimates, home gardens produce 0.95 m³ of sawlogs and 0.5 m² of poles per hectare per year.

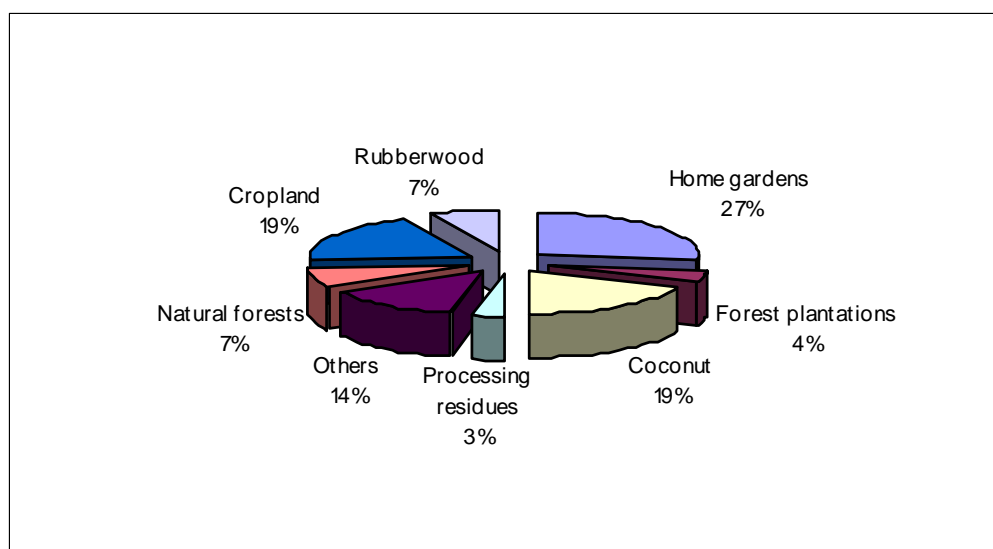
Table 3. Distribution of home gardens in 1992 (hectares)

District	Land area (ha)	Area of home gardens	Home gardens as % of districts
Ampara	450 031	16 245	3.6
Anuradhapura	722 178	56 143	7.8
Badulla	285 673	50 764	17.8
Batticaloa	263 983	14 359	5.4
Colombo	68 469	8 577	12.5
Galle and Matara	292 085	99 000	33.9
Gampaha	141 890	56 884	40.1
Hambantota	262 307	44 922	17.1
Kalutara	164 391	33 156	20.2
Kandy	192 808	61 029	31.7
Kegalle	168 328	46 782	27.8
Kurunegula	489 787	72 892	14.9
Matale	206 050	20 258	9.8
Moneragala	576 763	56 739	9.8
Nuwara Eliya	174 109	9 172	5.3
Polonnaruwa	344 988	36 180	10.5
Puttalam	315 848	64 747	20.5
Ratnapura	327 034	56 462	17.3
Trincomalee	267 991	14 083	5.3
TOTAL	5 714 713	818 394	14.3



Source: FSMP (1995)

Figure 3. Sawlog supply sources (1993)



Source: FSMP (1995)

Figure 4. Sources of bio-energy in 1994

Rubber, coconut and tea

Rubber and coconut plantations supply 13 percent and 10 percent of the national sawlog demand respectively. There are about 158 000 ha of rubber plantations and 439 000 ha of coconut plantations. Nearly 30 percent of the rubber plantations are mature and could be used for timber. About 35 percent of the coconut stock is more than 50 years old and suitable for timber production. There are about 180 000 ha of tea plantations and shade trees in these plantations are often used for timber production.

Wood production from non-forest tree resources is highly significant in the Sri Lankan context. Table 4 shows the projected wood production from home gardens and other non-forest tree resources.

Table 4. Projected wood production from home gardens and other non-forest tree resources ('000 m³)

Source/year	2000	2005	2010	2015	2020
Peeler logs (rubber)	7.9	8.3	8.4	8.2	8.2
Sawlogs					
Home gardens	582.7	631.3	681.4	731.7	769.2
Rubber	256.3	269.9	270.0	263.3	265.8
Coconut and palmyra	202.4	220.0	210.9	166.4	154.3
Trees on tea lands	75.9	75.9	75.9	75.9	75.9
Other perennials	68.6	71.7	74.9	78.3	81.9
Roadside planting	4.8	5.0	5.1	5.2	5.2
Poles					
Home gardens	831.4	853.7	873.4	889.5	910.8
Other perennials	47.7	49.9	52.1	54.5	57.0

Source: FSMP (1995)

Assessment of tree resources in home gardens

Study area

This study was carried out in 22 administrative districts (out of a total of 25) covering 242 divisional secretary divisions (out of a total of 302). Details of the study area are given in Table 5 while Figure 5 shows the geographical coverage of the study.

Table 5. Study area

District	No. of DS divisions	No. of GN divisions	No. of DS divisions covered	No. of GN divisions covered	% coverage
Ampara	17	505	9	261	51.7
Anuradhapura	21	695	20	678	97.6
Badulla	14	532	13	501	94.2
Batticaloa	12	347	11	330	95.1
Colombo	11	551	10	551	100.0
Galle	16	907	16	907	100.0
Gampaha	13	1 180	12	1 143	96.9
Hambantota	11	576	9	528	91.7
Jaffna	14	444	0	0	0.0
Kalutara	11	763	11	763	100.0
Kandy	18	1 204	16	996	82.7
Kegalle	10	576	10	576	100.0
Kilinochchi	4	95	0	0	0.0
Kurunegala	27	1 610	24	1 492	92.7
Mannar	5	152	2	67	44.1
Matale	11	545	11	545	100.0
Matara	14	676	14	676	100.0
Monaragala	10	319	10	319	100.0
Mullativu	5	127	1	46	36.2
Nuwara Eliya	5	438	5	438	100.0
Polonnaruwa	6	290	6	290	100.0
Puttalam	16	548	12	517	94.3
Ratnapura	16	576	13	507	88.0
Trincomalee	11	220	5	97	44.1
Vavunia	4	101	2	39	38.6
TOTAL	302	13 977	242	12 267	87.8

Table 6. Structure of the home garden database

Table name	No. of records	Field name	Description
Main	9 568	District	Administrative district
		Srlno	Identification number of the DS division used in GIS
		Sppno	Identification number of the species
		Above 30	Number of trees in the DS division above 30 cm girth
		Below 30	Number of trees in the DS division below 30 cm girth
		Total	Total number of trees in both girth classes
Dsdiv	302	District	Administrative district
		Ds_div	Name of the DS division
		Srlno	Identification of the DS division used in the GIS
		Cli_zone	Climatic zone of the DS division (dry, intermediate, wet)
		Gnd	Number of GN divisions in the DS division
		Villages	Number of villages in the DS division
Botname	142	Sppno	Identification number of the species
		Lcl_name	Local name of the species
		Bot_name	Botanical name of the species
		Family	Family of the species
		Type	Category of the species (timber, timber & food, food)

The data pertaining to all the species, regardless of species frequency, were entered into the database for dry and intermediate zones while only the most common 41 species were entered into the database for the wet zone. The total number of species reported was 482 and only 76 species, based on the frequency of occurrence, were considered in the final analysis. They represented 46 timber species, 17 timber and food species, and 13 food species. Several tables and queries were used within MS Access for data analysis. The tables and queries were exported subsequently to MS Excel and DBF formats to generate maps, tables and charts.

A map of Sri Lanka was produced by digitizing the boundaries of the 25 administrative districts and 302 DS divisions to facilitate the spatial data analysis using the Map Maker Pro GIS package. The database was linked to the spatial data and several maps were produced to illustrate the climatic zones, species distribution and species density.

Results and discussion

This study was carried out in 242 DS divisions covering 12 267 GN divisions, which represent 87 percent coverage of the country. The intensity of the survey was low in the northern and eastern districts owing to the prevailing security situation in this area. This explains the unusually low total tally of species in these districts.

Species composition

More than 400 woody species are found in home gardens. Some species are planted while the balance regenerates naturally in home gardens. Almost all the species in the categories of food (F) and timber and food (TF) are planted while some of the timber (T) species, especially in the dry zone, regenerate naturally. Table 7 shows the origin and category for 76 species considered in this analysis in order of frequency of occurrence. The most common tree species recorded during this assessment are given in Appendix 1.

Table 7. Most common home garden species in order of frequency of occurrence

Species name		Origin	Category	Total number of trees
Local	Botanical			
Coconut	<i>Cocos nucifera</i>	Planted	Timber & food	38 616 649
Rubber	<i>Hevea brasiliensis</i>	Planted	Timber	17 101 488
Jak	<i>Artocarpus heterophyllus</i>	Planted	Timber & food	10 437 142
Arecanut	<i>Areca catechu</i>	Planted	Food	9 697 944
Mahogany	<i>Swietenia macrophylla</i>	Planted	Timber	6 410 248
Alstonia	<i>Alstonia macrophylla</i>	Planted	Timber	5 968 286
Mango	<i>Mangifera indica</i>	Planted	Timber & food	5 607 688
Albizia_1	<i>Albizia molucana</i>	Planted	Timber	5 607 581
Eucalyptus	<i>Eucalyptus</i> spp.	Planted	Timber	4 061 191
Teak	<i>Tectona grandis</i>	Planted	Timber	3 293 609
Margosa	<i>Azadirachta indica</i>	Naturally grown/planted	Timber	3 044 932
Cashew	<i>Anacardium occidentale</i>	Planted	Timber & food	3 001 240
Lime	<i>Citrus aurantifolia</i>	Planted	Food	2 484 387
Lunumidella	<i>Melia dubia</i>	Naturally grown/planted	Timber	2 349 245
Weera	<i>Drypetes sepiaria</i>	Naturally grown	Timber	2 073 390
Guava	<i>Psidium guajva</i>	Planted	Food	1 790 026
Kitul	<i>Caryota urens</i>	Naturally grown/planted	Timber & food	1 751 016
Satin	<i>Chloroxylon swietenia</i>	Naturally grown	Timber	1 489 903
Orange	<i>Citrus cinensis</i>	Planted	Food	1 468 383
Sabukku	<i>Grevillea robusta</i>	Planted	Timber	1 460 721
Bamboo	<i>Bambusa vulgaris</i>	Planted	Timber	1 333 073
Gliricidia	<i>Gliricidia sepium</i> L.	Naturally grown/planted	Timber	1 252 885
Halmilla	<i>Berrya cordifolia</i>	Naturally grown/planted	Timber	1 185 466
Rambutan	<i>Nephelium lappaceum</i>	Planted	Timber & food	1 177 920
Toona	<i>Toona sinensis</i>	Planted	Timber	1 023 771
Daminiya	<i>Grewia damine</i>	Naturally grown	Timber	1 001 625
Butter fruit	<i>Persea americana</i>	Planted	Food	986 161
Wood apple	<i>Limonia acidissima</i>	Naturally grown/planted	Timber & food	948 752
Del	<i>Artocarpus altilis</i>	Planted	Timber & food	910 473
Hora	<i>Dipterocarpus zeylanicus</i>	Naturally grown/planted	Timber	865 437
Milla	<i>Vitex altissima</i>	Naturally grown	Timber	774 419
Ketakela	<i>Bridelia retusa</i>	Naturally grown	Timber	760 242
Tamarind	<i>Tamarindus indica</i>	Naturally grown/planted	Timber & food	689 922
Kumbuk	<i>Terminalia arjuna</i>	Naturally grown/planted	Timber	686 953
Kon	<i>Schleichera oleosa</i>	Naturally grown	Timber	664 536
Damba	<i>Syzygium assimile</i>	Naturally grown	Timber	627 121
Murunga	<i>Moringa oleifera</i>	Planted	Food	621 284
Helamba	<i>Mitragyna parvifolia</i>	Naturally grown	Timber	602 453
Palu	<i>Manilkara hexandra</i>	Naturally grown	Timber	599 898
Welang	<i>Pterospermum suberifolium</i>	Naturally grown	Timber	564 431
Kolon	<i>Adina cordifolia</i>	Naturally grown	Timber	548 464
Suriyamara	<i>Albizia odoratissima</i>	Naturally grown	Timber	509 591
Nedun	<i>Pericopsis mooniana</i>	Naturally grown/planted	Timber	473 408
Jambu	<i>Syzygium malaccensis</i>	Planted	Food	463 685
Aralu	<i>Terminalia chebula</i>	Naturally grown/planted	Timber & food	436 299
Gini sapu	<i>Michelia champaca</i>	Naturally grown/planted	Timber	415 273
Kaduru	<i>Thevetia peruviana</i>	Naturally grown	Timber	382 514
Ipil Ipil	<i>Leucaena leucocephala</i>	Planted	Timber	373 421
Gammalu	<i>Pterocarpus marsupium</i>	Naturally grown	Timber	350 441
Anoda	<i>Anona cherimolia</i>	Planted	Food	325 895
Mee	<i>Madhuca longifolia</i>	Naturally grown/planted	Timber	298 387
Cocoa	<i>Theobroma cacao</i>	Planted	Food	259 498
Mora	<i>Dimocarpus longana</i>	Naturally grown	Timber & food	252 611
Kenda	<i>Macaranga peltata</i>	Naturally grown	Timber	244 020
Veralu	<i>Elaeocarpus serratus</i>	Naturally grown	Food	234 654
Gansuriya	<i>Thespesia populnea</i>	Naturally grown	Timber	202 853
Delum	<i>Punica granatum</i>	Planted	Food	197 941

Kottamba	<i>Terminalia catappa</i>	Naturally grown/planted	Timber	186 665
Pihimbiya	<i>Filicium decipiens</i>	Naturally grown/planted	Timber	184 958
Bulu	<i>Terminalia bellirica</i>	Naturally grown/planted	Timber	180 690
Ebony	<i>Diospyros ebenum</i>	Naturally grown/planted	Timber	174 005
Godapara	<i>Dillenia retusa</i>	Naturally grown	Timber	171 937
Domba	<i>Calophyllum inophyllum</i>	Naturally grown	Timber	167 747
Beli	<i>Aegle marmelos</i>	Naturally grown/planted	Food	165 718
Kahata	<i>Careya arborea</i>	Naturally grown	Timber	165 294
Wewarana	<i>Alseodaphne semicarpifolia</i>	Naturally grown	Timber	162 881
Hik	<i>Lannea coromandelica</i>	Naturally grown	Timber	149 077
Ehela	<i>Cassia fistula</i>	Naturally grown	Timber	140 965
Hulanhik	<i>Chukrasia tabularis</i>	Naturally grown	Timber	131 500
Palmaidah	<i>Borreria flabellifer</i>	Naturally grown/planted	Timber & food	127 340
Nelli	<i>Phyllanthus emblica</i>	Naturally grown/planted	Food	116 728
Ambarella	<i>Spondias dulcis</i>	Planted	Food	86 200
Albizzia_2	<i>Albizzia lebbbeck</i>	Naturally grown	Timber	70 110
Gal siyambala	<i>Dialium ovoideum</i>	Naturally grown	Timber & food	57 304
Etamba	<i>Mangifera zeylanica</i>	Naturally grown	Timber & food	52 103
Coffee	<i>Coffea arabica</i>	Planted	Food	40 936

Apart from the three general uses of the species given in Table 7 some species are used widely in traditional medicine. Table 8 lists species, used in traditional medicine, which were selected from a list of 142 species found in home gardens.

Table 8. Home garden species widely used in traditional medicine

Species name		Category	Origin
Local	Botanical		
Ahu	<i>Morinda citrifolia</i>	Timber	Naturally grown/planted
Ambarella	<i>Spondias dulcis</i>	Food	Planted
Aralu	<i>Terminalia chebula</i>	Timber & food	Naturally grown/planted
Attikka	<i>Ficus racemosa</i>	Timber	Planted
Bakini	<i>Nauclea orientalis</i>	Timber & food	Planted
Beli	<i>Aegle marmelos</i>	Food	Planted
Bulu	<i>Terminalia bellirica</i>	Timber	Naturally grown/planted
Delum	<i>Punica granatum</i>	Food	Planted
Domba	<i>Calophyllum inophyllum</i>	Timber	Naturally grown/planted
Ehela	<i>Cassia fistula</i>	Timber	Naturally grown/planted
Gammalu	<i>Pterocarpus marsupium</i>	Timber	Naturally grown/planted
Ingini	<i>Strychnos potatorum</i>	Timber	Naturally grown/planted
Kaduru	<i>Thevetia peruviana</i>	Timber	Naturally grown/planted
Kahata	<i>Careya arborea</i>	Timber	Naturally grown
Karapincha	<i>Murraya koenigii</i>	Food	Planted
Keena	<i>Calophyllum walkeri</i>	Timber	Naturally grown
Ketakela	<i>Bridelia retusa</i>	Timber	Naturally grown
Kirikon	<i>Walsura piscidia</i>	Timber	Naturally grown
Kitul	<i>Caryota urens</i>	Timber & food	Planted
Kolon	<i>Adina cordifolia</i>	Timber	Naturally grown
Kumbuk	<i>Terminalia arjuna</i>	Timber	Naturally grown/planted
Lime	<i>Citrus aurantifolia</i>	Food	Planted
Margosa	<i>Azadirachta indica</i>	Timber	Naturally grown/planted
Mee	<i>Madhuca longifolia</i>	Timber	Naturally grown/planted
Murunga	<i>Moringa oleifera</i>	Food	Planted
Nelli	<i>Phyllanthus emblica</i>	Food	Planted
Sadikka	<i>Myristica fragrans</i>	Food	Planted
Tamarind	<i>Tamarindus indica</i>	Timber & food	Planted
Wara	<i>Calotropis gigantea</i>	Timber	Naturally grown

The majority of tree species found in home gardens are indigenous or endemic with multi-purpose uses. However, recently more exotic species have been introduced, especially commercial timber species. Five of the top 10 species grown in home gardens are exotic timber species. These species, namely teak, mahogany, *Albizia molucana*, *Alstonia macrophylla* and eucalyptus, account for 15 percent of the total number of trees recorded in this assessment.

Species distribution

Species distribution across the districts

The highest number of species as well as the highest species density are found in the wet zone districts followed by the intermediate and dry zones. Species richness in the wet and intermediate zones can be attributed to favourable climatic conditions and the limited availability of land resources in these areas. Table 9 shows species distribution in the 23 administrative districts.

Table 9. Distribution of species by district

Species name	Category	Ampara	Anuradhapura	Badulla	Batticaloa	Colombo	Galle	Gampaha	Hambantota	Kegalle	Kalutara	Kandy	Kurunegala
<i>Cocos nucifera</i>	TF	294 740	896 581	201 664	191 909	766 347	1 344 331	5 983 263	2 114 070	2 933 130	1 121 499	596 445	14 819 721
<i>Hevea brasiliensis</i>	T			32 638		700 904	473 074	1 033 769	2	5 100 631	6 118 246	18 546	207 792
<i>Artocarpus heterophyllus</i>	TF	156 962	290 289	774 348	17 477	189 411	617 912	504 232	769 287	1 428 971	707 865	921 442	960 332
<i>Areca catechu</i>	F	22 549	21 203	3 941 899	536	123 410	254 106	404 792	152 447	1 354 372	152 969	740 489	361 958
<i>Swietenia macrophylla</i>	T	9	1 652	9 525		21 047	94 880	159 430	4 913	5 204 782	210 355	143 372	255 520
<i>Alstonia macrophylla</i>	T	17 180	16 600	11 599		50 416	1 068 754	210 415	20 887	1 949 151	789 288	361 407	81 689
<i>Mangifera indica</i>	TF	174 743	465 356	354 161	38 011	163 071	263 360	381 062	396 889	366 781	177 553	326 843	912 947
<i>Albizia molucana</i>	T	124 600		82 086		17 139	3 045 024	10 313	182 688	616 913	3 524	390 562	95 756
<i>Eucalyptus spp.</i>	T	8 732	168 143	1 939 025	12 475	28	18	113	6 255	310 609	969	343 519	4 077
<i>Tectona grandis</i>	T	121 947	258 026	131 732	6 292	8 856	11 075	133 550	221 386	159 893	10 477	56 818	864 399
<i>Azadirachta indica</i>	T	107 996	666 367	40 464	44 222	8 268	2 711	23 235	310 966	3 484	5 401	13 334	917 815
<i>Anacardium occidentale</i>	TF	10 584	141 339	24 702	21 160	19 286	30 396	363 316	248 480	137 517	35 045	38 773	970 412
<i>Citrus aurantifolia</i>	F	198 971	245 812	120 297	3 575	29 185	22 221	51 650	103 602	78 071	102 415	46 089	327 397
<i>Melia dubia</i>	T	109 856	8 616	113 318		36 433	4 013	256 386	195 269	544 060	117 175	116 399	267 998
<i>Drypetes sepiaria</i>	T	12 887	413 671						18 082				7 658
<i>Psidium guajva</i>	F	28 209	215 724	128 912	8 226	34 801	82 674	179 917	63 156	87 128	126 516	77 962	250 144
<i>Caryota urens</i>	TF	3 315	17 190	198 432	6 956	4 445	43 878	16 074	25 476	668 168	44 526	167 668	40 919
<i>Chloroxylon swietenia</i>	T	144 292	327 873	96 520	3 421				144 928				41 614
<i>Citrus cinensis</i>	F	68 509	144 213	139 290	6 351	7 752	32 045	18 522	122 049	41 516	22 074	90 662	229 257
<i>Grevillea robusta</i>	T	24		994 229						2 790		215 348	
<i>Bambusa vulgaris</i>	T	17 602	972	25 863		23 609	7 900	204 852	73 286	67 943	26 722	150 397	49 802
<i>Hevea brasiliensis</i>	T		1 300	54 443					15 800			14 280	
<i>Berrya cordifolia</i>	T	40 658	176 404	11 667	2 125				22 785				514 174
<i>Nephelium lappaceum</i>	TF	68		485		48 418	37 446	234 122	7 877	295 102	215 391	27 106	31 935
<i>Toona sinensis</i>	T			451 538						71 106		135 964	
<i>Grewia damine</i>	T	252 021	137 926	27 440					9 698				34 128

Species name	Category	Mulativu	Monaragala	Mannar	Matale	Matara	N'Eliya	Polonnaruwa	Puttalam	Ratnapura	Tricomalle	Vavunia	TOTAL
<i>Cocos nucifera</i>	TF	8 412	786 512	9 372	1 503 995	1 483 723	96 634	351 861	1 789 837	1 195 674	110 027	16 902	38 616 649
<i>Hevea brasiliensis</i>	T		73 779		246 778	263 216	22 300			2 809 813			17 101 488
<i>Artocarpus heterophyllus</i>	TF	1 655	487 738	805	776 470	487 840	396 074	127 437	93 718	709 738	11 543	5 596	10 437 142
<i>Areca catechu</i>	F		393 122		682 307	299 914	137 249	8 936	3 862	633 204	3 003	5 617	9 697 944
<i>Swietenia macrophylla</i>	T		19 010		51 143	86 325	14 136	387	1 225	132 505	7	25	6 410 248
<i>Alstonia macrophylla</i>	T		7 190		49 847	523 925	106 585		989	702 364			5 968 286
<i>Mangifera indica</i>	TF	3 040	314 753	2 784	232 006	193 042	140 543	136 032	179 329	357 215	19 966	8 201	5 607 688
<i>Albizia molucana</i>	T		184 376		59 000	297 366	244 352		1 320	252 562			5 607 581
<i>Eucalyptus spp.</i>	T		45 012		117 316	15 916	1 049 067	4 245	3 864	30 826	238	744	4 061 191
<i>Tectona grandis</i>	T	44 625	501 725		327 605	65 081	11 240	71 277	137 780	134 056	13 672	2 097	3 293 609
<i>Azadirachta indica</i>	T	1 666	152 441	2 318	154 866	19 466	12 614	198 739	302 951	18 435	30 287	6 886	3 044 932
<i>Anacardium occidentale</i>	TF		89 511		60 037	64 452	1 766	79 952	496 103	164 050	4 032	327	3 001 240
<i>Citrus aurantifolia</i>	F		677 613	1 224	98 669	13 468	6 131	80 073	79 289	191 198	3 299	4 138	2 484 387
<i>Melia dubia</i>	T		55 431		228 256	30 204	8 148	6 344	13 496	237 793	50		2 349 245
<i>Drypetes sepiaria</i>	T	120	1 510 931		6 577			34 251	68 780		253	180	2 073 390
<i>Psidium guajva</i>	F		91 821	2 271	87 711	33 581	45 149	44 371	93 062	98 777	6 946	2 968	1 790 026
<i>Caryota urens</i>	TF		63 050		75 613	74 420	81 500	677	253	218 406	41	9	1 751 016
<i>Chloroxylon swietenia</i>	T	396	410 003	249	166 749	2		39 088	88 506	16 788	8 092	1 382	1 489 903
<i>Citrus cinensis</i>	F		140 124	953	103 847	17 681	37 032	56 691	76 232	106 261	2 992	4 330	1 468 383
<i>Grevillea robusta</i>	T				52 248	1 420	191 646			3 016			1 460 721
<i>Bambusa vulgaris</i>	T		16 344		43 782	43 335	3 055	891	8 102	568 316		300	1 333 073
<i>Hevea brasilienses</i>	T		392 673		771 822			250	2 317				1 252 885
<i>Berrya cordifolia</i>	T	519	70 700		203 556		87	46 567	79 266	8 785	8 018	155	1 185 466
<i>Nephelium lappaceum</i>	TF		1 195		8 866	62 371	4 913	22	1 948	200 655			1 177 920
<i>Toona sinensis</i>	T				2 415		360 084			2 664			1 023 771
<i>Grewia damine</i>	T		114 480		410 073			157	9 202	6 500			1 001 625

Species distribution across the climatic zones

The wet zone receives an annual rainfall of over 2 500 mm while the intermediate zone, which lies between the dry and wet zones, receives an annual rainfall of 1 000 to 2 500 mm. The dry zone, which has a prolonged dry period of about eight months, has an annual rainfall of less than 1 000 mm. Natural vegetation has a distinct variation among these climatic zones; this is also common to the home gardens species. Figure 6 shows the climatic zones of Sri Lanka.

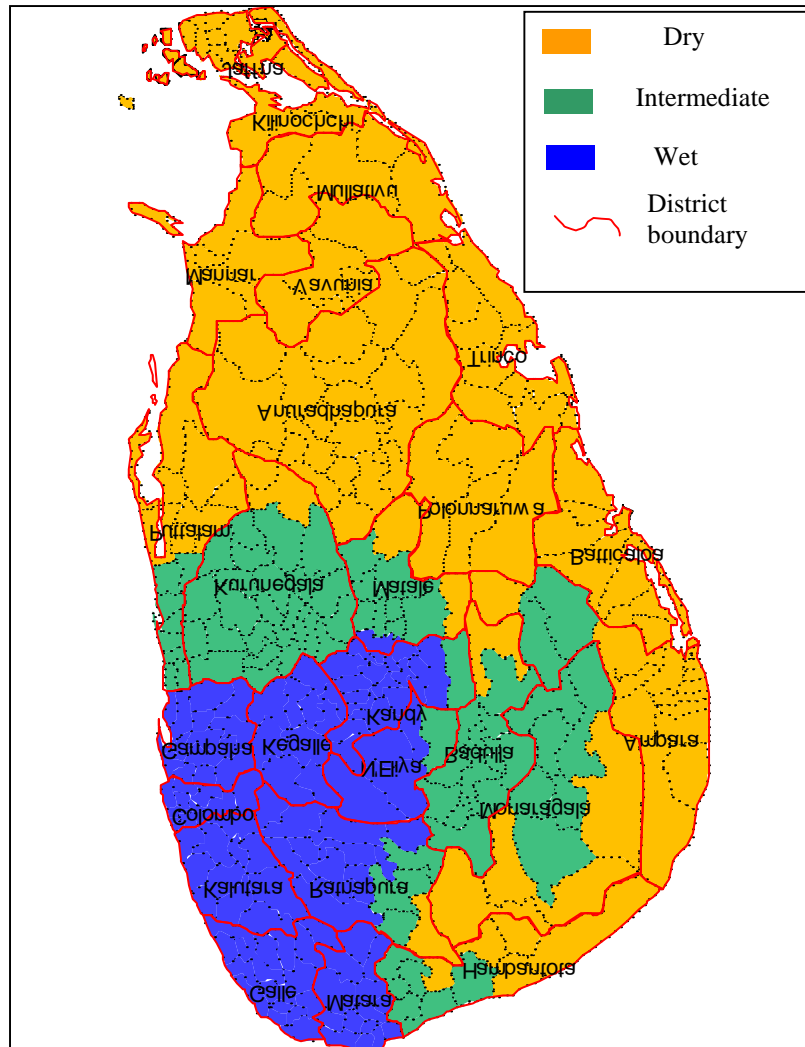


Figure 6. Climatic zones of Sri Lanka

Although the wet zone is significantly smaller in extent than the dry zone, the total number of trees recorded within the wet zone is much higher. Table 10 shows species distribution by climatic zone. Of the most common 25 species, in terms of frequency of occurrence, 21 are found in all three climatic zones.

Table 10. Species distribution by climatic zones

Local	Species name Botanical	Family	Category	Climatic zone			TOTAL
				Dry	Intermediate	Wet	
Coconut	<i>Cocos nucifera</i>	Palme	TF	4 076 864	19 374 595	15 165 190	38 616 649
Rubber	<i>Hevea brasiliensis</i>	Euphorbiaceae	T		546 462	16 555 026	17 101 488
Jak	<i>Artocarpus heterophyllus</i>	Moraceae	TF	939 897	3 766 554	5 730 691	10 437 142
Arecanut	<i>Areca catechu</i>	Palme	F	122 326	5 525 287	4 050 331	9 697 944
Mahogany	<i>Swietenia macrophylla</i>	Meliaceae	T	17 725	345 318	6 047 205	6 410 248
Alstonia	<i>Alstonia macrophylla</i>	Apocynaceae	T	18 769	179 834	5 769 683	5 968 286
Mango	<i>Mangifera indica</i>	Anacardiaceae	TF	1305 958	2098 463	2 203 267	5 607 688
Albizzia_1	<i>Albizzia molucana</i>	Fabaceae	T		719 168	4 888 413	5 607 581
Eucalyptus	<i>Eucalyptus spp</i>	Myrtaceae	T	223 379	2283 664	1 554 148	4 061 191
Teak	<i>Tectona grandis</i>	Verbenaceae	T	1041 644	1798 222	453 743	3 293 609
Margosa	<i>Azadirachta indica</i>	Meliaceae	T	1940 525	1021 131	83 276	3 044 932
Cashew	<i>Anacardium occidentale</i>	Anacardiaceae	TF	870 053	1347 071	784 116	3 001 240
Lime	<i>Citrus aurantifolia</i>	Rutaceae	F	711 238	1277 922	495 227	2 484 387
Lunumidella	<i>Melia dubia</i>	Meliaceae	T	113 111	941 047	1 295 087	2 349 245
Weera	<i>Drypetes sepiaria</i>	Euphorbiaceae	T	1311 965	761 425		2 073 390
Guava	<i>Psidium guajava</i>	Myrtaceae	F	452 232	596 732	741 062	1 790 026
Kitul	<i>Caryota urens</i>	Palme	TF	34 888	385 086	1 331 042	1 751 016
Satin	<i>Chloroxylon swietenia</i>	Rutaceae	T	883 917	605 984	2	1 489 903
Orange	<i>Citrus cinensis</i>	Rutaceae	F	381 692	746 938	339 753	1 468 383
Sabukku	<i>Grevillea robusta</i>	Proteaceae	T	24	1112 562	348 135	1 460 721
Bamboo	<i>Bambusa vulgaris</i>	Bambusaceae	T	38 442	197 606	1 097 025	1 333 073
Gliricidia	<i>Gliricidia sepium</i> L.	Euphorbiaceae	T	273 691	964 914	14 280	1 252 885
Halmilla	<i>Berrya cordifolia</i>	Tiliaceae	T	422 079	763 300	87	1 185 466
Rambutan	<i>Nephelium lappaceum</i>	Sapindaceae	TF	214	51 100	1 126 606	1 177 920
Toona	<i>Toona sinensis</i>	Meliaceae	T		495 637	528 134	1 023 771
Daminiya	<i>Grewia damine</i>	Tiliaceae	T	207 175	794 450		1 001 625
Butter Fruit	<i>Persea americana</i>	Lauraceae	F	9 248	372 918	603 995	986 161
Wood apple	<i>Limonia acidissima</i>	Rutaceae	TF	669 231	279 283	238	948 752
Del	<i>Artocarpus altifolius</i>	Moraceae	TF	63 355	235 932	611 186	910 473
Hora	<i>Dipterocarpus zeylanicus</i>	Dipterocarpaceae	T	917	104 481	760 039	865 437
Milla	<i>Vitex altissima</i>	Verbenaceae	T	189 607	299 336	285 476	774 419
Ketakela	<i>Bridelia retusa</i>	Euphorbiaceae	T	169 508	585 496	5 238	760 242
Tamarind	<i>Tamarindus indica</i>	Fabaceae	TF	270 467	356 427	63 028	689 922
Kumbuk	<i>Terminalia arjuna</i>	Combrigitaceae	T	450 907	235 589	457	686 953
Kon	<i>Schleichera oleosa</i>	Sapindaceae	T	271 505	393 029	2	664 536
Damba	<i>Syzygium assimile</i>	Myrtaceae	T	266 685	360 436		627 121
Murunga	<i>Moringa oleifera</i>	Moringaceae	F	369 425	251 859		621 284
Helamba	<i>Mitragyna parvifolia</i>	Rubiaceae	T	569 670	32 783		602 453
Palu	<i>Manilkara hexandra</i>	Sapotaceae	T	577 699	22 199		599 898
Welang	<i>Pterospermum suberifolium</i>	Sterculiaceae	T	436 613	127 818		564 431
Kolon	<i>Adina cordifolia</i>	Rubiaceae	T	191 397	357 067		548 464
Suriyamara	<i>Albizzia odoratissima</i>	Fabaceae	T	189 289	319 418	884	509 591
Nedun	<i>Pericopsis mooniana</i>	Fabaceae	T	403	8 350	464 655	473 408
Jambu	<i>Syzygium malaccensis</i>	Myrtaceae	F	156 214	105 348	202 123	463 685
Aralu	<i>Terminalia chebula</i>	Combrigitaceae	TF	139	436 160		436 299
Gini sapu	<i>Michelia champaca</i>	Magnoliaceae	T	19	123 735	291 519	415 273
Kaduru	<i>Thevetia peruviana</i>	Apocynaceae	T	252 362	130 152		382 514
Ipil Ipil	<i>Leucaena leucocephala</i>	Fabaceae	T	307 438	65 983		373 421
Gammalu	<i>Pterocarpus marsupium</i>	Fabaceae	T	28 920	321 521		350 441
Anoda	<i>Anona cherimolia</i>	Annonaceae	F	80 603	79 139	166 153	325 895
Mee	<i>Madhuca longifolia</i>	Sapotaceae	T	173 848	123 600	939	298 387
Cocoa	<i>Theobroma cacao</i>	Sterculiaceae	F	10	258 808	680	259 498
Mora	<i>Dimocarpus longana</i>	Sapindaceae	TF	75 036	177 568	7	252 611
Kenda	<i>Macaranga peltata</i>	Euphorbiaceae	T	402	198 306	45 312	244 020
Veralu	<i>Elaeocarpus serratus</i>	Elaeocarpaceae	F	977	25 313	208 364	234 654
Gansuriya	<i>Thespesia populnea</i>	Malvaceae	T	89 506	113 347		202 853
Delum	<i>Punica granatum</i>	Panicaceae	F	157 344	40 457	140	197 941
Kottamba	<i>Terminalia catappa</i>	Combrigitaceae	T	17 906	39 346	129 413	186 665
Pihimbiya	<i>Filicium decipiens</i>	Sapindaceae	T	1 706	20 122	163 130	184 958
Bulu	<i>Terminalia bellirica</i>	Combrigitaceae	T	24 938	155 752		180 690
Ebony	<i>Diospyros ebenum</i>	Ebenaceae	T	84 297	89 708		174 005
Godapara	<i>Dillenia retusa</i>	Dilleniaceae	T		1 515	170 422	171 937
Domba	<i>Calophyllum inophyllum</i>	Clusiaceae	T	2 460	14 255	151 032	167 747
Beli	<i>Aegle marmelos</i>	Myrtaceae	F	95 258	66 602	3 858	165 718
Kahata	<i>Careya arborea</i>	Lecythidaceae	T	1 106	110 667	53 521	165 294
Wewarana	<i>Alseodaphne semicarpifolia</i>	Lauraceae	T	112 583	50 298		162 881
Hik	<i>Lannea coromandelica</i>	Anacardiaceae	T	125 512	18 749	4 816	149 077
Ehela	<i>Cassia fistula</i>	Fabaceae	T	48 933	92 032		140 965
Hulanhik	<i>Chukrasia tabularis</i>	Meliaceae	T	40 769	90 731		131 500
Palmaidah	<i>Borreria flabellifer</i>	Palme	TF	122 031	5 309		127 340
Nelli	<i>Phyllanthus emblica</i>	Euphorbiaceae	F	6 300	110 408	20	116 728
Ambarella	<i>Spondias dulcis</i>	Anacardiaceae	F	3 614	8 757	73 829	86 200
Albizzia_2	<i>Albizzia lebeck</i>	Fabaceae	T	57 651	12 459		70 110
Gal siyambala	<i>Dialium ovoideum</i>	Fabaceae	TF	3 876	53 427	1	57 304
Etamba	<i>Mangifera zeylanica</i>	Anacardiaceae	TF	12 008	40 080	15	52 103
Coffee	<i>Coffea arabica</i>	Rubiaceae	F	8 031	27 605	5 300	40 936

TOTAL				22 175 531	56 250 152	75 067 321	153 493 004
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Species distribution according to girth classes

Data were collected according to two different girth classes (below and above 30 cm girth). Most species have higher numbers of trees in the lower diameter class indicating the sustainable nature of home gardens. Notable differences are *Albizzia molucana*, eucalyptus, *Gravilia robusta* and *Toona sinensis*, which exhibit bigger trees. The four species are exotics and were not grown traditionally in home gardens until recently. Using multi-purpose tree species for smaller-diameter timber is not common as they are grown primarily for other products (e.g. coconut, rubber, jak and mango). Exotic timber species, on the other hand, are used for poles and small-diameter timber as and when required. This may explain to some extent the lower number of smaller diameter trees of exotic species.

The girth classes for coconut are of little use as an indicator of sustainable management, as coconuts have a girth exceeding 30 cm at all stages of growth. Small-scale rubber planting in home gardens and adjoining areas declined over the years owing to the uncertainty of rubber prices. Many former rubber areas have been converted to tea and cinnamon in the recent past. The lower number of small-diameter rubber trees is probably attributable to the decline in interest in rubber. Table 11 shows the total number of trees in each girth class.

Table 11. Tree distribution according to girth classes

Local	Species Name	Family	Category	Girth class		Total
	Botanical			>30cm	<30 cm	
Coconut	<i>Cocos nucifera</i>	Palme	TF	29 362 285	9 254 334	38 616 649
Rubber	<i>Hevea brasiliensis</i>	Euphorbiaceae	T	10 691 775	6 409 713	17 101 488
Jak	<i>Artocarpus heterophyllus</i>	Moraceae	TF	5 515 990	4 921 152	10 437 142
Arecanut	<i>Areca catechu</i>	Palme	F	2 661 675	7 036 269	9 697 944
Mahogany	<i>Swietenia macrophylla</i>	Meliaceae	T	1 105 066	5 305 182	6 410 248
Alstonia	<i>Alstonia macrophylla</i>	Apocynaceae	T	2 719 116	3 249 170	5 968 286
Mango	<i>Mangifera indica</i>	Anacardiaceae	TF	2 933 572	2 674 116	5 607 688
Albizzia_1	<i>Albizzia molucana</i>	Fabaceae	T	4 148 863	1 458 678	5 607 581
Eucalyptus	<i>Eucalyptus spp.</i>	Myrtaceae	T	2 408 844	1 652 347	4 061 191
Teak	<i>Tectona grandis</i>	Verbenaceae	T	1 522 317	1 771 292	3 293 609
Margosa	<i>Azadirachta indica</i>	Meliaceae	T	1 357 844	1 687 088	3 044 932
Cashew	<i>Anacardium occidentale</i>	Anacardiaceae	TF	1 151 863	1 849 377	3 001 240
Lime	<i>Citrus aurantifolia</i>	Rutaceae	F	12 013	2 472 374	2 484 387
Lunumidella	<i>Melia dubia</i>	Meliaceae	T	1 251 112	1 098 133	2 349 245
Weera	<i>Drypetes sepiaria</i>	Euphorbiaceae	T	3 974 874	11 481 516	2 073 390
Guava	<i>Psidium guajva</i>	Myrtaceae	F	70 716	1 719 310	1 790 026
Kitul	<i>Caryota urens</i>	Palme	TF	809 525	941 491	1 751 016
Satin	<i>Chloroxylon swietenia</i>	Rutaceae	T	713 782	776 121	1 489 903
Orange	<i>Citrus chinensis</i>	Rutaceae	F	20 790	1 447 593	1 468 383
Sabukku	<i>Grevillea robusta</i>	Proteaceae	T	891 560	569 161	1 460 721
Bamboo	<i>Bambusa vulgaris</i>	Bambusaceae	T	369 924	963 149	1 333 073
Gliricidia	<i>Gliricidia sepium</i> L..	Euphorbiaceae	T	434 510	818 375	1 252 885
Halmilla	<i>Berrya cordifolia</i>	Tiliaceae	T	503 663	681 803	1 185 466
Rambutan	<i>Nephelium lappaceum</i>	Sapindaceae	TF	531 295	646 625	1 177 920
Toona	<i>Toona sinensis</i>	Meliaceae	T	639 165	384 606	1 023 771
Daminiya	<i>Grewia damine</i>	Tiliaceae	T	372 663	628 962	1 001 625
Butter fruit	<i>Persea americana</i>	Lauraceae	F	229 473	756 688	986 161
Wood apple	<i>Limonia acidissima</i>	Rutaceae	TF	320 223	628 529	948 752
Del	<i>Artocarpus altilis</i>	Moraceae	TF	503 085	407 388	910 473
Hora	<i>Dipterocarpus zeylanicus</i>	Dipterocarpaceae	T	373 536	491 901	865 437
Milla	<i>Vitex altissima</i>	Verbenaceae	T	345 797	428 622	774 419
Ketakela	<i>Bridelia retusa</i>	Euphorbiaceae	T	337 088	423 154	760 242
Tamarind	<i>Tamarindus indica</i>	Fabaceae	TF	272 991	416 931	689 922
Kumbuk	<i>Terminalia arjuna</i>	Combritaceae	T	324 890	362 063	686 953
Kon	<i>Schleichera oleosa</i>	Sapindaceae	T	285 113	379 423	664 536
Damba	<i>Syzygium assimile</i>	Myrtaceae	T	250 691	376 430	627 121
Murunga	<i>Moringa oleifera</i>	Moringaceae	F	23 013	598 271	621 284
Helamba	<i>Mitragyna parvifolia</i>	Rubiaceae	T	418 297	184 156	602 453
Palu	<i>Manilkara hexandra</i>	Sapotaceae	T	342 959	256 939	599 898
Welang	<i>Pterospermum suberifolium</i>	Sterculiaceae	T	208 850	355 581	564 431

Kolon	<i>Adina cordifolia</i>	Rubiaceae	T	267 154	281 310	548 464
Suriyamaru	<i>Albizia odoratissima</i>	Fabaceae	T	235 364	274 227	509 591
Nedun	<i>Pericopsis mooniana</i>	Fabaceae	T	183 924	289 484	473 408
Jambu	<i>Syzygium malaccensis</i>	Myrtaceae	F	42 706	420 979	463 685
Aralu	<i>Terminalia chebula</i>	Combricaceae	TF	191 813	244 486	436 299
Gini sapu	<i>Michelia champaca</i>	Magnoliaceae	T	228 338	186 935	415 273
Kaduru	<i>Thevetia peruviana</i>	Apocynaceae	T	121 434	261 080	382 514
Ipil Ipil	<i>Leucaena leucocephala</i>	Fabaceae	T	163 087	210 334	373 421
Gammalu	<i>Pterocarpus marsupium</i>	Fabaceae	T	159 744	190 697	350 441
Anoda	<i>Anona cherimolia</i>	Annonaceae	F	6 050	319 845	325 895
Mee	<i>Madhuca longifolia</i>	Sapotaceae	T	175 665	122 722	298 387
Cocoa	<i>Theobroma cacao</i>	Sterculiaceae	F	36	259 462	259 498
Mora	<i>Dimocarpus longana</i>	Sapindaceae	TF	135 792	116 819	252 611
Kenda	<i>Macaranga peltata</i>	Euphorbiaceae	T	104 192	139 828	244 020
Veralu	<i>Elaeocarpus serratus</i>	Elaeocarpaceae	F	89 735	144 919	234 654
Gansuriya	<i>Thespesia populnea</i>	Malvaceae	T	102 219	100 634	202 853
Delum	<i>Punica granatum</i>	Panicaceae	F	30	197 911	197 941
Kottamba	<i>Terminalia catappa</i>	Combricaceae	T	92 201	94 464	186 665
Pihimbiya	<i>Filicium decipiens</i>	Sapindaceae	T	70 306	114 652	184 958
Bulu	<i>Terminalia bellirica</i>	Combricaceae	T	55 994	124 696	180 690
Ebony	<i>Diospyros ebenum</i>	Ebenaceae	T	89 507	84 498	174 005
Godapara	<i>Dillenia retusa</i>	Dilleniaceae	T	81 872	90 065	171 937
Domba	<i>Calophyllum inophyllum</i>	Clusiaceae	T	72 204	95 543	167 747
Beli	<i>Aegle marmelos</i>	Myrtaceae	F	23 106	142 615	165 718
Kahata	<i>Careya arborea</i>	Lecythidaceae	T	74 341	90 953	165 294
Wewarana	<i>Alseodaphne semicarpifolia</i>	Lauraceae	T	25 774	137 107	162 881
Hik	<i>Lannea coromandelica</i>	Anacardiaceae	T	121 229	27 848	149 077
Ehela	<i>Cassia fistula</i>	Fabaceae	T	49 382	91 583	140 965
Hulanhik	<i>Chukrasia tabularis</i>	Meliaceae	T	58 782	72 718	131 500
Palmaidah	<i>Borreria flabellifer</i>	Palme	TF	65 190	62 150	127 340
Nelli	<i>Phyllanthus emblica</i>	Euphorbiaceae	F	24 279	92 449	116 728
Ambarella	<i>Spondias dulcis</i>	Anacardiaceae	F	18 663	67 537	86 200
Albizzia_2	<i>Albizzia lebeck</i>	Fabaceae	T	17 018	53 092	70 110
Gal siyambala	<i>Dialium ovoideum</i>	Fabaceae	TF	35 071	22 233	57 304
Etamba	<i>Mangifera zeylanica</i>	Anacardiaceae	TF	16 395	35 708	52 103
Coffee	<i>Coffea arabica</i>	Rubiaceae	F		40 936	40 936

Species density

The total number of trees reported in the survey was used to calculate the district base species density in home gardens. Unusually low densities appear in the northern and eastern administrative districts due to the partial coverage of the area. Although there are some variations, the average density is about 200 trees per hectare. Tree density is highest in the wet zone districts followed by the intermediate and dry zones (Table 12).

Table 12. Tree density in different districts and climatic zones

District	Land area (ha)	Area of home gardens (ha)	Home gardens%	Total no. of trees	Tree density/ha	Population	Climatic zone
Kegalle	168 328	46 782	27.8	22 226 316	475	779 000	Wet
Matale	206 050	20 258	9.8	8 019 140	396	442 000	Intermediate/dry
Nuwara Eliya	174 109	9 172	5.3	3 541 264	386	700 000	Wet
Kurunegula	489 787	72 892	14.9	23 505 457	322	1 452 000	Intermediate/dry
Kalutara	164 391	33 156	20.2	10 533 752	318	1 060 000	Wet
Ampara	450 031	16 245	3.6	4 684 499	288	589 000	Dry
Colombo	68 469	8 577	12.5	2 427 509	283	2 234 000	Wet
Badulla	285 673	50 764	17.8	12 286 263	242	775 000	Intermediate/dry
Gampaha	141 890	56 884	40.1	11 057 048	194	2 066 000	Wet
Moneragala	576 763	56 739	9.8	10 905 497	192	396 000	Dry
Ratnapura	327 034	56 462	17.3	9 732 963	172	1 008 000	Wet
Galle+Matara	292 085	99 000	33.9	15 799 018	160	1 752 000	Wet
Hambantota	262 307	44 922	17.1	6 315 661	141	525 000	Dry
Anuradhapura	722 178	56 143	7.8	7 820 520	139	746 000	Dry
Kandy	192 808	61 029	31.7	5 694 609	93	1 272 000	Wet
Puttalam*	315 848	64 747	20.5	4 411 647	68	705 000	Dry
Polonnaruwa	344 988	36 180	10.5	1 730 037	48	359 000	Dry
Batticaloa*	263 983	14 359	5.4	446 427	31	486 000	Dry
Trincomalee*	267 991	14 083	5.3	281 137	20	340 000	Dry

TOTAL/AVG	5 714 713	818 394	14.3	161 418 764	197
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* The entire area is not covered by the study for security reasons

Galle and Matara are adjoining districts and were administered as one forest division at the time of the assessment. The average tree density in the dry zone is around 125 trees per hectare. More than 260 trees per hectare are found in the wet zone. Tree density in Kandy is unusually low despite the fact that the well-known Kandyan Forest Gardens are found in this area. Polonnaruwa is the other district with very low density. These differences cannot be explained with the available data.

Most home garden tree species are well distributed over the country and are found in all three climatic zones (Table 13). Geographical distribution and the tree density of the most common home garden species are shown in Appendix 2.

Table 13. Distribution of species within the study area

Species name		Category	No. of DS divisions where species are present	Distribution as a % of total area
Local	Botanical			
Mango	<i>Mangifera indica</i>	TF	241	92.3
Jak	<i>Artocarpus heterophyllus</i>	TF	240	92.0
Coconut	<i>Cocos nucifera</i>	TF	232	88.9
Orange	<i>Citrus cinensis</i>	F	227	87.0
Guava	<i>Psidium guajva</i>	F	220	84.3
Teak	<i>Tectona grandis</i>	T	217	83.1
Lime	<i>Citrus aurantifolia</i>	F	214	82.0
Margosa	<i>Azadirachta indica</i>	T	213	81.6
Cashew	<i>Anacardium occidentale</i>	TF	211	80.8
Tamarind	<i>Tamarindus indica</i>	TF	211	80.8
Arecanut	<i>Areca catechu</i>	F	188	72.0
Del	<i>Artocarpus altilis</i>	TF	171	65.5
Butter fruit	<i>Persea americana</i>	F	170	65.1
Lunumidella	<i>Melia dubia</i>	T	168	64.4
Mahogany	<i>Swietenia macrophylla</i>	T	165	63.2
Anoda	<i>Anona cherimolia</i>	F	164	62.8
Jambu	<i>Syzygium malaccensis</i>	F	163	62.5
Alstonia	<i>Alstonia macrophylla</i>	T	159	60.9
Milla	<i>Vitex altissima</i>	T	156	59.8
Kitul	<i>Caryota urens</i>	TF	155	59.4
Veralu	<i>Elaeocarpus serratus</i>	F	148	56.7
Rambutan	<i>Nephelium lappaceum</i>	TF	142	54.4
Ambarella	<i>Spondias dulcis</i>	F	130	49.8
Suriyamara	<i>Albizia odoratissima</i>	T	120	46.0
Eucalyptus	<i>Eucalyptus</i> spp.	T	114	43.7
Domba	<i>Calophyllum inophyllum</i>	T	111	42.5
Bamboo	<i>Bambusa vulgaris</i>	T	104	39.8
Kottamba	<i>Terminalia catappa</i>	T	104	39.8
Halmilla	<i>Berrya cordifolia</i>	T	101	38.7
Albizzia_1	<i>Albizia molucana</i>	T	98	37.5
Satin	<i>Chloroxylon swietenia</i>	T	98	37.5
Nedun	<i>Pericopsis mooniana</i>	T	95	36.4
Kumbuk	<i>Terminalia arjuna</i>	T	93	35.6
Pihimbiya	<i>Filicium decipiens</i>	T	88	33.7
Beli	<i>Aegle marmelos</i>	F	87	33.3
Wood apple	<i>Limonia acidissima</i>	TF	85	32.6
Kon	<i>Schleichera oleosa</i>	T	83	31.8
Mee	<i>Madhuca longifolia</i>	T	81	31.0

Rubber	<i>Hevea brasiliensis</i>	T	81	31.0
Hora	<i>Dipterocarpus zeylanicus</i>	T	79	30.3
Palu	<i>Manilkara hexandra</i>	T	77	29.5
Delum	<i>Punica granatum</i>	F	76	29.1
Murunga	<i>Moringa oleifera</i>	F	76	29.1
Palmaidah	<i>Borrassus flabellifer</i>	TF	69	26.4
Ketakela	<i>Bridelia retusa</i>	T	68	26.1
Helamba	<i>Mitragyna parvifolia</i>	T	63	24.1
Kolon	<i>Adina cordifolia</i>	T	60	23.0
Gansuriya	<i>Thespesia populnea</i>	T	59	22.6
Ebony	<i>Diospyros ebenum</i>	T	58	22.2
Godapara	<i>Dillenia retusa</i>	T	58	22.2
Ipil Ipil	<i>Leucaena leucocephala</i>	T	54	20.7
Damba	<i>Syzygium assimile</i>	T	51	19.5
Kahata	<i>Careya arborea</i>	T	51	19.5
Ehela	<i>Cassia fistula</i>	T	50	19.2
Weera	<i>Drypetes sepiaria</i>	T	49	18.8
Daminiya	<i>Grewia damine</i>	T	47	18.0
Nelli	<i>Phyllanthus emblica</i>	F	45	17.2
Bulu	<i>Terminalia bellirica</i>	T	41	15.7
Hik	<i>Lannea coromandelica</i>	T	38	14.6
Hulanhik	<i>Chukrasia tabularis</i>	T	38	14.6
Sabukku	<i>Grevillea robusta</i>	T	36	13.8
Wewarana	<i>Alseodaphne semicarpifolia</i>	T	36	13.8
Kaduru	<i>Thevetia peruviana</i>	T	34	13.0
Toona	<i>Toona sinensis</i>	T	34	13.0
Welang	<i>Pterospermum suberifolium</i>	T	32	12.3
Mora	<i>Dimocarpus longana</i>	TF	23	8.8
Gammalu	<i>Pterocarpus marsupium</i>	T	18	6.9
Kenda	<i>Macaranga peltata</i>	T	18	6.9
Etamba	<i>Mangifera zeylanica</i>	TF	16	6.1
Gal siyambala	<i>Dialium ovoideum</i>	TF	13	5.0
Albizia_2	<i>Albizia lebbbeck</i>	T	12	4.6
Cocoa	<i>Theobroma cacao</i>	F	12	4.6
Gliricidia	<i>Gliricidia sepium</i> L.	T	12	4.6
Aralu	<i>Terminalia chebula</i>	TF	10	3.8
Gini sapu	<i>Michelia champaca</i>	T	9	3.4
Coffee	<i>Coffea arabica</i>	F	8	3.1

The 11 most valuable timber species can be found in more than 60 percent of the study area. Wood is used for all kinds of construction purposes, furniture and handicrafts. Table 14 shows the market prices of logs and timber classes of the most valuable home garden tree species. These are the prevailing log prices and timber classes of the State Timber Corporation (STC) and tend to change with market demand. Open market prices are somewhat higher than the STC prices.

Table 14. Most valuable timber species found in home gardens

Species name		Origin	Timber class	Log price/m ³ (Rs.)
Local	Botanical			
Teak	<i>Tectona grandis</i>	Planted	Super luxury	23 040
Nedun	<i>Pericopsis mooniana</i>	Naturally grown/planted	Super luxury	23 040
Jak	<i>Artocarpus heterophyllus</i>	Planted	Luxury	15 120
Mahogany	<i>Swietenia macrophylla</i>	Planted	Luxury	14 760
Satin	<i>Chloroxylon swietenia</i>	Naturally grown	Luxury	15 180
Halmilla	<i>Berrya cordifolia</i>	Naturally grown/planted	Luxury	15 180
Milla	<i>Vitex altissima</i>	Naturally grown	Luxury	15 180
Eucalyptus	<i>Eucalyptus</i> spp.	Planted	Special & 2	5 700
Margosa	<i>Azadirachta indica</i>	Naturally grown/planted	Special	14 220
Kumbuk	<i>Terminalia arjuna</i>	Naturally grown/planted	Special	11 340

Palu	<i>Manilkara hexandra</i>	Naturally grown	Special	14 220
Welang	<i>Pterospermum suberifolium</i>	Naturally grown	Special	14 220
Kolon	<i>Adina cordifolia</i>	Naturally grown	Special	14 220
Suriyama	<i>Albizia odoratissima</i>	Naturally grown	Special	14 220
Hora	<i>Dipterocarpus zeylanicus</i>	Naturally grown/planted	1	7 740
Ketakela	<i>Bridelia retusa</i>	Naturally grown	1	7 740
Kon	<i>Schleichera oleosa</i>	Naturally grown	1	7 740
Damba	<i>Syzygium assimile</i>	Naturally grown	1	7 740
Helamba	<i>Mitragyna parvifolia</i>	Naturally grown	1	7 740
Alstonia	<i>Alstonia macrophylla</i>	Planted	2	5 700
Toona	<i>Toona sinensis</i>	Naturally grown/planted	2	5 700
Coconut	<i>Cocos nucifera</i>	Planted	3	3 216
Rubber	<i>Hevea brasiliensis</i>	Planted	3	3 216
Mango	<i>Mangifera indica</i>	Planted	3	1 620
Albizzia_1	<i>Albizia molucana</i>	Planted	3	1 620
Lunumidella	<i>Melia dubia</i>	Naturally grown/planted	3	3 180
Sabukku	<i>Grevillea robusta</i>	Naturally grown/planted	3	3 180
Rambutan	<i>Nephelium lappaceum</i>	Planted	3	1 620
Daminiya	<i>Grewia damine</i>	Naturally grown	3	1 620
Tamarind	<i>Tamarindus indica</i>	Naturally grown/planted	3	1 620

Timber production potential

The contribution of home gardens to timber production is well known. The findings of this study can be used to obtain a tentative estimate of the timber production potential of home gardens in different climatic zones. Of the 76 species considered in this analysis, 61 species are capable of producing industrial timber. Species with above one million individuals and capable of producing industrial timber are shown in Table 15. There are 17 such species, which represent 83 percent of the total number of trees recorded during the survey.

The earlier FSMP studies indicated that one hectare of home gardens would produce 0.95 m³ of sawlogs and 0.5 m³ of poles per year. According to this estimate poles account for 34 percent of the total volume production. Multi-purpose tree species (e.g. jak, coconut, rubber and mango) are rarely used for poles and small-diameter timber. The bulk of poles and small-diameter timber is produced from other species, especially exotics (e.g. alstonia, eucalyptus, mahogany). The potential timber production has been calculated for each species taking into account the above facts (Table 15). In addition, it is assumed that only 40 to 70 percent of the total number of trees, depending on the species, reaches maturity to produce sawlogs. Average values have been used for the rotation age and timber volume of individual trees (volume over bark).

Table 15. Estimated sawlog production

Species name		Category	Total no. of trees	Estimated no. of trees that would reach maturity	Rotation age (years)	Timber volume per tree (m ³)	Estimated timber volume (m ³)
Local	Botanical						
Coconut	<i>Cocos nucifera</i>	Timber & food	38 616 649	27 031 654	50	0.15	81 095
Rubber	<i>Hevea brasiliensis</i>	Timber	17 101 488	10 260 893	30	0.3	102 609
Jak	<i>Artocarpus heterophyllus</i>	Timber & food	10 437 142	8 349 714	40	0.5	104 371
Mahogany	<i>Swietenia macrophylla</i>	Timber	6 410 248	2 564 099	30	0.6	51 282
Alstonia	<i>Alstonia macrophylla</i>	Timber	5 968 286	2 387 314	25	0.3	28 648
Mango	<i>Mangifera indica</i>	Timber & food	5 607 688	3 925 382	40	0.4	39 254
Albizzia_1	<i>Albizia molucana</i>	Timber	5 607 581	2 243 032	25	0.4	35 889
Eucalyptus	<i>Eucalyptus spp.</i>	Timber	4 061 191	1 624 476	25	0.6	38 987
Teak	<i>Tectona grandis</i>	Timber	3 293 609	1 317 444	35	0.6	22 585
Margosa	<i>Azadirachta indica</i>	Timber	3 044 932	2 131 452	45	0.4	18 946
Lunumidella	<i>Melia dubia</i>	Timber	2 349 245	1 409 547	25	0.4	22 553
Kitul	<i>Caryota urens</i>	Timber & food	1 751 016	1 225 711	35	0.15	5 253
Satin	<i>Chloroxylon swietenia</i>	Timber	1 489 903	1 042 932	70	0.4	5 960
Sabukku	<i>Grevillea robusta</i>	Timber	1 460 721	584 288	30	0.35	6 817

Halmilla	<i>Berrya cordifolia</i>	Timber	1 185 466	829 826	40	0.4	8 298
Rambutan	<i>Nephelium lappaceum</i>	Timber & food	1 177 920	824 544	40	0.4	8 245
Toona	<i>Toona sinensis</i>	Timber	1 023 771	511 886	25	0.4	8 190
Daminiya	<i>Grewia damine</i>	Timber	1 001 625	600 975	40	0.4	6 010
Total							594 992

Five exotic timber species (mahogany, alstonia, albizzia, eucalyptus and teak), which are later additions to the species mix of home gardens, account for 30 percent of the total timber volume produced in home gardens. Rubber alone would produce about 17 percent of the timber volume while three main multi-purpose tree species traditionally grown in home gardens (coconut, jak, and mango) would produce 38 percent of the timber volume.

The FSMP estimated the production potential of home gardens as 0.583 million m³ of sawlogs in 2000 (Table 4). The estimated volume using the data in this survey is 0.594 million m³. This is about 25 percent higher than the FSMP estimates considering that the study has covered only 87 percent of the country and the volume has been calculated only for 83 percent of the species found in home gardens.

Conclusions

Home gardens in Sri Lanka offer a highly diversified and economically viable form of land use. They produce a variety of products such as food, fruits, medicine, spices, fuelwood and timber.

There are more than 300 different woody species in home gardens and 120 of these species are common. Traditionally, coconut, jak and mango were common species. In the recent past, species composition has changed with the inclusion of commercially valuable exotic timber species such as teak, mahogany, alstonia, albizzia and eucalyptus. These five species are among the top 10 species in the order of frequency of occurrence and account for 15 percent of the total number of trees recorded in the assessment. They produce over 40 percent of the total timber volume.

The most important tree species found in home gardens in terms of producing food and timber are well distributed across the climatic zones. Twenty-two such species are distributed in excess of 50 percent of the land area. The majority of tree species, especially the ones that are grown traditionally, has more trees in lower diameter classes showing the sustainable nature of home gardens.

A conservative estimate shows that home gardens are capable of producing over 1.3 million m³ of industrial timber and fuelwood, which represents 41 percent of the national demand for industrial timber and 26 percent of the biofuel demand.

The findings of this assessment provide the basis for reviewing the current restrictions on the transport of certain timber species. The data on availability and distribution of different species in geographical areas could be used to devise an effective system to facilitate timber transport.

The assessment shows trends rather than accurate figures due to the nature and intensity of data collection. The findings, however, provide the basis for more accurate assessments especially with the use of current technology such as satellite image interpretation.

References

- Ariyadasa, K.P. 1996. Sri Lanka profile. *In Asia-Pacific agroforestry profiles: second edition*. APAN Field Document No. 4 and RAP Publication 1996/20. Bogor, Indonesia, Asia-Pacific Agroforestry Network and Bangkok, Thailand, Food and Agriculture Organization of the United Nations.
- Annual Report. 2000. Central Bank of Sri Lanka, Sri Lanka.
- Bandaratillake, H.M 2001. Impacts and effectiveness of logging bans in natural forests: Sri Lanka. *In P. Durst, T.R. Waggener, T. Enters & L.C. Tan, eds. Forest out of bounds: impacts and effectiveness of logging bans in natural forests in Asia-Pacific*. RAP Publication: 2001/08. Bangkok, Thailand, Food and Agriculture Organization of the United Nations. Pp. 137-166.
- Forestry Sector Master Plan of Sri Lanka. 1995. Ministry of Lands, Agriculture and Forestry, Sri Lanka.
- Jacob, V.J. & Alles, W.S. 1987. Kandyan gardens of Sri Lanka. *Agroforestry Systems*, 5: 123-137.
- Jewell, N. 1995. The use of Landsat TM data for estimating the area of home gardens. *The Sri Lanka Forester (The Ceylon Forester)*, 20 (3,4): 79-86.
- Legg, C. & Jewell, N. 1995. A 1:50,000-scale forest map of Sri Lanka: the basis for a national forest geographic information system. *The Sri Lanka Forester (The Ceylon Forester)*: 20 (3,4): 35-44.
- McConnell, D.A.G. & Dharmapala, K.A.B. 1973. The economic structure of Kandyan Forest Farms. The Management Report 7, UNDP/FAO, Agricultural Diversification Project, Peradeniya, Sri Lanka.
- Perera, A.H. & Rajapakse, R.M.N. 1991. A baseline study of Kandyan forest gardens of Sri Lanka: structure, composition and utilization. *For. Ecol. Manage.*,45: 269-280.

Appendix 1: Most common tree species in home gardens in Sri Lanka

Species Name		Family	Total number of Trees	Tree category
Local	Botanical			
Coconut	<i>Cocos nucifera</i>	Palme	38 616 649	Timber & food
Rubber	<i>Hevea brasiliensis</i>	Euphorbiaceae	17 101 488	Timber
Jak	<i>Artocarpus heterophyllus</i>	Moraceae	10 430 522	Timber & food
Arecanut	<i>Areca catechu</i>	Palme	9 696 824	Timber & food
Mahogany	<i>Swietenia macrophylla</i>	Meliaceae	6 410 098	Timber
Alstonia	<i>Alstonia macrophylla</i>	Apocynaceae	5 968 286	Timber
Mango	<i>Mangifera indica</i>	Anacardiaceae	5 607 643	Timber & food
Albizzia_1	<i>Albizzia molucana</i>	Fabaceae	5 607 581	Timber
Eucalyptus	<i>Eucalyptus</i> spp.	Myrtaceae	4 061 191	Timber
Teak	<i>Tectona grandis</i>	Verbenaceae	3 293 609	Timber
Margosa	<i>Azadirachta indica</i>	Meliaceae	3 044 932	Timber
Cashew	<i>Anacardium occidentale</i>	Anacardiaceae	3 001 240	Timber & food
Lime	<i>Citrus aurantifolia</i>	Rutaceae	2 484 387	Food
Lunumidella	<i>Melia dubia</i>	Meliaceae	2 349 245	Timber
Weera	<i>Drypetes sepiaria</i>	Euphorbiaceae	2 073 320	Timber
Guava	<i>Psidium guajva</i>	Myrtaceae	1 790 026	Food
Kitul	<i>Caryota urens</i>	Palme	1 751 016	Timber & food
Satin	<i>Chloroxylon swietenia</i>	Rutaceae	1 489 903	Timber
Orange	<i>Citrus cinensis</i>	Rutaceae	1 468 383	Food
Sabukku	<i>Grevillea robusta</i>	Proteaceae	1 460 721	Timber
Bamboo	<i>Bambusa vulgaris</i>	Bambusaceae	1 332 773	Timber
Gliricidia	<i>Gliricidia sepium</i> L.	Euphorbiaceae	1 252 885	Timber
Halmilla	<i>Berrya cordifolia</i>	Tiliaceae	1 185 466	Timber
Rambutan	<i>Nephelium lappaceum</i>	Sapindaceae	1 177 920	Timber & food
Toona	<i>Toona sinensis</i>	Meliaceae	1 023 771	Timber
Daminiya	<i>Grewia damine</i>	Tiliaceae	1 001 625	Timber
Butter fruit	<i>Persea americana</i>	Lauraceae	986 161	Food
Wood apple	<i>Limonia acidissima</i>	Rutaceae	948 752	Timber & food
Del	<i>Artocarpus altilis</i>	Moraceae	910 473	Timber & food
Hora	<i>Dipterocarpus zeylanicus</i>	Dipterocarpaceae	865 437	Timber
Milla	<i>Vitex altissima</i>	Verbenaceae	774 419	Timber
Ketakela	<i>Bridelia retusa</i>	Euphorbiaceae	760 242	Timber
Tamarind	<i>Tamarindus indica</i>	Fabaceae	689 922	Timber & food
Kumbuk	<i>Terminalia arjuna</i>	Combretaceae	686 953	Timber
Kon	<i>Schleichera oleosa</i>	Sapindaceae	664 512	Timber
Damba	<i>Syzygium assimile</i>	Myrtaceae	627 121	Timber & food
Murunga	<i>Moringa oleifera</i>	Moringaceae	621 204	Food
Palu	<i>Manilkara hexandra</i>	Sapotaceae	605 895	Timber
Helamba	<i>Mitragyna parvifolia</i>	Rubiaceae	602 453	Timber
Welang	<i>Pterospermum suberifolium</i>	Sterculiaceae	564 431	Timber
Kolon	<i>Adina cordifolia</i>	Rubiaceae	548 464	Timber
Suriyamara	<i>Albizzia odoratissima</i>	Fabaceae	509 591	Timber
Nedun	<i>Pericopsis mooniana</i>	Fabaceae	473 408	Timber
Jambu	<i>Syzygium malaccensis</i>	Myrtaceae	463 685	Food
Aralu	<i>Terminalia chebula</i>	Combretaceae	436 299	Timber & food
Gini sapu	<i>Michelia champaca</i>	Magnoliaceae	415 273	Timber
Kaduru	<i>Thevetia peruviana</i>	Apocynaceae	382 514	Timber
Ipil Ipil	<i>Leucaena leucocephala</i>	Fabaceae	373 421	Timber
Gammalu	<i>Pterocarpus marsupium</i>	Fabaceae	350 441	Timber
Anoda	<i>Anona cherimolia</i>	Annonaceae	325 895	Food
Mee	<i>Madhuca longifolia</i>	Sapotaceae	298 387	Timber
Cocoa	<i>Theobroma cacao</i>		259 498	Food
Mora	<i>Dimocarpus longana</i>	Sapindaceae	252 611	Timber & food
Kenda	<i>Macaranga peltata</i>	Euphorbiaceae	244 020	Timber
Veralu	<i>Elaeocarpus serratus</i>	Elaeocarpaceae	234 654	Timber & food
Gansuriya	<i>Thespesia populnea</i>	Malvaceae	202 853	Timber

Delum	<i>Punica granatum</i>	Panicaceae	197 787	Food
Kottamba	<i>Terminalia catappa</i>	Combritaceae	186 665	Timber
Pihimbiya	<i>Filicium decipiens</i>	Sapindaceae	184 958	Timber
Bulu	<i>Terminalia bellirica</i>	Combritaceae	180 690	Timber
Ebony	<i>Diospyros ebenum</i>	Ebenaceae	174 005	Timber
Godapara	<i>Dillenia retusa</i>	Dilleniaceae	171 937	Timber
Domba	<i>Calophyllum inophyllum</i>	Clusiaceae	167 747	Timber
Beli	<i>Aegle marmelos</i>	Myrtaceae	165 718	Food
Kahata	<i>Careya arborea</i>	Lecythidaceae	165 294	Timber
Wewarana	<i>Alseodaphne semicarpifolia</i>	Lauraceae	162 881	Timber
Hik	<i>Lannea coromandelica</i>	Anacardiaceae	149 077	Timber
Godakirilla	<i>Holoptelea integrifolia</i>	Ulmaceae	143 133	Timber
Ehela	<i>Cassia fistula</i>	Fabaceae	140 965	Timber
Hulanhik	<i>Chukrasia tabularis</i>	Meliaceae	131 500	Timber
Palmairah	<i>Borrassus flabellifer</i>	Palme	127 340	Timber & food
Nelli	<i>Phyllanthus emblica</i>	Euphorbiaceae	116 728	Food
Kotta	<i>Ceiba pentandra</i>	Bombacaceae	116 516	Timber
Madan	<i>Syzygium cumini</i>	Tiliaceae	101 162	Timber
Wa	<i>Cassia siamea</i>	Fabaceae	89 972	Timber
Ambarella	<i>Spondias dulcis</i>	Anacardiaceae	86 200	Food
Thimbiri	<i>Diospyros malabarica</i>	Ebenaceae	85 117	Timber
Dunumadala			82 758	Timber
Dikkenda	<i>Diplodiscus verrucosus</i>	Tiliaceae	78 800	Timber
Ahu	<i>Morinda citrifolia</i>	Rubiaceae	77 429	Timber
Dawata	<i>Carallia brachiata</i>	Rhizophoraceae	72 224	Timber
Albizzia_2	<i>Albizzia lebeck</i>	Fabaceae	70 110	Timber
Acacia	<i>Acacia spp</i>	Fabaceae	65 092	Timber
Liyan	<i>Homalium zeylanicum</i>	Flacourtiaceae	64 840	Timber
Keena	<i>Calophyllum walkeri</i>	Clusiaceae	60 819	Timber
Gal siyambala	<i>Dialium ovoideum</i>	Fabaceae	57 304	Timber & food
Thelambu	<i>Sterculia foetida</i>	Sterculiaceae	52 810	Timber
Etamba	<i>Mangifera zeylanica</i>	Anacardiaceae	52 103	Timber & food
Karaw	<i>Phyllanthus indicus</i>	Euphorbiaceae	51 431	Timber
Maila	<i>Bauhinia racemosa</i>	Fabaceae	47 413	Timber
Heen kenda	<i>Xylopiya nigricans</i>	Annonaceae	44 674	Timber
Coffee	<i>Coffea arabica</i>	Rubiaceae	40 936	Food
Imbul	<i>Salmalia malabarica</i>	Bombacaceae	38 817	Timber
Lavalu	<i>Chrysophyllum roxburghi</i>	Sapotaceae	38 549	Food
Kalumederiya	<i>Diospyros chaetocarpa</i>	Ebenaceae	30 673	Timber
Boradamiya	<i>Grewia rothii</i>	Tiliaceae	30 409	Timber
Cloves	<i>Syzygium aromaticum</i>	Myrtaceae	27 281	Food
Kathuru murunga	<i>Sesbania grandiflora</i>	Fabaceae	27 206	Food
Sapadilla	<i>Manilkara zapota</i>	Sapotaceae	26 295	Food
Karanda	<i>Pongamia pinnata</i>	Fabaceae	23 848	Timber
Lihiniya	<i>Helicteres isora</i>	Sterculiaceae	21 221	Timber
Para mara	<i>Samanea saman</i>	Fabaceae	19 877	Timber
Atthikka	<i>Ficus racemosa</i>	Moraceae	17 616	Timber
Wara	<i>Calotropis gigantea</i>	Asclepiadaceae	15 741	Timber
Demata	<i>Gmelina asiatica</i>	Verbenaceae	14 982	Timber
Goraka	<i>Garcinia morella</i>	Guttiferae	12 826	Timber & Food
Bilin	<i>Averrhoa bilinbi</i>	Oxalidaceae	11 713	Food
Jak	<i>Artocarpus heterophyllus</i>	Moraceae	6 620	Timber
Kekuna	<i>Canarium zeylanicum</i>	Burseraceae	6 446	Timber
Pelen	<i>Kurrimia ceylanica</i>	Celastraceae	5 859	Timber
Malaboda	<i>Myristica dactyloides</i>	Myristicaceae	5 398	Timber
Durian	<i>Durio zibethinus</i>	Bombacaceae	5 194	Timber & Food
Badulla	<i>Semecarpus gardneri</i>	Anacardiaceae	4 981	Timber
Katu anoda	<i>Anona muricata</i>	Annonaceae	4 706	Food
Ingini	<i>Strychnos potatorum</i>	Loganiaceae	4 052	Timber
Kudu dawula	<i>Neolitsea cassia</i>	Lauraceae	3 339	Timber
BakMee	<i>Nauclea orientalis</i>	Rubaceae	2 396	Timber